



Transcript of Proceedings:

Grievance of First Officer Michael Danford, ATL 18-14

AIR LINE PILOTS ASSOCIATION, INT'L
and
DELTA AIR LINES CO.

VOLUME FIVE
December 2, 2020

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VIRTUAL ARBITRATION
CASE NO. 18-14
BETWEEN
AIR LINE PILOTS ASSOCIATION, INT'L
AND
DELTA AIR LINES CO.

VOLUME FIVE
DECEMBER 2, 2020

REPORTED BY:
DAMIEN STONEBERGER
STORYCLOUD

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APPEARANCES, CON'T

Also Present for the Union:

Emilio Marcos, Contract Administration
Committee Chairman

Kevin Morris, Union Board Member

Steve Mayer, Union Board Member

Also Present:

Michael Danford, Grievant

Katy Hampton, Remote Technician

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TRANSCRIPT OF PROCEEDINGS, VOLUME FIVE

DECEMBER 2, 2020

THE REPORTER: We're now on the record. It's 10 a.m.

THE ARBITRATOR: Thank you very much. Mr. Seham, you would proceed?

MR. SEHAM: Yes. We're calling our next witness, Theodore F. Shults, S-H-U-L-T-S. Arbitrator Burdette, would you like to swear the witness?

THE ARBITRATOR: I will. Thank you. Mr. Shults, would you raise your right hand, please. Do you swear or affirm that the testimony you're about to give in this case will be the truth, the whole truth, and nothing but the truth?

MR. SHULTS: I do.

THE ARBITRATOR: Thank you very much. And can you certify for us also there is nobody else in the room with you?

MR. SHULTS: I can certify that.

THE ARBITRATOR: And do you have any documents that are not a part of the exhibits in this case in front of you? Do you have any documents in front of you that are not part of the exhibits in this case?

MR. SHULTS: I do not.

THE ARBITRATOR: Okay. All right. With that, I

1 think we're ready to proceed. Somebody's got some
2 feedback going on there. We probably need to make sure
3 that people are muted that are not speaking.

4 MR. SEHAM: Yes. I was going to get -- I was
5 actually going to ask the same, I'm getting a lot of
6 feedback. And if everyone could go on mute until
7 they're called upon to speak, that might improve it.

8 THE REPORTER: I'm trying to determine the source
9 and I'm not -- in fact, I'm not immediately seeing it.

10 THE ARBITRATOR: Looks like everybody is muted
11 except Mr. Shults and Mr. Seham at this point, I think.
12 Is everybody --

13 THE REPORTER: Are you still experiencing the
14 feedback?

15 THE ARBITRATOR: I don't think so.

16 THE REPORTER: Okay. That's all.

17 THEODORE F. SHULTS, J.D., M.S.,
18 having been first duly sworn, testifies as follows:

19 DIRECT EXAMINATION

20 BY MR. SEHAM:

21 Q. I'm still hearing a little bit, actually.
22 Yesterday, apparently it helped that I lowered my
23 volume, but then it's hard for me to hear. But I've
24 lowered my volume a couple of notches, so hopefully
25 that will work. But we'll proceed with our

1 examination. Sir, can you give us a brief description
2 of your education?

3 A. Yes. I basically obtained an undergraduate
4 degree in biology, then went off to the University of
5 Kentucky and studied toxicology at the -- and -- and
6 then got a master's degree in toxicology. Part of that
7 process I was called as an expert witness in a couple
8 of cases and then I got an interest in law and then I
9 went off to law school at Brooklyn Law School and
10 graduated in August '83.

11 MR. SEHAM: Okay. Let me ask the monitor, there
12 are -- that there were portions of that that were
13 garbled to me as -- are you picking everything up?
14 Damien?

15 THE REPORTER: Sorry. Someone had muted me. I'm
16 picking up everything clearly. If I don't hear
17 anything, I will speak up to get a clarification.

18 Q. Okay. Okay. All right. It's -- very good.
19 Then I'll rely on that. In terms of your career, sir,
20 have you had any experience with respect to the
21 function of the medical review officer in the context
22 of employee substance abuse testing?

23 A. Yes. I basically got involved with the
24 laboratory testing business in -- in, you know, coming
25 into North Carolina and then after that, I basically

1 started training physicians of -- of clients of the
2 laboratory on how to comply with the federal drug
3 testing program. And then that led to a training
4 program which then led to a certification program, you
5 know, I was -- I was approached by SAMHSA and Joe
6 Audrey who was the head of that at the time and said,
7 you know, we -- we certify this laboratory, but we're
8 not certifying the MROs. It's politically a difficult
9 thing for us to do, so if you would like to do it,
10 we'll help. So I said, okay. So -- and then -- then
11 right then I started the training and certification
12 program and I had been doing that for about 30 years
13 now. So I've trained probably over 10,000 doctors and
14 we've got probably around 3,000 now that are currently
15 in good standing. That means they meet all the
16 requirements of the Department of Transportation. So
17 I've got some experience with -- with that MRO
18 community.

19 Q. Are you associated with the American
20 Association of Medical Review Officers?

21 A. Yes. I'm the founder of it and currently the
22 chairman.

23 Q. And what service does that organization
24 provide?

25 A. Well, we're one of the -- one, we're the only

1 organization right now that's been approved by HHS and
2 DOT and the NRC to provide both the training and the
3 examination of four physicians to become qualified as
4 medical review officers. There's another organization,
5 MROCC, I think they are involved primarily with the
6 training and then there's another group that spun off
7 of that -- that -- or -- or the American College of
8 Occupational Medicine that does the training. MROCC
9 does the -- the exam. So -- but -- but -- so there are
10 really just two of us out there, but we're -- we're,
11 you know, we've been the originator of this thing and
12 probably the dominant provider for a number of years.

13 Q. Now in the context of substance abuse
14 testing, what is the role of the medical review officer
15 or MRO?

16 A. Well, what you find in federal testing, it's
17 not simply what the laboratory results are. In other
18 words, you know, with -- with this program, at least,
19 the federal level is designed as a deterrent program
20 and a safety program to reduce or deter the use of
21 illicit drugs. And the problem therein is that some of
22 these drugs have both illicit and legitimate application.
23 You know, I mean, there's an awful lot of amphetamine
24 used out there that's under prescription. It's used as
25 Adderall as, you know, and then -- then there's --

1 clearly aren't. You know -- you know, it's cocaine,
2 for example.

3 A medical review officer does two things. First,
4 what they do is, they -- they verify that this is ac --
5 this laboratory result is actually a violation and
6 actually was a violation of the rules which you can't
7 tell just by the lab results. And with the -- with
8 another -- in order to do that, they have to reach out
9 to the donor and discuss the results with them and ask
10 them if they have any explanation or any prescription
11 for the drugs that are being used. And of course, the
12 other thing that -- that -- that -- that's a little bit
13 not -- not obvious at first is the fact that in this
14 area, every time you're dealing with some individual's
15 drug testing use or not use, you're -- you're dealing
16 with private medical issues. So even before the ADA
17 and all of the other HIPAA compliant issues were out
18 there, the -- the process was the laboratory would
19 reach out to these -- these donors and ask them about
20 it. And it just seemed wildly inappropriate. So the
21 MRO is actually someone, you know, if it's not the MRO
22 who is it going to be? The cured doc, the VP of
23 operations, you know, the HR people. So what they do
24 basically become an extension of the company, acting as
25 your agent to determine whether or not this actually is

1 a violation of the policy or not.

2 Q. In the context of Part 40 testing where an
3 MRO review is required and yet does not take place, can
4 the tests be reported as a verified positive?

5 A. No. It basically is going to be canceled.
6 In other words, like it didn't even happen. I mean, a
7 good example is a number of years ago we had a
8 physician impersonator out in California who was saying
9 he was an MRO and he was going around, he was -- he was
10 doing all the MRO work. And when it turned out he
11 didn't actually have an MD, you know, he had -- he had
12 other problems, but that was one of them. The court --
13 when we went to court to say, hey, are there, you know,
14 can we uphold what he's already verified as positive?
15 They said, no, the MRO plays a significant element of
16 this program and the fact that he doesn't have an MD is
17 a significant deficiency, and whether he did it right
18 or wrong is irrelevant. So they had to repeat all of
19 the tests that he had verified.

20 Q. Okay. Is MRO review required in the context
21 of Part 40 testing for ethyl alcohol?

22 A. No, it's not. And the reason is -- is that
23 once this program started, the issue became if it's all
24 about safety, how come we're not testing for alcohol?
25 So Congress basically told DOT, thou shall test for

1 alcohol. The fundamental difference between alcohol
2 and the other drugs is that it is basically how much,
3 it's not is it there. Remember, you know, alcohol is
4 -- is a legal component. It's ubiquitous, it's all
5 over the place. So it's not a question of, do you have
6 alcohol? Do you have some in your system? It's, are
7 you impaired? And fortunately, I like to joke that
8 alcohol likes to cooperate. In other words, if you
9 have a good measurement of alcohol in the blood or the
10 saliva or, you know, or the breath, you basically can
11 correlate that to the person's status.

12 So the -- the -- the first issue that came up was,
13 well, you know, what is that cutoff level? So DOT came
14 up -- and you get a -- a bunch of people in the room to
15 talk about alcohol. You can have two groups, and I've
16 done this a number of times with corporates --
17 corporations. You'll have a group of what I call the
18 Teetotalers. In other words, zero tolerance, any
19 alcohol and you're -- and you're -- and you're not good
20 to go. And then we have the, what's the big deal crowd
21 who basically are social drinkers or maybe even heavy
22 drinkers, but they don't see it at the same way. But
23 DOT split the baby. They basically came up with two
24 cutoff levels. They said, if you are above 0.2 or
25 above, you have to be taken out of service.

1 Now, we're not saying that's a violation, but
2 you're removed from service. If you're above 0.04,
3 then you are in a violation. That basically means
4 you're impaired. And about 80 percent of the people,
5 at that level, are impaired. So that was the basis of
6 the -- of the rule. And what they also said was, we
7 don't care if you're drinking Scope, we don't care if
8 you're drinking if this is a prescription, we don't
9 care if you're drinking vodka. This is basically --
10 it's all about how much. So they said -- in that case,
11 we don't need an MRO for that function because, again,
12 it's a quantitative value and it's not -- it's not a
13 biomarker, it's not a clinical evaluation. It's --
14 it's basically the raw alcohol and -- and -- and -- and
15 again, quantitatively measured.

16 Q. Now, can you give us your background in the
17 field of forensic toxicology?

18 A. Sure. I mean, I've done a number of
19 different -- I've had a number of different jobs. I
20 mean, first of all, when I was actually at the
21 University of Kentucky, my research was the area of
22 cocaine and performance and race horses. And, of
23 course, I got involved, you know, with just the
24 toxicology degree as an expert witness in what was
25 supposed to be a horse doping case down in Louisiana.

1 It was not a horse doping case, but that's what got me
2 interested in going into law. Since going into law,
3 you know, I got out and I was -- I was hired by the US
4 Army as an intern at the Pentagon and I helped them
5 with their urine drug testing program. I also worked
6 in the US Attorney's Office. Not so much because I was
7 -- at that point, I was still a law student, but -- but
8 because of the toxicology background. And, of course,
9 in -- in the Eastern District of New York, half the
10 cases in there were just basically white product cases.
11 They're either cocaine or heroin cases, and that
12 probably hasn't changed a whole lot since.

13 So that -- that was my beginning. I then relocated
14 to North Carolina and eventually ended up working -- I
15 had -- did a number different things here, but I ended
16 up working for the laboratory that basically managed to
17 get the first -- the first laboratory to do DOD
18 testing, Department of Defense testing, for Fort Bragg,
19 you know, down the road here for their urine drug
20 testing program. And then I also have gotten involved
21 with dealing with their clients and dealing in the
22 private sector and helping develop the standards in the
23 laboratory for how this testing needed to be done. You
24 know, one of the early lessons I got it -- with the
25 horses is that, you know, the -- the horse racing

1 chemist said, if you're going to call the winner of the
2 Kentucky Derby out because of a drug violation, you
3 better make sure your ducks are lined up because you're
4 going to be in court the rest of your life. And so we
5 were very sensitive about making sure that all the T's
6 are crossed, or all the I's are dot -- dotted and that
7 we could go in there and support the result. In fact,
8 my first job at CompuChem was to be sort of their
9 coordinator of the expert testimony at Fort Bragg.

10 So I got involved with a lot of just expert
11 testimony in the forensic side of this thing. And, of
12 course, it involves the chain of custody, the SOP,
13 Standard Operating Procedures, the validations of the
14 studies, etc, etc. You know, I was -- my -- my boss --
15 the president of the CompuChem asked me, as we were
16 getting into this and more and more private sector
17 testing, he said, hey, Ted. Let me ask you, what's our
18 exposure for this? Do we have a liability? I said,
19 you know, I don't think I can answer that, but I can do
20 this. I can do a survey of the -- of the experts in
21 the field and see what they feel. If they are with us,
22 I think we're good. And that's -- and that led to a
23 journal article called, The Legal Defensibility of Drug
24 Testing.

