

1 IN THE DISTRICT COURT OF KING COUNTY FOR THE STATE OF  
WASHINGTON

2 EAST DIVISION, REDMOND COURTHOUSE  
HONORABLE DAVID E. STEINER, PRESIDING  
3 HONORABLE DARRELL E. PHILLIPSON, MEMBER  
HONORABLE MARK C. CHOW, MEMBER

4 -----  
STATE OF WASHINGTON, )  
5 )  
Plaintiff, )  
6 )  
vs. ) No.  
7 )  
AHMACH, SANAFIM, ) C00627921  
8 CHEUK, ALEXANDER JORDAN, ) C00617910  
CHEUK, ALEXANDER JORDAN, ) CR22547KC  
9 HILDRETH, BARBARA JEANNE, ) C00436675  
LOEWES, WILLIAM BRIAN, ) C00554326  
10 REEL, KYLE JOSEPH, ) CR16440KC  
SLAUGHTER, KEVIN WAYNE, ) C00534681  
11 WATSON, TERESA ANN, ) C00601103  
WOLF, JOSEPH SCOT, ) C00608134  
12 )  
Defendants. )

13 -----  
14 TRANSCRIPT OF PROCEEDINGS  
15 Volume I  
16 -----

17 8:45 a.m.  
18 January 2, 2008  
19 King County Courthouse  
516 - 3rd Avenue  
20 Courtroom W942  
Seattle, WA 98104

21  
22 Reported by Jennifer D. Lewis, RPR, CCR #3042  
23 COURT REPORTING OFFICES OF  
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## 1 PROCEEDINGS

2 JUDGE STEINER: Please be seated.

3 This is the combined motion of the cases beginning  
4 with Sanafim, is it Ahmach, Cause No. C-627921. I'm not  
5 going to indicate all the other cases that are already on  
6 all of the briefings that have been joined with this motion.  
7 But I would like the parties, beginning with the State, to  
8 identify themselves.

9 MR. ANDERSON: Matt Anderson and Christina  
10 Miyamasu for the State.

11 JUDGE STEINER: And defense.

12 MR. VOSK: And for the defense, Your Honor, this  
13 morning will be Ted Vosk, Kevin Trombold, and Andy  
14 Robertson.

15 JUDGE STEINER: Thank you.

16 I want to know if anyone other than the Judges up  
17 here are having trouble hearing. Okay. So, I, am I  
18 amplified in this?

19 JUDGE PHILLIPSON: Probably not, that's a --

20 JUDGE STEINER: It's a recording.

21 JUDGE PHILLIPSON: Yeah.

22 WOMAN: I can hear you back here, just to let you  
23 know how far it goes.

24 JUDGE STEINER: Okay. Well, we're all going to  
25 have to speak up then. Either that or we're going to have

1 to move the tables a little bit closer. I don't know how  
2 they usually handle it in this courtroom. I suppose you  
3 yell. So if I'm missing that, then somebody please let me  
4 know.

5 So, I would like the State to begin by indicating  
6 where they think we are this morning, where we're going to  
7 be going today.

8 MR. ANDERSON: The State has many logistical  
9 issues. I guess the State anticipates testimony starting  
10 this morning, after the Court hears some logistical issues.

11 At the end of the last hearing the Court indicated  
12 there's a short list of witnesses that the parties and, I  
13 believe, the Court had agreed to, and the Court indicated  
14 that any additional witnesses would need to be justified by  
15 the parties. So the State anticipates justifying its  
16 parties, and anticipates the defense doing the same for its  
17 witnesses.

18 I'm aware of defense motions, which I'll defer to  
19 them to present.

20 JUDGE STEINER: All right.

21 MR. ANDERSON: We also will need to just have a  
22 quick discussion of logistical issues as far as the exhibits  
23 go. And we, so, we'll need to discuss that.

24 JUDGE STEINER: Okay. And defense.

25 MR. VOSK: With respect to witnesses, I've got

1 absolutely no verification that on the extra witnesses we  
2 wanted to call that subpoenas were actually served. I  
3 haven't heard back from co-counsel, so I'm really not in a  
4 position to argue on their necessity this morning.

5 With respect to the two motions that we had  
6 anticipated, the one that I have, the King County  
7 Prosecutor's Office removed from the case, was also  
8 co-counsel's motion. Since co-counsel's not here, I'm not  
9 in a position to argue it, and once we start these  
10 proceedings, I really don't think it's appropriate to bring  
11 it up in the middle once we've started. So I think that's  
12 off the table.

13 The other one, with respect to sanctions and fees,  
14 I'd rather just put that off till the end of today or end of  
15 tomorrow, and get into the substantive issues so we can get  
16 some of the witnesses in and out, in particular, Rod  
17 Gullberg. I'd like to be able to get his testimony as  
18 quickly and efficiently as we can today. And then move on  
19 to the collateral issues at, you know, maybe the end of  
20 today, early tomorrow.

21 JUDGE STEINER: So could you briefly -- I'm  
22 concerned about not going forward with the motion to exclude  
23 the State. Who's bringing that? Is the attorney that is  
24 bringing that representing individual defendants that may  
25 not waive that motion?

1                   MR. VOSK: I have been given, by Fox Bowman  
2 Duarte, full authority, and they're not here. And I  
3 discussed this with Matt, I think, two or three weeks ago,  
4 expressed to him at that time I really didn't agree with the  
5 motion. So, since I have full authority and co-counsel's  
6 not here, I'm waiving the motion.

7                   JUDGE STEINER: All right. And as long as I'm on  
8 defense, which motion do you believe I should hear first,  
9 then?

10                  MR. VOSK: I don't think we have any pre -- I  
11 mean, the one for sanctions, everything else, I'd just as  
12 soon set off till the end of today or tomorrow and get into  
13 the substance.

14                  JUDGE STEINER: The State is seeking to allow the  
15 testimony of -- now I lost the name of your expert. Maybe  
16 you can indicate again.

17                  MR. ANDERSON: Well, the State has already  
18 declared Nayak Polissar to provide a summary. That was, I  
19 believe, agreed to by the Court previously. State's  
20 actually asking for three primarily fact witnesses, although  
21 they're certainly experts in the field of testing that they  
22 did. Those witnesses are -- does Your Honor have the  
23 State's --

24                  JUDGE STEINER: I do. But unfortunately I'm  
25 feeling a little bit --

1 MR. ANDERSON: They're listed in that --

2 JUDGE STEINER: I need a large table up here,  
3 that's what I need.

4 MR. ANDERSON: And actually, probably the easiest  
5 way to go through it is going to be referring to the fact  
6 section of the State's brief, which has a quick discussion  
7 of each of their relevance. It's on page 21, the State's  
8 supplemental brief. We wish to call Lisa Noble, Brian  
9 Capron, Naziha Nuwayhid, Sarah Swenson, Amanda Black, Briana  
10 Peterson, and Chris Johnston.

11 I can certainly go into more detail. Does Your  
12 Honor want --

13 JUDGE STEINER: No.

14 MR. ANDERSON: I can go through the brief or I can  
15 go into more detail.

16 JUDGE STEINER: No. I would like you to avoid the  
17 detail for the time being. And let me just take up one  
18 logistical thing. I did not realize how warm it actually  
19 was out here until we sat up here. Is it just me?

20 JUDGE PHILLIPSON: Yeah, it's just you. No, it's  
21 warm.

22 MR. TROMBOLD: A divided bench.

23 JUDGE STEINER: So, do we have any control over  
24 the temperature setting?

25 THE CLERK: We can make a request.

1 JUDGE STEINER: Could you make a request, please.

2 JUDGE PHILLIPSON: Does the clerk's office have  
3 any control? We know we don't.

4 JUDGE STEINER: So, let me hear from defense.  
5 Does defense have any opposition to the request to include  
6 additional testimony?

7 MR. VOSK: No, Your Honor. I think those  
8 witnesses will help the Court find the truth. I think  
9 they're entirely appropriate. We have absolutely no  
10 objection to the State calling them.

11 JUDGE STEINER: And the defense, before ruling on  
12 the State's request, the defense's request.

13 MR. VOSK: We had agreed, I think in the last  
14 hearing, that we would call in the investigating officer.  
15 So, and the State, I think, has a disagreement with that.  
16 On that -- however, I don't know if that officer's been  
17 served, so I'll have to reserve that until tomorrow, when  
18 Mr. Duarte is here.

19 As for Melissa Pemberton and Ed Formoso, who were  
20 extra witnesses that had not been discussed, I have  
21 absolutely no proof that they were served, and so I can't  
22 really argue that they have to be here.

23 JUDGE STEINER: When did the State propose to call  
24 its additional witnesses?

25 MR. ANDERSON: The parties anticipated that the

1 defense would go first in this motion, as it's their burden.  
2 And I anticipated calling them in the main part of my  
3 chief -- my case in chief. Quite frankly, there was  
4 uncertainty as to whether or not the Court was going to  
5 allow defense to go into areas of direct with the witnesses  
6 that defense and the State share.

7 Quite frankly, if it, if the Court allowed that,  
8 then all I would have is Dr. Polissar and these witnesses.  
9 So I would start with them, pretty much immediately.

10 JUDGE STEINER: Any reason that the Court couldn't  
11 defer on this ruling then until tomorrow, tomorrow morning?

12 MR. ANDERSON: Well, yes. I mean, number one, the  
13 State needs to arrange for their testimony. They're sizable  
14 portions of the State Toxicologist's office, and they would  
15 be asking -- and it'll affect whether or not they're  
16 available for testimony in our course, so there's that  
17 logistical issue.

18 JUDGE STEINER: You, on the other hand, you've  
19 already indicated you may not call them.

20 MR. ANDERSON: No, no, no, no. I'm sorry. I'm  
21 definitely calling each of the witnesses that I've  
22 indicated. I believe that they're necessary. The  
23 information -- the information goes to the core of the, it  
24 goes to -- it's with what we have to dispute whether or not  
25 rejected data was rejected for a good reason or not.

1                   JUDGE PHILLIPSON: What he said was that if each  
2 of their witnesses are handled on direct, as they're called  
3 by the defense, then that's all he's going to have is them  
4 plus one other witness.

5                   MR. ANDERSON: That's correct.

6                   MR. VOSK: Your Honor, could I address the Court.

7                   JUDGE STEINER: Yes, go ahead.

8                   MR. VOSK: I think, with respect to two things.  
9 We had discussed, in particular with Sergeant Gullberg, but  
10 I have no objection to any other witnesses, that the ones  
11 that we share, after we did direct, on their cross they  
12 could mix direct with cross. I think it would be more  
13 efficient and help us get through these things quicker.

14                   As for their witnesses, one of the things we have  
15 attacked is that data is being thrown out inappropriately.  
16 The only way they can rebut that is with the people that  
17 have thrown out the data. I don't think they can rebut it  
18 without the testimony of those witnesses, which is why I've  
19 said I think it's completely appropriate.

20                   (Judges confer.)

21                   JUDGE STEINER: All right. Motion to allow  
22 additional testimony by the State is granted. So, before we  
23 hear testimony from the defense, any other preliminary  
24 motions.

25                   MR. ANDERSON: State and defense have proposed a

1 way with dealing with exhibits. With the Court's  
2 permission, I'll show you what we're going to do and see if  
3 it's acceptable to the Court.

4 The vast majority of the exhibits are going to be  
5 documents taken from the Washington State Patrol Web  
6 Discovery Site. There will be exceptions to those and those  
7 will be handled just like any other normal exhibit: We'll  
8 have paper copies, hand it forward to the Court, we may or  
9 may not use a projector to make them more visible.

10 But with regard to the bulk of the exhibits, they  
11 are all contained on this flash drive right here. The  
12 documents contained, they're going to be documents --  
13 there's going to be documentation of the Quality Assurance  
14 Procedures, of the testing of solutions, of the manuals  
15 governing the Quality Assurance Procedures, and the  
16 protocols governing production of those solutions.

17 For each of those documents, the parties are  
18 proposing that we deal with them solely on an electronic  
19 basis, because of their extremely voluminous nature. I've  
20 never printed them out, but I'm sure it's feet of documents.  
21 To the extent that the Court wishes particular exhibits  
22 printed out for the record, parties are happy to do so and  
23 will certainly accommodate that request.

24 We have a disk that I've provided to defense  
25 already and that I will be providing to the Court and ask to

1 be marked as Exhibit No. 1 in this. This is a download of  
2 the solution -- of a portion of these documents. Parties  
3 anticipate providing a second disk which we would ask to  
4 include as Exhibit 1 -- include in Exhibit 1, that would  
5 include the remainder. So there would be an electronic  
6 record in this court for anybody who needed it, supplemented  
7 by papers, as the Court wished.

8 Is that acceptable to the Court?

9 JUDGE STEINER: Anything from defense?

10 MR. VOSK: Just one thing. I just want to make  
11 sure it's clear. What it is that we want as part of that  
12 record, and whether it's found on a disk or the Court taking  
13 judicial notice of documents on the WSP website, are all of  
14 the solutions that are on that website and all of the QAPs  
15 that go along with -- all the QAPs that have been performed  
16 on DataMasters. It is voluminous, which is why we wanted  
17 judicial notice to let us work with an electronic copy.

18 One further aspect was the database of tests.  
19 Counsel's asked to be able to see what the database is.  
20 We'll be calling officer, or Trooper Denton this afternoon,  
21 and at that time, after we show counsel what the database  
22 is, we ought to be able to tell you whether we'll supply  
23 that in electronic format or just hard copy as well.

24 JUDGE STEINER: I had already granted the State's  
25 request via e-mail. I sure thought I sent it out, I think

1 on Friday -- maybe it was on Monday -- indicating that the  
2 State could proceed with an electronic record of the  
3 exhibits. My anticipation was that we would actually have a  
4 record, however, and would not rely on a website for the  
5 documents.

6 I would like to have a record that is established,  
7 that is, doesn't change, and websites change. So, I think  
8 it's a reasonable requirement that we get a hard, if you  
9 will, maybe I can't say that, but a hard electronic copy of  
10 the exhibits. And you appear to have said that we can get  
11 that.

12 MR. ANDERSON: You already have one half of it.  
13 You will have the rest. And if either the Court or the  
14 individual Judges would like courtesy copies if they're  
15 going to be looking at them, we can certainly provide that  
16 to the Court as well.

17 JUDGE STEINER: Off the top of my head, I would  
18 suggest we would like that. A lot depends though on how  
19 this motion proceeds. So, for the time being, ruling of the  
20 Court is that the exhibits may be in electronic form but  
21 should all be contained on the two disks, two or more disks,  
22 that the State will present.

23 (Exhibit No. 1 admitted.)

24 JUDGE STEINER: If the defense has any  
25 supplemental exhibits that are not on those two disks, then

1 the defense is responsible for presenting them, either in  
2 hard copy, but actually my preference would be for an  
3 electronic copy at this point.

4 MR. VOSK: Okay, Your Honor. Then what we'll do,  
5 because we did bring hard copies, we'll use hard copies with  
6 the witnesses today, but I will have a disk for the Court  
7 tomorrow.

8 JUDGE STEINER: If you have hard copies, then,  
9 don't destroy them. Let's use them. But when we're talking  
10 about a thousand, I guess my preference is not to kill any  
11 more trees for the exhibits.

12 So, any other preliminary motions before we begin?

13 MR. VOSK: We had just one, Your Honor. And that  
14 was to exclude Dr. Logan from the courtroom during the other  
15 witnesses' testimony, and have it made clear that the  
16 witnesses are not to discuss their testimony with him  
17 thereafter.

18 JUDGE STEINER: State?

19 MR. ANDERSON: The State objects to that.  
20 Dr. Logan is an expert witness. Quite frankly, none of our  
21 witnesses are both fact and expert witnesses. I know that  
22 defense wanted to go into reasons and indicated that he'd be  
23 happy to do a sidebar. That's fine with the State if they  
24 choose to. But he -- Dr. Logan is an expert witness in this  
25 case, and much of his testimony, like the rest of his

1 testimony would rely on -- some of his testimony would rely  
2 on opinions about other testimony entered. I would note  
3 that the defense expert is sitting at counsel table.

4 MR. VOSK: And, Your Honor, if --

5 JUDGE STEINER: Let me just ask Mr. Anderson a  
6 question. Dr. Logan is obviously going to be relied upon by  
7 the State as an expert witness, but will be relied upon by  
8 the defense, and I presume the State as well, as a fact  
9 witness. So the issue is how are we going to differentiate  
10 that. I would very much like to have an expert in the  
11 courtroom, so that we save time and not have to repeat  
12 testimony, because we would expect that the expert would  
13 comment on what he or she has heard. But there are some  
14 deep factual issues that we have to deal with as well.

15 So, any suggestion from the State?

16 MR. ANDERSON: Cross-examination is available to  
17 defense to the extent that they believe that it's necessary.  
18 Dr. Logan has had access to testimony that was in other  
19 cases. I think he's likely aware of the difference in  
20 expected testimony between what -- difference in testimony  
21 that he has given and testimony that if Ann Marie Gordon  
22 were to testify she would give out.

23 JUDGE STEINER: Thank you. I'm sorry to cut you  
24 off, but I'm going to do that and take that issue and let's  
25 hear from defense.

1           MR. VOSK: And, if Your Honor would, if we could  
2 address it at sidebar only because the contentions I was  
3 going to make, if I'm incorrect. Thank you, Your Honor.

4           (Sidebar.)

5           JUDGE STEINER: All right. As is often the case,  
6 these issues that sound simple are not. I'm going to deny  
7 the motion to exclude Dr. Logan from the courtroom. That is  
8 a motion that could certainly be brought again, if, and I'm  
9 not sure that it's not already -- the defense may renew the  
10 motion. I'm not certain, quite frankly, under what  
11 circumstances that might happen, but I'm not precluding,  
12 certainly, the defense from renewing the motion.

13           Any other preliminary motions? Do the parties  
14 want to start with any argument beforehand or rely on their  
15 briefs? My suggestion is that if you do want to make an  
16 argument ahead of time, it be very brief.

17           JUDGE PHILLIPSON: No. That's not a suggestion,  
18 that's an order.

19           MR. VOSK: Your Honor, if the State's going to,  
20 we'll simply waive.

21           JUDGE STEINER: All right. Thank you. Defense  
22 may call its first witness.

23           MR. VOSK: Your Honor, the defense would call Rod  
24 Gullberg to the stand.

25           MR. ANDERSON: Oh, and just one other matter. Did

1 the Court receive the supplemental fax sent by the State?

2 I'm just --

3 JUDGE STEINER: The one from this morning?

4 MR. ANDERSON: Yes. As long as the Court's aware  
5 of that before the testimony.

6 JUDGE STEINER: We are well aware of it. Thank  
7 you very much.

8 (Mr. Gullberg approaches the witness stand.)

9 ROD GULLBERG, after having been first duly sworn,  
10 testified as follows:

11 JUDGE STEINER: You may be seated.

12 DIRECT EXAMINATION

13 BY MR. VOSK:

14 Q Mr. Gullberg, could you please state your full name for the  
15 record.

16 A Yes. My name is Rod Gullberg. Last name is spelled  
17 G-u-l-l-b-e-r-g.

18 Q And how are you employed?

19 A My position is a research analyst with the Washington State  
20 Patrol Breath Alcohol Test Section, in Seattle.

21 Q And prior to that, how have you been employed?

22 A I was employed by the Washington State Patrol for about 33  
23 years. I retired about two years ago as a sergeant. I  
24 supervised the Breath Alcohol Test Program for well over 20  
25 years.

1 Q And in that capacity -- why don't you explain a little bit  
2 of what's involved, what was involved in that position?

3 A Well, basically administering the Breath Alcohol Test  
4 Program within the State of Washington. The Washington  
5 State Patrol had responsibility ultimately under the  
6 direction of the State Toxicologist, Dr. Barry Logan, who  
7 promulgated Washington Administrative Code that outlined  
8 approval of instrumentation, approval of protocols, training  
9 of operators, generally administering the program. And my  
10 role was to supervise the outworking of that, or  
11 administration of that program statewide.

12 Q I'm going to hand you what's been marked as Exhibit 1. Can  
13 you take a look at that for a moment and tell me whether or  
14 not you recognize that?

15 MR. ANDERSON: And, Your Honor, just very quickly.  
16 I think Exhibit 1 has already been marked as the electronic  
17 copies that will be provided to the Court. I believe this  
18 will be Exhibit 2.

19 MR. VOSK: So, should we redesignate that as  
20 Exhibit 2?

21 JUDGE STEINER: Please.

22 (Clerk and attorneys discuss exhibits.)

23 (Exhibit No. 2 marked for identification.)

24 JUDGE PHILLIPSON: You have two volumes of Exhibit  
25 1, don't you?

1                   MR. ANDERSON: The State's anticipating -- we're  
2 anticipating giving the Court extra disks. I, quite  
3 frankly, don't know at this point how many, because these  
4 could be huge documents. So, we will include all the disks  
5 in Exhibit 1. We can make a record as to how many disks.

6                   JUDGE PHILLIPSON: That's fine. We'll just keep  
7 track of it that way.

8 Q (By Mr. Vosk) Okay. So, we've changed that to Exhibit 2,  
9 and I'm now handing the witness Exhibit 2. Do you recognize  
10 that exhibit?

11 A Yes, I do. Yes.

12 Q And can you tell the Court what it is.

13 A An e-mail that I wrote on July 26, 2007, to all of the  
14 breath test technicians in the Washington State Patrol  
15 statewide.

16 Q Okay. And at the bottom of that, is there an e-mail from  
17 Robert Sharp?

18 A Yes.

19 Q And do you recognize that?

20 A Yes.

21 Q In there, what is -- and I'm not sure of his rank. What is  
22 trooper --

23 A No. He's a sergeant.

24 Q What is Sergeant Sharp directing in that e-mail?

25 A That the technicians, when they perform a Quality Assurance

1 Procedure on a breath-testing instrument, one of the  
2 practices -- one of the steps is to calibrate the  
3 instrument. And we need a solution prepared by the  
4 toxicology lab to do that with. He's directing that the  
5 technician use only solutions designated as Quality  
6 Assurance Procedure solutions, not field solutions. Those  
7 are two classifications of solutions prepared by the  
8 toxicology lab. Field solutions and QAP solutions.

9 Q Okay. And, so, a QAP solution would be used for calibrating  
10 the instrument during a QAP and determining what kind of  
11 bias it may have?

12 A That would be -- prior to this memo going out, there was no  
13 requirement that the technician use one or the other for  
14 calibrating the instrument with. They could use a field  
15 solution at .08 to calibrate the instrument and also to run  
16 ten measurements then as part of the protocol, throughout  
17 the QAP. Following this memo, there was the direction to no  
18 longer use a field solution for QAP purposes, but use only  
19 .08 solutions that were designated as QAP solutions for this  
20 purpose.

21 Q Okay. So a QAP solution, then, would be one used for  
22 calibrating and determining the bias of the instrument?

23 A It is now.

24 Q Okay.

25 A Yes.

- 1 Q And a field solution is the solution that when a person  
2 actually submits to a test, it's that external standard?
- 3 A That's right.
- 4 Q Okay. And at the top of Exhibit 2, that's an e-mail by you?
- 5 A Yes.
- 6 Q What is it that you're indicating there?
- 7 A Well, it's in regards to solutions that were tested by Ms.  
8 Ann Marie Gordon, and directing them not to use certain ones  
9 that she was involved with, or that she had records of  
10 having tested.
- 11 Q So you were directing technicians not to use solutions that  
12 had been signed off on by Ann Marie Gordon?
- 13 A Yes.
- 14 Q And why was that?
- 15 A Well, at this time some things came to light about her  
16 completion of records and performing of tests. And the  
17 decision was just to avoid employing solutions that she had  
18 involvement in; to clarify that and begin a new practice in  
19 that sense.
- 20 Q Okay. Moving on then, you can set that down.
- 21 MR. VOSK: And if Your Honors don't mind if I sit?
- 22 JUDGE STEINER: No.
- 23 Q (By Mr. Vosk) After all of this came to light, you and Ken  
24 Denton went in and looked at the solution certifications,  
25 didn't you?