25 And I went out and I literally met most of the

1 leading forensic toxicologist at the time and say,
2 okay. What is the best way of doing this? And -- and
3 again, the consensus was the GC mass spec was the way
4 to go. And, of course, that became the -- the de facto
5 at -- at -- the -- the methodology that served pretty
6 well for -- for the last 20, 25 years. I've also been
7 hired or brought on by the National Institute of
8 Justice. NIJ is kind of the clearing house for
9 technical stuff for the Department of Justice.
10 Basically, it was a -- a lead of -- in -- in -- in
11 reviewing grant applications. You know, you have
12 people coming in to try to get federal grants to
13 develop this -- that and this, sort of that
14 methodology. And it was an interesting job, it was a
15 challenging job, but that was also dealing with, you
16 know, is -- it -- does this methodology work?

17 You know, is it -- is it going to be useful, etc,
18 etc. So I did that for awhile. And I've been involved
19 with the, you know, again, a number of other sort of
20 technical side issues as -- as they developed. You
21 know, one of the issues that came up in -- in the urine
22 drug testing program was the validity testing, you
23 know, how do we -- how do we determine whether we're
24 looking at real urine or we're looking at water or
25 we're looking at substituted? And that's been the

1 great Achilles heel of urine drug testing, is that so
2 much of this stuff is really artificial urine.

3 And I remember at the time getting the fax machine
4 coming on and basically Samsung came out with a rule
5 that said, well, you know, below a certain level of
6 creatinine, this is going to be a -- this is going to
7 be a violation. This is going to be an adulterated or
8 a substituted specimen. And literally 20 minutes
9 later, my phone started ringing from some of my MROs,
10 who knows a little bit about this, you know, they're
11 kidney, nephrologist, etc. Physiologists were saying,
12 hey, I don't -- where did they get that number from? I
13 don't think that's right. So I started raising the
14 flag saying, hey, guys, how -- where -- where's the
15 homework? You know, where's the due diligence on
16 coming up with that cutoff level.

17 And after five years of fighting and five year --
18 and Delta had a bad experience with this too. They had
19 a -- a flight attendant, no fault of their own, who
20 basically send it up with a -- with a violation. And
21 it turned out, you know, she was a typical person you'd
22 be worried about. She was a Japanese-American who flew
23 from Japan to Los Angeles, drank -- the -- the medical
24 director said drink a lot of water, which she did. She
25 got off the flight and she gave a urine specimen, and

1 it was -- the creatinine and creatinine is a breakdown
2 of muscle. You know, she's a Japanese woman who
3 doesn't weigh 100 pounds. She's hydrated, she comes
4 in, you know, she's not going to have a high creatinine
5 level to start with. So she was below the cutoff level
6 and then all hell broke loose, and that went into
7 trials, etc. And that really was the first time that
8 the HHS standard was shown to be faulty. But it took
9 -- it took a almost an act of Congress to fix it. But
10 anyhow, so that -- that was another thing that I was
11 sort of involved with. I was getting my head beat,
12 left and right, for saying that, hey, this may not be
13 right. And again, I don't think they were chasing --
14 approaching the whole problem from the right direction.
15 But that is what it is -- what it is. And, of course,
16 it's been adjusted now and from 5 to 2, and I haven't
17 heard a peep since then. So again, that's some of the
18 -- some of the experience. I'm sure I'm leaving stuff
19 out.

20 Q. Let me ask you. Are you familiar with the
21 Society of Forensic Toxicology?

22 A. Oh, sure. Sure. Now, I've been a -- I've
23 been a -- an active member of that for, you know, 15
24 years or so. I also -- I served on their Steering
25 Committee. I served on their Strategic Planning

1 Committee. I've done a number of presentations there.
2 Again, that's sort of I would say the -- the premier
3 society for forensic tox. And I was --

4 Q. I'm sorry, I cut you off. I apologize.

5 THE REPORTER: I'm sorry. It was forensic what?

6 THE WITNESS: Toxicology.

7 Q. Are you familiar with the American Board of
8 Forensic Toxicology?

9 A. Once again, that -- I -- yeah, I am familiar
10 with it. That's the board that actually certifies
11 toxicologists. I -- I certify MROs, but they certify
12 the forensic toxicologist and the laboratories that do
13 forensic toxicology in the criminal arena primarily.
14 Not so much urine drug testing labs, but all these
15 state labs that do, you know, what -- what -- what's
16 this white stuff? What's this evidence, you know,
17 etc., that kind of thing. And -- and also postmortem
18 work is often wrapped up into that. So they certify
19 the labs to do that. So I served on that board for 10
20 years or nine years, but I -- I -- I kind of got term
21 limited out. But again, I learned a lot, I enjoyed it
22 a lot. But every -- every -- every -- every -- every
23 month there was a new issue that would come up in these
24 labs.

25 Q. You were a director of the ABFT boards?

1 A. Yes, I was.

2 Q. Okay. Does someone who engages in forensic
3 toxicology such as yourself have to stay current in
4 ongoing developments with respect to testing
5 methodologies?

6 A. Yeah. As a practical matter, you would --
7 you'd have to -- I mean, it's -- remember, you know, my
8 day job, I mean, I'm -- I'm basically training MRO's
9 all the time. So I'm constantly looking in the
10 literature trying to find out what's going on. You
11 know, I get -- we get phone calls here at my office,
12 you know, two or three times a day, raising an issue
13 about what's this drug? What is that? You know, a --
14 a -- and so, I -- I -- I do try to stay up in all of
15 that. I also still keep my hand involved with
16 development of new methods and -- and -- and stuff like
17 that. So, you know, that -- that -- that -- that's --
18 that just a day in the life.

19 Q. Okay. And do you have -- something I
20 overlooked. Have you served in any capacity with the
21 NRC, Nuclear Regulatory Commission?

22 A. Yeah. I've been on -- I was -- I had been
23 their technical consultant on their fitness for duty
24 program. I've been -- it's a contractual position, and
25 I was just reassigned. I'm -- I think I served for

1 like nine years, then -- then -- the contract were --
2 they ran out of money. And so the contractor lost in
3 the -- so I was -- I -- I still was on the -- on the
4 hook for them, but not -- not in a formal matter, but
5 it was just re-upped earlier this year. So I'm back --
6 back in -- in -- in good graces over there.

7 Q. Okay. This next question may overlap with
8 some of the material you've provided us, but I would
9 want to divorce it out as a separate question. Has
10 your work involved or -- yeah, has your work involved
11 the review of the development of new substance abuse
12 testing methodologies?

13 A. Yes. And I -- I -- I -- I -- I do that all
14 the time. I was involved with that on the oral fluids
15 side of it, looking at that. I'm actually now looking
16 at breath testing for THC. And again -- and I'll tell
17 you something. You know, one of the big issues in this
18 case has been dried blood spot testing. I was really
19 excited about that a number of years ago. And I will
20 tell you why I'm not so excited anymore. And -- but
21 anyhow. But -- so I do -- I do look at all of that
22 and, of course, we always have, you know, the MRO
23 program, we also talk about emerging novel drugs, novel
24 substance abuse drugs. You know, one of the things
25 that we're looking at now trying to put fentanyl into

1 the panel. You know, drugs that really are pro -- pro
2 -- problematic.

3 Then there's a whole -- the whole constellation of
4 drugs like synthetic cannabinoids. LSD is making -- is
5 raising it's head again. So you've got all these
6 things, is it -- and one thing you've got to realize in
7 substance abuse area and toxicology, you can't stand
8 still. You've got to keep moving with it. And -- and
9 that's -- that's what I've done, and I've -- I've
10 enjoyed it fortunately, but it -- it -- it -- it -- it
11 -- it's -- it's -- it's always something, and I was
12 fast -- how fast I can fall behind.

13 Q. A few very specific questions. Are you
14 familiar with a company known as eScreen, and have you
15 worked with them?

16 A. Yeah.

17 Q. And what capacity?

18 A. eScreen was one of my clients for a number of
19 years. I -- I -- the eScreen was run by of -- of -- an
20 MRO named Murray Laby (phonetic). And Murray was
21 really an entrepreneurial doc. And we -- we be -- we
22 became friends. But it also, he developed this me --
23 methodology. He felt that one of the problems with
24 drug testing, the way -- when I was first -- when I was
25 in the lab, I'll tell you something. If we got a

1 negative test out in five days, we thought we were
2 doing great, you know. And the marketplace was always
3 cheaper and faster, cheaper and faster. So the
4 laboratories have really improved again. But Dr. Laby
5 realized that one of the great -- a game changer would
6 be to have an instant test.

7 So you could do the testing, you know, at -- at the
8 clinic or at your doctor's office, and then be able to
9 get the negative back to the client very quickly. And
10 so, he developed a method -- a -- a -- a device. It's
11 basically an Internet device. So it looks like a Mr.
12 Coffee machine, but it basically just takes the cup,
13 you put it in this machine, you -- you -- you get
14 online, and -- and then it will basically will have a
15 camera that would read the strips and give the result
16 to the collector as to whether this is -- is, a,
17 positive, b, negative or three, it had to go to the
18 laboratory for further testing. So they put a certain
19 percentage of them went to the lab just for as a
20 quality assurance program. And his issue was, there
21 was really no device like this in the FDA.

22 So, you know, if you'd coming up -- if you want
23 clearance or pre-clearance, you basically have to find
24 something, a conforming product that you could
25 basically tag a log on. If not, then you basically

1 have to go through an awful lot of -- of legwork to
2 sort of meet their sort of regular -- the data
3 requirements. So I was retained by him to help them
4 with the eScreen get FDA clearance, which -- which we
5 did. But again, it was -- it was an interesting
6 experience because that was my first real endeavor with
7 developing something new at the FDA.

8 Q. Have you had any affiliation with the
9 organization National Medical Services in Pennsylvania?

10 A. Yes. That's one of the leading forensic
11 labs, not urine drug testing or -- or -- or
12 substantive, but they basically are -- Fred Readers
13 (phonetic) was a -- a well-known toxicologist who set
14 that lab up about 40 years ago. And they basically do
15 really cutting edge kind of -- kind of work out there.
16 They retained me a couple of years ago because they ran
17 into a problem. They were being sued for doing ethyl
18 glucuronide testing. And -- and --- and --- the -- the
19 -- the nature of the suit was not that their testing
20 was inaccurate, but rather that they didn't -- they
21 didn't -- they didn't represent the fact that they
22 can't tell where the alcohol came from.

23 So there were a whole series of cases that came up
24 a couple of years ago of people who basically said,
25 hey, I have this ethyl glucuronide, but it was

1 basically from inadvertent use. It wasn't because I
2 used it. And in fact, one of my colleagues who I still
3 stay in touch with today, a fellow by the name of Dr.
4 Koontz, who runs CRL laboratory, told me at a meeting,
5 he said, Ted, I don't think they got the cutoff on this
6 thing right. He said -- I -- you know, I'll tell you
7 something. It -- all I have to do is take a sip of
8 communion wine and I'll have a positive. I said jeez.
9 And I -- of course, this was all set by medical boards
10 and/or legal boards, you know, doing kind of monitoring
11 of impaired professionals. And so, of course, you
12 know, their contract was like, Mike, if you had any
13 positive, you were out. You know, that was gonna be
14 it.

15 So there was a very aggressive nurse at the -- in
16 New Jersey who basically said, I'm not -- I didn't
17 violate this. I don't care what they say, this is
18 wrong. And she basically did a couple of tests with
19 Purell, you know, the hand sanitizer. And basically
20 she said, Purell gave me a positive. Well, so what --
21 that was picked up by the -- by the Wall Street
22 Journal, and they ran with it. And as soon after they
23 ran with it, next thing you know, we've got lawsuits
24 falling out of the sky all around the place. They --
25 me too, me too. It was -- I -- I -- you should've seen

1 it. I mean, they were -- that was Purell, it was a
2 rotten banana. It was soy sauce, it was all these
3 sources of alcohol that are out there.

4 So again, I -- I was brought in to try to help.
5 And my position was simply look, this is not about is
6 it there or not. The question is where did it come
7 from? And that's something no laboratory can tell you.
8 I don't care if it's alcohol or if it's cocaine, they
9 can't tell you where it came from with maybe one
10 exception. But -- but that really is it. I mean, it
11 really is something that -- and then of course what
12 happened was, as the case went on, many of these people
13 had completely relapsed. You know, it was -- it was
14 something that was -- it was interesting because I know
15 what the strategy of the defense firms and I'd actually
16 never testified in that case, but that was -- that was
17 one of the cases that was out there.

18 So I got an awful lot of expe -- experience with
19 ethyl glucuronide and ethyl sulfate. And in fact, Dr.
20 Koontz and I had another case in -- in -- in, I guess
21 it was Wisconsin, where it was a urine alcohol test.
22 And one of the issues came up was, you know, where did
23 the alcohol come from? And that was -- that the -- the
24 -- urine alcohol was so high, the issue was, how come
25 this guy isn't impaired? And then of course, we -- we

1 -- we -- I came to the conclusion. Well, it's because
2 this guy was an experienced drug user, he also knew he
3 would be getting called, and he added something to the
4 urine to just increase the alcohol content. I mean, it
5 was absurdly high, but in any event -- okay. So that's
6 been my experience with -- with ethyl glucuronide.

7 And then -- oh, finally, there's one other case in
8 Tennessee where this -- a school teacher was basically
9 -- it looked like she was impaired. And so -- and --
10 and she was -- she did drink. So they -- they
11 basically pulled her from -- from this -- from the --
12 from the classroom and sent her to the clinic. And you
13 know what they did? They sent her out and they did an
14 ethyl glucuronide test on her urine. And the results
15 that came back from the clinic was this is the highest
16 level we have ever seen. Well, you know why? She's a
17 social drinker. This wasn't about accidents. I mean,
18 she had, you know, millions, hundreds of thousands of
19 nanograms of ethyl glucuronide in her urine. So that
20 was kind of, again, an absurd result, but just people
21 who just know a little bit, but don't know the rest of
22 the story.

23 Q. You've been using the full names and we've
24 been cheating during a lot of this proceeding and
25 referring to EtS and EtG because we can't pronounce the

1 longer versions. So I just wanted to clarify that with
2 respect to your work at National Medical Services in
3 Pennsylvania, that involved you being a consultant with
4 respect to litigation-related to EtG and EtS testing?

5 A. Yes.

6 Q. Okay. And you may have referred to the
7 National Institute of Justice. Could you tell us what
8 that organization is?

9 A. Yeah. I mean, they're basically of a -- I
10 think I said the clearing house for the technology that
11 the -- the Department of Justice uses. And one of the
12 things that they also do is they try to review --
13 they're sort of the SAMHSA version of DOJ. You know,
14 they're the ones that have to vet out new -- new
15 technologies and what's acceptable and what's not
16 acceptable for the Department of Justice. So -- and
17 they also had some money to kick around a few years ago
18 in terms of grant money. So they put out -- you know,
19 if you've got a new technology, let us know, submit a
20 proposal, and we'll have experts review it. And so it
21 was interesting because I -- I was -- I was brought in
22 as one of the experts.

23 Sometimes there's usually like three of us in a
24 room, but sometimes I was the lead, sometimes I was
25 just on the team. But again, there were all kinds of

1 -- of, you know, miniaturized GC mass specs, you know,
2 really interesting kind of devices, some which had
3 promise, some which were just basically a pipe dream.
4 But we basically had to sit down and determine what
5 would the -- what they should fund and what they
6 shouldn't. You know, so that -- that was it. Then when I
7 -- you know, I had to -- that's -- that was more work
8 than it was worth. But again, it made me -- sort of
9 forced me to keep up with what the technology is out
10 there.

11 MR. SEHAM: Okay. I'll ask monitor or Damien to
12 bring up Union Exhibit 81.

13 (Union Exhibit 81 marked for identification.)

14 Q. And if you could just slow motion scroll
15 through it so that the witness can see the 12 pages or
16 maybe medium motion.

17 A. Well, I'm kind of familiar with this, so I --
18 I think that --

19 Q. Well, the question is, is this your
20 curriculum vitae?

21 A. Yes, it is.

22 Q. Okay. And we can take that document down
23 now. And I know to take a pause. So just for your
24 information, sometimes when we're putting up an exhibit
25 there can be a glitch or an interruption in audio, so

1 I'll take a pause once in a while here. My next
2 question is, have you testified as an expert witness
3 previously?

4 A. I have.

5 Q. Can you give us some detail, please.

6 A. Well, I probably testified about 25 times
7 down or 22 times down through the years. A number of
8 them actually are back -- were -- were actually back in
9 the horse business. And I'm -- I'm going to mention
10 this because I think it has some relevance to this.
11 You know, when I left for law school, I figured I'm
12 done with -- I'm done with equine. I'm not going to go
13 -- I'm not going to get -- get back into that. But my
14 -- my professor who was kind of an expert in this
15 field, sort of kept track of what I was doing. And a
16 couple of years ago, I -- we connected again and he
17 said, hey, I -- we -- we think we really need you to
18 help us with what the laboratories are doing. So I
19 said, well, I've been out of it for awhile, but I'll be
20 happy to take a look.

21 So after the 20 years, I got back in, I felt like
22 Rick Van Winkle. And I'd tell you, I was really
23 surprised at what I saw. In other words, when I was in
24 the laboratory, we were -- we were trying to increase
25 the sensitivity of -- of the instrumentation. We were

1 using what would almost be Middle Ages by today. Now
2 we're using thin layer chromatography, we're using a
3 GC. We did have a GC mass spec, but we barely could
4 get it running most of the time. This is -- remember
5 this is the late 70s that -- the -- when I finally
6 left. And we knew that the -- the -- the -- the
7 trainers were using drugs below the cutoff level.

8 So what happened -- and again, I didn't see any of
9 this, but by coming back in, you know, just being
10 introduced and sort of abruptly, it was like, holy cow,
11 how did you get here? What -- what -- what the -- what
12 the racing chemists were doing was, as -- you know, in
13 this -- in the field of toxicology, it's fabulous. Not
14 only we have new drugs, but we're always improving the
15 sensitivity. There's always new analytical equipment
16 that comes out there. So if you told me that we could
17 routinely test the picogram level or even the nanogram
18 level, I'd say that's a pipe dream, but it's not, it's
19 -- it's real. So the problem is -- is that what --
20 what the racing chemists really adopted like a foster
21 child was the new technology.

22 So, as I said, they kind of went down the rabbit
23 hole of getting lower and lower cutoff levels without
24 an appreciation for the fact that you don't -- at some
25 point, you don't know what you're measuring anymore.

1 In other words, there's a background noise for most of
2 these things. I think we've probably all seen the
3 literature or at least the articles and, you know --
4 you know, some -- some newspaper about how the fact
5 that most of money in this country is contaminated with
6 cocaine, and now it's contaminated with
7 methamphetamine. And then -- and we've got that
8 contamination issue going on all over there. You know,
9 I -- I -- there's no environmental testing laboratory
10 or -- or university that has an environmental group
11 that doesn't send the kids out to the local hot
12 waterways to scoop up some water and come back and test
13 it for what they find, you know, and they find all
14 kinds of metabolites, all kinds of drugs in it.

15 So the issue is, what point you don't know what
16 you're testing, what you're looking for anymore and
17 what point -- is this not physiologically relevant?
18 And I -- and I had a couple of meth cases that really
19 struck me as being outliers. You know, we had a couple
20 of horses that basically showed up were very low, I
21 mean, picogram levels of meth in their urine. And I
22 said, you've got to be kidding? Of course I was -- it
23 was -- it fell on deaf ears, you know, even though I --
24 I put the literature together. I kind of showed that
25 we've increased the sensitivity, and we have this

1 background contamination, and eventually these lines
2 are going to cross.

3 Fortunately, a couple of years ago, we also had a
4 situation where three horses showed up in Toronto, and
5 basically, all three of them -- this is for a race, so
6 all three of them were tested, all three of them came
7 up for methamphetamine. Now, that -- that's a great
8 story because the -- the stewards and the vets at the
9 -- at -- at -- at the -- at the track kind of figured
10 something doesn't seem right here. One is that, these
11 three horses came from three different trainers and
12 three different farms. So there was -- usually, there's
13 a common connection, and so that was -- that was --
14 that was number 1. Number 2, none of these horses had
15 any history or their trainers had any history, so they
16 all had clean records, so that also raised some
17 speculation as to what's going on here.

18 So I said, listen, there's got to be a connection
19 to have all three of these come up positive,
20 particularly all of them at this picogram level. So
21 the -- finally, I heard that these horses all were --
22 all came together in a -- in a horse van and the same
23 van. I said, okay, stop the presses, somebody go out
24 there and swab that trailer down and see what you find.
25 And sure enough, guess what? That -- that van, I think

1 it's like from Breaking Bad, I think at some point that
2 -- that was actually used as a -- as a meth lab,
3 because there was meth all over it. It's -- the walls,
4 the ceiling, the floors, and you'll hear about this
5 every once in a while in child custody cases, where the
6 children come up positive. It's not because their
7 parents are giving it to them, but they were in a
8 contaminated environment.

9 So again, I -- I love that case because it got
10 published in the Canadian Vet Journal that these three
11 horses had gotten, you know, positive for just standing
12 around in -- in -- in -- in this horse trailer. I
13 don't know if -- I don't think it affected their
14 performance much or -- or at all -- or at all. But
15 again, that's sort of vindication for the fact that,
16 you see what I'm telling you? You've got to be careful
17 about how low you go with these things. And I think
18 we've always appreciated that in the human side of --
19 of testing. You know, of course we see that now a lot
20 with THC, you know, what's the cutoff level, how high
21 or how sensitive should it be? We always had the issue
22 of passive ventilation, passive -- and we've also
23 established cutoff levels. Everyone complains about
24 it, says we're missing a bunch. Yeah. But you're also
25 missing a lot of headaches, you don't need to have too,

1 so that -- that's my sense. Again, not that I'm -- I'm
2 for, you know, for trying to beat the test, but at the
3 same time knowing -- to me, it's about trying to stay
4 out of trouble.

5 Q. When you say headaches, are you referring to
6 potential --

7 A. Yes.

8 Q. -- false positives?

9 A. Yeah. Yeah. False positives and -- and --
10 and being -- being able to validate. How do you go out
11 and validate that you're not testing for background
12 noise? You know, it's -- it's a challenge. It can be
13 done, but it's a big -- it's a -- it's a big challenge.

14 Q. Without going into all the specifics at this
15 time, my intent is just to ask about the areas in which
16 you've testified as an expert. Have you testified as
17 an expert with respect to internal laboratory testing
18 procedures?

19 A. Yes, I have. I had a couple of those cases.
20 And of course, for many years, I -- you know, part of
21 what my job was is to go out, you know, and -- and
22 actually audit the laboratories to make sure that they
23 were in compliance for -- for private employers. So I
24 had a pretty good idea of -- of what to look for, what
25 to expect, and what's acceptable and what's not

1 acceptable. And -- and again, in -- in terms of
2 laboratory analysis, there have been -- I've -- I have,
3 I mentioned -- yeah, I'm going to mention that ethyl
4 glucuronide case for the -- from -- from the teacher.
5 There have been -- there have been a couple of others
6 like that. But most of the time it's been just safety
7 issues, cause and effect, that -- that type of thing.
8 I have to kind of look over the cases again because
9 there's --

10 Q. Okay. So you have testified concerning the
11 interpretation of alcohol results --

12 A. Oh yeah. Yeah.

13 Q. -- and biomarkers?

14 A. Oh, yeah. Yeah.

15 Q. And then you've also testified as an expert
16 witness with respect to MRO practices?

17 A. Yes.

18 Q. Okay. Have you ever -- in any of these
19 cases, have you ever not been qualified as an expert
20 witness?

21 A. No.

22 MR. SEHAM: Okay. Mr. Arbitrator, we tender Ted
23 Shults as an expert in forensic toxicology as it
24 relates to substance abuse testing, and with respect to
25 the field of MRO Review.

1 MR. KASSIN: Arbitrator Burdette, what we would ask
2 you and the board members to take note of is what the
3 witness has just testified to in terms of only having a
4 master's degree, as well as the primary focus of what
5 his work has been, has been the training of MROs. And
6 we'll have some questions on cross that will clarify
7 this issue, but with the understanding of what his
8 background is and for the board to view his testimony
9 in that light.

10 MR. SEHAM: There could be rebuttal to that, but
11 I'd rather proceed. May we proceed, Arbitrator
12 Burdette? You're on mute.

13 THE ARBITRATOR: Yes. You may proceed. Sorry.

14 Q. Thank you. In order for a laboratory to be
15 permitted to conduct forensic drug testing for a DOT
16 regulated industry, is there any certification
17 requirement?

18 A. Yeah. All the formal testing has to be by a
19 certified laboratory and that's something that the
20 National Laboratory Certification Program administers,
21 the NLCP. And it's a pretty comprehensive quality
22 control and quality assurance program.

23 Q. And in order to be certified and I believe
24 the certifying agency is SAMHSA, S-A-M-H-S-A?

25 A. Yes.

1 Q. And in order to be certified by SAMHSA, what
2 must a laboratory demonstrate?

3 A. They need to demonstrate basically
4 proficiency, validation, accuracy, precision. They
5 basically have to submit their sust -- standard
6 operating procedures, those are reviewed. They all
7 have to submit to a -- a -- a on-site inspection by
8 three experts or more, depending on how big the
9 laboratory is. They also have to be sub -- subject to
10 blind proficiency testing, which comes through SAMHSA.
11 It used to be -- the employers would send it in under
12 DOT, but now it's basically just -- just NLCP. And the
13 -- the initials there, National Lab Certification
14 Program, they are kind of the contractor for SAMHSA
15 that administers this.

16 Q. Okay. And are these -- I'm sorry. Go ahead.

17 A. So as I said, it's -- it's -- it's a -- it's
18 a rigorous program. And again, you know, I hear a lot
19 of complaints from the lab that it is very rigorous.
20 But at the same time, I think the upside to all of it,
21 is that you don't see much litigation against these
22 certified laboratories for false positives and I
23 guarantee you if they didn't have that in place, we
24 would.

25 Q. Is a strict adherence to laboratories

1 protocols embodied in the SOP required?

2 A. Yes.

3 Q. Is there any laboratory certification program
4 or independent overview specific to PEth testing for
5 alcohol abstinence?

6 A. No, not -- not in the United States.

7 Q. Are you familiar with the third-party
8 proficiency oversight program as applied to forensic
9 testing under Part 40 for the transportation industry?