- 1 A Yes.
- 2 Q And in doing so, you made corrections to certain solutions  
3 that needed them?
- 4 A Yes.
- 5 Q And identified other solutions that didn't need corrections?
- 6 A Yes.
- 7 Q I'm just going to pull up something to be representative.  
8 When you did that, when you made those corrections, did you  
9 have the technicians or the analysts go back in and re-sign  
10 after you did your work?
- 11 A Yes.
- 12 MR. ANDERSON: And I'd ask that the record reflect  
13 which portion of Exhibit 1 we're looking at, which solution  
14 batch number?
- 15 MR. VOSK: We are looking at Solution Batch 6044.  
16 And it's simply for illustrative purposes at this point so  
17 the Court can understand what it is we're discussing.
- 18 Q (By Mr. Vosk) So, for instance, on this one, you went  
19 through and did your review?
- 20 A Yes.
- 21 Q Dr. Nuwayhid?
- 22 A Yes.
- 23 Q After you did the review, this was stamped on it and  
24 Dr. Nuwayhid signed off afterwards?
- 25 A Yes, that's right.

1 Q Now, after your review, one thing, and we see it here, and  
2 that -- I think is consistent throughout, correct me if I'm  
3 wrong -- Edward Formoso didn't go back in and sign on after  
4 the corrections were made?

5 A That's right.

6 Q Why is that?

7 A I don't think he was at the lab anymore, at that time.

8 Q Is he employed at the lab now?

9 A I believe he was -- I'm not sure about right now. At that  
10 time I believe he was on administrative leave.

11 Q Okay. Has there been any attempt to have him sign after the  
12 corrections?

13 A No, no.

14 Q Why not?

15 A Not to my knowledge.

16 Q Is that your decision?

17 A No.

18 Q Or is that somebody else's decision?

19 A It was not mine.

20 Q Okay. Now, some of the technicians are no longer with the  
21 lab for other reasons?

22 A That's right.

23 Q And, so, after you went through and made your corrections,  
24 they didn't sign either?

25 A That's right.

1 Q Now, there were certain solutions where somebody who may  
2 have been gone. And now, again, for simply illustrative  
3 purposes, I'm pulling up another one. Right now we're  
4 looking at Solution 6041. And for some of the analysts who  
5 left, and it looks like I had them pick one up here, there  
6 was a stamp afterwards and it looked like you had signed off  
7 on; is that correct?

8 A That -- I don't recall. That's possible.

9 Q Okay. Presuming that one is there, and if there is we'll  
10 find an example later, did anybody give you the authority to  
11 sign on for them after the corrections?

12 A I don't recall doing that, but if I saw an example it might  
13 help me remember. I don't know why I would have done that.

14 Q I will try to locate one later. And if you did not do it, I  
15 apologize for referring that you had.

16 Now, when these solutions came to the breath test  
17 lab, prior to the new procedures put into place, I think  
18 sometime in October or September, your work in the lab was  
19 pretty much dependent completely on the accuracy of what  
20 they did back in the tox lab? I mean, you relied on the  
21 numbers they gave you?

22 A We relied on them, yes.

23 Q You didn't recheck them after that?

24 A That's right. Typically in the past we did not.

25 Q Okay. Now, when you went through your analysis, how many

- 1 mistakes did you find?
- 2 A Numerically, I don't remember. I didn't count them all. I  
3 did list and prepared a summary of the general types of  
4 problems we found, but we did not count the number of  
5 scribal errors or incorrect dates or transcribed digits or  
6 things of this sort.
- 7 Q Okay. And that transcribed digits, that's misreported data?
- 8 A That's right. Where a number was misreported.
- 9 Q And, in fact, we've had some are more than just a single  
10 number was misreported?
- 11 A Yes.
- 12 Q And are you aware of solutions where an entire set of data  
13 was misreported by --
- 14 A Yes.
- 15 Q Now, up until this point, we've, in each hearing we've  
16 spoken about software errors and we've discussed two major  
17 ones. One had to do with increasing the number of analysts  
18 that were testing, from 12 to 16. The other had to do with  
19 a precision, an error in not including one of the data  
20 points and the calculation precision; is that correct?
- 21 A Yes. It might be useful to illustrate that spreadsheet, to  
22 point those out.
- 23 Q And, you know what, I don't have an illustration of that  
24 right now for Your Honor. Do you, can you point it out?
- 25 A It should be on there. Yes.

1 Q Oh, you just mean a solution?

2 A Yes. Just an example of a spreadsheet.

3 MR. TROMBOLD: A worksheet?

4 A (Continuing) Yes. Yes, that, right there.

5 Q (By Mr. Vosk) Okay.

6 A The one error that was mentioned by defense counsel was  
7 that, for Analyst 4, measurement number four was not being  
8 included in the calculation of the standard deviation over  
9 here. SD, standard deviation. That was not being included.  
10 The other problem was that beyond 12 analysts, 13, 14, 15,  
11 16, all that data was not being included in any of the  
12 calculations. So, that's the spreadsheet that we would  
13 receive the results from.

14 JUDGE STEINER: If I could just interrupt. This  
15 was a software issue?

16 THE WITNESS: Not -- well, it depends on how that  
17 would be interpreted. It was an individual writing code and  
18 doing calculations employing software. They had not  
19 accounted for the number of analysts beyond 12. And, so, in  
20 not doing so, is it a programmer's problem or software  
21 problem?

22 JUDGE STEINER: So, in other words, the software  
23 would have allowed.

24 THE WITNESS: Yes, yes.

25 JUDGE STEINER: Okay. Thank you.

1                   MR. VOSK:  And I'll follow up with that just to  
2                   try to clarify it, Your Honor.

3                   JUDGE STEINER:  Thank you.

4           Q        (By Mr. Vosk) Prior to the change in the software, the  
5                   spreadsheet would accept data from 12 analysts and would do  
6                   all of its computations including all of the data from 12  
7                   analysts?

8           A        Yes.  Well, with the exception of the one.

9           Q        With the exception of --

10          A        Yes.

11          Q        Okay, the precision.  When they changed it, what they  
12                   intended to do was to make it so that the spreadsheet would  
13                   accept data from as many as 16?

14          A        Yes.

15          Q        And include all of the data?

16          A        Yes.

17          Q        From those 16?

18          A        Yes.  Right.

19          Q        When they changed it, though, it now accepted the data but  
20                   did not do the computations using the data.  It left that  
21                   data out of its computations?

22          A        No.  Once it was -- the problem was recognized and  
23                   corrected.

24          Q        No.  I mean, that's what the problem was.  I'm just trying  
25                   to explain what the problem was.  So, when they changed it

1 back in August of 2005, they changed it so it would now  
2 accept data from 16 analysts?

3 A Yes.

4 Q Instead of just 12?

5 A Right.

6 Q And it was supposed to include all of that data and  
7 calculations, but it did not?

8 A My understanding, it did. Once they recognized they were  
9 not included beyond 12, they included them and now the  
10 computations were done properly.

11 Q But that's in August of 2007?

12 A Yes.

13 Q In August of 2005, though, the problem was that when they  
14 changed it the software was not including that data in its  
15 calculations. That's what happened in those two years,  
16 those two intervening years?

17 A What happened in 2005, I don't recall. I'm not certain.

18 Q Well, when you went in to make your corrections, your  
19 corrections were because any spreadsheet that had more than  
20 12 analysts didn't include the data from the latter analysts  
21 in their computations; correct?

22 A Right. But when that was corrected, the time frame, I don't  
23 remember 2005 being a critical time at which this was  
24 recognized.

25 Q Do you remember the memo that we went over in DOL v.

1 Arnston?

2 A I don't remember specifically.

3 Q Okay. Regardless of whichever the date was, the problem  
4 was, though, that when they made the original change, they  
5 changed it so that 16 analysts could now enter their data,  
6 and before they discovered the problem and before they  
7 rectified it, the software was not utilizing the data from  
8 those other analysts in its calculations?

9 A That's right. That was the problem. Others were being  
10 entered and not being employed in the calculations.

11 Q Okay. Now, in Skagit, I don't know if you were familiar  
12 with what happened there. In Skagit the only software issue  
13 we discussed, do you recall, was that there was just one  
14 error?

15 A I don't remember. I was not part of the Skagit County  
16 hearing.

17 Q Okay. In Arnston, we said that there were only two software  
18 errors that we've identified?

19 MR. ANDERSON: I guess --

20 MR. VOSK: I'm sorry. He did testify at Arnston.

21 MR. ANDERSON: No, I understand. There's a number  
22 of leading questions. It's his witness, and I think he  
23 should just be asking about what the witness knows about it,  
24 as opposed to starting off with impeachment and leading  
25 questions when he hasn't even gotten to the substance of it

1           yet.

2                       MR. VOSK:   And, Your Honor, I would simply, at  
3           this time, ask to be able to treat the witness as a hostile  
4           witness.  It is a State expert.  I didn't want to do that,  
5           because I like Mr. Gullberg.

6                       MR. ANDERSON:  I don't know that there's any need.  
7           I think the main issue is he hadn't asked:  Is there a  
8           problem?  If there's a problem, what's the nature of it?

9                       JUDGE STEINER:  Well, the issue, the first issue  
10           is leading questions.  May this witness be asked leading  
11           questions, even though the defense has called this witness,  
12           Sergeant or --

13                      THE WITNESS:  Mister.

14                      JUDGE STEINER:  Mr. Gullberg was a sergeant with  
15           the State Patrol for 25 years, well, actually longer than  
16           that.

17                      THE WITNESS:  About that, yeah.

18                      JUDGE STEINER:  And was a head of the breath test  
19           section, and after that has been a consultant.

20                      THE WITNESS:  Yes.

21                      JUDGE STEINER:  If I'm not mistaken, for the same  
22           section.  So I'm going to, and just for, I think everyone  
23           probably is an attorney here and everyone knows that the  
24           definition of hostile doesn't mean that Mr. Gullberg is  
25           hostile at this point.  But I think that he fits the

1 definition for the purpose of asking leading questions. So  
2 the objection's overruled.

3 And was there some other objection you wanted me  
4 to deal with? So, let me just ask something in  
5 clarification because I'm a little bit confused.

6 MR. VOSK: Okay, Your Honor.

7 JUDGE STEINER: Right now. The testimony that  
8 I've heard is that prior to a software change there was an  
9 attempt by whoever was entering the data, to enter data for  
10 16 analysts. After the software change, the entry was only  
11 for 12, even though the software would allow 16. This  
12 confuses me. Is that correct?

13 THE WITNESS: The problem was that they were  
14 allowed to enter the data beyond 12 and fill that whole  
15 sheet in, but the calculations were not taking into account  
16 any one beyond 12.

17 JUDGE STEINER: When?

18 THE WITNESS: Prior to -- I don't know the exact  
19 date, whether this was 2007 or August 2007.

20 MR. VOSK: And, Your Honor, I do have to apologize  
21 about that, because that was part of the records from Skagit  
22 and Arnston, and I just assumed that -- and so I will try to  
23 tie that up for you with Dr. Logan.

24 JUDGE STEINER: Okay.

25 Q (By Mr. Vosk) And what I'm looking for right now is a

1 solution that will show you what the -- on the last  
2 spreadsheet we looked at, there were 16 entries across  
3 there, weren't there?

4 A Yes.

5 Q On this one, there are only 12?

6 A Yes.

7 Q Now, with this spreadsheet, prior to the expansion, only 12  
8 analysts could enter their data?

9 A That's right.

10 Q And using this, prior to the change, all 12 analysts' data  
11 were analyzed, except for, we'll forget about the  
12 precision -- all 12 analysts' data were considered in  
13 calculating the mean of the solution?

14 A Yes.

15 Q Okay.

16 A Yes. That was back in 2003.

17 Q Thank you. Now, here, this spreadsheet's been expanded to  
18 include the data from 16 analysts?

19 A Yes.

20 Q And the problem, before it was discovered, is that while all  
21 of these analysts could enter their data, the last four,  
22 those beyond 12, were not being included in any of the  
23 calculations?

24 A That's correct.

25 Q Now, that was the major software error. And then the second

1 software error, and the origin of that is still  
2 indeterminate, was here. For Analyst 4, the fourth data  
3 value was not being used in the determination of precision?

4 A Of the standard deviation.

5 Q Of the standard deviation?

6 A That's part of that, yes.

7 Q And, so, those are the two software errors that we  
8 identified and spoke about in Arnston?

9 A Yes.

10 Q I'm going to hand you, let me --

11 (Exhibit No. 3 marked for identification.)

12 MR. ANDERSON: Counsel, has the particular item  
13 that you viewed on the screen been identified as 05041?

14 MR. VOSK: It has not. Again, this is Solution  
15 05041, and it's being used simply for illustrative purposes,  
16 Your Honor.

17 JUDGE STEINER: Exhibit 3. Is this going to  
18 track -- look like any of the electronic exhibits at this  
19 point.

20 MR. VOSK: Yes. I think all of the electronic  
21 exhibits were going to be 1-A, 1-B, 1-C, in that manner.

22 JUDGE STEINER: Okay. Thank you.

23 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
24 Exhibit 3. Have you seen that before?

25 A Yes.

- 1 Q And what is that?
- 2 A It's a memo dated August 9, 2007.
- 3 Q And does it identify when that first problem began?
- 4 A No. It's August 2005.
- 5 Q Okay. So, August 2005 is indeed when this, this problem  
6 with not using, you know, the last four analysts began?
- 7 MR. ANDERSON: Objection. Calls for speculation.  
8 Witness has already testified he doesn't know.
- 9 JUDGE STEINER: Objection's overruled. You may  
10 answer the question.
- 11 A (Continuing) Apparently, from this document.
- 12 Q (By Mr. Vosk) Okay. Now, recently, did you discover that  
13 there was another problem with the software?
- 14 A Beyond the two we've talked about?
- 15 Q Beyond the two we've spoken about.
- 16 A Yes, there was one other.
- 17 Q Okay. Can you identify that for the Court?
- 18 A Well, it was on one particular batch, I recall, where the  
19 equivalent vapor concentration was incorrectly reported by  
20 the software that prepares this sheet. And I might point  
21 out where that value is. This value right here.
- 22 MR. ANDERSON: Your Honor, State objects. He just  
23 actually took the exhibit away from the witness who was  
24 trying to answer.
- 25 MR. VOSK: I was actually pulling up the exhibit

1           that he's talking about.

2                   JUDGE STEINER: I'm sorry. I missed the entire  
3 transaction, so.

4                   MR. VOSK: I'm sorry. I was trying to help the  
5 witness by pulling up the document.

6                   JUDGE STEINER: Mr. Gullberg, is this --

7                   THE WITNESS: Yes.

8                   JUDGE STEINER: All right.

9                   MR. VOSK: This is Solution, for the record, 6037.

10                  JUDGE STEINER: Thank you.

11       A       (Continuing) It's this value right here. And it appears to  
12 be a rounding problem. But if you take those 15  
13 three-decimal-placed measurements and compute the mean of  
14 those and round it to four decimal places, you'll get  
15 point -- well, this is what you get, the average  
16 concentration over here. That's correct. Dividing that by  
17 1.23, because that's a solution concentration, grams per  
18 hundred mil, of alcohol in solution, which the toxicology  
19 lab measures on the gas chromatograph.

20                  We, in the Breath Test Program, need to know what  
21 the vapor alcohol concentration is that will be generated in  
22 a simulator, heated to 34 degrees, using that solution with  
23 that concentration. That's found by dividing that by 1.23.  
24 And you get the equivalent vapor. When you do that, you get  
25 .0395. Whereas the software that generated this document

1 reported .0400. So we see it's off by five ten-thousandths.

2 Q Okay. So that's three errors then?

3 A Yes.

4 Q We've identified with the software?

5 A Yes.

6 Q And do we know -- are we certain that we understand what  
7 happened here, that we know why it did this?

8 A No. I don't know why.

9 Q Now, in the breath test lab, you use computers; right?

10 A Yes.

11 Q And you use them in QAPs to calculate accuracy and precision  
12 and all that stuff?

13 A Yes.

14 Q In your lab, do you validate the software? Do you run  
15 checks to make sure it's giving you the right values for  
16 calculations?

17 A No. We're not in a position, or experts for software  
18 testing or evaluation, no.

19 Q Do you know how to calculate a mean?

20 A Yes. One can, one always has the raw data to apply by a  
21 calculator, a computer, or any longhand means that one might  
22 want to do this calculation.

23 Q And, so, in your lab, have you gone through -- did you ever  
24 go through to check just to make sure the right numbers were  
25 being computed?

1 A One -- you know, we've probably done by calculator, by  
2 computer, and compared that way, but it's not a systematic  
3 practice of doing that.

4 Q Do you recall ever doing it?

5 A I've done it by calculator.

6 Q Okay. So, you have?

7 A I've done by calculator, I've done others by computer, but  
8 typically the technicians rely on the computer to generate  
9 these means. But the point is the data's always, the raw  
10 data's always there for anyone to come along later and  
11 recalculate it by some other method.

12 Q Have you gone through your QAPs to see if you had the kind  
13 of problems they had in the tox lab?

14 A I do not, I do not recalculate the means. When I review the  
15 QAP spreadsheet that our technicians generate, I review  
16 them, but I don't recalculate the means. The data's there,  
17 the data's on the original documents. It could be done. I  
18 don't routinely do it.

19 Q So, if we are just relying on the numbers in the QAP  
20 documents, there may be the same problem there that we found  
21 in the tox lab?

22 A There may be. And, in fact, I recall that maybe once or  
23 twice a year that is observed, where someone has entered the  
24 wrong value and realized it and it's corrected. And you'll  
25 find that in the records for that instrument where they go

1 back in and line out the incorrect one and write in the  
2 correct value and initial and date it.

3 Q Okay. Well, specifically what I'm talking about -- we'll  
4 get to the values in a second and somebody entering values.  
5 Specifically what we're talking about is the calculations  
6 done by whatever computer's, you know, analyzing the data in  
7 the QAP?

8 A Right.

9 Q When I look at the mean on your QAP, and let me pull one of  
10 these up for the Court just as an illustration. I'm pulling  
11 up 14, the QAP -- oh, that's not a QAP.

12 A There, there's one.

13 Q For 140016 dated 2/15/2005. And, so, here we see a set of  
14 values has been entered. And what I'm asking you about is  
15 down here at the mean and the standard deviations. Are  
16 those calculated by a computer?

17 A Yes. Well, they could be or by a calculator. You're  
18 talking about these means here? And here are the ten  
19 measurements that comprise that mean. We have the ten  
20 recorded. In addition, we've got the original documents  
21 from the instrument printed out at the time of the test that  
22 one could always go back and re-compare and recompute. It's  
23 all there.

24 Q Okay. And now my question is, though, you've never gone in  
25 to check to make sure that these numbers are being

1           calculated correctly?

2       A     No. I do not.

3       Q     So, in fact, we could have the same problem here that we had  
4           in the tox lab with their simulator solutions?

5       A     That's possible.

6                    JUDGE STEINER: Mr. Vosk, how much more time do  
7           you believe that you have with this witness?

8                    MR. VOSK: An awful lot, Your Honor. If Your  
9           Honor wanted to take a break -- I do apologize.

10                   JUDGE STEINER: It's not the issue. We're  
11           counting down our days, so I just want to make sure.

12                   MR. VOSK: I do apologize. He will be the longest  
13           witness we have.

14                   JUDGE STEINER: Okay. State agree?

15                   MR. ANDERSON: Yes.

16                   JUDGE STEINER: Okay. I think we'll take a break  
17           at 10:15. So, do you want to take it now?

18                   MR. VOSK: That's just fine Your Honor.

19                   JUDGE STEINER: So we'll take a short recess.  
20           We'll take a 15-minute recess.

21                   MR. VOSK: And, Your Honor, could we just have an  
22           admonition that the witness is not to discuss testimony with  
23           anybody until he's done testifying.

24                   JUDGE STEINER: Yes. Any --

25                   MR. ANDERSON: I intend --

1 JUDGE STEINER: Other than counsel.

2 MR. ANDERSON: Thank you.

3 MR. VOSK: Yes, of course.

4 JUDGE STEINER: That is the Court's admonition.

5 Thank you.

6 (Recess.)

7 JUDGE STEINER: Please be seated. All right.

8 Continuing with Mr. Gullberg.

9 MR. VOSK: And, Your Honor, before we start. I  
10 think something's become apparent. I kind of had just  
11 assumed everybody knew everything, all the background and  
12 everything that had gone on. And I think that I had  
13 miscalculated.

14 Mr. Anderson and I have discussed, possibly, after  
15 the lunch hour when Mr. Gullberg's excused when I call  
16 Trooper Denton, we may, before we get into what I call  
17 adversarial testimony, have Trooper Denton come up and  
18 explain some of the stuff to the Court in a non-adversarial  
19 manner. Mr. Anderson and I would just be presenting  
20 together to give the Court the background we think you might  
21 be missing that's happened in the past hearings, so we don't  
22 assume things that --

23 JUDGE STEINER: I think we probably would prefer  
24 that you didn't do that.

25 MR. VOSK: Okay.

1 JUDGE STEINER: We talked about the  
2 misunderstanding that I had.

3 MR. VOSK: Okay.

4 JUDGE STEINER: I thought I heard something fairly  
5 clearly and, apparently, that was not the case.

6 JUDGE PHILLIPSON: He was outvoted.

7 JUDGE STEINER: So, but that was based upon the  
8 testimony that I heard here; not on a misunderstanding of  
9 previous information.

10 MR. VOSK: If I can just inquire. Which side won  
11 that vote?

12 JUDGE PHILLIPSON: No comment.

13 JUDGE STEINER: All right. We were also talking  
14 about whether or not the transcript of the Skagit has been  
15 made a part of this hearing, part of this record.

16 MR. VOSK: The Skagit, the DOL v. Arnston.

17 JUDGE STEINER: Whether physically.

18 MR. VOSK: Physically, we've got a disk with that  
19 on it, and we can include it as part of the State's Exhibit  
20 1, if the State will agree to that.

21 JUDGE STEINER: And you have both the Skagit and  
22 the DOL.

23 MR. VOSK: That is correct, Your Honor.

24 JUDGE STEINER: Okay. Please include that. Thank  
25 you.

1 JUDGE CHOW: Could they provide a copy for each  
2 Judge.

3 MR. VOSK: That is our intention.

4 MR. ANDERSON: Was that an electronic or paper  
5 copy?

6 JUDGE CHOW: Electronic.

7 JUDGE STEINER: Thank you.

8 MR. VOSK: Thank you, Your Honor.

9 Q (By Mr. Vosk) Now, moving on from what the software does and  
10 checking on the software's calculations, on these, on the  
11 data, these numbers right here. Now, you sign off. This is  
12 your, you signing off on the QAP up here at the top;  
13 correct?

14 A Yes, it is.

15 Q And how is this data entered into the QAP, into this sheet?

16 A That's all entered by hand manually, by the technician,  
17 completing this form in, like, a Word document. It's on a  
18 network system. A form comes up automatically that they  
19 type those numbers in.

20 Q And, so, is there a raw data sheet similar to a chromatogram  
21 that they copy from that sheet into this, into this  
22 document?

23 A Yes.

24 Q And when you sign off on it at the top, do you verify that  
25 these numbers match that raw data sheet?

- 1 A No.
- 2 Q Okay. And at any point prior to, let's say October, was  
3 there a process in place where somebody would check off on  
4 those numbers?
- 5 A No, no. The original printout document from the instrument,  
6 the DataMaster Instrument, is kept by the technician. So  
7 one could always go back and confirm these numbers against  
8 that.
- 9 Q And that's not available on the website though?
- 10 A That's right. That's not there at the current time.
- 11 Q So, now, as we go through today, we will be at certain  
12 points relying upon the values entered in these QAP forms.  
13 And based on your testimony, what I'm understanding right  
14 now, is that with respect to the calculations down here, the  
15 mean and these numbers, while we may be depending on them  
16 today, there have been no verification checks done to make  
17 sure they're correct?
- 18 A Not by myself. Now, the technician has, they may do that.  
19 They can enter them and then recheck them. There's also the  
20 mean and standard deviation that's printed on the document,  
21 printed by the instrument at the time of the test, that they  
22 could compare that result to the result they've computed,  
23 either with a hand calculator or Excel spreadsheet in a  
24 computer. So that's another way to check.
- 25 Q But those are the same types of checks that could have been

1 done with the simulator solutions that weren't?

2 A Yes.

3 Q So you have no knowledge if that, in fact, actually does  
4 that?

5 A That's right. That's right.

6 Q When you were in charge of the program, did you teach the  
7 techs how to calculate the standard deviation?

8 A Yes.

9 Q So your techs would have known how to do the calculations at  
10 least?

11 A Yes. But they're still relying on a computer or calculator  
12 to do that.

13 Q But when they use the calculator, they pretty much need to  
14 know the formulas or they couldn't calculate?

15 A Not a scientific calculator. You simply enter the ten  
16 numbers and press standard deviation, and it's shown, or  
17 press mean, and that's shown. No, they don't need to know  
18 the exact equation for mean or standard deviation to arrive  
19 at those results.

20 Q Okay. Why did you teach it to them then?

21 A Well, just to give them the familiarity with the algebra,  
22 where does this equation come from. But one would not want  
23 to do it by hand. Then you increase the risk of human error  
24 in computing values. A calculator or Excel spreadsheet  
25 computer are the best way to do this calculation.

1 Q But if nobody's checking to see if the software is doing it  
2 right, if nobody's checking to see if the calculator's doing  
3 it right, at some point in time, in order for somebody to  
4 know whether or not their calculations are right, don't they  
5 need to know?

6 A Well, where do you stop?

7 MR. ANDERSON: Objection. Argumentative.

8 MR. VOSK: It wasn't intended to be argumentative.

9 JUDGE STEINER: No. Overruled.

10 MR. VOSK: Thank you.

11 A (Continuing) Yeah. I don't know where you would stop. You  
12 could compare the calculator to the computer. You could  
13 compare that to the printout from the DataMaster Instrument.  
14 So there's three computer -- three automatically generated  
15 results that could be compared. Now, where, beyond that?  
16 Another computer? So --

17 Q (By Mr. Vosk) Well, no. I guess what my question is, you  
18 said you didn't know whether or not anybody ever did any  
19 check at all. And, so, if somebody sat down and wanted to  
20 do a check, we have no idea whether or not this is right  
21 because we didn't check it?

22 A You could do it right there and check it.

23 Q And you could do it by hand?

24 A Yes.

25 Q Because you know the --

1 A Yes.

2 Q -- algorithms to do it?

3 A Yes.

4 Q You could sit there and do it with a pencil, no calculator  
5 at all?

6 A Yes.

7 Q And that would be a way to check its --

8 A I wouldn't necessarily rely on that method because finding  
9 the standard deviation of 10 three-digit values by hand is  
10 very tedious. And I increase the risk of my own error in  
11 writing these numbers down.

12 Q Okay. Well, if you haven't checked the accuracy of the  
13 calculations being done by the computer, how do you know  
14 that the errors that you might introduce would be any worse  
15 than the errors you may already have there?

16 A Well, there's certainly the potential for misentering a  
17 number, a typo, scribal error. That's certainly a  
18 possibility.

19 Q Well, and you've said the possibility that that mean  
20 calculated there is wrong as well?

21 A I don't think it is.

22 Q You don't think it is a possibility?

23 A I don't think it's wrong. The possibility for error, I  
24 think, is in manually entering data by a human being. When  
25 you allow that or that's part of the process, you increase

1 the risk of error. So the more automated the process,  
2 generally the better.

3 Q Now, how careful were you when you went through and did your  
4 review of these simulator solutions?

5 A I thought we were sufficiently careful. We had the data, we  
6 computed the means, the standard deviations, the coefficient  
7 variation, the ranges, equivalent vapor concentrations. All  
8 of this we relied on Excel spreadsheet in a laptop computer.

9 Q You realized the importance of what you were doing?

10 A I believe so.

11 MR. VOSK: Your Honor, at this time I would move  
12 to admit Exhibits 2 and 3.

13 JUDGE STEINER: Any objections?

14 MR. ANDERSON: No objection to 3.

15 JUDGE STEINER: 3 is admitted.

16 (Exhibit No. 3 admitted.)

17 MR. ANDERSON: Well, actually, I'm not sure.  
18 There's a bunch of writing on 3 I don't know the source of.  
19 This is available, I think, on the Web and therefore I  
20 wouldn't object to it.

21 MR. VOSK: You know what, I'll withdraw that and  
22 get back to 3 later. Number 2 would be the one at this  
23 point.

24 MR. ANDERSON: This has already been testified.  
25 We object to it as hearsay.

1 JUDGE STEINER: I'm sorry?

2 MR. ANDERSON: Object to it as hearsay. It's  
3 already been testified to. It's been testified to, with  
4 regard to policies that happen.

5 MR. VOSK: I guess my first response to that would  
6 be, Your Honors, we're in a pretrial hearing, so the rules  
7 of evidence don't strictly apply here. I don't think it's  
8 something that's an extravagant document. I think it's  
9 important to complete the record. We do have the witness's  
10 testimony, but we've also got the document there to verify  
11 it. I simply want it in for purposes of completeness of  
12 record.

13 JUDGE STEINER: Rather than getting involved in  
14 too much detail regarding the admissibility of 2, I'm going  
15 to rely on 1101. And objection's overruled. It will be  
16 admitted.

17 MR. VOSK: So is Exhibit 2 admitted?

18 JUDGE STEINER: 2 is admitted.

19 (Exhibit No. 2 admitted.)

20 MR. VOSK: Okay.

21 JUDGE STEINER: 3 has been withdrawn.

22 (Exhibit No. 3 withdrawn.)

23 MR. VOSK: We'll come back to 3 later, Your Honor.

24 Q (By Mr. Vosk) Now, in the declarations for a simulator  
25 solution, and right now I'm looking at Solution 06046.

1           There's a statement that talks about the mean concentration  
2           of alcohol?

3       A     There was on some of them, and as you point out on that one,  
4           yes.

5       Q     Okay.

6                         (Exhibit Nos. 4, 5, 6, marked for identification.)

7       Q     (By Mr. Vosk) I'm going to hand you Exhibits 4, 5, and 6,  
8           and just have you hold on to them for a second. I'll have  
9           you identify them in a moment. Can you take a look at  
10          Exhibit 4?

11      A     Okay.

12      Q     Can you identify what that is for the Court?

13                         MR. ANDERSON: I'm sorry, counsel. Can I see it?

14                         MR. VOSK: It's a simulator solution.

15                         (Counsel discuss exhibit.)

16                         MR. ANDERSON: Can I take a look at it first,  
17          counsel. I need to look at it. I don't have it.

18                         (Mr. Anderson reviews exhibit.)

19                         MR. ANDERSON: Thank you, counsel.

20      Q     (By Mr. Vosk) Can you identify what that is for the Court?

21      A     Exhibit 4 is a four-page document. The first page is the  
22          spreadsheet of measurement results from the toxicology lab,  
23          which we've seen examples of earlier. The other three pages  
24          are declarations or affidavits from three of the analysts  
25          within the toxicology lab. And for Batch 04040.

1 Q Thank you. Now, if you could take a look at the declaration  
2 for Brian Capron.

3 A Okay.

4 Q What does he report as the mean concentration of the  
5 alcohol?

6 A He reports the mean concentration of the alcohol was 0.1790  
7 grams per hundred milliliter.

8 Q Okay. If you'll take a look at the worksheet. Can you tell  
9 us, is he right?

10 A No.

11 Q What does he have down there instead?

12 A Well, the worksheet shows an average concentration of 0.1871  
13 grams per hundred milliliter.

14 Q Okay. Is there a number on the worksheet that would match  
15 what he put down in that declaration?

16 A Yes. The lower limit of the three standard deviation  
17 range --

18 Q Okay.

19 A -- matches his number.

20 Q So he put in the wrong number there?

21 A Yes. On his affidavit.

22 Q Okay. Can you take a look at Exhibit 5, and identify that  
23 for the Court?

24 A This is a six-page document --

25 MR. ANDERSON: The State would ask to see that.

1 JUDGE STEINER: Is there another exhibit as well?

2 Mm-hmm. If you could pass that.

3 (Mr. Anderson reviews exhibit.)

4 Q (By Mr. Vosk) Can you identify Exhibit 5 for the Court?

5 A Yes. This is a six-page document, one of which is the  
6 spreadsheet for data measurement results from the toxicology  
7 lab for Batch 05014. There are three affidavits signed by  
8 analysts in the toxicology lab. One page is a check-off  
9 sheet that myself and Trooper Ken Denton completed when we  
10 reviewed this batch and the records. And then the front  
11 page is simply a summary statement of our review that was  
12 made part of the file.

13 Q Now, can you take a look at Brian Capron's declaration  
14 there?

15 A Okay.

16 Q What does he report as the mean concentration of the control  
17 alcohol?

18 A 0.1852 grams per hundred milliliter.

19 Q And can you take a look at the worksheet and tell us whether  
20 or not that's correct?

21 A Yes. That appears to be correct.

22 Q Okay. So, then, when we're talking about what they're  
23 signing off on, on those type of declarations, with respect  
24 to the alcohol concentrations, we're talking about this  
25 number right here?

1 A Yes.

2 Q Okay. Can you please identify Exhibit 6 for the Court?

3 A Another six-page document similar to Exhibit 5. There's  
4 three affidavits. There's a spreadsheet with measurement  
5 results from the toxicology lab. There's the check-off  
6 sheet myself and Trooper Ken Denton completed. And, again,  
7 the summary statement for the review of the file.

8 Q Okay.

9 A For Batch 06042.

10 MR. VOSK: Your Honor, at this time we move to  
11 admit those, Defense 4, 5, and 6.

12 JUDGE STEINER: Any objection?

13 MR. ANDERSON: None. Well, they're cumulative of  
14 the State's exhibit, of the Exhibit 1, but that's fine.

15 JUDGE STEINER: I'm sorry?

16 MR. ANDERSON: They're cumulative of the Exhibit  
17 No. 1.

18 MR. VOSK: They are, in fact, Your Honor. The  
19 reason I produced them separately in hard copy is simply  
20 because I was having the witness look at it, and I thought  
21 this would be more efficient for the Court.

22 JUDGE STEINER: Unfortunately, I think this has  
23 sort of gone by. We've discussed them as 4, 5, and 6. And  
24 so I think we note for the record that it's cumulative of 1,  
25 and move on. They'll be admitted.

1 (Exhibit Nos. 4, 5, and 6 admitted.)

2 Q (By Mr. Vosk) Okay. Now, will you take a look at the  
3 declaration for Dr. Nuwayhid?

4 A In Exhibit 6?

5 Q That is correct.

6 A Yes.

7 Q And what does she report as the mean alcohol concentration?

8 A 0.15 grams per hundred milliliter.

9 Q And how about Lisa Piquette?

10 A 0.15 grams per hundred milliliter.

11 Q Are either of them correct?

12 A No.

13 Q Okay.

14 (Exhibit No. 10 marked for identification.)

15 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
16 Exhibit 10. Can you identify that for the Court, please?

17 A It's another three-page document including three affidavits  
18 from toxicologists in the toxicology laboratory. A  
19 spreadsheet of the measurement results for Batch 06044. The  
20 check-off sheet myself and Trooper Denton completed, and our  
21 summary statement.

22 Q Now, on your summary sheet, do you indicate that  
23 everything's okay with this certification?

24 A Yes.

25 Q So this is one of the ones you guys went in afterwards, took

1 a look at and said: Everything's fine, let's go?

2 A Yes.

3 Q Okay. What I'd like for you to do is take a look and tell  
4 me what the average solution concentration reported on the  
5 worksheet is?

6 A 0.0500 grams per hundred milliliter.

7 Q Okay. Can go down and now take a look at the declarations  
8 signed by each of the analysts and tell us what the numbers  
9 they entered were?

10 A They all three entered 0.04 grams per hundred milliliter.

11 Q So, that was wrong?

12 A That data entry on the affidavit was incorrect. Yes.

13 Q Okay. Yet you and Ken signed off saying there was no  
14 problem there?

15 A That was not one of the things that we had listed.

16 Q Okay.

17 A As something to check for.

18 Q And did each of these analysts, after you guys had gone in  
19 and done your check and stamp, did they all sign off on  
20 these declarations saying that the declarations were  
21 correct?

22 A Only one did.

23 Q Okay. Who is that?

24 A Naziha Nuwayhid. Dr. Nuwayhid.

25 Q So, even the second time around, Dr. Nuwayhid, when she

1 originally signed it back on 11 -- November 2006, she signed  
2 this declaration, which was wrong?

3 A It had an incorrect numerical value on it, yes.

4 Q And then the second time around, in October of 2007, after  
5 all of this information started to come out, she went back  
6 and re-signed it with the wrong value a second time?

7 A Yes.

8 Q We would move to -- I'm sorry, which exhibit do you have?

9 A Exhibit 10.

10 MR. VOSK: We'd move to admit.

11 JUDGE STEINER: Any objection?

12 MR. ANDERSON: No.

13 JUDGE STEINER: 10 will be admitted.

14 (Exhibit No. 10 admitted.)

15 (Exhibit No. 11 marked for identification.)

16 Q (By Mr. Vosk) I'll hand you what's been marked as Exhibit  
17 11. Mr. Gullberg, can you identify that for the Court,  
18 please?

19 A This is the same exhibit as previously, except for Batch  
20 06045.

21 Q And is this one that you and Trooper Denton checked?

22 A Yes.

23 Q And did you guys sign off on it saying that everything was  
24 okay with this?

25 A The things that we looked for, we noted were correct, yes.

1 Q Okay. Will you take a look at the, what's reported as the  
2 average solution concentration on the worksheet?

3 A Okay. It's 0.0980 grams per hundred milliliter.

4 Q And can you go through and tell us what values were reported  
5 by the analysts in their declarations?

6 A All three reported 0.08 grams per hundred milliliters.

7 Q So, again, all of them had the wrong number in their  
8 declarations?

9 A Yes.

10 Q Did any of them sign off on your corrections a second time?

11 A One of them, yes.

12 Q And who is that?

13 A Dr. Nuwayhid again.

14 Q Okay. So, Dr. Nuwayhid originally signed this in November  
15 of 2006 with the wrong value; correct?

16 A Yes.

17 Q And then when she came back again in October of 2007, she  
18 again signed off on the same declaration with the same wrong  
19 value?

20 A Yes.

21 MR. VOSK: I'm going to -- can we admit that, Your  
22 Honor, please.

23 JUDGE STEINER: This is Exhibit 11. Any  
24 objection?

25 MR. ANDERSON: No, Your Honor.

1 JUDGE STEINER: 11 will be admitted.

2 (Exhibit No. 11 admitted.)

3 (Exhibit No. 12 marked for identification.)

4 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
5 Defendant's Exhibit 12. Can you identify that for the  
6 Court?

7 MR. ANDERSON: Your Honor, at this time the  
8 State's going to object. I'm assuming, and counsel can  
9 certainly correct me if I'm wrong, but I'm assuming he's  
10 going to go through another similar inquiry. Is that  
11 correct, counsel?

12 MR. VOSK: I will be, Your Honor.

13 MR. ANDERSON: Okay. Your Honor, I believe this  
14 is cumulative. There've been about five or so that had gone  
15 through. In each of those five there was a mistake, or  
16 there was an inaccuracy in the certification. The witness  
17 testified that that was not what he checked.

18 All of these exhibits have actually been admitted  
19 as part of State's Exhibit -- Exhibit No. 1. They're  
20 available for counsel if you want to tally them up and count  
21 them or argue from them in argument. All we're going  
22 through is going in painstaking details, one by one, of  
23 solutions that actually don't pertain to any of the defense  
24 in this particular case.

25 JUDGE STEINER: Thank you. Defense.

1                   MR. VOSK: First, I don't think Sergeant Gullberg  
2 has yet testified that he didn't check those things, but if  
3 the testimony goes that way, we can show that -- we can take  
4 a look at other, we can take a look at other declarations  
5 and investigate that as to whether or not he is going to  
6 testify that way.

7                   With respect to being cumulative, what the -- the  
8 State's argument is more or less, look, we're looking at  
9 four or five solutions here, or four or five breath tests  
10 and that's all we've got. To begin with, we're sitting here  
11 in a panel with a motion of county-wide significant. So,  
12 more than just the tests here today are at issue. It's the  
13 tests throughout the county.

14                   Secondarily, and especially in light of Justice  
15 Madsen's concurrence, in Ludvigsen, of last week or two  
16 weeks ago, and the cases of both Cauthorn -- Cauthron, and  
17 oh, Your Honor, I'm drawing a blank. Under ER 702 and ER  
18 703, if the errors in the lab are so pervasive that they  
19 undermine any confidence somebody could have in the work  
20 coming out of that lab, this Court has the discretion to  
21 suppress the evidence coming out of that lab.

22                   What we're trying to show -- I'm sorry. What  
23 we're trying to show the Court here is how pervasive not  
24 only the errors in the lab were, but the errors in the  
25 correction process. Because one of the things the State has

1 argued over and over again is, well, yeah, okay, there was  
2 some initial problems here, but we brought in Trooper  
3 Gullberg and Denton, both of whom are good scientists, but  
4 they fixed everything.

5 And what we're showing here is they didn't fix  
6 everything. In fact, they fixed very little. And we need  
7 to be able to demonstrate that to the Court, not only for  
8 purposes of ER 702 and 703, but for purposes of 5064 and  
9 5063 as well. So -- I'm sorry, Your Honor.

10 JUDGE STEINER: I agree with Mr. Anderson to the  
11 extent that if you have an exhibit that includes an error  
12 and Sergeant Gullberg has testified that he has not checked  
13 for that type of an error, that to continue in this regard  
14 is cumulative.

15 Mr. Anderson has argued that these exhibits are  
16 already admitted. And essentially it sounds as if the State  
17 is admitting the errors and inviting you to simply tally the  
18 number of errors. If that's all that you want to do is go  
19 through this same process, I agree, and I think that we're  
20 done and you should tally the errors.

21 If, in fact, on the other hand, you have an  
22 exhibit where you think that you will be able to show that  
23 Mr. Gullberg was checking for an item and missed that, made  
24 that error, then I invite you to present exhibits of those  
25 kind. Otherwise, I think you need to tally the errors and

1 present that to us at another time, unless you've already  
2 done so.

3 MR. VOSK: And can I respond to that just briefly,  
4 Your Honor.

5 JUDGE STEINER: Yes.

6 MR. VOSK: Two points on that. One is  
7 Dr. Nuwayhid will be testifying here either tomorrow or on  
8 Friday and this, in part, goes to credibility. I could do  
9 it with Dr. Nuwayhid if you wanted to. I was trying to  
10 short circuit the whole thing and get it done up front, so  
11 we didn't have to revisit it then.

12 JUDGE STEINER: But Mr. Anderson's already  
13 indicating these exhibits have been admitted. If you can  
14 present one such exhibit to Dr. Nuwayhid and indicate that  
15 apparently, and ensure that hopefully he sees these ahead of  
16 time, and ask him: And were similar errors made in these  
17 cases; did you sign initially; did you sign again saying  
18 that you've rechecked them? I think that will save us a lot  
19 of time.

20 MR. VOSK: Okay. And can I do that cumulatively  
21 with these then?

22 JUDGE STEINER: Yes. Any objection from the  
23 State?

24 MR. ANDERSON: Your Honor, I don't understand what  
25 doing it cumulatively means.

1                   JUDGE STEINER: I think that he wants to ask --  
2 well, it depends on whether or not Mr. Gullberg has seen  
3 these before.

4                   MR. VOSK: Right. I would simply ask him whether  
5 or not the same errors were made in each of these, and then  
6 ask to admit them. And I could short circuit it that way.

7                   MR. ANDERSON: He's already identified the types  
8 of errors, and we can clearly, from the record, identify  
9 whether or not there were other errors. I think he should  
10 count them and move on. Having Mr. Gullberg go into each of  
11 the errors that counsel intends to tally and confirming that  
12 they, in fact, are, when there's no objection that they are,  
13 is just cumulative. I don't think it's useful for the Court  
14 to go into that or rely on.

15                  MR. VOSK: If I could just ask Mr. Gullberg a  
16 question.

17                  JUDGE STEINER: I'm going to give you a few  
18 questions to see if you can get to the same place.

19 Q (By Mr. Vosk) Sergeant, or Mr. Gullberg, when you did these,  
20 when you were correcting these, did you correct people's  
21 declarations? Did you look at those declarations?

22 A That was not one of the items listed here on our check-off  
23 sheet.

24 Q Is it one -- I'm sorry.

25 A Now, there was certainly -- those were observed as well from

1           time to time, we may have noted that, and some other matters  
2           as well probably, but it was not an item checked off.

3       Q     So, on some of the worksheets and some of your corrections,  
4           you'll indicate whether or not somebody's declaration was  
5           wrong?

6       A     Sometimes we made a note at the bottom of the check-off  
7           sheet, yes, we noted this or that.    Yes.

8       Q     So, you're telling me now, though, that that's not something  
9           you were particularly concerned about when you were going  
10          through this?

11      A     I'd have to agree with that.    It was not one of the focuses.  
12          We wanted to be sure that there was chromatogram results  
13          that corresponded to the data entry.   We were more  
14          interested in data entry, correct data entry, and  
15          computational results than we were with issues like this, on  
16          the affidavits.

17      Q     Whom put that stamp there on these documents?

18      A     Well, it might have been myself, it might have been Trooper  
19          Denton.   There was several people that were involved in the  
20          formation of that statement.   And then it was typed up and  
21          reduced to a sticky that was put onto the affidavit.

22      Q     Okay.   And so you were involved in having this stamped on  
23          these declarations?

24      A     Yes.    Yes.

25      Q     And so, in essence, when you put that stamp on there, and

1           you were seeking to have the analysts sign off on it, you  
2           were having -- weren't you seeking to have them reverify  
3           what was in their declaration?

4       A     More to verify the correct data entry on the spreadsheet  
5           compared to the chromatograms. That was more the emphasis.

6       Q     Then why did you put it here?

7       A     As a place for their signature to appear.

8       Q     So, and you don't -- in your corrections, when we see this  
9           signed off on, when we see this here, we're not meant to  
10          accept that this declaration has been checked or is correct?

11      A     I would say that you should be able to make that assumption.

12      Q     I should?

13      A     Yes.

14      Q     Okay. If you weren't looking at it and you weren't checking  
15          it though, how could I make that assumption?

16      A     Right. I agree.

17      Q     Okay. I can't, can I?

18      A     Right.

19      Q     Thank you.

20      A     I mean, it's there for you to look at and we've pointed out  
21          the errors that did occur on some.

22      Q     With the exhibit in front of you, can you just identify it  
23          for the Court and just let the Court know whether or not it  
24          contained the same type of error?

25      A     Yes, it does. Same type of error.

1 Q And can you just identify for the Court which solution we're  
2 talking about?

3 A Batch 06046.

4 MR. VOSK: I'd move to admit, Your Honors.

5 JUDGE STEINER: Any objection?

6 MR. ANDERSON: No, Your Honor.

7 JUDGE STEINER: I'm sorry. That was 12?

8 MR. VOSK: That was 12, Your Honor, correct.

9 JUDGE STEINER: 12 will be admitted.

10 (Exhibit No. 12 admitted.)

11 (Exhibit No. 15 marked for identification.)

12 Q (By Mr. Vosk) And I'm simply going to ask you to look at  
13 Exhibit 15, identify it, and let the Court know whether or  
14 not that has the same error?

15 MR. ANDERSON: And, Your Honor --

16 JUDGE STEINER: Let me just -- I think this goes  
17 to the heart of what we were talking about before.

18 MR. VOSK: I'm sorry, Your Honor. That's the last  
19 one. I may have misunderstood. I thought you just didn't  
20 want me to go through excruciating detail. I just wanted to  
21 identify it.

22 JUDGE STEINER: If this is the last one.

23 MR. VOSK: It is.

24 JUDGE STEINER: Then it's not worth the debate.

25 MR. ANDERSON: To be clear, the State will be

1           objecting to any more than one or two of a particular type  
2           of example, otherwise we'll be here all day on issues that  
3           are purely either a matter of -- of tallying.

4                         JUDGE STEINER:  It is long and I would likely  
5           sustain the objection, as long as there is agreement from  
6           the State that the error is contained in other documents or  
7           that agreement is contained in the record.

8                         MR. ANDERSON:  I don't know that particular  
9           errors -- what particular errors exactly are where.  If  
10          counsel wants to submit that to me, that's fine.  But once  
11          we've identified how to identify an error, it's for counsel  
12          to tally it up.  I can look at those tallies and see if I  
13          agree or disagree.  I can't obviously agree with a specific,  
14          but certainly, once we define the parameters of what that  
15          error is, it's just a matter of looking, is it there, is it  
16          not there, and tallying it up.