10 A. I'm not quite sure -- wha -- what you're
11 referring to with that. I mean, that, you know the
12 proficiency testing -- I know what the proficiency
13 testing is, but if you're referring to it as the blind
14 test, yes. The DOT had in their regulations a
15 requirement that employers had to send blind specimens,
16 which means they're basically not real specimens, but
17 they're known -- known values and they're sent to the
18 laboratory and they're blind in the sense they look
19 like any other specimen that would come in. They
20 basically abandoned that I think in 2019 because of the
21 cost, but they also figured they could rely on SAMHSA
22 and the NLCP that tests the same laboratories, you
23 know, with blind specimens just to maintain their
24 certification.

25 Q. Okay. Is there any similar blind sample

1 testing specific to PEth testing for alcohol
2 abstinence?

3 A. Not that I know of.

4 Q. Okay. Are you familiar with the urine based
5 immunoassay and gas chromatography mass spectrometry or
6 liquid chromatograph mass spectrometry utilized by
7 SAMHSA certified laboratories to conduct substance
8 abuse testing in DOT regulated industries?

9 A. Yes.

10 Q. And could you give us a brief overview of how
11 those two methodologies interrelate in terms of the
12 testing process?

13 A. Well, the concept is, you know, immunoassays
14 are basically an antibiotic antigen test. These are
15 competitive tests where basically you take your
16 specimen, you add a reagents to it. And basically
17 depending on the reaction that you're going to monitor
18 some way or another, you're going to tell whether or
19 not the prohibited substance is in there or not. You
20 know, what was nice about the immunoassays is that they
21 can be automated and they can be very of cost
22 effective. You know, I don't think we'd have large
23 scale drug testing without the immunoassays.

24 The downside with immunoassays is that they're not
25 100 percent. In other words, you get cross-reactivity.

1 You know, for example, with the amphetamines, the --
2 during the cold or flu season, there an awful lot of
3 false positives that come out of the labs because once
4 again, the antibody can't distinguish between something
5 like Sudafed and amphetamine. Again, they're very
6 structurally similar kind of molecules. So that's when
7 the idea was okay, well, if we get a positive, we're
8 going to not going to act on it, but we're going to
9 send that specimen to the GC mass spec as an
10 independent sort of check on the immunoassay. And they
11 both have to be positive for -- in order for it to be
12 positive. And a GC mass spec -- I mean, just for the,
13 you know, kind of a just a quick synopsis of it, is a
14 gas chromatograph basically takes a mixture of drugs
15 and separates them. And that's what I used when I was
16 in the lab. It basically is like a racetrack.

17 You inject it into a column depending on the
18 chemistry of that particular substance and the packing
19 material, it travels down the column at a certain rate.
20 So we have some compounds coming off fast, some coming
21 off later. And the measured -- from the time you
22 inject to the time it comes off is called a retention
23 time. So that's how the gas chromatograph identifies
24 it. So now when you hook a mass spectrometer onto it,
25 it basically takes those things one at a time as they

1 come off the gas chromatograph and they basically, you
2 know, molecules are too small, you can't see them, but
3 you can break them into pieces. So that's what the
4 mass spec does. It breaks them into pieces or, you
5 know, electronically or chemically, basically and --
6 and then what you can do is you can look at the pieces,
7 because each one of these things are ions. Each one
8 them has a mass energy ratio and they'll travel down a
9 field in a certain kind of way.

10 So basically that's how you look at it. You look
11 at the -- the pieces and then the computer will put it
12 back together for you and tell you what the structure
13 of the compound that you're looking for. So again, I
14 think that's why these things, you know, if you combine
15 those two things together and make that, you know,
16 we've -- we -- it's basically a -- it's not a question
17 of is it there anymore? It's a question of, you know,
18 you know, maybe other questions that sample handling
19 may be an issue. There are other issues, but basically
20 that's why the -- the two things were -- were the --
21 the combination of A and B, you needed to have a -- a
22 positive test report.

23 Q. Okay. And how long have the current
24 methodologies of immunoassay as a screen and gas
25 chromatography, mass spectrometry as a confirmation

1 been approved for use in DOT regulated transportation
2 industries?

3 A. Since the beginning. I mean really, you
4 know, when the rules first were developed, the GC mass
5 spec and immunoassay, the -- the two-step methodology
6 was in place with the very first set of proposed
7 regulations from SAMHSA. And of course, they would an
8 adopted by DOT and the NRC.

9 Q. Okay. And was there a use of these
10 methodologies even prior to the DOT program in 1988,
11 '89?

12 A. Yes, they were. I mean, immunoassays has
13 probably been around I want to say probably from the --
14 at least the late '70s, maybe early '80s. And then of
15 course, but those were used and of course they were
16 used singly and they were used, you know, for like an
17 -- in maintenance clinics and things like that just to
18 monitor the patients. But again, they didn't -- didn't
19 have the same sort of forensic weight as a mass spec.
20 And as the mass spec came along, you know, I -- I tell
21 you at least in '83, I had -- was pretty well
22 established and not as sexy as it is today, but it was
23 -- was an established methodology, at least in the
24 early '80s.

25 Q. Are SAMHSA -- I'm sorry, did I cut you off or

1 were you?

2 A. No, I'm done.

3 Q. Okay. Are SAMHSA certification requirements
4 satisfied by a laboratory's mere adoption of these two
5 prescribed methodologies or is something else required?

6 A. Well, you know, you still have, you know,
7 just -- listen, you can have a mass spec, but you can
8 do it wrong. You know, you basically need to have
9 standard operating procedures, need to have your
10 personnel trained. You need to have sample handling
11 procedures in place. And these things are pretty
12 rigorous. You know, you can't mix up specimens. You
13 can't lose specimens. You know, you basically have to
14 make sure that the specimens don't degrade. So there
15 are a lot of other things other than just having the
16 methods on -- on the shelf, is how do you use them, you
17 know.

18 And again, I've, you know, a number of years ago we
19 had a situation where a laboratory was making its own
20 methamphetamine on its gas chromatograph. It didn't
21 know it at the time other than the fact that, you know,
22 actually an MRO raised the issue first, that, hey, this
23 -- this -- this can't be right. And then of course,
24 the -- it was the A and B bottle that identified that.
25 When they sent off the split specimen, it came back

1 dead flat negative and they realized to their grin
2 that, you know, they were using the mass spec, but the
3 -- the temperature that they were running at, they had
4 a compound in the urine that was -- looks a lot like
5 methamphetamine, it was actually Sudafed. So people
6 take Sudafed, you know, and then that Sudafed was
7 actually being converted to meth. Again, I will spare
8 you the chemistry on all of that. But it was sort of a
9 kind of a wake-up call that just because you're using a
10 method doesn't mean you're going to get it right. I
11 mean, the -- the -- the -- the GC mass spec looked
12 perfect other than it wasn't from the urine which was
13 being made on the column as in -- in -- in any kind of
14 environment that they were in.

15 Q. Now, this may -- forgive me. This may
16 overlap a little with some of your introductory
17 testimony, but are you familiar with the scope of the
18 SAMHSA inspection process?

19 A. Yeah, I am. I mean, there -- there are
20 different sections of it. And basically, they -- they
21 go -- they start with, you know, inspection of the
22 laboratory facilities, the security of the facilities,
23 you know, the methodology, the SOPs. You know, each
24 one of these SOPs also have to be validated. There's a
25 whole validation protocol that needs to be followed.

1 And again, they also have a number of other proficiency
2 tests they need to -- they call open for efficiencies.
3 In other words, you get this box in the mail or -- or
4 by courier and you know they're from SAMHSA, you know
5 these are for testing. So that's the first step. So
6 you see how you perform on that. And the performance
7 of each lab is compared to each other. And then you
8 get -- occasionally you'll get a blind specimen that
9 you won't even know it's a blind. It's supposed to be
10 blind anyway, and it goes through the laboratory and
11 they see how you perform with that.

12 So all of that is -- is part of the overall --
13 overall process. And again, if -- if you don't perform
14 within a certain plus or minus range, you know, they're
15 going to come in and inspect it. And of course, now
16 with the split specimens, you know, you have this --
17 this -- this additional check that the laboratories,
18 you know, the MROs will if -- if the donor wants there
19 B specimen to be tested, the MRO is directed to get
20 that facilitated. It's -- it has to be at a different
21 lab. And -- and if those results don't jive, in other
22 words, you get a complete flat negative at the second
23 lab and something in the first lab that makes it look
24 like the first lab has a first positive, SAMHSA will
25 come out and inspect it and try to figure out what

1 happened. Again, relatively rare things, but that's
2 all part of the process.

3 Q. Okay. And how often are these SAMHSA
4 inspections conducted? Annually, quarterly?

5 A. I think they're quarterly, and I think it
6 also depends on how big your lab is. I mean, there's a
7 big difference between a lab that does 3,000 specimens
8 a day and some of the big ones now that do 15,000
9 specimens a day. So, you know, of course, their fees
10 go up and the number of inspectors go up, and they
11 review almost every non-negative. They just go in and
12 look at all of that of since the last inspection. And
13 typically, they'll always find some issues. There will
14 be something by the way, we don't like the way you're
15 doing this. And so they have to take some corrective
16 action to smooth that out. So again, this is why I
17 think ultimately, it's the very reliable results from
18 any certified laboratory.

19 Q. Yeah. And forgive me if you covered this.
20 Well, actually let me -- by way of background in terms
21 of the reference you made to split specimen. The
22 splitting of the specimen, where does that occur? Does
23 that occur at the laboratory or sometime prior to that?

24 A. No. It has to happen at the collection site.
25 So when the collectors collect the specimen, whether

1 it's an oral fluid or a urine test right now, they
2 basically put it into two vials and they label one an A
3 bottle and the other a B bottle. And then they -- they
4 put them together with a single chain of custody, and
5 then send it off to the laboratory that has been
6 specified by the client.

7 Q. And is there --

8 A. They put tamper evidence seals over both of
9 them. So when they get to the laboratory, one of the
10 first things the lab has to do is validate that they
11 got the two specimens and/or that they've got, you
12 know, the seals intact. And so -- so when the donor
13 who has -- the only person who can order the B specimen
14 under the DOT program is the donor. So the donor when
15 they say, I want that B specimen tested, then the MRO
16 goes ahead and has that facilitated.

17 Q. And is the -- if I can refer to laboratory A
18 and laboratory B, is laboratory A the recipient of
19 these specimens, is it permitted to open the B bottle
20 that's reserved for the second laboratory?

21 A. And in fact, when that happens, that
22 basically ends up as a fatal flaw. So fatal flaw is
23 essentially a kind of a canceled test. So you'll have
24 situations where, you know, first of all, the
25 laboratory will -- will spill -- spill the B bottle or

1 there will be no B bottle there. So again, until the
2 donor asks for it, if a donor asks for it and they
3 can't produce it, that's -- the game's over. It's kind
4 of like they say is a fatal flaw.

5 Q. Okay. So if Laboratory A produces a positive
6 result that is verified, but the split sample is
7 unavailable for testing, what is the result?

8 A. Canceled.

9 Q. Yeah. Are SAMHSA regulated laboratories
10 required to preserve the samples they have tested for
11 retesting?

12 A. Yes.

13 Q. For what period of time?

14 A. For three years. Anything that's
15 non-negative. Non-negative is basically kept at the
16 first laboratory and they also have to be kept at the
17 second laboratory with the same period of time.

18 Q. Okay. Now, you've referred to blind sample
19 testing process at SAMHSA certified laboratories. What
20 happens if a SAMHSA certified laboratory produces
21 quantitative results that are at variance with the
22 blind samples and the anticipated quantitative levels
23 of those blind samples?

24 A. To some degree, the question of how
25 significantly different are they. Now, if they are,

1 you know, again, they compare them to the other
2 laboratories that have done this. But if they are
3 really far outliers, the first -- one of the things
4 that you're going to -- they're going to ask the
5 laboratory how did -- what do you think went wrong
6 here? Here's what your result is. Here's what the
7 results should have been. So they'll put the ball back
8 in the court of the lab and hope that they can sort
9 this out to some degree. But they would in any event,
10 will follow up with an inspection. And if they find
11 some systemic problem, you know, they can basically,
12 you know, suspend the laboratory or de-certify it. A
13 relatively rare phenomenon, but it's something that the
14 laboratories do not want to have happen.

15 Q. Are you familiar with the term quality
16 assurance data --

17 A. Yes.

18 Q. -- as it is used in the context of
19 laboratory-based forensic testing?

20 A. Absolutely. So again, quality assurance data
21 is something that the laboratory does internally, and
22 they do it in a number of different ways. Typically,
23 the way these large specimen handling operations work
24 is they basically batch specimens into -- into certain
25 numbers. In other words, depending on the

1 instrumentation they're using, it may be a batch of 10,
2 it may be a batch of 25 or 115. In those batches, they
3 have to have a number of calibrators, they have to have
4 a number of proficiency tests, and they have a number
5 of knowns until -- there's knowns and the unknowns.
6 Basically, what you're looking for is -- with their --
7 with their calibrators is, how well are those
8 calibrators reflecting what's actually been sent to the
9 laboratory.