17                        JUDGE STEINER:  All right.  To the extent that  
18          pervasiveness is an issue that I think this Court is  
19          concerned with, it would be essential to know whether or not  
20          the parties agree that the error exists.  If there is an  
21          agreement, then I think the defense has to have the  
22          opportunity to present the testimony and prove all of the  
23          errors.  So, to the extent that the parties can get together  
24          and discuss these off the record and come up with an  
25          agreement as to the number, then that would be helpful.

1                   MR. ANDERSON: We have essentially agreed to that,  
2                   by stipulating to the records on the Web. Every single,  
3                   this type -- to the extent that these circumstances occur  
4                   again, we've already stipulated that they occur. I have not  
5                   gone and counted them. That's something for counsel to do.  
6                   It's not something to be done witness by witness on the  
7                   record.

8                   JUDGE CHOW: I think all we're looking for is how  
9                   many. Count how many. If there's 20, there's 20. If  
10                  there's ten, there's ten. Get together, count how many is  
11                  stipulated to, and then that would exemplify the, that  
12                  issue.

13                  MR. VOSK: I understand, Your Honor. And I'll try  
14                  to alleviate some of the State's concern. I don't think  
15                  I've got any more that I'm going through like this. This, I  
16                  think, will be the only one.

17                  JUDGE STEINER: So, let me just clarify my ruling.  
18                  It's not enough to know that an error occurred and it may  
19                  have occurred on other occasions. It is important to know  
20                  how many times that type of an error occurred. Okay.

21                  MR. VOSK: Thank you, Your Honor.

22                  Q     (By Mr. Vosk) Did you identify?

23                  A     This is for Batch 06042.

24                  Q     And did that --

25                  A     Exhibit 15.

1 Q Does that have the same type of error?

2 A Yes.

3 MR. VOSK: At this point, Your Honor, we'd move to  
4 admit Exhibit 15.

5 JUDGE STEINER: Any objection?

6 MR. ANDERSON: No, Your Honor.

7 JUDGE STEINER: 15 will be admitted.

8 (Exhibit No. 15 admitted.)

9 JUDGE CHOW: What was that batch?

10 JUDGE STEINER: Could you repeat the batch number?  
11 The last one.

12 THE WITNESS: 06042.

13 MR. ANDERSON: And to clarify the record, counsel  
14 indicated, I believe, that that was the last of those  
15 particular errors he was aware of; correct?

16 MR. VOSK: Those are the last ones that I intend  
17 to admit. There are errors throughout that are similar too.  
18 I wanted to get a representative example and these just  
19 happened to be in a nice neat bunch for me to bring to the  
20 Court. I will neither stipulate that these are all of them  
21 nor say for certain that the exact same error occurs  
22 elsewhere, but it's the last that I plan to present in this  
23 matter.

24 JUDGE STEINER: Thank you. Mr. Vosk, you have  
25 further questions?

1 MR. VOSK: I've got a lot, Your Honor.

2 JUDGE STEINER: Okay.

3 MR. VOSK: So the Court knows, my hope is that I  
4 can get most of the exhaustive detail out with this witness,  
5 and the other witnesses should move much quicker. I am  
6 concerned about time and efficiency as well.

7 (Exhibit No. 18 marked for identification.)

8 Q (By Mr. Vosk) Mr. Gullberg, I'm handing you what's been  
9 marked as Exhibit 18. Can you identify that for the Court?

10 A This is a several-page document that has, again, the  
11 spreadsheet of measurement results from the toxicology lab  
12 for Batch 05012. It has our check-off sheet of review and  
13 our summary statement. It has three affidavits from  
14 analysts. And the rest of the pages are chromatogram  
15 printouts, measurement results from the gas chromatograph in  
16 the toxicology lab.

17 Q Okay. And in your Corrections Necessary section, did you  
18 indicate any -- anything in particular?

19 A We noted that the control value entered by Mr. Asa Louis,  
20 analyst at the toxicology lab, was incorrect.

21 Q And is that reflected in the worksheet?

22 A Yes. It's corrected. I made the correction dated and  
23 initialled it.

24 Q And what was the correction you put down there?

25 A I reported 0.100.

1 Q And you dated it when?

2 A 10/11/07.

3 Q Okay. Now, what I'd like you to do is go down and take a  
4 look at the chromatograms for Asa Louis. And in particular,  
5 the control. That'll be approximately page 12.

6 A Yes. I see one control that has been crossed out by Asa  
7 Louis, and another control that's not crossed out with a  
8 different result on it.

9 Q And the result with the control that's not crossed out, what  
10 is the value?

11 A 0.099.

12 Q Okay. Now, you indicated that that was the incorrect value.

13 A Yes.

14 Q In your analysis. Why?

15 A I don't know why, in looking at it now. Because also he's  
16 dated the time that he crossed this out, apparently, as  
17 October 18, 2007, which would have been after I made the  
18 correction.

19 Q Can you take a look at the time that .099 was made?

20 A At 9:14 a.m. on March 21, 2005.

21 Q And what are the times bracketing the rest of his readings?

22 A 9:40 a.m. to 9:52 a.m., March 21, 2005.

23 Q So the .099 obviously couldn't have been a contemporary  
24 control?

25 MR. ANDERSON: Objection. Calls for speculation.

1 MR. VOSK: Your Honor, he's the one that --

2 JUDGE STEINER: Objection's overruled.

3 MR. VOSK: Thank you.

4 A (Continuing) I'm not in a position to say that. There's  
5 some minutes between, but that may be part of the analyst's  
6 protocol. It may be an acceptable part.

7 Q (By Mr. Vosk) Can you take a look at the minutes separating  
8 each measurement made in Mr. Louis's?

9 A The first is 9:40 a.m., then 9:43, then 9:46, 9:49, 9:52,  
10 are the five sequential results.

11 Q Approximately three minutes apiece?

12 A Approximately.

13 Q Can you take a look at the, and you don't have to go through  
14 the specific times. Can you take a look at the  
15 chromatograph for the other analysts and see whether or not  
16 three minutes is a time that separates each of their  
17 readings, including the control?

18 MR. ANDERSON: And, Your Honor, I'm going to  
19 object. He's asking for the -- the witness has already  
20 indicated, he doesn't know the details of the protocol about  
21 how these are, whether these are or are not accurate with  
22 the test. The appropriate inquiry should be done with the  
23 toxicologist who is familiar with that protocol. He can go  
24 out there and repeat everything else that this witness can  
25 read off the result, but he is speculating at this point.

1 He's already said he doesn't know. There's no point in this  
2 testimony.

3 MR. VOSK: Your Honor, this witness marked out  
4 that the number was incorrect. Dr. Barry Logan, sitting  
5 back there, is the one who designated Rod Gullberg to go  
6 through and make these corrections. I'm trying to find out  
7 the basis for why he says the .099 is incorrect. He's the  
8 one who did this.

9 JUDGE STEINER: I think we don't want to spend too  
10 much time on this issue. Obviously, Mr. Gullberg is an  
11 expert in this area, and whether or not he's able to obtain  
12 the information that the defense is requesting from the  
13 paperwork is a question. But I'll allow you to ask a few  
14 more questions.

15 MR. VOSK: Thank you, Your Honor.

16 JUDGE STEINER: To see if you can get there.

17 MR. VOSK: Thank you.

18 Q (By Mr. Vosk) So, are the differences pretty much three  
19 minutes?

20 A Yes. Approximately.

21 Q So, is it likely the reason you marked that the 099 was  
22 incorrect was because you realized it wasn't close enough in  
23 time to actually be part of that run?

24 A I don't remember. That's a possibility.

25 Q Okay. You did, however, cross out the 099 and you put in --

1           what was the value you put in?

2       A     .100.

3       Q     Now, if we -- and you did that on what date?

4       A     That would have been October 11, 2007.

5       Q     Seven days later, what did Asa Louis do?

6       A     He crossed out the control noted .100, and made a note: Not  
7           used. And initialled and date it.

8       Q     Okay. So we've got you crossing out the .099, saying it's  
9           incorrect, and replacing it with a .100?

10      A     Yes.

11      Q     And him crossing out the .100 saying: Not used?

12      A     Yes.

13      Q     So, for this one, we don't have a control value, do we?

14      A     Well, you've got two documents there. As to which one  
15           should be used is a better question for Mr. Louis probably  
16           to answer than myself.

17      Q     But Mr. Louis said you were wrong, at least with respect to  
18           the .100?

19      A     Yes. It appears that way, yes.

20      Q     And you're saying that he's wrong entering the .099?

21      A     Well, he did it later. Maybe he had more information than I  
22           did.

23                   MR. VOSK: At this time we'd move to admit 18.

24      A     (Continuing) Yes.

25                   MR. ANDERSON: No objection.

1 JUDGE STEINER: 18 will be admitted.  
2 (Exhibit No. 18 admitted.)  
3 (Exhibit No. 19 marked for identification.)  
4 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
5 Exhibit 19. Can you identify that for the Court, please?  
6 A This is the same as the previous exhibit, except for Batch  
7 05024.  
8 Q Okay. Now, can you take a look at the, at the worksheet?  
9 A Okay.  
10 Q Why is Dr. Nuwayhid's name on the worksheet?  
11 A I don't know.  
12 Q Do you know why there would be no signature after  
13 Dr. Nuwayhid's name?  
14 A No, I don't know.  
15 Q Can you take a look? Is there a letter in there from Ann  
16 Marie Gordon?  
17 A Yes, a memo.  
18 Q And what does that indicate?  
19 A Should I read it?  
20 Q You can just tell us what it says. You don't have to read  
21 it.  
22 A It notes that the solution was prepared by Dr. Nuwayhid on  
23 July 6, 2005, but that she was not available to actually  
24 perform the analyses herself.  
25 Q Okay. And is there a declaration signed by her in there

- 1 saying that she prepared it?
- 2 A I don't see one.
- 3 Q So, she did not sign the certification worksheet?
- 4 A Right.
- 5 Q She didn't sign a declaration saying that she had, in fact,  
6 prepared it?
- 7 A That's correct.
- 8 Q The only evidence we have that she did prepare it is a memo  
9 by Ann Marie Gordon?
- 10 A Well, on the bottom of the summary data sheet, you'll see  
11 her name is also printed as having been the person preparing  
12 it.
- 13 Q Okay. Have we had problems with these data sheets?
- 14 A Yes.
- 15 MR. VOSK: If I could have just a moment, Your  
16 Honors.
- 17 Q (By Mr. Vosk) Can you take a look --  
18 (Exhibit No. 20 marked for identification.)
- 19 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
20 Exhibit 20. Can you identify that for the Court?
- 21 MR. ANDERSON: Your Honor, the State objects.  
22 This is not the appropriate witness to be garnering this  
23 information from. It appears that counsel is -- intends to  
24 inquire about what the protocols governing the actual  
25 analyst testing of the documents and preparation for these

1 documents are.

2 This witness went through and confirmed with this  
3 information, particular portions of the resulting  
4 documentation. He is not anybody -- he's never conducted an  
5 analysis on the HGCS machine. He is not governed by that  
6 protocol. It should be gone into with the appropriate  
7 witness who's actually familiar with this protocol and can  
8 actually interpret whether or not particular sections apply  
9 to -- in this particular instance or not.

10 MR. VOSK: At this point, Your Honor, I think the  
11 objection's a little bit premature. I haven't even had a  
12 chance to lay foundation as to whether he's familiar with it  
13 and what he does or does not know about this.

14 JUDGE STEINER: I'm going to find that the  
15 objection is premature. You may ask some foundational  
16 questions, and the State may renew its objection.

17 Q (By Mr. Vosk) Can you identify the exhibit for the Court?

18 A It's the protocol for preparation of quality assurance  
19 solutions within the toxicology laboratory.

20 Q Okay. Now, when you went through and did your corrections,  
21 did you check things like whether or not signatures were  
22 right or dates were right, those types of things?

23 Documentation for the simulator solution?

24 A Whether signatures were present and dates were correct, yes.

25 Q And whether or not those things are required is determined

- 1           by these protocols?
- 2       A     I am not all that familiar with this protocol.
- 3       Q     Are you familiar with any protocol?
- 4       A     Within the toxicology lab, not a great deal.  These are  
5           prepared by Dr. Logan and they use them there in the Breath  
6           Test Program.  We don't rely on these.
- 7       Q     Okay.  Well, let me ask you this.  You've been retained to  
8           correct this documentation; to make sure signatures are in  
9           the right place and all that's been done?
- 10      A     Yes.
- 11      Q     As an expert, are the protocols that have been passed by  
12           Dr. Logan, where they indicate what should be signed and how  
13           it should be signed, would that be the type of document or  
14           material that you would rely on in coming to an opinion?
- 15      A     I could see where it would be important for that, yes.
- 16      Q     So, knowing that that is such a document, if there's  
17           something in there relating to whether or not a signature  
18           should have been made by Dr. Nuwayhid, or whether or not  
19           there should have been a declaration, would you rely on that  
20           document in making your determination?
- 21      A     I could see -- I would agree that should be done.  Whether  
22           we did or not, no.  We were not that generally familiar with  
23           this.  One thing in the document we did rely on was the  
24           range of the allowed concentration.
- 25      Q     Okay.

1                   MR. VOSK: I think I've tied it in as something he  
2 can look at to base an opinion on, Your Honor. It is the  
3 type of material he would rely on.

4                   JUDGE STEINER: Renewing your objection?

5                   MR. ANDERSON: He's allowed to go into -- clearly  
6 he did rely on. Not materials that they think would have  
7 been a good idea to rely on. This is not, what the  
8 expert -- what Mr. Gullberg did is he went through and he  
9 checked facts.

10                  MR. VOSK: Your Honor, I'm going to object.  
11 That's testimony. If he wants to pull that out through the  
12 witness, but what he did is what I'm trying to get out.

13                  JUDGE STEINER: He can make his objection. Go  
14 ahead.

15                  MR. ANDERSON: What the witness did and what the  
16 testimony has been is he went through and he checked  
17 particular facts. He has not expressed an opinion on  
18 whether or not they followed the solutions or anything --  
19 the protocols or things like this. He checked facts, okay.  
20 And he did not check the facts that counsel's going into,  
21 that's been stated.

22                  Whether or not Ms. Nuwayhid should have, in fact,  
23 signed something, can be opined on by Dr. Logan who will  
24 testify. He's familiar with these protocols. It can be  
25 testified to by Dr. Nuwayhid who actually did it. But this

1 witness checked particular things, determined that they did  
2 or did not exist.

3           Going into -- having him sit down and go  
4 through -- I mean, in order to make a qualified answer, he  
5 would have to be familiar with the entire document. He has  
6 to read the entire document in order for it to be a fair  
7 question. We don't have the time to do this. This  
8 wasn't -- it's something he's not prepared on. It's  
9 something that he doesn't have the foundation to answer the  
10 question on. It's something that's appropriately addressed  
11 with another witness.

12           JUDGE STEINER: Mr. Vosk, you appear to be ready  
13 to ask the question of Mr. Gullberg, whether or not if  
14 there's a protocol that should be followed. Is that where  
15 we're going?

16           MR. VOSK: What I'm -- I'm not about to ask him if  
17 there's a protocol should it be followed. What I'm going to  
18 ask him is, is there a protocol requiring this. Whether or  
19 not it should be followed, I'll go in with Dr. Logan, but  
20 Dr. Logan --

21           JUDGE STEINER: He's just indicated he's not very  
22 familiar with this protocol.

23           MR. VOSK: But he did indicate that this is the  
24 type of material he would rely upon in making that  
25 determination. And Dr. Logan did hire him on to go through

1           this process --

2                   JUDGE STEINER: I'm going to sustain the  
3           objection. If you want an expert to come in and indicate  
4           what a protocol says, then you need to have someone who's  
5           gone through the protocol, not familiarize themselves with  
6           it now.

7                   MR. VOSK: Then we'll withdraw 20 for now.

8           Q        (By Mr. Vosk) What is that?

9           A        19.

10                   MR. VOSK: At this point, we would --

11                   MR. ANDERSON: And the State objects to  
12           withdrawing the exhibit. It's been marked, it's part of the  
13           record, it should stay part of the record.

14                   MR. VOSK: I just mean I withdraw my request.

15                   JUDGE STEINER: It's not going anywhere. It's  
16           just not admitted.

17                   MR. VOSK: It'll come back.

18                   JUDGE STEINER: Okay.

19                   JUDGE CHOW: I'm sorry. Did you get back the  
20           exhibit?

21                   MR. VOSK: Oh, I'm sorry. I put it right here.

22                   JUDGE CHOW: She's responsible for the exhibit,  
23           otherwise.

24                   JUDGE STEINER: Now we're on 20.

25                   MR. VOSK: And we would move to admit 19 for now,

1 Your Honor.

2 JUDGE STEINER: Any objection?

3 MR. ANDERSON: 19 is -- which one is it?

4 JUDGE STEINER: 5024 -- 05.

5 MR. ANDERSON: No objection.

6 JUDGE STEINER: It will be admitted.

7 (Exhibit No. 19 admitted.)

8 MR. VOSK: I'm going to revisit that for just a  
9 second, Your Honor.

10 JUDGE STEINER: 19?

11 MR. TROMBOLD: 20.

12 Q (By Mr. Vosk) With respect to Exhibit 19, what is, right  
13 above Corrections Necessary, what is the statement you check  
14 off on?

15 A Complies with accuracy and precision requirements  
16 established by the State Toxicologist.

17 Q Where do you get those from?

18 A From the protocol.

19 Q From the protocols?

20 A Yes.

21 Q So you're familiar with the protocols?

22 A With that portion of it.

23 Q So you're familiar with that portion and you're saying no  
24 other portion of those protocols?

25 A Yeah. The rest of it I never looked at in detail, I never

- 1           relied on it generally. They exist, but --
- 2       Q     So when you went through and made all these corrections to  
3           all these worksheets and everything else, when you were  
4           correcting people's signatures and everything, you didn't  
5           know how they were supposed to be signing?
- 6       A     Well, that they were supposed to sign it. I didn't look at  
7           the protocol to decide that.
- 8       Q     Okay. When you QAP a DataMaster, you recalibrate it at the  
9           time of the QAP; right?
- 10      A     Yes.
- 11      Q     So a QAP then happens after a test can't really be  
12           backdated?
- 13      A     Can't really be what?
- 14      Q     Backdated? For instance, if I QAP Machine 1 on December  
15           1st, and I see it's got, you know, a given bias.
- 16      A     Okay.
- 17      Q     A test is done January 1st, and then a QAP is done February  
18           1st. The QAP I have to rely on is the one that came  
19           beforehand, not the one that came afterwards?
- 20      A     That's generally the more relevant one that would apply to a  
21           subject's test. Following that QAP and before the next QAP,  
22           yes.
- 23      Q     Because that next QAP, you're changing how the instrument's  
24           reading?
- 25      A     Yes.

1 Q You're changing its bias?

2 A You may be. You may be.

3 Q Okay. Correct.

4 A You are recalibrating and reaffirming the correct  
5 calibration again.

6 Q But you're changing the setting?

7 A You are. But then you're reaffirming that it's been  
8 correctly recalibrated and ready to go on to be used in the  
9 field for another year.

10 Q Right. So, going forward, it's just great for the test,  
11 but, again, we can't apply it backwards?

12 A Right. I would, there's other better ways to apply -- or  
13 assess bias on that previous test.

14 Q I had you do a set of calculations for me last night, didn't  
15 I?

16 A Yes.

17 Q One of those calculations had to do with adjusting a breath  
18 test based on the bias of an instrument; correct?

19 A Yes.

20 Q Could you perform the calculation for the Court and explain  
21 the relevant parameters that are being used?

22 A When a bias exists in an instrument, the equation for  
23 correcting the measurement result -- I will note the correct  
24 result is  $Y_{\text{sub correct}}$ . And I'll note  $Y_{\text{sub M}}$  as the  
25 measured result. That's multiplied times the reference

1 value from the gas chromatograph in this case. And that  
2 product is divided by 1.23, times -- I'm going to note X sub  
3 bar simulator.

4 The simulator results that were measured on that  
5 instrument using this reference value from the toxicology  
6 lab, 1.23, is what converts this grams per hundred  
7 milliliter from the toxicology lab into a vapor grams per  
8 210 liter equivalent in a simulator. And that's multiplied  
9 by the measured result on the instrument to give you a  
10 corrected result.

11 So your bias is determined by these three terms  
12 right here that are multiplied by a measured result. Now,  
13 it may be that there is no bias and this all reduces to one,  
14 in which case there would be no bias. The correct equals  
15 the measured. But if there's a bias, then this accounts for  
16 it.

17 Q Okay. What I'm going to have you do is identify for the  
18 Court where that bias comes from. Right now we're looking  
19 at the QAP for Solution 140035, dated September 27, 2005.

20 A Okay.

21 Q Can you identify where you're getting the bias from?

22 A Let me also write the other equation that defines bias by  
23 itself. And I'm going to note percent bias equals the mean  
24 of the simulator results minus the reference value divided  
25 by the reference value. And that multiplied by a hundred

1 will give you a percent bias. That is, then, is what's  
2 incorporated into this equation to get a corrected value  
3 that will account for this bias.

4 Q Okay. So, when you're talking about this value right here?

5 A Yes.

6 Q Over here, where is that, on this QAP?

7 A On the QAP, that is the mean result at the bottom here.  
8 This is the mean for the -- let me see if they can see. The  
9 mean for the 04 solution concentration, the mean for the  
10 .08, there's the mean for the .10, the mean at 15. So that  
11 mean -- that's the mean of ten measurements. That's this X  
12 bar simulator right here. R is the reference value that's  
13 at the top here for each separate solution.

14 So, this mean minus this value, divided by this  
15 value, times a hundred, will give -- if you go down a little  
16 further you'll see the percent accuracy. Right here.  
17 Accuracy. 3.90 percent. That was obtained from that  
18 equation. So that instrument at that concentration is  
19 reading 3.9 percent high. If it's reading low, you'll see a  
20 negative. At this concentration, it's reading minus 1.38  
21 percent. That is what must be within plus or minus 5  
22 percent to be an acceptable QAP.

23 Q Okay. So, now, if we've got a test out in the field, we've  
24 just done a test, this number right here comes from where?

25 A The toxicology lab.

1 Q So that was that R we had up here?

2 A No. No. This is the mean of the gas chromatograph results  
3 that are grams per hundred milliliters. We get that result  
4 from dividing that by 1.23. And that gives us the, the  
5 reference vapor concentration.

6 Q Which is what --

7 A Which is what we have at the top here.

8 Q Okay. And then this?

9 A Yes.

10 Q Is our mean?

11 A That's right.

12 Q Now, did I give you a problem last night with particular  
13 values?

14 A Yes.

15 Q Can you do that? Just a demonstration for the Court so they  
16 can see how that works?

17 A You wanted me to solve for --

18 Q Maybe you can flip the page, so we've got --

19 A Okay. So this was the equation for finding the correct  
20 value. And the one example you noted was: Assume a measure  
21 value of .100. And the, when I'm looking at the sheet you  
22 gave me, I don't see noted here which batch was to be used.

23 Q I'm sorry. I just gave you the values to use as a problem.

24 A Okay. Well, I would need to know what is the -- what batch  
25 to use so I can put in the value from the toxicology lab

- 1           here. And I don't see that on here unless your page --
- 2       Q     Well, you did the calculation; correct?
- 3       A     I did.
- 4       Q     And, so, what did you use for the values in the calculation?
- 5                   MR. ANDERSON: To the extent that the witness
- 6           doesn't actually know what went into it, he can't testify as
- 7           to what went into it. There's a relevance objection here.
- 8                   MR. VOSK: The witness did the --
- 9                   JUDGE STEINER: He's looking at it, the document,
- 10          so let's let him see.
- 11       A     (Continuing) Okay. I see on the left here the note that the
- 12          solution, yeah, vapor concentration was .0791. So that
- 13          comes from simply dividing this by 1.23. So .0791. And
- 14          then the simulator QAP mean, 0.0800. So if we do that we
- 15          get a corrected value of 0.0989 grams per 210 liters.
- 16       Q     (By Mr. Vosk) Okay. Now, pursuant -- as head of the breath
- 17          test section, you know how breath test results are reported?
- 18       A     Yes.
- 19       Q     You understand they're reported to three figures?
- 20       A     Yes.
- 21       Q     You understand that when we report them, we truncate to
- 22          three figures?
- 23       A     Yes. The instrument does, it truncates the results to three
- 24          decimal places.
- 25       Q     And the protocols passed by the State Toxicologist indicate

- 1           that you truncate the three figures as well, don't they?
- 2       A     I don't know. I'd have to look at it to see if that's
- 3           stated in there.
- 4       Q     Would that help you, to -- can I have this?
- 5                       MR. ANDERSON: Counsel, I'd ask to see it.
- 6                       (Exhibit No. 21 marked for identification.)
- 7       Q     (By Mr. Vosk) Can you identify the number and what that
- 8           document is? I'm sorry?
- 9                       JUDGE STEINER: This exhibit is number?
- 10                      MR. VOSK: Number 21.
- 11                      JUDGE STEINER: 21. Thank you.
- 12       Q     (By Mr. Vosk) Can you identify that for the Court?
- 13       A     It looks like a copy that's from the Washington
- 14           Administrative Code. Title 448, State Toxicologist.
- 15       Q     And does it govern breath testing?
- 16       A     Yes. Chapter 448-16.
- 17       Q     And in the first line, number one, what does it say we do
- 18           with breath test values?
- 19       A     The breath test results shall be reported truncated to three
- 20           decimal places.
- 21       Q     Okay. So, not only does the machine truncate it, the
- 22           regulations say we truncate the tests as well?
- 23       A     Yes.
- 24       Q     So what would the value there be?
- 25       A     Well, one could say -- if you want to truncate, 098.

1 Q Okay.

2 A Three decimal place truncation, .098.

3 Q And if that's what the instrument and that's what the law  
4 says, that's what we do; right?

5 A Yes.

6 Q So .098 would be our answer?

7 A Yes.

8 MR. VOSK: This might be a good time to break for  
9 lunch, Your Honors. If you were going to do it at noon, it  
10 gives you a natural break. I can start something new, but  
11 we'll end up breaking right in the middle.

12 JUDGE STEINER: So, I think we had planned on an  
13 hour, taking an hour. If we're going to break now, then  
14 we'll come back at ten to 1:00. Any objection from anyone?

15 MR. ANDERSON: None.

16 JUDGE STEINER: All right. We'll see you at ten  
17 to 1:00.

18 MR. VOSK: Thank you. And can we have an  
19 admonishment, no discussion of testimony among the  
20 witnesses.

21 JUDGE STEINER: Same admonishment.

22 MR. VOSK: Thank you, Your Honor.

23 (Lunch recess.)

24 JUDGE STEINER: Please be seated. Mr. Vosk.

25 MR. VOSK: Yes, Your Honor. Real quick. A couple

1 of the witnesses who are waiting asked if they were able to  
2 drink water in the gallery, and I told them I would ask you  
3 if it was okay.

4 JUDGE STEINER: Yes.

5 JUDGE PHILLIPSON: But no bread. They can have  
6 water, but no bread.

7 JUDGE STEINER: All right. We have Mr. Gullberg  
8 on the stand still. So, if you're ready, you may proceed.

9 MR. VOSK: Thank you, Your Honor.

10 MR. ANDERSON: And, counsel, any time you're  
11 handing up, because we're doing so much online, would you  
12 mind just calling out the batch number, solution batch  
13 number, or QAP, instrument number and date, so that I can go  
14 through it online.

15 MR. VOSK: I will. I apologize, yes.

16 MR. ANDERSON: And if you could do that before  
17 they actually identify it, that'll make it easier for me to  
18 not slow things down.

19 MR. VOSK: Okay.

20 MR. ANDERSON: Thank you.

21 DIRECT EXAMINATION CONTINUED

22 BY MR. VOSK:

23 Q I'm going to hand you Defense Exhibit 18, which is the  
24 certification for Batch No. 05012. Now, I'm just going to  
25 jog your memory a little bit. Where are we? This is the

1 one where we've got Asa Louis, 05012. Where you and Asa  
2 Louis had a disagreement over the control value?

3 A Yes.

4 MR. ANDERSON: Objection. Assumes facts not in  
5 evidence.

6 MR. VOSK: This is what he already testified.

7 MR. ANDERSON: I know, but State's position is  
8 it's a mischaracterization.

9 JUDGE STEINER: Objection's overruled.

10 MR. VOSK: Okay. Yeah, I was just trying to  
11 identify it.

12 Q (By Mr. Vosk) Let's assume, just for the sake of argument  
13 now, that the characterization is such that there is a  
14 dispute. Not saying there is, but let's assume for a moment  
15 that there is. And let's assume that the Court were to find  
16 that and determine that because of the lack of a control  
17 value -- and I realize you can't testify to that and we'll  
18 get to that with Dr. Logan -- but because of the lack of  
19 control value, they're only going to consider the data from  
20 Analyst 2 and Analyst 3.

21 Could you just quickly, and if you need a  
22 calculator, I saw you had one -- but if you could quickly  
23 just calculate the mean of the data remaining for Analyst 2  
24 and 3 there?

25 A I get a mean of .0973, for the remaining ten.

- 1 Q Okay. And is that different from the mean that's reported  
2 on the, that worksheet?
- 3 A Yes.
- 4 Q Could you calculate the equivalent vapor -- you know what,  
5 can you calculate the equivalent vapor concentration for us?  
6 And all you need to do is put down the final answers. You  
7 don't have to do the full equation.
- 8 A I'll indicate reference vapor is reference GC divided by  
9 1.23. So, in this case it was 0.0973 divided by 1.23.  
10 0.0791 grams per 210 liters. Whereas this value is grams  
11 per hundred milliliters.
- 12 Q Okay. Now --
- 13 (Exhibit No. 16 marked for identification.)
- 14 MR. VOSK: Your Honors, we're going to go a little  
15 bit out of order, just because some of the tags didn't get  
16 used, so I'm backtracking in number to Defense Exhibit 16.
- 17 Q (By Mr. Vosk) Mr. Gullberg, can you identify that for the  
18 court?
- 19 A This is a printout of the Quality Assurance Procedure  
20 results for Instrument 140035, dated September 27, 2005.
- 21 Q And for the 08 solution, what batch was used?
- 22 A 05012.
- 23 Q And that's the one we just did; right?
- 24 A I believe -- that's right.
- 25 Q And on here you've got a reference value of 0793?

1 A Yes.

2 Q And we just found one of 0791, assuming, you know, the  
3 information that I indicated?

4 A Yes.

5 Q Can you calculate the bias using the new information for me?

6 A The bias is now plus 1.14 percent.

7 Q Okay. Now, can you -- I'm going to have you do -- if you  
8 want to flip that over.

9 A (Witness complying.)

10 Q I'm going to have you redo the type of calculation you did  
11 before lunch. Okay? Given what we have here, with the mean  
12 of an 080, and our new reference value of an 0791, can  
13 you -- assuming we have a test result of a .139, can you  
14 give us the corrected BAC for that result?

15 A The measured result was what, again?

16 Q .139.

17 A It would be 0.1374, or truncated, 0.137.

18 Q And can you do the same calculation for a BAC of .114?

19 A 0.1127, or 0.112 truncated.

20 Q Okay. Now, what I'd like for you to do, and you can --  
21 beginning with a 139, assuming a test that has results of a  
22 .139 and a .114. Can you show us whether or not those two  
23 tests fall within plus or minus 10 percent of the mean?

24 A First we'd find the mean of these two results, 139 and 114.  
25 So that's our mean of those two results. We find the lower

1 limit that's allowed by multiplying this by .9. So, our  
2 lower limit, our upper limit. So our lower limit is .1139.  
3 Our upper limit 1392. And we see that the, this value, 139,  
4 is acceptable and within there. And this 114 falls above  
5 our lower limit also. So it's within the limit. So they  
6 would be acceptable.

7 Q Okay. Now, can you do the same calculation with the  
8 corrected values of 137 and 112?

9 A Okay. Were these the two we corrected earlier?

10 Q Yes.

11 MR. ANDERSON: I'm sorry, counsel. Those numbers  
12 were?

13 MR. VOSK: 137 and 112.

14 MR. ANDERSON: I'm sorry. The question was?

15 MR. VOSK: Could he do the same calculation, plus  
16 or minus 10 percent of those two.

17 A (Continuing) So, our lower limit is 1121; upper limit, 137.  
18 This would be acceptable for an upper limit, but this one  
19 falls just outside, a 112. Unless we truncated and then it  
20 would be equal to the lower limit.

21 Q (By Mr. Vosk) What about that 1370? Did you round that or  
22 truncate that?

23 A I rounded that to the fourth decimal place.

24 Q What was it before you rounded it? What was it out to five?

25 A Okay. It's -- finding the upper limit is 1.1 times our

1 mean. .1245 times 1.1, 13695.

2 Q Okay. Can you write that down.

3 A (Witness complying.)

4 Q Now, I'm going to ask you to take a look, this is Exhibit  
5 21, this is the WAC 448-16-060, again, on how to determine  
6 agreement of duplicate breath samples. And for the upper  
7 limit, does it tell you to truncate or round your value? I  
8 think you'll find that in subsection (4).

9 A Truncating to three decimal places.

10 Q So then, in fact, that the upper limit should be .136;  
11 correct?

12 A Yes, I would agree. That's right.

13 Q And now our tests no longer agree with plus or minus 10  
14 percent, do they?

15 A That's right.

16 Q So, I want to go back and go over what we just did. From  
17 the beginning of this thing, we've been talking about the  
18 small values involved. We're out in the ten-thousandth  
19 place, the fourth decimal place?

20 A Yes.

21 Q And the focus has always been on whether or not we were  
22 rounding 08 or we were at a 15. Just, you know, if we were  
23 on these critical values. But here, we showed -- we changed  
24 a value by .02 -- or .002. Two ten-thousandths was the  
25 difference we got. And our breath tests we're up at a 139

1 and 114. They were pretty high, but they weren't near any  
2 critical value. Yet the change, the small change we found  
3 took them outside the plus or minus 10 percent, took them  
4 out of the acceptable range, didn't it?

5 A Yes.

6 Q So, in fact, these small changes, these very small changes,  
7 could affect the breath test at any value, not just the  
8 borderline critical value?

9 A In some circumstances, yes.

10 Q Okay.

11 (Counsel discuss exhibit.)

12 (Exhibit No. 17 marked for identification.)

13 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
14 Exhibit 17. And I'll tell you, but you can identify it for  
15 the Court. This is the database for DataMaster No. 140035,  
16 between 9/27/05 and October 2006; is that correct?

17 A Yes.

18 Q And this is the QAP for the tests that fall within that  
19 period; correct?

20 A Yes, that's right. It appears to be.

21 Q There's a highlighted line in there, I think it's near the  
22 back. Okay. Yeah. Can you take a look at that and tell me  
23 what the test values were for that individual?

24 A 0.139 on the first result, and 0.114 for the second.

25 Q Okay. So, if that test corresponds to this QAP and the

1 solution we're talking about, and we make that change, in  
2 fact, that test right there which passed all of the criteria  
3 for the DataMaster should have been excluded?

4 A If these duplicate results were measured by the instrument  
5 as .137 and .112, they would have been rejected, yes.

6 Q And in making the corrections we just made, I mean these --  
7 this is the way you said the calculation should be done,  
8 that test should -- those two values, once corrected for the  
9 bias, do not agree with the plus or minus 10 percent?

10 A Right. That's correct.

11 MR. VOSK: Your Honors, we move to admit Exhibit  
12 17.

13 JUDGE STEINER: Any objection?

14 MR. ANDERSON: No objection.

15 JUDGE STEINER: 17 will be admitted.

16 (Exhibit No. 17 admitted.)

17 MR. VOSK: We would also move to admit Exhibit 16.

18 MR. ANDERSON: Exhibit 16?

19 MR. VOSK: The QAP. It's a duplicate.

20 (Counsel discuss exhibits.)

21 JUDGE STEINER: Any objection on Exhibit 16?

22 MR. ANDERSON: No, Your Honor.

23 JUDGE STEINER: Exhibit 16 will be admitted.

24 (Exhibit No. 16 admitted.)

25 Q (By Mr. Vosk) I'm going to hand you what's been, what we've

1 got marked as Exhibit 20. Can you identify that for the  
2 Court, again.

3 A This is the protocol prepared by the State Toxicology  
4 Laboratory for preparation of quality assurance solutions.

5 Q Okay. Now, one of the things you said you were familiar  
6 with, and you had looked at and used, was the range of  
7 acceptability?

8 A Yes.

9 Q Can you tell us for an 08 solution, what is the range of  
10 acceptability?

11 A It's between 0.092 to 0.102 grams per hundred milliliters.

12 MR. VOSK: We move to admit that document, Your  
13 Honor.

14 JUDGE STEINER: Exhibit 20, any objection?

15 MR. ANDERSON: No.

16 JUDGE STEINER: Exhibit 20 admitted.

17 (Exhibit No. 20 admitted.)

18 (Exhibit No. 22 marked for identification.)

19 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
20 Exhibit 22. I hand you what's been marked as Exhibit 22.  
21 Can you identify that for the Court?

22 A It's also protocol developed by the State Toxicology  
23 Laboratory for preparation of 0.08 simulator external  
24 standard solutions, the field solutions.

25 Q And what is the range of acceptability for a field solution?

1 A The range is on page 3. It's to be between 0.098 and 0.108  
2 grams per hundred milliliters.

3 Q Okay. And so the two solutions --

4 MR. VOSK: And, Your Honors, at this point I'd  
5 move to admit Exhibit 22.

6 MR. ANDERSON: The date on that -- the effective  
7 date on that?

8 (Counsel discuss exhibit.)

9 Q (By Mr. Vosk) So the ranges are --

10 JUDGE STEINER: I'm sorry. Any objection?

11 MR. ANDERSON: No objection.

12 JUDGE STEINER: 22 will be admitted.

13 (Exhibit No. 22 admitted.)

14 JUDGE CHOW: What was the last figure given?

15 THE WITNESS: 0.108 was the upper limit. 0.098,  
16 the lower.

17 MR. VOSK: If I can have just a moment, Your  
18 Honors.

19 Q (By Mr. Vosk) Now, we spoke earlier about field solutions  
20 and QAP solutions and the uses to which they were put. I'm  
21 going to have you take a look at the projector. This time I  
22 don't have a hard copy for you. Can you tell by looking at  
23 this whether this is a field or a QAP solution?

24 A That's a --

25 Q And I'm sorry, let me identify it for the Court. This is

1 Solution 06003.

2 A That's a field solution.

3 Q And how do you know it's a field solution?

4 A I see that there are 14 analysts. And the solution is at  
5 this reference value near .08 grams per 210 liters. That  
6 was the practice for field solutions, to use several  
7 analysts. QAP solutions will only show three analysts,  
8 typically only three. So that's the distinction.

9 Q Okay.

10 A The other thing, if you scroll up here to the top of the  
11 page, simulator external standard. On a QAP that'll  
12 indicate a quality assurance.

13 Q Okay. Now, if we look at this, let's look at the average  
14 solution concentration. That falls squarely within the  
15 range for a field solution, doesn't it?

16 A 1024. Yes.

17 Q It falls outside the range for a QAP solution though,  
18 doesn't it?

19 A It is slightly outside. The upper limit's .102, inclusive.

20 Q And this is --

21 A And this is 1024.

22 Q Okay. So it falls outside the range for a QAP solution?

23 A Well, if you truncate it, it would not.

24 Q Well, what do we report it to?

25 A Yeah. So the mean is to be rounded to four decimal places.

1           And it's not clear, that I'm aware of, whether the  
2           comparison is done with a four to a three-digit comparison,  
3           or whether you truncate and compare. That's not clear.

4           Q     You'll agree with me that 1024 is larger than .102?

5           A     If that third decimal place of the 02 is zero -- 1020, which  
6           it is not reported.

7           Q     Okay.

8           A     So, making some assumption there.

9           Q     But you'll -- with that assumption, you'll agree with me  
10          that 1024 is larger than 1020?

11          A     Yes.

12                                 (Exhibit No. 23 marked for identification.)

13          Q     (By Mr. Vosk) Okay. I'm going to hand you what's been  
14          marked as Exhibit 23. Can you identify that for the Court,  
15          please?

16          A     This is a photocopy of a Quality Assurance Procedure for  
17          DataMaster 140002, dated May 23, 2006.

18          Q     And for the .08 solution, what was used?

19          A     Batch No. 06003.

20          Q     So this solution?

21          A     Yes.

22          Q     So then, if we assume that a 1024 is larger than a 1020,  
23          that QAP was done with a solution that fell outside of the  
24          range that the protocols require?

25          A     Well, not the protocols for doing a QAP.

1 Q The protocols for a simulator solution?

2 A The protocols within the toxicology lab, theirs.

3 Q The way the State Toxicologist defines a QAP solution?

4 A It would be -- that's not a QAP solution though. So that's

5 acceptable for a field solution.

6 Q But what's that?

7 A This is a QAP procedure.

8 Q Okay.

9 A But there was no requirement that we use only QAP solutions

10 to do these.

11 Q Why would we call a solution -- one solution a QAP solution

12 and another solution a field solution unless we meant some

13 kind of distinction?

14 A Distinction, right. There was to be a distinction there.

15 But it's not clarified, the precise definition of that

16 distinction and how it's applied in every circumstance.

17 Q But according to the protocols you've just read and the

18 range you gave us, this falls outside the range of a QAP

19 solution?

20 A If that's a QAP solution, yes, it would.

21 (Exhibit No. 24 marked for identification.)

22 Q (By Mr. Vosk) I'm going to hand you what's been marked as

23 Exhibit 24. Can you identify that for the Court, please?

24 A This also is a photocopy of a QAP procedure for DataMaster

25 949265, dated April 24, 2006.

1 Q Okay. So a different machine altogether?

2 A Yes.

3 JUDGE STEINER: I'm sorry. Which exhibit number?

4 THE WITNESS: 24.

5 MR. VOSK: 24, Your Honor.

6 Q (By Mr. Vosk) So a different machine altogether?

7 A Yes.

8 Q What solution was used as the 08 in the QAP there?

9 A 06003.

10 Q Okay.

11 MR. ANDERSON: Excuse me, counsel. What was the  
12 number of that instrument number.

13 THE WITNESS: Instrument number? 949265.

14 MR. ANDERSON: Thank you.

15 Q (By Mr. Vosk) Okay. So, again, if we assume what we did  
16 before, that a 1024 is greater than a 1020, that would fall  
17 outside the range -- or that was QAP'd with a solution that  
18 falls outside the range for what's defined as a QAP  
19 solution?

20 A If that were a QAP solution, yes, it would be.

21 Q But it was used as a QAP solution in this case?

22 A It was used in the context as a QAP solution would be, yes.

23 Q Okay.

24 MR. VOSK: Your Honor, I would move to admit 23  
25 and 24.

1 MR. ANDERSON: No objection.

2 JUDGE STEINER: 23 and 24 will be admitted.

3 (Exhibit Nos. 23 and 24 admitted.)

4 Q (By Mr. Vosk) Now, I had you do another calculation last  
5 evening, on Solution 5008.

6 A Yes.

7 Q Is that correct?

8 A Yes.

9 Q Did you bring with you the worksheet, or do you need me to  
10 produce --

11 A I have the results here.

12 Q Okay. When you -- what was the original mean --

13 (Exhibit No. 25 marked for identification.)

14 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
15 Exhibit 25. Can you identify that for the Court, please?

16 A Yes. Photocopies of data record results from the toxicology  
17 lab for Batch No. 05008. The spreadsheet form that shows  
18 their measurement results. Also here is our check-off sheet  
19 for review of the files on that batch.

20 Q And what was the original mean reported?

21 A For the solution concentration, this is a field solution,  
22 again. The mean is reported as 0.1020 grams per hundred  
23 milliliters.

24 Q Now, that's well within the range of a field solution, isn't  
25 it?

1 A Yes.

2 Q It's also well within the range of a QAP -- or it's right on  
3 the edge of that QAP, 1.020?

4 A Yes.

5 Q If you remove Ann Marie Gordon's data from there, and redo  
6 the mean, what do you get?

7 A I obtained a result of 0.1022 grams per hundred milliliters.

8 Q Okay. So, again, under the assumptions we made last time,  
9 if that were used in a QAP, then the solution fell outside  
10 of the range for what a QAP solution's supposed to have?

11 A Yes.

12 Q Okay.

13 MR. VOSK: I move to have Exhibit 25 admitted,  
14 Your Honors.

15 MR. ANDERSON: No objection.

16 JUDGE STEINER: 25 will be admitted.  
17 (Exhibit No. 25 admitted.)

18 MR. VOSK: And then, that's for Solution 05008.  
19 And I'm going to draw that to the Court's attention, because  
20 we're going to come back to it. I've got -- we're searching  
21 for some other exhibits.

22 (Exhibit No. 26 marked for identification.)

23 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
24 Exhibit 26. Can you identify that for the Court?

25 A This also is a photocopy of the data record from the

- 1 toxicology laboratory for Batch 06048, and also our  
2 check-off sheet where we reviewed the files. Yes.
- 3 Q Okay. Now, before you and Rod went in and did your  
4 corrections, what was the average solution concentration for  
5 that solution?
- 6 A 0.1020 grams per hundred milliliter.
- 7 Q Just fine for a field solution, fine for a QAP solution;  
8 correct?
- 9 A Yes.
- 10 Q What happened when you guys came back and made your  
11 corrections afterwards?
- 12 A The corrected mean was 0.1027 grams per hundred milliliters.
- 13 Q So if we follow the discussion from the previous two  
14 solutions, that would, again, be outside the range for a QAP  
15 solution?
- 16 A Yes.
- 17 MR. VOSK: And, again, Your Honors, that's  
18 Solution No. 06048. I move to admit Exhibit 26.
- 19 JUDGE STEINER: Any objection?
- 20 MR. ANDERSON: No objection.
- 21 JUDGE STEINER: 26 will be admitted.  
22 (Exhibit No. 26 admitted.)  
23 (Exhibit No. 27 through 30 marked for  
24 identification.)
- 25 Q (By Mr. Vosk) I'm going to hand you what's been labeled

- 1 Exhibit 27. Can you identify that to the Court?
- 2 A This is another photocopy of a Quality Assurance Procedure  
3 for DataMaster Instrument 949275, dated May 17, 2005.
- 4 MR. ANDERSON: I'm sorry. The date once again?
- 5 THE WITNESS: May 17, 2005.
- 6 MR. ANDERSON: And the instrument number?
- 7 THE WITNESS: 949275.
- 8 Q (By Mr. Vosk) Can you do the same with Exhibit 28?
- 9 A Another Quality Assurance Procedure copy for Instrument  
10 949261, dated June 1, 2005.
- 11 Q Can you do that for Exhibit 29, please?
- 12 A Quality Assurance Procedure for Instrument 949252, dated  
13 July 29, 2002.
- 14 Q Can you do the same for Exhibit 30?
- 15 A Quality Assurance Procedure for Instrument 949231, dated  
16 April 12, 2005.
- 17 (Exhibit No. 31 through 34 marked for  
18 identification.)
- 19 Q (By Mr. Vosk) Can I have you do the same for Exhibit 31?
- 20 A Quality Assurance Procedure for Instrument 949274, dated  
21 April 26, 2005.
- 22 Q Can I have you do the same for Exhibit 32?
- 23 A Quality Assurance Procedure for Instrument 949272, dated  
24 April 12, 2005.
- 25 Q Can I have you do the same for Exhibit 33?

- 1 A Quality Assurance Procedure for Instrument 949226, dated  
2 June 1, 2005.
- 3 Q And can you do the same for Exhibit 34?
- 4 A Quality Assurance Procedure for Instrument 140002, dated May  
5 26, 2005.
- 6 MR. ANDERSON: I'm sorry, counsel. Can I see  
7 those?
- 8 MR. VOSK: Yeah. They're just the QAPs.
- 9 Q (By Mr. Vosk) Do you have those exhibits?
- 10 A No. Mr. Anderson.
- 11 (Mr. Anderson returns exhibits to witness.)
- 12 Q (By Mr. Vosk) Now, for the -- on a QAP, for the 08 level,  
13 what were all of those instruments -- what solution was  
14 utilized to QAP each of those instruments?
- 15 MR. ANDERSON: I'm sorry. Regarding which?
- 16 MR. VOSK: All of them.
- 17 JUDGE STEINER: We're on 28 through 34?
- 18 MR. VOSK: Yeah. I'm trying to cut down on the  
19 time.
- 20 JUDGE STEINER: I appreciate that. Just to be  
21 clear, it's Exhibits 28 through 34?
- 22 THE WITNESS: 27 through 34.
- 23 MR. VOSK: 27 through 34, Your Honor.
- 24 JUDGE STEINER: Thank you.
- 25 Q (By Mr. Vosk) And can you tell us what solution was used at

1 the .08 level for each of those?