10 And so all of that basically is statistically
11 analyzed to determine how -- how accurate or reliable
12 the result is. And if they don't work, you know, that
13 -- that -- that's going to -- they're going to put the
14 -- the program on hold. The laboratory is supposed to
15 take some corrective action. And that's what -- that's
16 what to some degree what the certifying scientist does
17 in all of these laboratories. They look over the QC
18 data to see that all the numbers, the negatives are
19 negative, the positives are positive, and the
20 calibrator is within range. If they approve that,
21 that's when they release the batch result. All the
22 results go out for that batch. If not, if they fail,
23 then they have to redo -- redo the whole batch.

24 Q. Are certified laboratories required to
25 produce their quality assurance data to confirm the

1 accuracy of their testing methodologies?

2 A. It's all open to inspection. I mean, you
3 know, a SAMHSA inspector comes in there, they're going
4 to see all of it.

5 Q. Okay. Are you familiar with the term
6 validation, as it is applied to forensic testing?

7 A. Yeah. And that's really a very important
8 concept. You know, the validation is basically
9 validating, showing that what you think you're doing,
10 you're actually doing. Is this actually work? Does
11 this method actually apply? You know, how does -- how
12 are we going to do that? So there are all kind of
13 protocols for validating. And it -- basically, it's --
14 it has to do with everything. How do you know that
15 you're not losing a specimen? How do you know that
16 you're measuring this accurately? Is there
17 degradation? Is there a interference? Are there, you
18 know, other issues in here? So each one of these
19 methods, and even established methods have to be
20 validated. And again, usually, a laboratory,
21 particularly, if it's starting up a new method, has
22 basically a validations, you know, kind of master plan.
23 You know, how are we going to do this and what are we
24 going to do? How many specimens we're going to run,
25 and -- and what are the results we -- do we expect. So

1 you'd be able -- should be able to show someone who's
2 not in the laboratory that this actually is what you
3 say it is. And to some degree, that you're not even
4 fooling yourself, you know, because I've seen that
5 happen too.

6 MR. SEHAM: Arbitrator Burdette, can we take a
7 five-minute break at this time for hand washing?

8 THE ARBITRATOR: Absolutely.

9 MR. SEHAM: Okay. Thank you.

10 THE ARBITRATOR: We're off the record for five
11 minutes. We'll be back on at 11:00 your time?

12 MR. SEHAM: All right. Thank you.

13 (OFF THE RECORD)

14 BY MR. SEHAM:.

15 (Union Exhibit 51 marked for identification)

16 BY MR. SEHAM:

17 Q. If we could bring up then Union Exhibit 5.
18 Excuse me. Did I say -- 51, 51. My apologies. I
19 misspoke, 51. There we go. So just for the record,
20 we're show -- can we get the -- can we get that full
21 page showing? Okay. So for the record, what we are
22 showing the witness now is a document titled ANSI/ASB
23 Standard 036, First Edition 2019, Standard Practices
24 for Method Validation in Forensic Toxicology. And the
25 question is, sir, are you familiar with this document?

1 A. Yes, I am.

2 Q. Okay. What application does it serve?

3 A. Well, this is the guidance to laboratories in
4 the forensic community that are not part of the NLCP or
5 do clinical work to basically sort of establish the
6 standards for their forensic work. So they can have a
7 number of criteria and basically sort of outline what
8 the expectations are. They've actually framed this a
9 minimum expectations for validation studies.

10 Q. And are ANSI and ASB recognized as the
11 leading industry regulators in terms of setting these
12 standard practices for method validation?

13 A. Yes. In the toxicology -- in the toxicology
14 community, they are.

15 Q. If I can ask Katy to turn to the fourth page,
16 which has the title Table of Contents. And here, I --
17 we're going to focus on the eighth section. So we can
18 just blow up the middle. There we go. I think that's
19 it. Yeah, that's excellent. Thank you, Katy. So I'm
20 going to go to 8.2 which reads Bias and Precision. Can
21 you give us a brief overview of what bias and precision
22 signify in the context of method validation?

23 A. You know, the simplest way of explaining bias
24 is that is a propensity to overestimate or
25 underestimate a measurement consistently. So, you

1 know, you may have a bias that increases the value of
2 everything or a bias that decreases the value of
3 everything. So those were things are measured and
4 statistically analyzed. And then, you know, you -- you
5 take it from there.

6 Q. And precision?

7 A. Precision is -- all right. Let's assume that
8 you have little or no bias. Then the question is, if
9 you repeat the specimen, how often do you get the same
10 number? The precision is how accurately can you
11 replicate what you've studied. So that's another
12 element of it. So you need to have both, you know, an
13 analysis of bias and also an analysis of -- of -- of
14 the precision that you have.

15 Q. Okay. Moving down to the next reference,
16 what is a calibration model in the context of method
17 validation?

18 A. The calibration model is trying to determine
19 what your linear range is, you know, in other words,
20 how -- what -- what's the low and high of what your
21 instrument can handle in terms of doing it. And so
22 what you need to do is basically develop a kind of get
23 in your head what the range you want. So then you
24 develop calibrators at the low end, the middle, and the
25 high-end. And then you infuse those into your test and

1 then you run them. And what you really want to do is
2 when you plot those results out, you want to have kind
3 of a straight line. Now, you want to be able to show,
4 you know, that you're going to get, you know, that if
5 the number -- that the number is actually reflects what
6 you're looking at in a linear way.

7 Now, can you have some -- some -- some -- some
8 methodologies like immunoassay for example. That's not
9 linear. It's sigmoidal. In other words, you get a low
10 swoop and then it cuts above the -- the cutoff level
11 and then it levels out again. But what you want in the
12 GS mass spec, and on a lot of these instrumentation is
13 -- is -- is having linear. And you want to know what
14 the high-end is and what the low-end is. You know, a
15 lot of laboratories, they can't measure above a certain
16 number. In other words, you reach 10,000, and you'll
17 see in some of these reports, particularly with drugs,
18 is that they'll be greater than 10,000. Now, maybe a
19 100,000, but you can't tell because you've -- you're
20 not under your range of linear results.

21 Q. Okay. Moving down to 8.4, references
22 carryover. And you described the significance of that
23 measurement in the context of testing method
24 validation.

25 A. Yeah. That's always a fun one. In other

1 words, most of these instruments, most of the analysis
2 are done automated now. So you've got automated
3 devices that, basically, you put all your specimens in
4 a rack or in a carousel, and, basically, you -- you
5 take them one at a time, and a needle comes down or
6 some sampling device comes down, take a part of that
7 specimen out and then -- and put it into your
8 instrument. Now, the carryover is, if you have a very
9 heavily -- heavy dose of a drug or heavy concentration
10 of a drug in one, that even though these instruments
11 are supposed to have a wash between each one of these
12 things, the washing may -- may not be efficient.

13 So you'll find -- is that, you know, in the ideal
14 world, what you'd want to do is run a negative between
15 every positive. But that's just practically as -- as
16 -- it -- it increases your costs tremendously, so I
17 don't know if any lab that does that anymore. But --
18 but -- but the idea is that the carryover is
19 identifying, to what degree is this not the -- the --
20 the result from your specimen, but the -- the -- the
21 heavy -- the high positive that just came before it.

22 Q. Okay. And moving down again to 8.5, what are
23 interference studies?

24 A. Interference studies are also, you know,
25 again, are -- you know, when you're looking at --

1 looking at either immunoassay or GC mass spec, there
2 are cross-reactive compounds or compounds that will
3 interfere with your analysis. And this is more -- more
4 exquisite in -- in GC mass spec. You may have some
5 other compounds that show -- that send off similar ions
6 or identical ions, and they will overlay with what
7 you've got. So you basically need to separate each one
8 of these -- these -- these ions appropriately so you
9 don't have that carryover or -- or the interference
10 factor going on.

11 Q. And the next reference is 8.6, ionization
12 suppression/enhancement. What does that refer to?

13 A. Yeah. Again, a very similar kind of problem.
14 There's some compounds you can put in these specimens
15 that will basically suppress the signal. In other
16 words, you'll miss it because it's basically either
17 absorbing it or -- or chemically breaking it down, or
18 whatever. So that's suppression. And enhancement is
19 you basically have something in there that's doing the
20 opposite. It's adding to it. So you have an
21 enhancement. And that all depends, really, to a -- a
22 lot of complex -- complex variables with that. You
23 know, it's sort of medium dependent. You know -- you
24 know, what are we talking about? Are we talking about
25 blood? Are we talking about urine? So you get -- you

1 get -- and -- and what analysis? What are your
2 derivatizing agents? There are an awful lot of
3 variables with that. But basically, that's what it is,
4 that -- that they recognize that there are other things
5 that can be interfering with your specimen in terms of
6 either making it disappear or making it -- making it
7 seem like there's more than there is.

8 Q. And could you explain the reference at 8.7,
9 to limit of detection in the context of validation of
10 new testing?

11 A. Yeah. And this is an essential thing. And
12 it -- it basically is, at what -- what statistical
13 number do you have that basically, you know, you've got
14 what -- what I would call a signal? In other words,
15 what you're looking for is a signal. And then in the
16 background -- look, with all these instruments you've
17 got what's called noise, just the background stuff
18 that's going on. So the question is, if you've got a
19 drug and -- and it's supposed to come off and be a
20 minute and 15 seconds, and then -- and then -- so
21 you're waiting around for a minute and 15 second, and
22 blip, you got something. The question is -- you've
23 also got a lot of little blimps. And what's the ratio
24 between the big blip and the little blip? So you need
25 to be able to have a ratio of probably, you know, a

1 four-fold increase between the signal to what's called
2 a background noise. And that was what the issues you
3 run into when you get to an LOD, is that you just
4 basically have too much background noise which can't be
5 cleaned up. It's a theoretical limit on -- on how you
6 can differentiate what you're looking at from what's
7 just in the environment.

8 Q. Okay. And this reference at 8.8, the last in
9 the section, the lower limit of quantification. What's
10 the significance of that in the context of validation
11 of new testing?

12 A. Similar, but different issue. In other
13 words, when you just want to try and find something
14 qualitatively, you can get a lot more sensitive. But
15 if you're trying to actually measure how much it takes,
16 there is a -- it's a higher level. You need to have a
17 little bit more, not just what your limit of this --
18 what this instrument can do, but you need to have a
19 comfort zone between the LOD and the LOQ, the limit of
20 quantitation. Because if you want to have a
21 quantitative value, it can't be the same as the LOD. I
22 mean, it's just not going to -- it's just -- well,
23 theoretically, it shouldn't be. So you need to have,
24 you know, a -- a -- a comfort level between those two
25 things.

1 So the LOQ, and in fact, in some of these programs,
2 even in the NLCP, they define the LO -- LOQ and LOD of
3 being -- having to be -- if you have an LOD, you need
4 to have an LOQ that's 40 percent higher than that.
5 Again, you know, you -- you can get much higher. Or
6 the flip side is probably more -- more realistic. If
7 you've established your LOQ, then the question is, you
8 know, you need to have it -- be able to go down
9 four-fold to get to your LOD. Again, a little bit more
10 theoretical than you need. But, again, just to explain
11 what that is all about. But the limit of quantitation
12 is -- is a number that is -- is -- that -- it's
13 typically used for most of -- most clinical labs and
14 most -- most forensic labs. And the LOD is kind of
15 like your theoretical outlier that you -- that --
16 that's -- this is pushing the -- pushing the metal --
17 pedal to the metal, this is the best we can do and this
18 is what we're going to find.

19 Q. Thank you. Do you have any opinion as to
20 whether any confidence can be placed in the dried blood
21 spot PEth testing conducted by USDTL without the
22 validation criteria we have just read?

23 A. Well, you know, I'll tell you something. No,
24 I don't see how you can. I mean, the -- the -- the
25 validation studies for this particular DBS is critical

1 because it really isn't have any -- any outside
2 proficiency testing, and it's not an FDA-approved test.
3 Now, the FDA justifies it saying, well, you know, these
4 are not complex and they're simple and these are lab
5 developed and tests. But that's really not the truth
6 either anymore. This is not a simple test, this a
7 complicated test. So you need to have even more
8 validation as to how this is done.

9 And I -- I -- I'm going to go all sidetrack here
10 for a second. You know, when DBS first came out, I was
11 really excited about it. I was all in. I said this is
12 great. And I -- my thought was that this could be used
13 for looking at THC, that you can take blood specimens
14 and then get a good quantitative value of what's in the
15 blood. And the more I got into it, it's like, gee,
16 this isn't -- this isn't -- this -- this is like
17 Theranos. This is like just a drop of blood. The more
18 you get into it, the more you see problems. And I --
19 just in a nutshell, I got to tell you something.
20 There's a reason why there's only one lab that's doing
21 this, because they're the only ones who's got the guts
22 to come out with this. There's just -- the DBS thing
23 has got more variables than you can shake a stick at.
24 And the more I have gotten into this particular case,
25 the more I've realized that it was a good thing I

1 steered away from it. Because, again, you got all
2 kinds of variables with the dried blood spot testing
3 and you need to have those all validated, one way or
4 the other. Of course, we'll probably get to -- into it
5 in a little bit, but, you know, like -- you know, how
6 much blood do you have? What's the hematocrit? You
7 know, what's -- you know, all -- all -- all those
8 variables. So -- and I don't want to get ahead of
9 myself too far, but that -- that -- that's my thought
10 about it.

11 Q. Okay. Well, you made a reference, and I was
12 going to ask you about this later, but you made a
13 reference to Theranos. Could you elaborate on what
14 that is a reference to?