2 A Well, on all but one it was Batch 05008.

3 Q And 05008 is one of the solutions we just considered;

4 correct?

5 A Yes.

6 Q Okay. And so how many machines are there?

7 A Eight. One of them did not use that batch.

8 Q Please set that one off to the side then.

9 A So, seven of them used it.

10 Q Okay.

11 JUDGE STEINER: Which machine are we setting

12 aside? Which exhibit?

13 THE WITNESS: Exhibit 29.

14 JUDGE STEINER: Thank you.

15 MR. VOSK: Okay. I'm going to move to admit all

16 but -- all of those except Exhibit 29, Your Honor.

17 MR. ANDERSON: No objection.

18 JUDGE STEINER: 27, 28, 30, 31, 32, 33, and 34

19 will be admitted.

20 (Exhibit Nos. 27, 28, 30, 31, 32, 33, 34

21 admitted.)

22 (Exhibit No. 35 marked for identification.)

23 Q (By Mr. Vosk) I'm going to hand you Exhibit 35. Can you

24 identify that for the Court?

25 A Quality Assurance Procedure for Instrument 949126, dated

1 March 20, 2007.

2 Q And what solution was used in the QAP at the .08 level?

3 A 06048.

4 Q And that's one of the solutions we just discussed? Would

5 you --

6 A I don't remember.

7 Q I've got a cheat sheet.

8 A Yes.

9 MR. VOSK: Your Honors, I would move to admit

10 Exhibit 35.

11 JUDGE STEINER: Any objection?

12 MR. ANDERSON: No objection.

13 JUDGE STEINER: 35 will be admitted.

14 (Exhibit No. 35 admitted.)

15 Q (By Mr. Vosk) So, then, with those QAP solutions, we've got

16 two on the first one, we found seven in the second set, and

17 then one in the last. So, right there, without anything

18 else, we've identified ten machines that were QAP'd using a

19 solution that had a value that fell out of that 092 to 1020?

20 A For a QAP solution, they did, if it would have been a QAP

21 solution.

22 Q Okay. But it was used as a QAP solution?

23 A It was, yes.

24 MR. VOSK: And, Your Honors, I'm just going to

25 identify for the record because we didn't have a hard

1 copy -- oh, okay. Nope. I'm not going to.

2 (Exhibit No. 36 marked for identification.)

3 Q (By Mr. Vosk) Can I have you identify Exhibit 36, please.

4 A Quality Assurance Procedure for Instrument 949252, dated  
5 June 1, 2005.

6 Q And what solution was that done on?

7 A 05008.

8 Q Okay. So that's another?

9 A Yes.

10 MR. VOSK: I move to admit the last exhibit, Your  
11 Honor.

12 JUDGE STEINER: That's 36. Any objection?

13 MR. ANDERSON: No, Your Honor.

14 JUDGE STEINER: 36 will be admitted.

15 (Exhibit No. 36 admitted.)

16 Q (By Mr. Vosk) Now, you've heard of Kurt Dubowski; is that  
17 correct?

18 A Yes.

19 Q And would you consider him to be an authority in the field  
20 of breath testing?

21 A Yes.

22 Q And would his, is his -- would his opinion be persuasive?

23 A Yes.

24 (Exhibit No. 37 marked for identification.)

25 Q (By Mr. Vosk) Can I have you -- I'm handing you Exhibit 37.

1 Can you identify that for the Court?

2 A It's a photocopy of an article published by Dr. Kurt  
3 Dubowski in the Journal of Analytical Toxicology, in 1979.

4 Q Okay. Now, I think it's on page 180, it might be 181, down  
5 in the lower left corner, where he's discussing the use of  
6 different factors in arriving at an equivalent vapor  
7 concentration. The difference between a 121 and a 123?

8 A Yes.

9 Q And he identifies in there that if you use one instead of  
10 the other, you get an error of 1.3 percent, in the value --  
11 the equivalent vapor concentration?

12 A Yes. It's actually comparing 1.21 to 1.226.

13 Q And he comes up with an error of 1.3 percent?

14 A Yes.

15 Q In characterizing the value of the solution, does he say  
16 that such an error in the reported value -- not the  
17 accuracy, not your range here -- but when you actually  
18 report the value, if you've got a known error like that of  
19 1.3 percent, it's forensically indefensible?

20 A He states that, yes.

21 MR. VOSK: We move to admit Exhibit 37.

22 JUDGE STEINER: Any objection?

23 MR. ANDERSON: No objection.

24 JUDGE STEINER: 37 will be admitted.

25 (Exhibit No. 37 admitted.)

1 Q (By Mr. Vosk) Earlier we talked about Solution 6037. And I  
2 had you do some calculations concerning that solution last  
3 night, didn't I?

4 A Yes.

5 Q What did I ask you to do?

6 A To determine the percent error with respect to the reported  
7 value.

8 Q And what was the -- now, to refresh the Court's  
9 recollection, what is distinguishing about this solution?

10 A That's the one where the, the software that generated these  
11 results, vapor equivalent, was found by dividing the gas  
12 chromatograph mean, .0486 grams per hundred mil, by 1.23,  
13 and generated .0400. When one does that, on a calculator or  
14 on a computer, one obtains 0.0395.

15 Q Can you do the division between the vapor concentration  
16 and -- the originally reported and the average solution  
17 concentration, and just tell us what factor, if a factor  
18 could use -- what factor was actually used to convert from  
19 the average solution concentration to the equivalent vapor  
20 concentration?

21 A Well, 1.23 was the factor. In other words, dividing 0486.

22 Q Well, here, I don't think -- I'm sorry. If I'm  
23 misunderstanding you, please stop me. I think you're  
24 misunderstanding me though. I understand that when you  
25 divide that by 1.23, we get an 0395. What I'm asking you to

1 do right now is determine what you would have had to have  
2 divided that by to get that. So we should just have to  
3 divide this by --

4 A Oh.

5 JUDGE STEINER: Exhibit number?

6 MR. VOSK: This is Solution No. 6037. My  
7 understanding, Your Honor, is that all of the solutions are  
8 actually in evidence in the Exhibit 1.

9 A (Continuing) So, to obtain that, the conversion factor would  
10 be 1.215.

11 Q (By Mr. Vosk) Okay. You can sit back down. Now, you said  
12 earlier you guys never figured out what happened here?

13 A Right, right.

14 Q And you never found it in another worksheet?

15 A Yeah. That's the only one I recall seeing that referring  
16 on.

17 Q We've heard prior testimony, and I'm relying on the  
18 testimony incorporated from Skagit and Arnston, Your Honors,  
19 that if somebody wanted to -- and if I'm wrong or you don't  
20 know, please correct me -- somebody could go in and change  
21 the function of the worksheet; is that correct or incorrect?  
22 If you don't know, say you don't know. If I'm wrong, tell  
23 me I'm wrong.

24 A I'm not certain. I don't know.

25 Q Now, what was the calculation I had you do?

- 1 A Last night?
- 2 Q Yeah. For this solution.
- 3 A It was to determine the percent error with respect to the  
4 reported value. That is, the percent error between the .040  
5 and the .0395.
- 6 Q And what value did you come up with?
- 7 A That the .0395 is minus 1.25 percent lower than the .040.
- 8 Q Okay. So that's right there on top of that 1.3 percent that  
9 Kurt Dubowski says is forensically indefensible; right?
- 10 A Very close to that, yes.
- 11 (Exhibit Nos. 38 through 53 marked for  
12 identification.)
- 13 Q (By Mr. Vosk) I'm going to hand you Exhibits 38 through 44  
14 right now. Can you please identify what those are for the  
15 Court?
- 16 MR. ANDERSON: I'd ask that -- actually, can I see  
17 those first, because we're going to have to keep up.
- 18 MR. VOSK: I apologize, Your Honors.
- 19 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
20 Exhibit 53. Could you please identify that for the Court?
- 21 MR. ANDERSON: I'm sorry. I didn't have a problem  
22 with you handing it, but while I'm still reviewing it --
- 23 MR. VOSK: Oh, I'm sorry.
- 24 Q (By Mr. Vosk) With respect to Exhibit 53, the one I handed  
25 you last, can you just identify that for the Court?

1 MR. ANDERSON: I have that.

2 MR. VOSK: This is laying the groundwork, Your  
3 Honor, for later testimony.

4 (Counsel discuss exhibits.)

5 Q (By Mr. Vosk) Okay. Just so we can identify for the Court,  
6 what exhibits --

7 MR. VOSK: Madam Clerk, what exhibits do we have,  
8 or the last ones we just marked up through? We have 53.

9 THE CLERK: We have 38 through 53.

10 MR. VOSK: Your Honors, I'm handing the witness  
11 Exhibits 38 through 53.

12 Q (By Mr. Vosk) Can you identify for the Court Exhibit 53,  
13 first, please?

14 A There's two sides to it.

15 Q Okay.

16 A It's the data sheet from the toxicology lab for Batch 06037.  
17 It's our check-off review form. And the other side is an  
18 affidavit from the analyst Brianne Akins.

19 Q And so that's 06037. That's the solution we're talking  
20 about?

21 A Is that it? I don't see it on your slide up there, but --

22 Q Oh, sure.

23 A Yes, that's it.

24 MR. VOSK: I move to admit Exhibit 53, Your Honor.

25 JUDGE STEINER: Any objection?

1 MR. ANDERSON: No objection.

2 JUDGE STEINER: 53 will be admitted.

3 (Exhibit No. 53 admitted.)

4 Q (By Mr. Vosk) Can you just quickly, with the other exhibits,  
5 38 through 52. Are they all QAPs?

6 A Yes, they are.

7 Q Can you just --

8 MR. VOSK: Does the State have the dates and  
9 everything it needs to identify the QAPs?

10 MR. ANDERSON: Mm-hmm.

11 Q (By Mr. Vosk) Can you then, for the Court -- just to make it  
12 quick -- quickly run through and identify the machine?

13 MR. VOSK: Is that okay, Your Honors? Do you need  
14 the dates?

15 JUDGE STEINER: No.

16 Q (By Mr. Vosk) Can you just identify the machines for each?

17 A For all of these, 38 through 52?

18 Q Yeah.

19 A Instrument 949113; 949130; 949203; 949214; 949262; 949266;  
20 140020; 140024; 140025; 140036; 140046; 140075; 140084;  
21 140112; 140117.

22 Q Okay. And, now, for all of those, can you take a look and  
23 tell me if six -- you don't have to do it one at the same  
24 time, just look and then you can tell us -- was 6037 used  
25 during the QAP of that instrument?

1 A Yes, in every case.

2 Q And how many machines are there? It was just 38 to 52.

3 A Fifteen.

4 Q So, using Kurt Dubowski's criteria, if we were to round the  
5 figure with an error of 1.3 percent -- we had, you said 15?

6 A 15.

7 Q 15 instruments that were QAP'd using a solution that had an  
8 error that he would characterize as forensically  
9 indefensible?

10 A Whether -- yes, I would agree.

11 Q I'm going to have you take a look at some solutions just up  
12 here on the screen. Would you be more comfortable moving  
13 out here? Do you want me to bring a chair out for you?

14 A No, that's fine.

15 Q Okay. Can you identify which solution that is?

16 A It's a field solution, **Batch 07006**.

17 Q And the date that it was certified?

18 A Well, each analyst may do it different dates. Data  
19 preparation should have been noted at the top there.  
20 February 7, 2007.

21 Q And you checked it on what date?

22 A Well, this is the date I recorded the corrections that I  
23 made to it. It was probably the same date.

24 Q Okay.

25 A September 27, 2007.

- 1 Q And at that point you made corrections?
- 2 A Yes. Yeah, you see here the ones that were made.
- 3 Q And what was the basis for those corrections? Are these the  
4 software errors?
- 5 A I don't know if it was because measurement four on Analyst 4  
6 was not included, very likely. Or whether it was the 13th,  
7 14th, 15th analyst. At any rate, the standard deviation  
8 changed.
- 9 Q Okay. But it would have been one of the software errors, is  
10 what it looks like?
- 11 A Yes. Right.
- 12 Q And is Ann Marie Gordon's name on that worksheet?
- 13 A Yes.
- 14 Q Can you identify for the Court which solution this is?
- 15 A **Batch 06020**, also a field solution.
- 16 Q And the date it was prepared?
- 17 A May 11, 2006.
- 18 Q And you made corrections to the statistics on this as well?
- 19 A Yes.
- 20 Q And the basis for those corrections likely?
- 21 A Yes. Most like it was the extra analysts and this  
22 measurement here.
- 23 Q Okay. And does Ann Marie Gordon's name appear on that  
24 worksheet?
- 25 A Yes. Analyst No. 13.

- 1 Q Okay.
- 2 MR. VOSK: And real quick, Your Honor. Just  
3 through, by way of stipulation, the State is agreeing these  
4 are the field solutions that were used in the specific tests  
5 that are before the Court. That's why we're going through  
6 these.
- 7 JUDGE PHILLIPSON: Specific tests that were, that  
8 are the named defendants?
- 9 MR. VOSK: Yes.
- 10 JUDGE PHILLIPSON: Okay. That's what I thought  
11 you meant.
- 12 MR. ANDERSON: And, counsel, I guess -- well, I  
13 don't have a problem going through those. I actually have  
14 the document that I'd like to show the correct --
- 15 (Counsel discuss exhibit.)
- 16 Q (By Mr. Vosk) Can you identify the solution up on the screen  
17 now?
- 18 A This is for **Batch 05035**. It's a field simulator solution,  
19 prepared on September 14, 2005.
- 20 Q And, again, you checked this one?
- 21 A Yes.
- 22 Q And you found software errors?
- 23 A Some errors, yes, in the calculations.
- 24 Q And does Ann Marie Gordon's name appear on that one?
- 25 A Yes. Analyst 4.

1 Q Can you identify this solution for the Court, please?

2 A Also a field solution, Batch 06027, prepared on June 19,  
3 2006.

4 Q And did you find -- did you make corrections to the  
5 statistics here?

6 A Yes.

7 Q And, again, the basis for those corrections?

8 A Well, they were incorrect. Whether it was due to the  
9 software or -- it appears like that's probably the reason  
10 rather than a data entry error.

11 Q Okay. And does Ann Marie Gordon's name appear on that one?

12 A Yes. Analyst 3.

13 Q Can you identify this solution for the Court?

14 A Also a field simulator solution, Batch 05017.

15 Q And did you make corrections there?

16 A Yes.

17 Q And does Ann Marie Gordon's name appear on this?

18 A Yes. Analyst 10.

19 Q Can you identify this solution for the Court?

20 A A field solution, Batch 06003, prepared January 13, 2006.

21 Q Okay. Now, here, you made a couple different changes.

22 A Yes.

23 Q You made some changes to a value entered into the table?

24 A Yes.

25 Q And that's an indication that data was entered incorrectly?

1 A Yes.

2 Q Okay. And then you made corrections to the statistics?

3 A Yes.

4 Q That could be a combination of software and that value?

5 A Yes.

6 Q And does Ann Marie Gordon's name on that solution?

7 A Yes. Analyst 8.

8 JUDGE CHOW: Was that last one a field solution?

9 THE WITNESS: Yes.

10 MR. VOSK: Yes, Your Honor.

11 Q (By Mr. Vosk) Okay. Can you identify this solution?

12 A This is also a field solution, Batch 02044, prepared

13 December 2, 2002.

14 Q And did you make corrections to this?

15 A Yes.

16 Q And is Ann Marie Gordon's name on this?

17 A Yes. Analyst 4.

18 Q Okay. Now, are you familiar with this last solution, the

19 2044?

20 A It's one we did recently. I don't know its relation to this

21 case, if it's involved.

22 Q Okay. You see the marks down here, December 6th?

23 A Yes.

24 Q Now, did you come across a -- in, you can have a seat again.

25 MR. VOSK: And, Your Honors, I'm going to ask for

1 a little bit of leeway on this last one. This is  
2 discovery -- I'm not suggesting any bad purpose. This is  
3 discovery that was just received over the weekend, something  
4 that was just discovered by the State. So if I could have a  
5 little leeway here in dealing with this.

6 (Counsel discuss exhibit.)

7 Q (By Mr. Vosk) During your review, did you -- last Friday,  
8 did you discover a new problem?

9 A Yeah. I don't remember if it was Friday or Thursday of this  
10 last week, yeah.

11 Q Last week some time did you discover a new problem?

12 A Right.

13 Q And did that problem have to do with Solution 2019 and  
14 Analyst Jayne Thatcher?

15 A 0219 -- 02019, yes.

16 Q And what was the problem that you found?

17 A Well, I could point out on here.

18 Q Okay. You direct me.

19 A Just go up, okay. These five results were results reported  
20 by Ms. Thatcher and the chromatograms did not correspond to  
21 these five values.

22 Q Since we don't have a hard copy, can you just, for the  
23 record, just read off those five values?

24 A Yeah. 0.102, 0.103, 0.103, 0.102, 0.103.

25 Q I'm going to take you down to Thatcher's chromatograms.

1           Okay. Let's take a look at her first chromatogram. What  
2           number does it say on the top?

3        A     Okay. It's for Batch 02019, the first measurement. This is  
4           the date, time, and the instrument the gas chromatograph  
5           used.

6        Q     So she's identifying that this is 402019?

7        A     Yes.

8        Q     And what value is that?

9        A     Right. 0.098 grams per hundred milliliters.

10       Q     That corresponds to none of the data she entered?

11       A     That's right.

12       Q     And is this the second -- the second chromatogram labeled  
13           for that same solution?

14       A     Yes, the second one.

15       Q     And what is the value that she has there?

16       A     0.099.

17       Q     Okay. And this would be the third?

18       A     Yes.

19       Q     And the value there?

20       A     0.099.

21       Q     This would be the fourth?

22       A     Yes.

23       Q     And the value there?

24       A     0.099.

25       Q     And then, finally, the fifth?

1 A Yes.

2 Q Again, labeled 02019 for that solution?

3 A Yes.

4 Q And the value given?

5 A 0.099.

6 Q Okay. So, for this solution, absolutely none of the data  
7 actually entered into the worksheet, the data used to  
8 calculate the statistics, corresponds to any of her  
9 chromatograms?

10 A That's correct. To these five, that's correct.

11 Q Okay. Now, I just got this a couple days ago, so I haven't  
12 looked at it. So this is going to be an adventure for both  
13 of us. What solution is this?

14 A 02018, a field solution.

15 Q And did Jayne Thatcher also certify this one?

16 A Yes. Analyst 6. So, if we go back up, we'll see the, these  
17 are the five measurements.

18 Q Okay. Now, do you know, or do I have to go back to the  
19 other one -- do you know -- can I split it -- are these --  
20 she was Analyst 6 there. She was Analyst 3 on this one.

21 A Yes. She was Analyst 3.

22 Q Now, do you know whether or not these values entered by  
23 Thatcher correspond to her chromatograms for 2018?

24 A I'd have to look down, if you have those.

25 Q Yeah. And if it'll make it easier, why don't you write

1           these values down on the board. This is, this says it's for  
2           02018; correct?

3    A    Yes.

4    Q    And the values we have?

5    A    0.102.

6    Q    Still says for the same solution, we have what?

7    A    0.103.

8    Q    Same solution?

9    A    103.

10   Q    Same solution?

11   A    102.

12   Q    Same solution?

13   A    103.

14   Q    Now, do those correspond to the values she entered?

15   A    No.

16   Q    Do you know if the values she entered for 2019 match those  
17        chromatograms?

18   A    It looks like they do.

19   Q    Okay. You can have a seat. And it looked like vice versa.

20   A    Yes.

21   Q    The ones she labeled 2019 matched this?

22   A    Yes.

23   Q    How do you determine which numbers went for which solution?  
24        I mean, she entered numbers for one solution into the  
25        worksheet?

1 A You might look at the dates in which they were prepared and  
2 tested and see if you could line them up that way.

3 Q And have you done that?

4 A I forget. I'd have to do it again to confirm. I don't  
5 recall.

6 Q Maybe we can do that at the next break, we have hard copies,  
7 because this is jumping around. Okay. So, but what we have  
8 here are two solutions where the data entered does not match  
9 the chromatogram; each chromatogram's clearly marked with a  
10 specific solution; she's entered in data under that  
11 solution. How do we know our values?

12 A Yeah. There's a mistake there clearly, and how it happened,  
13 I don't know.

14 Q Okay. And was 2019 a QAP solution?

15 A Yes, that was.

16 Q Did I have you do another calculation for me on Solution  
17 6028.

18 A Yes.

19 Q And can you explain to the Court what that calculation was?

20 A Well, in the chromatograms, it looked like the analyst  
21 discarded some data. They kept the original chromatograms,  
22 but indicated they did not use it and reran the analyses.  
23 And so you asked me to put those data back in and redo the  
24 calculations with the discarded data.

25 Q And is this, what I've just put up on the board, is this the

1 solution we're talking about?

2 A Yes, it is.

3 Q And just so the Court can see, can you tell us?

4 A This is the analyst.

5 Q Okay. So, Lisa Piquette -- do you know whether her name is  
6 now Lisa Piquette-Noble? Lisa Noble?

7 A I don't know. That may be.

8 Q Okay. And so here is the data that she has not crossed out,  
9 that she's kept in; is that correct?

10 A Yes. That's the first result. I don't know if there's a  
11 control before that, but I think it was one page that she'd  
12 drawn the line through.

13 Q Okay. Let's see.

14 A That's her control. No line through that one.

15 Q And, so, if you can for me this time, on the easel behind  
16 you, I just want you to write down the values as we go  
17 through them so the Court can see those. And don't worry  
18 about the control -- oh, no, let's include the controls.

19 A Okay.

20 Q So the control is?

21 A 0.098.

22 Q Okay. Her first measured value?

23 A 0.096.

24 Q Her second reported value?

25 A 0.097.

1 Q The third?

2 A 0.096.

3 Q The fourth?

4 A (Witness writing.)

5 Q And the fifth?

6 A 0.097.

7 Q Okay. And now let's take a look -- and the blank?

8 A Yes.

9 Q Zero?

10 A Yes.

11 Q Okay. Now, we come to this first one where she's put a line  
12 through it, before we go down, because I think there's some  
13 writing there. This is the control; correct?

14 A That is the control, yes.

15 Q And what does the control read?

16 A 0.100.

17 Q And can you -- go ahead.

18 A Well, she's made a note here: Referenced aliquot, retest.  
19 The date and initialed.

20 Q Can you write down the value for the control up there?

21 A Okay. That's 0.100.

22 Q Now, on there, she indicates: Re-aliquot, retest?

23 A Right.

24 Q Now, her first test value?

25 A 091.

1 Q Her second?

2 A 0.092.

3 Q The third?

4 A 0.091.

5 Q Her fourth?

6 A 0.090.

7 Q And her fifth?

8 A 0.091.

9 Q And her blank was zero, again?

10 A Yes.

11 Q Okay. Now, those numbers are pretty different?

12 A Yes.

13 Q Now, what calculation did I ask you to do?

14 A To recalculate the mean with her discarded data.

15 Q And did I ask you to determine whether or not any of those

16 values were outliers?

17 A Yes, you did.

18 Q Can you do that for me? Can you --

19 A The calculation?

20 Q Well, if you know the answer, you can just give the answer.

21 A Well, no, there were no outliers.

22 Q Okay. So, this data --

23 A By the criteria that you asked me to consider.

24 Q Okay. And if we want to do something else, I'm going to

25 give you that chance. So based on this data here, we can't

1 identify an outlier as a reason for -- mathematically,  
2 statistically an outlier is a reason for discarding that  
3 data?

4 A First of all, we'd have to consider the other ten results.

5 Q Can you do that for me?

6 A We could go back to that original spreadsheet from the tox  
7 lab to look at that, yes.

8 Q Sure. Can you do the calculation for me with that?

9 A Yeah.

10 Q Using her original data along with the other ten results.

11 MR. ANDERSON: Your Honor, if I could just  
12 interrupt on a logistical issue. There are a number of  
13 issues that the State concedes, and with regard to  
14 calculations, we certainly -- I don't know if the Court's  
15 open to the idea, I think it'd be a lot less slow than  
16 having defense bring it out. I mean, originally we tried to  
17 avoid the evidentiary hearing of issues. If the Court wants  
18 me to volunteer issues or volunteer issues that were  
19 conceded, we may be able to shortchange a lot of this.

20 JUDGE STEINER: Essentially a stipulation.

21 MR. VOSK: Defense is open to that. I got to hear  
22 what the stipulation is, but certainly, I'd just as soon  
23 avoid this.

24 MR. ANDERSON: One moment.

25 (Counsel discussion off the record.)

1                   JUDGE STEINER: I think we'll go ahead and let the  
2 parties have this discussion. We'll take our recess right  
3 now.

4                   JUDGE PHILLIPSON: So you guys can talk during the  
5 recess.

6                   JUDGE STEINER: About a quarter till.

7                   (Recess.)

8                   JUDGE STEINER: Please be seated. All right. Is  
9 someone for the parties going to indicate if there have been  
10 any stipulations.

11                   MR. VOSK: Yes, there have, Your Honor. What  
12 we're actually going to do -- I'm not sure if it's -- it's a  
13 little bit of a stipulation and a little bit of a shortcut.  
14 I had Mr. Gullberg go through all these QAPs which we're  
15 going to identify for the State. He wrote the numbers down  
16 on a legal pad for each instrument and the number of  
17 instruments that were there.

18                   So we're going to mark it as an exhibit and admit  
19 these and have that -- he'll just testify off of that, so we  
20 don't have to go through one after another after another.  
21 If that's okay with the Court.

22                   JUDGE STEINER: Certainly.

23                   MR. ANDERSON: State agrees.

24                   (Exhibit Nos. 54 through 56 marked for  
25 identification.)

1 Q (By Mr. Vosk) Okay. I'm going to step back to Solution 2019  
2 for a moment, Sergeant. Do you mind if I call you Sergeant?  
3 I'm much more comfortable calling you Sergeant.

4 A That's fine. Doesn't matter.

5 Q I asked you to do a calculation with respect to 2019, didn't  
6 I?

7 A Yes.

8 Q And what was that calculation?

9 A Well, that was the one we talked about where Ms. Thatcher  
10 put in the five incorrect values.

11 Q Right.

12 A And I did the calculation with the values from the  
13 chromatograms.

14 Q Okay.

15 A And --

16 Q And --

17 A Yes, I obtained --

18 Q The two values were different?

19 A Yes, yes. The two means were different.

20 Q And the, what was -- give me a minute to pull it up here.  
21 Let me pull it up for you. What was the mean originally  
22 reported?

23 A As 0.1001 grams per hundred milliliters.

24 Q And the equivalent vapor concentration?

25 A As 0.0814 grams per 210 liters.

1 Q Now, did I have you recalculate both of those values?

2 A Yes.

3 Q And what numbers did you come up with?

4 A For the solution concentration, I obtained 0.0989 grams per  
5 hundred milliliters. And for the vapor alcohol equivalent,  
6 0.0804 grams per 210 liters.

7 Q And did I have you calculate the error with respect to  
8 the --

9 A Yes.

10 Q And what was the error?

11 A 1.21 percent. In other words, this was reading -- this was  
12 higher than the corrected value by 1.21 percent.

13 Q Okay. So, again, real near that 1.3 percent level that  
14 Dubowski discusses in his paper?

15 A Yes.

16 Q Now, going back to 6028, the one where we had those  
17 different values that looks -- with the outliers? The  
18 outlier question?

19 A Right, right.

20 Q Were there any outliers in that data?

21 A No. Based on my calculation of this, employing this value  
22 right here, and if this -- this is a simple test for  
23 outliers, where you take the questionable measurement, it  
24 might be high or low, minus the mean of all the measurements  
25 divided by the standard deviation. And if you take the

1 absolute value of that, then this will be positive and you  
2 set some limit for that. Like 3.3 is what you suggested.  
3 And there were no outliers, none that exceeded that value.

4 Q Okay. So, setting aside for the moment any consideration  
5 that maybe she had a physical reason for getting rid of that  
6 data, there was no statistical reason to get rid of that  
7 data?

8 A No statistical reason based on this outlier analysis. Not  
9 for that reason.

10 Q And looking at 6028, we've got the original values reported  
11 there. Did I have you recompute those using the data that  
12 she discarded?

13 A Yes.

14 Q And what values did you come up with?

15 A Well, that's, I think that's -- was that what I just -- oh.

16 Q Now we're on to 6028, not 2019.

17 A Okay. Yes. This was reported originally as an average  
18 concentration 0.0975 grams per hundred milliliter, based on  
19 the data here. She is Analyst No. 1. And when we use the  
20 other values that she discarded and recalculate the mean, we  
21 get 0.0957 grams per hundred milliliters.

22 Q Okay. And what about the equivalent vapor concentration?

23 A We get 0.0778 grams per 210 liters.

24 Q Can I have you calculate the percent error on that?

25 A Yes. That would be minus 1.85 percent.

1 Q So that's much larger than the 1.3 percent discussed by  
2 Dubowski?

3 A It is.

4 Q Okay. I'm going to hand you --

5 JUDGE STEINER: I'm sorry. The percentage?

6 THE WITNESS: Was minus 1.85 percent.

7 Q (By Mr. Vosk) I'm going to -- and when we say minus?

8 A Yes.

9 Q That means that if it was calibrated with the original  
10 numbers, the machine's going to be reading high?

11 A No.

12 Q Or would be calibrated high?

13 A All that I was comparing for that percent was the corrected  
14 value here of .0957, was 1.85 percent less than 0.0975. So  
15 this mean was corrected by that percent.

16 Q Okay. So this mean came down?

17 A That's right.

18 Q So then when it was, when the instrument was originally  
19 calibrated, it was reading a .0 -- it was calling a .0778  
20 theoretically a .0793?

21 A No, no. The bias, again, you'd have to see what the  
22 instrument, the DataMaster read that as.

23 Q I understand. And I'm going to give you a chance to go  
24 there, I promise. I'm just talking theoretically. If we  
25 assume that when we put in that calibrator, it sticks dead

1 on the number that we put in here, we set it up, then it  
2 would be reading a .778 as .79 -- or 0793?

3 A No. Are you talking about the calibration process or the  
4 assessment of bias? Those are two different --

5 Q Well, I think what I'm trying to get at here, because we're  
6 going to get into the messy reality in a line of questioning  
7 a little bit down the road. I'm trying to remove the  
8 messiness for a second to make it easy for the Court to  
9 understand.

10 And if we take an instrument and we tell it -- we  
11 go to calibrate it, then we say to the instrument, this  
12 solution is a .0793, this is what you will call a .0793, but  
13 the solution actually has a lower value, and we've just  
14 trained the machine to report a lower value as higher than  
15 it actually is, in a perfect world without any other  
16 considerations which we will get into?

17 A That's assuming all other factors remain equal, which --

18 Q And that's what I'm trying to do, just to cut away the  
19 messiness so the Court can understand the base principle?

20 A The cal value that's computed, the mathematical constant  
21 computed in the DataMaster at the time of calibration should  
22 have been lower given the scenario you just presented. If  
23 the reference solution is actually lower, our cal value  
24 computed in the instrument should have been lower. But  
25 that's, there's other factors that influence calibration

- 1           than just that number.
- 2       Q     And we'll stipulate to that. I agree with you and I'll let  
3           you get there. I just wanted to cut away the complications  
4           first.
- 5       A     Okay.
- 6       Q     I'm going to hand you what's been marked Exhibits 54, '5,  
7           and '6. Can you identify what 55 and 56 are for the Court  
8           real quick, just a general without having to go through each  
9           document?
- 10      A     They're all Quality Assurance Procedures for DataMaster  
11           instruments.
- 12      Q     And the 55, what solutions were used in all of those?
- 13      A     At the 08 level?
- 14      Q     Yes.
- 15      A     Okay. It was Batch 06028.
- 16      Q     That's the one with the 1.85 percent error?
- 17      A     Yes.
- 18      Q     And then what was the other batch?
- 19      A     The other batch was 02019.
- 20      Q     Okay. And that's Exhibit 56?
- 21      A     Yes.
- 22      Q     And so, then, in Exhibit 54, did you count up how many  
23           instruments were QAP'd using 6028?
- 24      A     Yes.
- 25      Q     How many?

1 A 31.

2 Q Okay. How many instruments were QAP'd using 2019?

3 A 31.

4 Q And you've written those numbers down there on that legal  
5 pad?

6 A Yes.

7 Q Okay.

8 MR. VOSK: Your Honors, at this time I'm going to  
9 move to admit 54, 55, and 56.

10 JUDGE STEINER: Any objection?

11 MR. ANDERSON: No, Your Honors.

12 JUDGE STEINER: 54, 55, and 56 will be admitted.  
13 (Exhibit Nos. 54, 55, and 56 admitted.)

14 Q (By Mr. Vosk) Now, I had you do a couple more calculations  
15 for 6028, didn't I?

16 A Yes.

17 Q Did I have you take a look at the QAP --

18 MR. VOSK: If I can have just a moment, Your  
19 Honors. I apologize.

20 Q (By Mr. Vosk) Did I have you take a look at three QAPs that  
21 were performed?

22 A Yes.

23 Q Now, when we do a breath test QAP, and let me put one up so  
24 the Court can see what we're talking about. I'm just  
25 choosing one at random for illustrative purposes. Okay.

1 Without worrying about --

2 MR. ANDERSON: And, counsel, if you would identify  
3 it even though it's for illustrative purposes.

4 MR. VOSK: We're looking at QAP for 140014, dated  
5 1/11/2005.

6 Q (By Mr. Vosk) Now, as part of the breath test protocols,  
7 when you QAP an instrument, to satisfy the QAP it has to  
8 have a certain degree of accuracy; correct?

9 A Yes.

10 Q What is the degree of accuracy indicated in the protocols?

11 A It must be less than plus or minus 5 percent, or plus or  
12 minus 5 percent are the limits.

13 Q Okay. Now, we've gone through these solutions already and  
14 talked about the percent error in all the machines that were  
15 QAP'd, and we'll talk about breath tests and impact on  
16 breath tests in a moment.

17 But up to this point, everybody has said that none  
18 of these errors cause any of these solutions, cause any of  
19 these breath tests to fall outside of any of the protocols.  
20 Is that true? Not that people said -- that nothing was  
21 caused to go outside of the protocols?

22 A Well --

23 MR. ANDERSON: I'm sorry. What's the question?

24 JUDGE STEINER: Counsel, re-ask.

25 MR. VOSK: I'll re-ask. That was a poorly-worded

1 question.

2 JUDGE STEINER: Thank you.

3 Q (By Mr. Vosk) With the recalculated values here, employing  
4 those, were any of the QAPs pushed outside of the acceptable  
5 value of the breath test protocols?

6 A On these three examples you gave me to do, you mean?

7 Q Well, I'm asking, are there? Were there?

8 A Well, when we did the recalculations and found out where  
9 there were differences in that reference value that should  
10 be adjusted for, and looked back at all the DataMasters QA'd  
11 with those, none fell out the 5 percent. And that was based  
12 on work we had done up until perhaps three, four weeks ago.

13 Q But I asked you to look at something last night, didn't I?

14 A Yes, yes. These were additional. More recent ones.

15 Q Right. And I'm not accusing you of having hidden anything.  
16 I don't think anybody knew it. Did you find some that are  
17 now, you would have to consider, based on this, outside of  
18 the protocols?

19 A Well, given the data you gave me and told me to use.

20 Q Exactly.

21 A Then, yes.

22 Q Okay.

23 A Three did fall out.

24 Q And what are those machines?

25 A They were instrument, DataMasters Instrument 140119, QA'd on

1 November 1, 2006; DataMaster 140103, Quality Assurance --

2 MR. ANDERSON: I'm sorry. If the witness could  
3 just slow down. Thank you. And start over with the last  
4 one.

5 MR. TROMBOLD: So it's 119?

6 A (Continuing) Yes. QA'd on November 1, 2006. And then  
7 DataMaster 140103, QA'd on November 1, 2006. And then  
8 DataMaster 949170, QA'd on October 10, 2006.

9 (Exhibit No. 57 marked for identification.)

10 Q (By Mr. Vosk) And I'm going to hand you what's been marked  
11 as Exhibit 57. Are these those three QAPs?

12 MR. ANDERSON: I'm going to ask to see that. I'm  
13 sorry.

14 (Mr. Anderson reviews exhibit.)

15 A (Continuing) Yes, these are the ones.

16 MR. VOSK: Your Honors, I would move to admit  
17 Exhibit 57.

18 MR. ANDERSON: No objection.

19 JUDGE STEINER: 57 will be admitted.

20 (Exhibit No. 57 admitted.)

21 MR. VOSK: Can I approach the witness for a  
22 moment, Your Honor.

23 JUDGE STEINER: You may.

24 Q (By Mr. Vosk) I wanted to admit -- do you feel uncomfortable  
25 with your writing --

- 1 A No, no, that's fine.
- 2 Q Okay. What I'd like --
- 3 MR. ANDERSON: And, I'm sorry --
- 4 MR. VOSK: I was -- his calculations are on his  
5 sheet. And he's done some writing on that sheet, and I  
6 wanted him to know -- or I wanted to know whether or not he  
7 was uncomfortable with me admitting it with the extra  
8 writing on it, because if he was I was going to use a clean  
9 copy later.
- 10 MR. ANDERSON: If we could just have that on the  
11 record.
- 12 MR. VOSK: Okay. And I'm going to ask one last  
13 thing.
- 14 Q (By Mr. Vosk) Earlier this morning, we did the calculations  
15 on this mean, the correction of that mean?
- 16 A Yes.
- 17 Q And you indicated you had rounded originally instead of  
18 truncating. Can you put in the truncated value that you  
19 came up, the 098, earlier?
- 20 MR. ANDERSON: I'm sorry. I would ask the  
21 question reference specific batch -- the specific numbers,  
22 the batch.
- 23 MR. VOSK: There was no batch. It was the example  
24 calculation I had him do up here on the thing with the .10.
- 25 Q (By Mr. Vosk) Do you want me to go back?

1 A Yeah.

2 Q It was this one. And we talked about the truncating.

3 A Right.

4 Q So, can you put the corrected value, the truncating the  
5 three digits?

6 A Okay. In, as what now? Is this the --

7 Q You've got yours rounded, and we discussed this morning that  
8 we actually truncate. So I'm just asking you to put in the  
9 corrected truncated value.

10 A I see. Down here you mean?

11 Q Yes.

12 A Yes.

13 Q Can you just write that in for the Court.

14 A Sure.

15 Q No. On your sheet?

16 A Oh, on my sheet.

17 MR. VOSK: And, Your Honor, to the State as well,  
18 if anybody, if I am breaking decorum, please let me know.  
19 I'm not in Court that much, so I'm happy to take advice or  
20 direction.

21 JUDGE STEINER: There was just some lower volume  
22 conversations there, that I think were still on the record,  
23 and I'm sure the State didn't hear it but I don't think he  
24 missed anything. I didn't hear it. If you'd like it  
25 repeated, I'd be happy to request that it be repeated.

1 (Exhibit No. 58 marked for identification.)

2 MR. VOSK: And I just marked that as Exhibit 58,  
3 Your Honor. I move to admit.

4 MR. ANDERSON: No objection.

5 JUDGE STEINER: 58 will be admitted.

6 (Exhibit No. 58 admitted.)

7 JUDGE STEINER: And these were Mr. Gullberg's  
8 notes?

9 THE WITNESS: Yes.

10 MR. VOSK: Yes, Your Honor.

11 Q (By Mr. Vosk) Okay. I'm going to hand you back what we  
12 talked about earlier, Exhibit 3. Can you identify that for  
13 the Court?

14 A This is the memo that was written on August 9, 2007.

15 Q And is that your writing on that memo?

16 A The handwritten notes?

17 Q Yeah.

18 A Yes.

19 Q Okay. Now, the handwritten notes kind of have to do with  
20 what we were talking about a couple minutes ago. About the  
21 calibration and the bias and the messiness that comes in?

22 A Yes.

23 Q Now, in that memo, Dr. Logan said that there were some tests  
24 that were affected out on the other side of the state based  
25 on the calibration factor?

- 1 A Yes.
- 2 Q Now, by that, he's referring to whatever was used to  
3 calibrate the instrument; right?
- 4 A Yes, yes.
- 5 Q And, now, one of the things we've been discussing is  
6 determining the actual bias of the instrument based on the  
7 mean and this accuracy figure?
- 8 A Yes.
- 9 Q So, when you look at that memo, your conclusion was that  
10 Dr. Logan was wrong; those tests are not affected just  
11 because a solution was used to calibrate the machine?
- 12 A It was a matter of perspective in how one interpreted this  
13 overall issue of measurement. My opinion was that the  
14 calibration factor was not critical and not relevant. It  
15 was rather the mean of the ten measurements done on a known  
16 standard and what is the bias there.
- 17 Q Okay.
- 18 A That really evaluates the analytical properties and bias of  
19 the instrument at that time. That tells me what -- the  
20 acceptability of my calibration, was it done acceptable or  
21 not, is it within 5 percent; and what is the bias, it might  
22 be one or two or three percent. That tells me the  
23 properties of that instrument, not what someone put in for a  
24 cal value.
- 25 Q And you, in that memo, you seem to express -- or in your

1 writing, you seem to express your opinion pretty strongly?

2 A Well, I don't know about strongly. There's notes I made.

3 Q Okay.

4 A And it's a matter of perspective in how you view this, and  
5 there's different ways to view it.

6 Q And I'm asking you this not as a trap. If I'm misquoting  
7 you, you tell me. Did you tell me yesterday that you  
8 thought doing it based on a calibration, the way it was done  
9 in that memo, was wrong?

10 A Yeah. In my opinion that was not the correct perspective on  
11 this, or the correct way to view it.

12 Q Okay.

13 MR. VOSK: I move to admit Exhibit 3, Your Honors.

14 MR. ANDERSON: I'd ask to see it.

15 (Mr. Anderson reviews exhibit.)

16 MR. ANDERSON: No objection.

17 JUDGE STEINER: 3 will be admitted.

18 (Exhibit No. 3 admitted.)

19 Q (By Mr. Vosk) Now, there's been a lot of discussion about  
20 weighted means in the past -- well, the last hearing and  
21 what we're about to do now. You wrote a paper a while ago  
22 and you've cited some reference materials, some text and  
23 treatises?

24 A Yes.

25 Q We talked about those yesterday; I e-mailed you some

1 materials?

2 A Yes.

3 (Counsel discussion off the record.)

4 (Exhibit No. 59 marked for identification.)

5 Q (By Mr. Vosk) I'm going to hand you what's been labeled

6 Exhibit 59. Can you identify that for the Court?

7 A It's some pages photocopied from a text, Modern Elementary

8 Statistics, by John Freund.

9 Q And is that a book you relied on in a paper we'll get to

10 soon, concerning weighted means of simulator solutions?

11 A I think I did cite this book, but it's probably an earlier

12 edition of it.

13 Q Okay. Can I have you look at page 39?

14 A Okay.

15 Q And on page 39, does Freund indicate that there are many

16 situations in which it would be very misleading to average

17 quantities without accounting, in some way, for the relative

18 importance?

19 A Yes.

20 Q Now, what do we mean when we're talking about relative

21 importance, in the context of weighted means?

22 A Yeah. That's something that really the scientist familiar

23 with the field of analysis, whether it's measurement,

24 physics, chemistry, biology, whatever, needs to make that

25 decision. So that they ensure that their measurement

1 process and results are fit for purpose, appropriate for the  
2 context that they're going to apply those results to.

3 One can't make a generalization that a weighted  
4 mean should always be used or never be used. The scientist  
5 needs to make that determination. What's the risk of error,  
6 or the consequences of error in these two results; look at  
7 them, are they importantly different or not. Ultimately the  
8 scientist makes that decision.

9 The statistician can give some guidance, some  
10 tools, one more tool to consider. But the statistician  
11 doesn't make the final determination on how the analysis  
12 should be done.

13 Q And when we're talking about relative importance, is the  
14 precision of it a different group of measurements one thing  
15 we might look at in giving importance?

16 A Yes. That's certainly one thing to consider.

17 Q And just because, I want to walk the Court through it a  
18 little bit in case it's not familiar. When we're doing,  
19 when we're talking about the precision, we're basically  
20 talking about the standard deviation; how certain, how  
21 grouped our data's going to be?

22 A Yes. How repeatable it is.

23 Q Okay.

24 A Yes.

25 Q And, so, if a set of -- if one set of measurements has very

- 1 low precision, so the standard deviation's big?
- 2 A Yes.
- 3 Q And another set of measurements has very good precision, so  
4 the standard deviation's very small?
- 5 A Yes.
- 6 Q We might give extra weight to the set of measurements with  
7 the good precision over the set of measurements with the bad  
8 precision?
- 9 A You might want to, yes.
- 10 MR. VOSK: And I'll move to admit that, Your  
11 Honor, if I haven't already.
- 12 JUDGE STEINER: This is Exhibit 59. Any  
13 objection?
- 14 MR. ANDERSON: No, Your Honor.
- 15 JUDGE STEINER: Admitted.
- 16 (Exhibit No. 59 admitted.)
- 17 (Exhibit No. 60 marked for identification.)
- 18 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
19 Exhibit 60. Is that also a text you relied on in that  
20 paper?
- 21 A Yes.
- 22 Q And can you just identify it for the Court?
- 23 A These are photocopies of pages from a text entitled: An  
24 Introduction to Error Analysis, the Study of Uncertainties  
25 in Physical Measurement, by John R. Taylor.

1 Q And on page 173, does Taylor indicate that although the  
2 first impulse may be to use an arithmetic mean, the  
3 arithmetic mean is unsuitable if the variance -- or the  
4 precision of one set of measurements is not equal to that of  
5 another?

6 A I'm trying to find where you've --

7 Q That was not a quote, that was a --

8 A Well, he talks about weighted mean here, yes.

9 Q Okay.

10 A Yes.

11 Q And if we follow 173 across to 174, does he indicate that  
12 while a simple average gives equal weights to all  
13 measurements, and then here I will quote: Whereas the more  
14 precise reading should somehow be given more weight?

15 A I'm looking for that quote.

16 Q It's at the top of 174.

17 A Yes. He does state that.

18 Q Okay. Then on page 175, does he indicate that when we've  
19 got this difference in precision, the weighted mean is the  
20 best estimate of the value we're trying to get?

21 A Are you referring to a quote here?

22 Q No. That's just a summary.

23 A Well, he does the calculations for weighted means. Again,  
24 it's, it's a matter of judgment and decision made by the  
25 scientist as to whether the differences are relevant or not

1 for their particular application.

2 Q Okay. Does he give, though, in Equation 7.9, does he  
3 indicate that the best estimate for our value is the  
4 weighted mean? And then that would go on in that paragraph  
5 right below it.

6 A Okay. That is indicated there. Best estimate for  $X$  equals  
7  $X$  sub WAV, a weighted average.

8 Q And if we look down at Equation 710 and 711, on 175, those  
9 are essentially the equations we use for a weighted mean;  
10 correct?

11 A Well, that's if only the variance is being considered, but  
12  $N$ , different number of measurements for each group, might be  
13 different also, and you might want to include that  
14 difference. He has not shown that here.

15 Q Excellent. Can you note that on the board.

16 A First of all, I'll note what the, just the arithmetic mean  
17 is.

18 Q Okay.

19 A  $\bar{X}$ . The bar over it means it's a sample mean. A mean of  
20 a set of measurements. So here's just the simple arithmetic  
21 mean. You have three measurements, you add them up, you  
22 divide by three and you get the sample mean. That's giving  
23 equal weight to every measurement in there.