15 A. I think we all remember the young lady,
16 Elizabeth Holmes, who basically was promoting this
17 concept that all you needed is a drop of blood and you
18 could do all these clinical tests in the world. And
19 what really struck me about that, and I almost was
20 retained to try to do an evaluation of that, but the
21 thing fell apart before I got in -- got into it, which,
22 again, I was kind of -- felt fortunate. But it was --
23 because something was like, how could this be? How --
24 how is this -- what was -- what was amazing to me was
25 how many, what I considered to be smart people, fell

1 for that hook, line and sinker. So basically --

2 Q. You may be presuming too much knowledge on
3 your auditor's part. So I don't know that anyone knows
4 who Elizabeth Holmes is and what the background is.

5 A. Elizabeth Holmes was an entrepreneur that was
6 promoting this -- this technology that basically was
7 the idea that you don't need to draw blood. She had a
8 phobia of needles. She didn't like to get a blood
9 draw. And she figured, look, this is so simple. All
10 we need is a drop of blood and we -- we've developed a
11 method here that can do all kinds of clinical tests,
12 from A to Z, and give you a very quick result with no
13 fuss, no muss, no sample handling, and no needles. You
14 know, you could do this at home, you can send it in to
15 the lab. And again, it was -- it was like it was too
16 good to be true, as with most of these things are. But
17 they -- but what -- what surprised me was that you had
18 labs, you know, you had like CVS, you had even some of
19 the big clinical labs saying they're looking into this.

20 And then I think CVS committed a lot of money to
21 it, and so -- so did Walgreens. And they raised a
22 couple of a hundred million dollars or so to -- to
23 finance this thing. And it basically was built on a
24 dream. It basically was fraudulent. But, again, this
25 is something that, you know, the -- the FDA was kind of

1 given the runaround. They were -- they were -- they
2 were going to look at it, but they never got a chance
3 to really take a hard look at it. And, of course, the
4 whole -- the whole house came crumbling down. You
5 know, it's an interesting story. But, again, it was
6 the idea that we can do this all with just a drop of
7 blood. So I had -- I felt like there was a similarity
8 here because this is something that -- DBS sounds very
9 sexy. It sounds really attractive. And what could be
10 wrong other than when you get into the details. And
11 it's the details where these things get to real --
12 really be tricky.

13 Q. Okay. Now, you've given us an overview of
14 validation criteria recommended by the industry
15 regulators, starting from bias and precision on down to
16 lower limit of quantitation. Based on the limited
17 information that you've received or specifically the
18 litigation package from USDTL, do you have any concerns
19 that any of the validation criteria have not been
20 satisfied?

21 MR. KASSIN: Mr. Burdette, let me object for a
22 second. I think the foundation of question in this
23 situation should be, has he reviewed the validation
24 information on the PEth test at USDTL, and after that,
25 he shouldn't be rendering an opinion without having

1 established a foundation as to what he has reviewed.

2 Q. I can rephrase the question. Based on the
3 information that you have received, do you have any
4 concern as to whether USDTL satisfies precision
5 requirements?

6 A. I can't because I have --

7 MR. KASSIN: Hold on. Let me just restate the
8 objection. I mean, I'm looking at his opinion letter
9 on Union Exhibit 50, and he can say, "I state -- he
10 says, "I can state with high degree of certainty even
11 without the opportunity to review laboratory analytical
12 results, quality assurance data, standard operating
13 procedures for the labs." So he wants to render an
14 opinion, I think the foundation has to be, what have
15 you reviewed? I mean, it's a rather broad question
16 based on what you reviewed, but at least as of his
17 opinion letter of January 30, 2020, he hadn't reviewed
18 any of that. So before he starts opining without a
19 foundation, let's find out what the foundation, if any,
20 is.

21 Q. I think the standard approach is to ask for
22 the opinion and then to ask what he based that on, but
23 rather than prolong the debate on the issue. Well, let
24 me ask him to -- let's go back to Union Exhibit 51. If
25 we could turn, it would be the 13th page of the PDF

1 which is paginated at the bottom page 8. Okay. And
2 I'm going to refer the witness to 8.2.2.3, under
3 general, that addresses percentage of CV, and I'm
4 looking at it, the second paragraph, shall not exceed
5 20 percent. And then a reference in the second line
6 there for certain analytical methods e.g. blood
7 alcohol analysis should require a much lower
8 coefficient of variation, less than or equal to 10
9 percent CV. Is this -- could you explain what CV is
10 and what these percentages referenced?

11 A. You know, the coefficient of variation is
12 basically, you know, kind of -- is a -- is a hybrid
13 between, you know, bias and -- and -- and precision.
14 You know, how -- how -- you know, what -- what's the
15 variable between you run a number of specimens, how --
16 what's that number going to be? It's usually marked in
17 a percentage basis. And the -- and the issue that I
18 have is I don't have any CV data. I have no idea what
19 their CV is for any of this. I don't think any have
20 been provided. So, you know, to -- to the degree that
21 -- you know, my -- my view was that, just based upon
22 what I see, I have a problem with this, you know,
23 because I haven't seen any of the supporting -- support
24 for the precision or accuracy, or even with the CVs are
25 of these things, you know, that -- that -- that are

1 being done here.

2 Q. If you could turn -- if I can ask Katy to
3 show us Union Exhibit 16. Okay. For the record, what
4 we're showing here is a USDTL litigation package for
5 Choice Lab referencing specimen ID for Michael Danford.
6 If we could move down to the fourth page of this
7 document. And if you can magnify that a little bit.

8 Now, here, we're showing, sir, an initial test with
9 a 69 quantitative result and a 98 for a second
10 quantitative result using the same specimen. Is there
11 an indication here that there's any difference in the
12 testing methodology used between this initial test and
13 the second test?

14 A. No, this should be -- you should prefer --
15 you should have results within 10 percent, and this
16 clearly is going from 70 to -- to -- to 90.

17 Q. Does that -- so does that present concerns
18 with respect to whether validation for precision has
19 been satisfied?

20 A. Yeah. So yes, it does. And -- but -- and
21 let me just emphasize this. This isn't about, is it
22 there? This is not a qualitative test, this is a
23 quantitative test, and these quantitative results are
24 out of whack. So that's one reasons why I have a
25 problem with the precision. If you can't get the

1 precision down, don't go around reporting out
2 quantitative results.

3 Q. Okay. I'm going to go through a few exhibits
4 and I'm going to do this quickly, so we don't take
5 inordinate amounts of time. And the question for each
6 one is going to be whether you consider these to be
7 reputable sources for toxicological analysis. And we
8 could put up first, Union Exhibit 1.

9 A. Oh, yeah. This paper to me was a real eye
10 opener. This -- this, to me, I think is one of the
11 most significant exhibits you've got, in terms of a
12 description from our European friends on how you should
13 be doing this, and what you need to do to validate this
14 DBS stuff. Again, it's a very thorough paper. It's --
15 it's -- it's comprehensive. And -- and again, it -- it
16 -- it -- it, to me, raised a lot of issues I wasn't
17 even aware of. So I would say that this -- I think
18 this is a very useful thing to -- to look at.

19 MR. SEHAM: Okay. And if you could now put up,
20 Katy, Union Exhibit 26.

21 (Union Exhibit 26 marked for identification)

22 Q. Are you familiar with this study, the effect
23 of temperature on the formation of ethanol by Candida
24 Albicans in blood?

25 A. Yes.

1 Q. Okay. Is that a reputable toxicological
2 analysis?

3 A. It is.

4 MR. SEHAM: Okay. And if you could move to Union
5 Exhibit 27, Katy.

6 (Union Exhibit 27 marked for identification)

7 Q. Are you familiar with this? I'm going to
8 abbreviate the first word to PEth in Blood as a Marker
9 of Chronic Alcohol Use: A Systematic Review and
10 Meta-Analysis.

11 A. Yeah, Also a very, very, very useful paper.
12 And -- and remember, again, these are looking at, you
13 know, again, a different sort of use or -- or -- or --
14 or qualitative as opposed to quantity. I mean, I'm not
15 raising any issues. I don't think, in my opinion, that
16 phosphatidylethanol is -- is -- is -- is -- is not a
17 marker for alcohol. The question is how much and how
18 did you measure that?

19 Q. Okay. If we could bring up, Katy, please,
20 Union Exhibit 50. Okay. Do you recognize this as an
21 expert report that you submitted in this matter?

22 A. Yes.

23 Q. And if we could go down, please, Katy, to
24 page 4 of this document. Now on page 4, you referenced
25 eight negative tests utilizing the EtG methodology, and

1 then a ninth EtG that was deemed a "positive" at the
2 quantitative level of 112, and then -- that might have
3 been actually 117. But then the following is
4 accompanied by, or the following reference is
5 accompanied by an EtS negative on the same date. Now,
6 did I read that correctly in terms of the testing
7 sequence?

8 A. Yes.

9 Q. Yeah. Okay. Now, can you --

10 A. So --

11 Q. I'm sorry.

12 A. Go ahead. Go ahead and ask the question.

13 Q. So I was going to ask just in terms of
14 foundational questions. Can you describe the EtG
15 methodology?

16 A. EtG methodology can -- is -- is -- can be
17 done in a two-step process. It can be done on an
18 immunoassay and then have a GC Mass Spec follow up with
19 it. EtS, very similar. I'm not sure -- I'm not that
20 familiar with the immunoassay of it, but I know you can
21 do it with a GC Mass Spec. So I assume there's an
22 immunoassay for it out there too.

23 Q. Okay. Is EtG or ethyl glucuronide a
24 sensitive test?

25 A. It's exquisitely sensitive, but that's the

1 problem with it, it almost works too well. That's at
2 least I think a lot of medical boards found out. You
3 know, again, you've got this thing of people suggesting
4 that they got it from a rotten banana, you know, the
5 fermentation from fruit. You know, so it doesn't take
6 a lot, it takes very little. And then you can
7 remember, alcohol is all around us. I mean, you bake
8 bread, I mean, that -- what you're smelling is a -- is
9 a -- is a form of alcohol, you know, so you've got all
10 these things going on that's the source of it.

11 And as I said, this was the big headache that NMS
12 had because I think that, you know, they relied on the
13 medical boards to establish what the cutoff was, but
14 then they turned around since you couldn't sue a
15 medical board because they have immunity, the
16 plaintiffs in this thing went after the laboratory and
17 the laboratory said, hey, we didn't tell you where it
18 came from. We just told you it was there. And I don't
19 think it was anybody questioned the fact that their --
20 their actual analysis was right, is a question that
21 they weren't -- they're not being in charge with --
22 with interpreting what the results were. And again, I
23 think that was a -- it's a smart thing for a laboratory
24 not to interpret where it came from, but just say
25 here's what we found. You interpret it, you know, and

1 that's kind of what MROs do. So to -- to that -- to
2 that -- to that degree, so --

3 Q. Okay. Katy -- I'm sorry, I don't mean to
4 interrupt.

5 A. I'm sorry.

6 Q. Katy, we can take that exhibit down so we can
7 have more of the Brady Bunch visual. I know you've
8 touched about -- on it in passing in your testimony up
9 to this point, but in this immediate context, can you
10 define for us what the term cutoff level means in the
11 context of forensic substance abuse testing?

12 A. Yeah. It basically is an artificial law and
13 at which you basically make a -- a determination.
14 Above a cutoff means you're going to do one thing,
15 below a cutoff means you're going to do something else.
16 Typically it means above a cutoff it's going to be
17 reported as a positive, and below it's going to be a
18 negative. And those things are set not by the
19 theoretical limits of the instruments, although, you
20 know, historically that had been the case for many --
21 because we didn't have them -- we didn't have a very
22 good sensitivity. But now with the kind of almost
23 unlimited sensitivity that's out there, all these
24 methods have cutoff levels, you know, even EtG. I
25 mean, even in hair. I mean, I just saw an article that

1 told -- told me that the EtG cutoff in hair should be
2 like 30 nanograms per -- and remember, in hair we're
3 talking about weight to weight, not -- not weight to
4 liquid or -- or, you know, so you're basically talking
5 about picograms per -- per milligram or nanogram. So
6 any event that -- that the -- so the cutoff has -- and
7 then there's always been a big debate about that.

8 I remember in the early days of the federal
9 program, paradoxically, the issue was they didn't want
10 to have too sensitive a cutoff for THC because they
11 thought they wouldn't have any workers left. They
12 thought everybody would be knocked out. It turned out
13 that wasn't the case. That the actual cutoff that they
14 used in the early days in this program, was so
15 insensitive, nobody was getting caught. So they had to
16 ratchet it down. So again, that -- that -- that's what
17 -- that's what it is. Again, it's a policy decision,
18 but it's an essential one.

19 And that was one, again, one of -- one of my
20 criticisms of the horse racing industry. They
21 basically just didn't follow the science. They
22 basically followed the instrumentation and they just
23 pushed the instrumentation as far as it could because
24 there weren't that many positives, and so the
25 laboratory that could find a positive was like, you

1 know, waving a flag. The problem was that -- that it
2 could have been an innocent thing like the -- the three
3 horses in the trailer, or -- and now we're finding that
4 the -- that the -- the stalls, you know, are
5 contaminated, the grooms are contaminated. So, you
6 know, so that was the idea. That's too sensitive. And
7 I'll tell you again to reiterate this, you keep
8 lowering these cutoff levels, and you get everybody
9 positive. You can knock everybody out of these rehab
10 programs if you wanted to with just -- just -- just --
11 just going through the sensitivity that the instruments
12 are capable of doing now.