24 But say you had a different group of measurements,  
25 you had different means from a different number of

1 measurements in each group, and you wanted to somehow weigh  
2 them appropriately. Then, and I'll indicate  $\bar{X}_W$  as  
3 a weighted mean, is  $W_1 X_1 + W_2 X_2 + W_3 X_3$ , and I'm going to indicate  $\bar{X}_2$ , plus  $W_3$   
4 times  $\bar{X}_3$ , over  $W_1 + W_2 + W_3$ .  
5

6 So, now we've taken a weight, and I'll show you  
7 what that is in a moment, and multiplied by each respective  
8 mean and divided by the sum of the weights. And that will  
9 give different weights to each mean. Some means might be  
10 based on more number of measurements; some might be based on  
11 more precise measurements. So this  $W$ , this weighted value,  
12 the typical estimate if it is  $N$ , number of measurements,  
13 used to compute that mean, divided by the variance, which is  
14 the standard deviation squared.

15 So, now your weight increases if  $N$  increases, you  
16 get more weight to those measurement means that came from a  
17 large number. And if your variance is very small, very good  
18 precision, that gets small; the weight, again, gets bigger.  
19 And you're weighing each mean according to  $N$  and the  
20 variance associated with the determination of that mean.  
21 And that gives you a weighted mean.

22 Now, one can compare these two, and they may or  
23 may not differ much. And that's where the, whoever's using  
24 these results, the scientists and the application of them,  
25 needs to make that decision.

1 Q We'll get to that too, I promise you. And if we don't,  
2 remind me.

3 MR. VOSK: We move to admit Exhibit 60, Your  
4 Honor.

5 MR. ANDERSON: And, Your Honor, at this point I'm  
6 going to need to object. Essentially what counsel's doing  
7 is he's going through the basis for the expert's opinion.  
8 There's two ways to look at this. He's either proceeding as  
9 an adverse -- or proceeding with the witness as an adverse  
10 party, in which case he's impeaching a witness on an opinion  
11 the witness has not yet given, therefore that's not  
12 appropriate.

13 If, in fact, he's using him instead as his own  
14 expert, which I believe is truly the case, he's providing  
15 presumably what must be the basis for the considerations of  
16 his opinion -- for the things relied on in getting that  
17 opinion.

18 He needs to ask whether or not he has an opinion,  
19 whether or not there's a foundation for that opinion, what  
20 that foundation is. If he wants to explore whether or not  
21 that opinion's correct, that's fine. But right now he's  
22 going through impeachment before the expert has given any  
23 testimony whatsoever about weighted means. So I would ask  
24 that this actually proceed by the -- in the appropriate  
25 order.

1                   MR. VOSK: With respect to that, Your Honor, if --  
2 I'm sorry. May I respond? Or do you not want --

3                   JUDGE STEINER: Yes, you may. I could perhaps go  
4 back and ask for clarification, but if you want to make a  
5 comment first, go ahead.

6                   MR. VOSK: I was simply going to say we've  
7 stipulated to the transcripts in the Arnston matter.  
8 Mr. Gullberg has already testified about this. And, in  
9 fact, I am impeaching an opinion given in the Arnston matter  
10 at this point with these materials and then will be using  
11 his own article later. So it is impeachment. I am  
12 proceeding, as we said at the beginning, with Mr. Gullberg  
13 as a hostile witness in this matter.

14                   So I think the testimony's already there. I  
15 thought the reason we stipulated to everything in Arnston is  
16 so I didn't have to draw it all out again. We could, but it  
17 would just waste the Court's time.

18                   JUDGE STEINER: Any response?

19                   MR. ANDERSON: I think logistically it's going to  
20 be more a waste, because if we don't actually allow him to  
21 comment on how this affects his opinion, to the extent that  
22 he's already testified to, I'm going to need to go back on  
23 cross and deal with it anyway, so we're going to have twice  
24 the -- twice the examination.

25                   JUDGE STEINER: I think it might be easier to

1 allow voir dire at this point. If you'd like to ask the  
2 question, then you may.

3 MR. ANDERSON: Okay.

4 VOIR DIRE EXAMINATION

5 BY MR. ANDERSON:

6 Q Sir, does the Washington State Patrol Crime Lab use the  
7 weighted or arithmetic mean when determining the mean  
8 solution content and the equivalent vapor content for a  
9 solution batch?

10 A The --

11 MR. VOSK: I'm not sure that that's -- I'm not  
12 sure that that's voir dire. He just asked him a factual  
13 question that I haven't even indicated I'm getting to yet.  
14 I mean, he's now straight into an area that I'm not even  
15 headed towards.

16 JUDGE STEINER: Where are you going?

17 MR. VOSK: I'm going towards the use of weighted  
18 means in the toxicology lab in an article that Mr. Gullberg  
19 wrote approximately 17 years ago which tends to support our  
20 opinion, but which is contrary to the opinion he gave in the  
21 Arnston matter.

22 His paper was based upon a number of references  
23 which he named. The references are those things I'm going  
24 through right now to lay the basis for the opinion in his  
25 prior paper, to support that opinion -- and the word I'm

1 looking for is missing -- rebut the opinion he gave in  
2 Arnston.

3 At this point, so far the State has said all along  
4 the arithmetic mean doesn't matter, including Mr. Gullberg.  
5 We're saying it does. We're saying it matters very much.  
6 He wrote a paper saying that and we're putting forth the  
7 basis of that paper. These are all the things he relied on.  
8 These are all the things he's put forward and used his  
9 authorities. So, we're laying this as a foundation, and  
10 then we'll get to his paper and talk about his paper.

11 JUDGE STEINER: Any response?

12 MR. ANDERSON: Yeah. The simple fact of the  
13 matter is that the Washington State Patrol Toxicology Breath  
14 Test Section uses the arithmetic mean. Trooper Gullberg  
15 believes that the arithmetic mean is, in fact, appropriate  
16 in this particular situation.

17 MR. VOSK: Your Honor, I'm going to object to that  
18 because I think we're going to get him to testify in the end  
19 that he doesn't think that.

20 JUDGE STEINER: All right. Well, this is  
21 argument.

22 MR. VOSK: I apologize.

23 JUDGE STEINER: So, go ahead.

24 MR. ANDERSON: And that while, and while  
25 trooper -- excuse me. And while Mr. Gullberg will admit

1           that in many cases the weighted machine -- the weighted mean  
2           is more accurate than, or excuse me, is more precise than  
3           the, than the weighted -- than the arithmetic mean, in the  
4           circumstances under which the State lab is testing these  
5           things, the amount of additional precision does not warrant  
6           the use of the weighted mean. And that's the entire  
7           relevance of this conversation.

8                         There's impeachment of testimony from a very long  
9           time ago. And I think that it should be referenced so that  
10          when we're actually going through -- so that I'm not forced  
11          to wind up going through a much longer cross-examination.  
12          I'm just trying to be --

13                        JUDGE STEINER: I'm sorry. The objection's  
14          overruled. We could spend further time on this, but I think  
15          we'd be wasting our time. So I'm overruling your objection.  
16          You can continue with the voir dire. You may come back to  
17          the issue, certainly, but let's deal with the voir dire  
18          first.

19                        MR. VOSK: And can I ask the Court a quick  
20          question?

21                        JUDGE STEINER: Yes.

22                        MR. VOSK: Will the Court -- and if the State will  
23          stipulate -- we can, well, let's hear what the State has to  
24          say.

25                        JUDGE STEINER: Go ahead.

1 Q (By Mr. Anderson) State Toxicology Lab uses the arithmetic  
2 mean to calculate the mean -- the reported mean value of the  
3 solutions that it uses; correct?

4 A Yes.

5 Q And just to make sure we're all on the same page. Drawing  
6 your attention to -- clicking one of the field solutions.  
7 Trying to find a field solution. All right. Well, I'll  
8 just use a QAP. Essentially, the average solution  
9 concentration is the average value.

10 A (Witness moves head up and down.)

11 Q Of the one, two, three, four, five, times one, two, three  
12 reported measurements of the solution in the, of ethanol and  
13 water; is that correct?

14 A Yes. Yes.

15 MR. VOSK: Your Honor, I'm sorry. Could I object  
16 again? Again, it sounds like he's going through direct  
17 examination, not a voir dire of the simple principles that I  
18 was talking about. I was simply asking him if he agreed  
19 with the statements from these books just to get a basis for  
20 an opinion. I'm more or less trying to lay a foundation.

21 What Mr. Anderson's doing is really going through  
22 a direct, which is exactly what I'm in the middle of doing,  
23 and trying to insert his direct in the middle of mine in the  
24 guise of voir dire.

25 JUDGE STEINER: It would be very nice if these

1 issues were so simple that one or two questions would  
2 perhaps cover it, but I don't think they are. And so in  
3 allowing voir dire, I recognize it's going to take a few  
4 questions to get where we're going.

5 MR. VOSK: Thank you, Your Honor.

6 JUDGE STEINER: The point of the State is that  
7 this isn't an issue, at least as I understand it.

8 MR. VOSK: That what's not an issue?

9 JUDGE STEINER: The issue that you're -- the  
10 direction that you were headed without, I don't want to  
11 restate the question, but the direction you were headed is  
12 not an issue before the Court, as I understand it. If I'm  
13 incorrect --

14 MR. VOSK: I don't think that's what they're  
15 saying here. The weighted mean is an issue. It's a huge  
16 issue. We disagree a thousand percent.

17 MR. ANDERSON: I'm trying to lay the factual  
18 basis, or the factual background to give meaning to the  
19 witness's opinion, so that as he's being impeached, the  
20 Court, the witness can have benefit of that so that the  
21 questions actually have some meaning.

22 Essentially defense is going into a direct -- I  
23 mean, he's offered Mr. Gullberg as his own witness as an  
24 expert, and he's -- without even eliciting the opinion, he's  
25 starting to impeach him. It's just not appropriate, given

1 the fact that it's going to wind up necessitating, as I said  
2 earlier, I think, a much more extensive cross-examination.  
3 With a couple of minutes, I can get through this.

4 MR. VOSK: And, Your Honor --

5 JUDGE STEINER: Hang on just a second.

6 (Judges confer.)

7 JUDGE STEINER: I'm going to sustain the defense  
8 objection. The State will be allowed to go back and  
9 question this witness further, but not now.

10 MR. VOSK: I've got a very few, and I'm going to  
11 try to get on to where we're going.

12 MR. ANDERSON: I guess, just finish this off.  
13 It's just about the end of the first day, we've gotten  
14 through one witness. There are witnesses the State needs to  
15 get to, and is -- the State's concerned we won't be able to  
16 because of time. The reason for this is to reduce time, so  
17 that's the State's concern. Understanding the Court's  
18 ruling, there may be a request at the end of the hearing for  
19 more time, if that's what's required.

20 MR. VOSK: And, Your Honor, if that should happen,  
21 the defense is not going to object. I absolutely --

22 JUDGE PHILLIPSON: We are.

23 MR. VOSK: No, no, I understand. But what I'm  
24 trying to make clear is the defense in no way is going to  
25 try to block the State's witnesses or get the State --

1                   JUDGE STEINER: And understand that that's not  
2 really the issue. The issue is whether or not each party  
3 gets an equal amount of time to present their case, because  
4 if we say no, I'm sorry, we don't have anymore time, the  
5 State is prejudiced by that.

6                   MR. VOSK: I understand, Your Honor.

7                   JUDGE STEINER: So let me just ask you how much  
8 longer you're going to take on this issue.

9                   MR. VOSK: With Mr. Gullberg, I think  
10 altogether --

11                  JUDGE STEINER: No. I'm talking about this issue.

12                  MR. VOSK: I can wrap up with the basis for his  
13 paper by four o'clock. We could start with his paper in the  
14 morning and I think I could be done with Mr. Gullberg within  
15 an hour in the morning, hour, hour and a half. I'm through  
16 with the longest part of the examination, which was all the  
17 documents.

18                  JUDGE STEINER: And how will that affect the  
19 State's ability to present its witnesses?

20                  MR. ANDERSON: I unfortunately don't know nearly  
21 enough about what the defense, how long the defense is going  
22 to take with the rest of the witnesses. I'm very concerned  
23 that we're not going to be done by Friday, I mean, is the  
24 long and short of this.

25                  JUDGE STEINER: Okay. I'm going to hold the

1 defense to the hour tomorrow. Wrap up with this issue today  
2 and hold you to the hour tomorrow with Mr. Gullberg, so.

3 MR. VOSK: Can I do what my wife always does and  
4 says: An hour and a half, Your Honor?

5 JUDGE STEINER: No. Thank you.

6 MR. VOSK: Would it be appropriate, then, for me,  
7 simply with the materials that Mr. Gullberg relied upon,  
8 simply to have them marked, ask him if these were what he  
9 relied upon, and have them admitted?

10 JUDGE STEINER: Any objection?

11 MR. VOSK: And that could cut to the chase. I  
12 don't have to go through these questions.

13 MR. ANDERSON: I mean, we need to go into the  
14 portion that's relevant. Until we show what the relevance  
15 is, until we show the specific section where the relevance  
16 is, I don't think they're relevant and the State objects.

17 JUDGE STEINER: Well, if the Court doesn't hear  
18 the relevance, it's not going to matter anyway. So, I  
19 presume that the defense understands that they have some  
20 burden here and will point out the relevance to the Court.

21 MR. ANDERSON: The State will object that without  
22 reference to the specific portion, it'll affect what happens  
23 with the other witnesses. Otherwise we just have a bunch of  
24 other things that are hanging out there with -- State's  
25 going to object until the relevance is drawn out more

1 completely.

2 MR. VOSK: Your Honor, we've been put in a  
3 Catch-22.

4 JUDGE STEINER: Well, I'm inclined to say simply  
5 go ahead and present, you can ask if they were relied upon.  
6 At this point the defense is going to have to wrap this up  
7 in some manner, and by wrapping it up I don't mean finish, I  
8 mean present it as a picture.

9 MR. VOSK: Okay. What I'm going to try to do is  
10 get all of these out of the way so we can start with this  
11 paper first thing in the morning, and I'm going to do this  
12 in ten minutes. Okay with the Court?

13 (Exhibit No. 61 marked for identification.)

14 DIRECT EXAMINATION CONTINUED

15 BY MR. VOSK:

16 Q I'm going to hand you what's been marked as Exhibit 61. Do  
17 you recognize that?

18 A Yes.

19 Q And is that one of the resources you relied on in writing  
20 your paper?

21 A Yes, I believe it was.

22 Q And on page 42, does it indicate: It is clear that one  
23 should weigh the measurement more heavily if its error is  
24 small?

25 MR. ANDERSON: Counselor, I need to see that.

1 That's not the one I thought it was.

2 JUDGE STEINER: If you could very quickly read the  
3 title of that for us.

4 THE WITNESS: Yes. It's from a book, pages copied  
5 from a book entitled: Data Analysis for Scientists and  
6 Engineers, by Stuart Meyer.

7 JUDGE STEINER: There was a question asked, I  
8 think. Are you still looking?

9 A (Continuing) Yes. I found that, and that the author does  
10 state that.

11 Q (By Mr. Vosk) Okay. And on pages 28 and 43, do they give  
12 the same definition of weighted mean?

13 A 28 and which other? 43?

14 Q 43.

15 A They appear to include only the variance, not the sample  
16 size N.

17 Q Okay. So, again, we come up with?

18 A This is a little more complete. Unless sample size is the  
19 same for all of them and then it wouldn't matter.

20 MR. VOSK: I'm going to move to admit 61 and 60 --  
21 60 and 61.

22 MR. ANDERSON: No objection.

23 JUDGE STEINER: Both will be admitted.

24 (Exhibit Nos. 60 and 61 admitted.)

25 (Exhibit No. 62 marked for identification.)

1 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
2 Exhibit 62. Can you identify that for the Court?

3 A Yes. Photocopies of pages from a book entitled: The  
4 Statistical Analysis of Experimental Data, by John Mandel.

5 Q And on pages 65 through '6, do they give the same expression  
6 for the weighted mean?

7 A They give the one that I've shown here.

8 Q Okay.

9 A Yes.

10 Q So, the only variation in any of these is some of the  
11 authors include the N, some don't include N?

12 A Right.

13 MR. VOSK: I would move to admit Exhibit 62, Your  
14 Honor.

15 JUDGE STEINER: Any objection?

16 MR. ANDERSON: No objection.

17 JUDGE STEINER: 62 will be admitted.

18 (Exhibit No. 62 admitted.)

19 (Exhibit No. 63 marked for identification.)

20 Q (By Mr. Vosk) I'm going to hand you what's been marked as  
21 Exhibit 63. Can you please identify what that is to the  
22 Court?

23 A Yeah. It's a photocopy of a letter to the editor that I  
24 wrote in 1990.

25 Q Okay. And what is it entitled?

1 A Using a Weighted Mean to Compute the Values of Simulator  
2 Solution Standards.

3 Q And what journal is that?

4 A Journal of Analytical Toxicology.

5 Q Okay. Is that a respected journal?

6 A Yes.

7 Q Is it a peer-review journal?

8 A It is.

9 Q Is it a journal scientists might look to in order to form  
10 their opinions on how to do different types of measurements,  
11 different types of science in toxicology?

12 A Yes.

13 Q Is it one you would rely on?

14 A Yes.

15 Q In there, do you indicate that when solution measurements  
16 are made by a different individual, and on different days,  
17 the simple arithmetic mean may not be the best estimate of  
18 the true solution value?

19 A I would agree in general with that statement. I don't know  
20 if I say that exactly.

21 Q Okay.

22 A But it's something to consider.

23 Q And, now, you don't talk about instruments in there. You're  
24 talking about different days, different analysts?

25 A Yes. Because, really, 17 years ago the gas chromatography

1 process was different than it is today. The source of  
2 variation back then was largely the analysts. Because of  
3 manual injection techniques, they were more involved in the  
4 process. So they could introduce variability between  
5 analysts. It's very automated today, so much of that is  
6 removed.

7 Q Okay. But because of the conditions, you thought that there  
8 was enough variation that would make use of a weighted mean  
9 appropriate?

10 A I thought it was worth looking at and seeing if there was a  
11 difference or not. It was worth considering.

12 Q Did you indicate that, at that time, that a weighted mean  
13 provides a better estimate of the true simulator solution  
14 value and should be employed for those cases in which  
15 significant inter-operator or inter-day variability exists?

16 A Do I state this in here, I'm not sure.

17 Q Could you look? That's a pretty important one.

18 A Do you know where it might be?

19 Q I got a little bit rattled, let me help you. I think  
20 it's --

21 A Okay. On the bottom of the second page.

22 Q Yeah.

23 A Okay. Two sentences, I state:

24 Gas chromatography results that do not employ  
25 automatic injection can be subject to operator variability.

1           Measurements made on different days can also introduce  
2           variability. When there is significant variability in an  
3           analytical method and the known concentration is the  
4           objective, then a weighted mean computation is probably more  
5           appropriate. The weighted mean computation attaches more  
6           weight to those groups of measurements that are more  
7           precise, whereas the arithmetic mean attaches equal weight  
8           to all measurements.

9       Q     Okay. And, actually, it's the next paragraph. Why don't  
10           you read the next paragraph for me.

11       A     The significance of these results is seen when attempting to  
12           establish the limits of accuracy on a breath alcohol  
13           instrument. If the systematic error must not exceed plus or  
14           minus 5 percent, then an error of 2.07 percent, as  
15           determined by weighted versus arithmetic mean, can make a  
16           significant difference. It would seem that a weighted mean  
17           provides a better estimate of the true simulator solution  
18           value and should be employed for those cases in which  
19           significant inter-operator or inter-day variability exists.

20       Q     Now, there's an awful lot in there, right? I mean, we've  
21           got an awful lot of stuff we've got to unpack to try to  
22           apply to that here?

23       A     Okay.

24       Q     And we're going to get to that in a second. One last thing  
25           on this. Do you conclude in there that at the very least

1           the weighted mean should be compared to the arithmetic mean  
2           to determine if significant differences exist?

3       A     Yes. I do state that.

4       Q     Okay. Yesterday, I think it was yesterday, I'm losing track  
5           of time, when we spoke, did you indicate that you still  
6           thought it was appropriate that the weighted mean should  
7           still be at least looked at and compared to?

8       A     Yes. I think that's the fair and reasonable thing to do.

9       Q     Okay. If I can take this for a second.

10                   MR. VOSK: I'm going to move to admit 63.

11                   MR. ANDERSON: No objection.

12                   JUDGE STEINER: Admitted.

13                   (Exhibit No. 63 admitted.)

14                   MR. VOSK: I'd like to leave it with the witness  
15           while he continues to testify, in case he wants to rely on  
16           it.

17       Q     (By Mr. Vosk) Now, you don't use weighted means in the  
18           breath test lab?

19       A     No.

20       Q     And when you do a mean, we're usually talking about the  
21           QAPs; correct?

22       A     Yes.

23       Q     Okay. Now, looking at this mean, let's -- and we're looking  
24           at Solution 140012. Again, it's for illustrative purposes.  
25           I have no idea what significance it has to this case. Let's

1 just look at the mean for the 08. And we've got the 0790?

2 A Okay.

3 Q You use an arithmetic mean for that; correct?

4 A Yes.

5 Q All of those values, though, were collected on a single  
6 instrument, weren't they?

7 A Yes.

8 Q Were they collected by a single operator?

9 A Yes.

10 Q On a single day?

11 A Yes.

12 Q So, pretty much all the variables we've all spoken about  
13 aren't present. So there's really -- none of the texts we  
14 looked at, nothing that we said in any of these hearings  
15 would indicate that a weighted mean should be used here?

16 A Right. It's not a, the final mean there is not the result  
17 of considering different sets of means. Those are all ten  
18 individual measurements used to determine one arithmetic  
19 mean. So there's no reason to do a weighted mean there.

20 MR. VOSK: Now would probably be a good time to  
21 break it, Your Honors. The next, I mean, if we're quitting  
22 at 4:00. If we're going past 4:00, I can keep going.

23 JUDGE STEINER: You're willing to give up three  
24 minutes?

25 MR. VOSK: You know, I hate to do it, but if I

1 start this next part I'm not going to finish it in three  
2 minutes.

3 JUDGE STEINER: Anything we can use our last three  
4 minutes for? Anything preliminarily for tomorrow?

5 MR. ANDERSON: I'd be happy to inquire of the  
6 witness.

7 JUDGE STEINER: Let's not start down that road.  
8 We'll be here for another half an hour, I think.

9 MR. VOSK: What time will the courtroom be open  
10 tomorrow, Your Honor? I want to get here early so I can  
11 facilitate getting things marked.

12 JUDGE PHILLIPSON: Talk to Ms. Wong.

13 THE CLERK: 8:30.

14 JUDGE PHILLIPSON: You guys have a key downstairs,  
15 I was told.

16 THE CLERK: Yes, I do.

17 JUDGE CHOW: I are they utilizing this area  
18 tomorrow morning? So we can leave our stuff here.

19 THE CLERK: Yeah. But at noon we have to clear  
20 everything out, because they're having some kind of meeting  
21 going on here. We won't know for sure until tomorrow  
22 morning.

23 MR. ANDERSON: Clear everything out?

24 MR. TROMBOLD: I'm sorry. Clear, from of the  
25 desks, to maybe a corner?

1 THE CLERK: From your tables.

2 JUDGE STEINER: Clear the tables, not the room.

3 MR. TROMBOLD: Is it possible, in a corner over  
4 there, is that okay?

5 THE CLERK: Sure. I won't know until tomorrow  
6 morning for sure.

7 JUDGE PHILLIPSON: As was pointed out to me  
8 earlier by Judge Chow, this is downtown Seattle. Do not  
9 leave your laptop, your pens, things that are of importance  
10 to you.

11 THE CLERK: Please rise.

12 (Proceedings concluded at 4:00 p.m.)

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CERTIFICATE

STATE OF WASHINGTON )

) ss

COUNTY OF PIERCE )

I, JENNIFER D. LEWIS, the undersigned Court Reporter, do hereby certify:

That the transcript hereto annexed was given before me and stenographically recorded at the time and place indicated in said transcript consisting of pages 1 through 175.

I further certify that the foregoing transcript contains, to the best of my knowledge and belief, a full, true and accurate record of all of the testimony and of the proceedings given and occurring at said time and place.

I further certify that I am not an attorney or counsel of any parties, nor a relative or employee of any attorney or counsel connected with the action, nor financially interested in the action.

DATED at Tacoma, Washington, 16th day of January, 2008.

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Jennifer Lewis, Notary Public in and for the State of Washington, residing at Tacoma.

My commission expires on 04/25/09.