13 Q. You referenced the federal program Part 40.
14 Are the concept of cutoff levels used across the board
15 for all the substances tested under that program?

16 A. To my knowledge, yes.

17 Q. Yes? Okay. And then under that federal
18 program, in terms of cutoff levels, can laboratories
19 choose their own cutoff level under the federal
20 program, or are those fixed cutoff levels for each
21 substance?

22 A. You know, it's a -- the federal program's a
23 two-edged sword. I mean, you cut -- this is what they
24 want, and this is what you have and cannot, with the
25 exception of the NRC. The nuclear regulatory program

1 built a rule that is saying, our cutoff levels are you
2 can go lower than that if you want, you just can't go
3 higher. So they said this is sort of the minimum
4 standard. But if you -- if a utility wants to ratchet
5 down, they can. And the early days of the program,
6 some of them did, most of them now basically have just
7 settled on the existing established cutoff levels. But
8 in the DOT program and the HHS program, no, you're
9 stuck with what they tell you it is and that -- and
10 that's it, which in some ways is helpful for the
11 laboratory since they, you know, can have just one
12 validation and basically, you know, regulate it at --
13 at there for -- for the same for across the board.

14 Q. With respect to EtG alcohol testing, is there
15 similarly a uniform cutoff level that's used?

16 A. Well, here the problem is, is that there are
17 a number of different specialty boards that established
18 what that is, and -- and maybe even some private
19 employers, but most of the time I see this in medical
20 boards, legal boards, and -- and -- and employers. And
21 generally, there's, you know, in the early days they
22 were doing 100, then they were doing 200, and then
23 after this the -- the -- the Fukushima and the class
24 action suits against NMS, most of the -- most of the
25 medical boards have come back and have raised the

1 cutoff level to maybe 500 or 300. I mean, did -- so
2 there's -- I don't -- I don't think I can identify what
3 the consensus is for that. And again, I'm not
4 pooh-poohing ethyl glucuronide, it's really very
5 useful, but it's exquisitely sensitive. And if you're
6 going to go way down, you're going to get everybody,
7 and then -- and you -- then just because of the nature
8 of alcohol.

9 Q. Okay. And in your experience, what's the
10 most common cutoff used in terms of differentiating
11 between a negative and a positive?

12 A. Somebody told me that they -- they think it's
13 around 250 or 200 or something like that.

14 Q. Now, what cutoff level did Quest laboratories
15 apply to Mr. Danford's test?

16 A. I don't recall. I don't recall what their
17 cutoff level was.

18 Q. Okay.

19 A. Although I do know that the big problem with
20 this testing from the very beginning was the fact that
21 they didn't make a creatinine correction. In other
22 words, this is the other variable with -- with -- with
23 -- with EtG, and this has been the problem in -- in
24 drug testing. If you -- you can -- you can -- your
25 urine varies in its concentration fourfold over the day

1 without doing anything. Just from the morning urine,
2 to the afternoon, to the evening, you'll see a big
3 difference in the concentration. The more concentrated
4 that urine gets, the higher the creatinine is. And the
5 more -- the higher the creatinine is, and the more
6 concentrated it is, the higher any drug -- drug or
7 metabolite is going to be.

8 Most drug users go the opposite direction. They
9 want to dilute their urine. They don't want to
10 concentrate it because that increases the chances of
11 detection. But so frankly, the -- the whole -- the
12 whole bug-a-boo with this case is that this -- this
13 creatinine level was above average, was above the norm,
14 and it should have been corrected. And then if it was
15 corrected, it would have fallen -- as I recall, and I
16 remember what the numbers, I don't want to guess, but
17 I'm thinking -- I'm -- I recall that it would have
18 fallen below what the cutoff level was at the Quest
19 lab.

20 (Union Exhibit 52 marked for identification)

21 Q. Okay. Now let's -- we'll come back to the
22 creatinine because you -- you're anticipating me a
23 little bit. But what I'd ask Katy to do is bring up
24 Union Exhibit 52. Are you familiar with this analysis
25 led by Michael G. McDonell?

1 A. Yes.

2 Q. And you would consider this a reputable
3 publication?

4 A. Absolutely, yeah.

5 Q. Yeah. If we could move down to the sixth
6 page of this document. Okay. I think I need just to
7 -- well, actually, maybe slightly up just a little bit.
8 That's fine where we are. If we go to the last
9 paragraph, there's a statement here, I'd say four lines
10 down starting with "therefore." Are you with me, sir?

11 A. Let's see. Thank you. "Therefore, cutoffs
12 of 200 nanograms per milliliter and above are
13 recommended for use in settings where minimizing false
14 positives is essential." I don't disagree with that.

15 Q. Okay. Would you go so far as to say you
16 agree with that?

17 A. Yes.

18 Q. Okay. Thank you. So I'm going to -- if we
19 can take that down so I can see the full gallery of
20 people again. So you were explaining, if I could have
21 again briefly, creatinine is a protein or is a
22 phosphate --

23 A. Breakdown for that -- yes. And -- and you
24 basically produce a constant level of it, which is
25 actually a reflection of what you're going to find in

1 your blood. And everyone, it's generically determined
2 as to what the creatinine level and blood is. And so
3 basically, when -- when you go into -- for doing a -- a
4 urine drug -- urine test or you go in for just a
5 clinical evaluation of your kidneys, one of the things
6 they want to look at is what your creatinine and
7 clearance is. So it's -- everybody has got kind of a
8 constant level of it, you know, having a high or low
9 creatinine level kind of give you an idea of -- of
10 whether the kidneys are functioning properly or not.
11 So once again, we have a -- a way above average here
12 for Mr. Danford, which I think is just due to not
13 kidney problems, but basically just of significant
14 dehydration.

15 MR. SEHAM: Okay. In order to ask the next
16 question, I have to set up -- confirm that I have the
17 right page referenced in the document. So I'd like to
18 ask for a five-minute break so I can make the
19 transition smoothly. Okay. Thank you.

20 THE REPORTER: We're now off the record at 11:37
21 a.m.

22 (OFF THE RECORD)

23 BY MR. SEHAM:

24 Q. Okay. Very good. Now, I'm going to ask
25 Katy, if you could bring up the document that I

1 identified during the break. Okay. So we're looking
2 at, just for the sake of the record, Company Exhibit 9.
3 It looks like it's page 112 in terms of PDF numeration.
4 It's 111 in terms of hand scroll at the bottom. If we
5 can magnify that a little. Okay. And again, for the
6 sake of the record, I'm noting an EtG quantitative
7 result at the bottom of 117 nanograms per milliliter.
8 A creatinine measurement at the top of 256.9 mg/dL.
9 And the question, sir, I have for you is, putting to
10 one side the appropriateness of using 100 cutoff, 100
11 nanogram per milliliter cutoff as the definition of
12 positive. Putting that to one side, does the
13 information on this page raise any questions as to
14 whether quantification in this case should be deemed as
15 in excess of 100?

16 A. No.

17 Q. In terms of creatinine concept.

18 A. Yes. But you -- you need to -- with these
19 types of tests, you need to adjust how concentrated the
20 urine is. So if you adjust that 250 -- 254 over what
21 an average creatinine would be, maybe like 120, that --
22 that 117 would be significantly lower. It probably be
23 about 80 or so. Again, I'm just -- just -- just
24 roughing it out. So again, that -- that -- that I
25 think is -- is one of the fundamental issues with this.

1 And of course, it's also suspect, although not
2 definitive, that there's no ethyl sulfate in this -- in
3 this specimen. Usually these things go hand in hand,
4 like brother and sister. And so for whatever reason,
5 we have this marginal if -- if -- or arguably negative
6 ethyl glucuronide and then there's no ethyl sulfate.

7 Q. Okay. So let's lay some further foundation
8 for that. Your chart in your expert witness report
9 refers to the EtS test on May 1. Could you describe
10 the background of ethyl sulfate and what are the
11 advantages or disadvantage of the EtS methodology as
12 compared to EtG?

13 A. Yeah. These -- both of these things, EtG and
14 EtS, are basically, you know, relatively minor
15 metabolites of alcohol. So they're direct markers of
16 alcohol. But again, alcohol is everywhere. So the
17 question is how much? So EtG is -- is basically a
18 sugar molecule hooked up to the ethanol. And so what
19 happens with EtG, the -- the difficulty with it is that
20 you can -- if you bring it into the laboratory, you can
21 basically have it eaten up by bacteria. So you need to
22 put some sort of -- either freeze the specimen quickly
23 or get rid of it because the EtG will disappear. The
24 benefit of EtS is that it doesn't. It's a sulfate. It
25 is not going to be digestible by most bacteria that

1 you're going to find in urine, so it's much more stable
2 on the shelf than EtG. So both of these things, you
3 know, again, kind of go hand in hand. So this is --
4 this just jumps out at me that there's no EtS here at
5 all.

6 Q. Is that a common -- is that a common practice
7 to test a single urine specimen for both EtS and EtG?

8 A. It -- it is. I mean, again, you know, again,
9 Quest does an awful lot of this stuff. They know what
10 they're doing. So, you know, I would say that --
11 again, I'm not sure I could testify that every lab does
12 it that way. But, you know, EtG, EtS are both -- both,
13 you know, very helpful to have together because once
14 again, they're just -- again, it's not definitive, but
15 it suggests there's something going on here.

16 Q. Where the EtS is negative, does that suggest
17 any interpretive approach to the EtG?

18 A. Yes. Well, again, you could probably, you
19 know, I don't know what their cutoff for EtS is. But
20 whether -- the theory would be, if that was positive,
21 they'd also have to make the creatinine correction for
22 that. And I'm not even sure what their cutoff -- they
23 don't post what their cutoff is for EtS. But in any
24 event, the fact that they didn't report any, which
25 means, you know, that it was whatever that cutoff is,

1 it's below that. But they did report the EtG. Because
2 again, they're starting with, I would say, a -- a
3 somewhat overly aggressive cutoff of 100 in all of this
4 to start with. And again, I don't -- I don't know.
5 You know, again, this may be worthwhile in -- in a
6 setting where you just want to flag something, but it's
7 not going to be something that's going to be a -- a
8 decision-maker. So that -- that's -- that's my --

9 Q. Okay. So how would you characterize the EtG
10 and EtS results based on this May 1 urine collection?

11 A. Well, I would call them negative and that's
12 that.

13 Q. Both the EtG and the EtS?

14 A. Yeah. Of course the EtS -- the labs agreed
15 -- you know, saying it's negative. So I'm not -- but
16 the EtG, I think that I would say that my sense is if
17 -- if they -- if they were told that they need to do a
18 creatinine correction on this which I think is good
19 practice, that would've -- it would be negative as
20 well, or they could just raise it to the more standard
21 of a 200 nanogram cutoff.

22 Q. In terms of basic forensic principles in the
23 toxicological environment, when two different testing
24 methodologies are applied to a single sample yielding
25 one positive and one negative, how is the overall

1 result treated?

2 A. Suspect. I wouldn't say it's canceled. I
3 wouldn't say it goes away, but again -- and again,
4 there may be variables if you look at the -- at the --
5 at the process a little bit more carefully. There may
6 be differences in metabolism. There may be some reason
7 -- remember that the EtG is only borderline even at --
8 at a very sensitive level. So the EtS, you know --
9 would've -- would've been normal or would've been just
10 a negative also. So again, I don't -- I would not want
11 to say that my -- my view is that, I would view these
12 as negative tests. But again, per se, just because
13 one's positive and one's negative. I mean, for
14 example, if the EtG was 300 and there was no EtS, I'd
15 be fine with it. I'd be good with that. But again,
16 the EtG being at that low level is suspect already.
17 And then it's further suspect by the fact that it
18 doesn't have it's -- it's sister, ethyl sulfate nearby.

19 Q. Well, I was referring to in terms of forensic
20 practice recognized in the broader field as reflected
21 in Part 40, if there's a positive immunoassay, far in
22 excess of cutoff, but there's a negative gas
23 chromatography mass spectrometry result. How is that
24 result treated?

25 A. In -- in all federal testing when there's a

1 discrepancy when you have a two -- two method
2 methodology and one of them comes up negative, that's
3 it. We're -- we're done. We're not going to move on
4 with that. So regardless of what the drug is, and --
5 but if it's there's -- if it's a dual method, even a
6 screening confirm and if the screener confirm doesn't
7 work, that goes away. That step -- that becomes a
8 canceled test.

9 Q. We've now discussed the EtS and EtG test
10 based on the urine collection of May 1, 2018 for Mr.
11 Danford. We now move to the PEth testing conducted
12 using dried blood spot specimens that were collected on
13 May 9th. And can you briefly describe, and this may
14 overlap with prior testimony, but just to have some
15 context here, can you briefly describe the nature of a
16 PEth test?

17 A. Yeah. PEth phosphatidylethanol is a
18 component of the cell membrane in red blood cells,
19 along with about 50 other fatty -- fatty -- fatty acid
20 esters that -- that faithfully make the -- make the
21 structure of what the cell membrane is. And it turns
22 out it was discovered a number of years ago, that in
23 the presence of alcohol, that phosphatidylethanol, and
24 a phosphate -- phosphatidylestrate basically generates
25 this phosphate -- well, it generates this metabolite of

1 -- of -- of-- of alcohol, the phosphatidylethanol.
2 Again, relatively low levels, but again, there's a good
3 correlation between the phosphatidylethanol and
4 exposure to alcohol. But it's all relative and how
5 much exposure and what -- what -- what we are measuring
6 here.

7 Q. Okay. Katy, you could drop that document so
8 we can all see each other. What is the detection
9 window of a PEth test?

10 A. Well, the detection window depends on how
11 much you consume. But I basically, I think we're
12 looking at, you know, maybe a -- a week or so of -- of
13 -- of -- of being a positive test for, you know, given
14 the -- the numbers that I see out there in the
15 literature right now, I also understand that the --
16 that there's a elimination half-life, about 5 to 10
17 days, depending on what literature you look in. So
18 that -- that's kind of where we're at with this.

19 Q. Okay. The May 9th specimen collection in
20 2018 for Mr. Danford consisted of obtaining dried blood
21 spots. Is that the customary manner in which PEth
22 testing is conducted?

23 A. The only place I know that does it is US Drug
24 Testing Lab. I mean, I know that the Europeans have
25 been looking at this, and they're the ones that have

1 come up with all kinds of things. But they're even --
2 their interested in this and application is not for
3 forensics, it's for clinical testing. So that's --
4 that's so -- the -- even there and -- and I understand
5 that there's now a proficiency program in Sweden, but
6 the Europeans tend to be ahead of us on some of these
7 things. They are in this area, but even here, this is
8 not a forensic test for them. This is something that
9 would they would use, for a clinical application. And
10 dried blood spot testing, is used rout -- routinely
11 with neonates, because you don't have to poke the kid
12 and you get -- you get some -- you get a -- you get a
13 qualitative result is what they're looking for in terms
14 of metabolic issues.

15 So again, it has a lot of -- a lot of merit. It
16 just isn't the appropriate or correct collection device
17 to use for PEth testing for alcohol. And in fact,
18 there are new devices out there that kind of eliminate
19 the issues that made dried blood spot testing almost
20 obsolete. There's a new gizmo out there that's a
21 volumetric pipette that basically eliminates the issues
22 that we're going to be talking about in a minute, with
23 a hematocrit effect. So again, this is sort of
24 outdated and again, never really wildly adopted, even
25 though I know a lot of laboratories looked at this.

1 Now again, some laboratories are still looking at
2 it and maybe still doing it, but not for alcohol. For
3 example, I know a laboratory that's doing it for
4 looking at testosterone levels in athletes. And I know
5 that we are all -- Doping Association was looking at
6 it, for again, steroids, but not alcohol because it's
7 not -- it's not the appropriate thing because ethanol
8 -- phosphatidylethanol is again, a different kind of
9 animal than these others. First of all, there are
10 about 40 different homologues of this thing, which
11 means they are identical with one or two carbon
12 differences. So there are a lot of variables with this
13 thing. And of course, when you get into it and you'll
14 see the papers that I talked about, and how -- and how
15 you validate these things, there's all kinds of
16 problematic issues with the dried blood spot.

17 First of all, I wasn't aware that you have the
18 thing called a volcanic effect. In other words, if the
19 two drops or one drop, it doesn't fill out the whole
20 spot, you get a high concentration. But the most
21 significant and an issue with this is that with an
22 individual that has a high creatinine level, they
23 probably have high hematocrit. You know, how many red
24 blood cells are there, because it's being -- they're
25 being pushed together, because they've lost a lot of

1 water. Now, all the methods basically say that at a
2 minimum, you need to figure out what that hematocrit
3 level is to get an accurate dried blood spot test. And
4 nobody could tell me based on everything I've seen on
5 what Mr. Danford's hematocrit level was even though we
6 know he was dehydrated and we know we have this
7 excessive amount of creatinine. So there's neither no
8 adjustment, no attempt to do. And there's all kinds of
9 papers on how you can estimate it or how you can deal
10 with it. But it just was ignored in this case. So
11 again, I think that that's one of the reasons why we
12 had the ethyl glucuronide and -- and also the
13 phosphatidylethanol.

14 Q. Okay. So other laboratories are using
15 venous blood or whole blood for their PEth testing?

16 A. Yeah. Most of the time it's just a whole
17 blood specimen, you know -- not -- you know -- you know
18 -- so it is venous blood but it's all, you know -- not
19 as opposed to plasma, they're basically looking whole
20 blood.

21 Q. I may use the acronym DBS for dried blood
22 spot. Is DBS PEth testing approved by the FDA?

23 A. Not for PEth testing. And I'm not -- and I'm
24 -- and again, I'm -- I'm sure it's probably been
25 cleared for test -- testing for clinical testing for,

1 you know, neonates and other clinical parameters, you
2 know. But again, I don't think anyone looked at -- at
3 PEth testing in any kind of rigorous kind of manner,
4 and -- and if they did, they probably wouldn't approve
5 it.

6 Q. Katy, we could post Union Exhibit 11, please.
7 For the record, we are looking now at Union Exhibit 11,
8 Dried Blood Spot Collection Instructions. Sir, are you
9 familiar with this document?

10 A. Yes, I am.

11 Q. All right. And do you know if USDTL has any
12 training or certification program for collectors of
13 dried blood specimen samples?

14 A. I don't believe they do.

15 Q. How does that contrast with the United States
16 Department of Transportation training requirements for
17 Part 40 collections?

18 A. Well, it's interesting because one of the
19 weak spots in all drug testing is the collector. You
20 know, and I think DOT has been struggling with this
21 since the beginning of the program. And DOT has a
22 rigorous thing and this is just -- just catching urine.
23 This is not a really complicated thing. You know,
24 just, you know, have somebody go out there and get a
25 urine, you know, and then -- and then -- and that

1 requires a great deal of -- of -- you need to have mock
2 collections being supervised by somebody who knows what
3 they're doing, keep -- maintain the records of those
4 collections, and if they screw up, they basically have
5 to be retrained again. So again, it's a kind of a
6 rigorous regiment for just being a -- a -- what I call
7 a urine catcher. And of course, you know, their
8 challenges is not, you know, any -- challenge is also
9 the paperwork and all of that. So again, to have
10 something where there's none where something is -- is
11 somewhat more complex as this is a little bit, kind of,
12 surprising.

13 Q. Okay. All right. If you could -- focusing
14 back on Union Exhibit 11. After the description of the
15 materials that are contained in the USDTL kit, it goes
16 on to say in the first full sentence, "Dried blood spot
17 collection is a donor performed collection. It may be
18 beneficial for the collector to assist the donor or
19 perform the collection completely in some cases. In
20 either case, it is imperative to follow the steps
21 carefully to ensure a proper specimen collection." Why,
22 sir, is it imperative that a collector follow the
23 protocol set forth by a laboratory in terms of
24 obtaining the testing specimen?

25 A. Well, if they don't, you're going to have all

1 kinds of unknown variables. You're not going to know
2 what happened, you are not going to know that this was
3 done with any kind of precision. And as I said, the
4 literature indicates there all kinds of issues that
5 happened with -- with a dried blood spot. So, you
6 know, and even -- even for -- you know, a donor can do
7 it. And again, remember what we're talking about here.
8 We're talking about a -- having an accurate how much is
9 it, not is it there. So, you know, for clinical
10 testing, it's like, is it there or isn't it there in mo
11 -- in most cases. And so here, you know, having
12 somebody who's just going to wing it or basically, you
13 know, kind of do what they want without any kind of
14 monitoring or training. You know, it really just opens
15 a -- a can of worms for everybody in this. The labs,
16 the company, the -- the -- the -- the -- the providers.
17 This really is just something that adds a whole degree
18 of level of uncertainty that's really remarkable. So
19 --

20 Q. If you could move down to -- and Katy, I
21 should ask first, move down to point number 10. There
22 you go. And thank you. Here, I'll focus on the latter
23 part, which is all bolded and proceeded by note in
24 capital letters. "Note: Allow the collection paper to
25 wick blood out of the puncture. Do not press the

1 finger against the collection paper, and do not layer
2 successive drops." Why is it important to wick the
3 blood out of the puncture and not press the finger
4 against the collection paper?

5 A. Well, first of all, you'll have a better
6 sense of what the -- how much blood you have. Now, if
7 you are going to press something, you don't -- really
8 you've lost idea of what the volume is going to be.
9 Second of all, if you touch this thing with your skin,
10 you -- who knows what else you're introducing to it.
11 You know, you've got -- you know, you've got alcohol on
12 your fingers. You know where -- I don't -- not -- not
13 necessarily just from, you know, the sanitizer, but you
14 -- you've -- there are a whole lot of other variables
15 involved with that. So again, it really is something
16 that the ideal world, you basically just have the blood
17 fall free and drop onto this card and then, kind of, be
18 -- hit it in the center and then hope it -- hope it --
19 it fills -- fills the circle. So once again, and
20 remember with Mr. Danford, I bet that blood got thicker
21 than my blood at the moment or -- or your blood. I
22 mean, it's again, it's kind of concentrated because
23 again, he's relatively dehydrated.

24 Q. Would you concur with USDTL's
25 characterization of this collection protocol is

1 imperative to the integrity of the collection and
2 subsequent testing process?

3 A. Oh, sure. Yeah. No, I -- I do agree with
4 that.

5 Q. Now, the latter part of the bolded language
6 we were just reading references -- there's an
7 injunction there, "Do not layer successive drops." Why
8 is the avoidance of layering successive drops
9 important?

10 A. Well, because again, it may not spread out on
11 the card and -- and you're basically going to double
12 the amount that you're testing. So, you know, if you
13 got one drop, that's one thing. But if you have two
14 drops, well again now you've got double the amount of
15 red blood cells there and probably -- and
16 theoretically, double the amount of -- of
17 phosphatidylethanol that you're going to be analyzing.
18 You know, given the same -- the -- the -- the same
19 distribution of -- of the blood on that paper. So
20 again, these are -- and -- and then when you stop and
21 think about that for a second, that in some ways is
22 what's going on here.

23 Even if there's -- let's assume it's just a single
24 drop. Because that blood is more concentrated, you're
25 getting more red blood cells in that, you know, the --

1 then the paper isn't going to be able to figure it out.
2 They're just going to absorb what it gets. So that's
3 why I think that this is -- it is imperative. But
4 again, there are more than just that issue that's here.
5 But that is an issue of not being able to touch this
6 thing. And certainly, you don't want to double it up
7 because that's just clearly going to be increasing or
8 -- or increasing variability into your quantitative
9 results.

10 Q. Okay. Does that relate in any way to the
11 volcano effect that you were referencing earlier?

12 A. Yeah -- yeah. No. It -- it is. It kind of,
13 you know, you think about a volcano, you've got a hole
14 in the middle and you've got this sort of crust around
15 the outside and then -- then -- then the lava flow
16 outside of it. So it's not an -- it's not an even
17 distribution. You know, it's not something like, you
18 know, if you -- you just took like an ink and put it on
19 there, you know, you'd have the ink and -- and the ink
20 would separate into its parts, but it's nothing like
21 you see with -- with blood on these paper things. Now,
22 you will have this -- again, something has been
23 described as a volcano effect and it has some, sort of,
24 illustrations there of kind of what some of the issues
25 are in terms of when you have the satisfactory and when

1 you don't have a satisfactory collection.

2 Q. If we could, Katy, slide down to point 11.
3 In the second half, it says, "Avoid 'milking' the
4 finger as this will cause more interstitial fluid to
5 surround the puncture and will speed clotting (will
6 stop -- excuse me, will slow/stop the bleeding). Do
7 not layer successive drops." Why is the avoidance -- in
8 your view, why is the avoidance of milking the finger
9 by the specimen collector or by the donor important?

10 A. Well again, that's a -- just another area of
11 variability. In other words, if you actually going to
12 squeeze the finger, kind of like milk it, you know,
13 you're basically going to take a lot more extra
14 cellular fluid as opposed to what you want, the red
15 blood cells. And again, it just changes the dynamics
16 and the hemodynamics, of the whole -- the whole -- the
17 whole shooting match. Again, I don't -- I don't know
18 what all the results are going to be because I don't --
19 I don't know -- taken a hard look at that. But again,
20 that they've -- they've made the point that you -- that
21 -- that's not -- that's a no, no. That you really
22 shouldn't do that.

23 Q. Okay. If we could, Katy, move down to point
24 15. Now, just for the record, I'll read that quickly.
25 It says, "Place specimen card in drawing box, seal the

1 box with a long specimen seal from the bottom of the
2 Custody and Control form. If you don't have a Custody
3 and Control form, there is a tamper-evident seal
4 provided in the collection bag. The seal should reach
5 around both ends of the box and effectively fasten both
6 ends shut." Is this use of a drying box into which the
7 card is sealed consistent with the DBS protocols with
8 which you are familiar?

9 A. Well, one of the things that I -- I've --
10 I've had a concern about is that it seems that every
11 paper I've written -- read has emphasized how important
12 it is to have a three-hour drying time. And, I -- you
13 know, again, whether that's in a box or not in the box,
14 but I think that was -- that's an essential thing also
15 to have here. And then that, you know, and again, I
16 have a hard time visualizing a lot of these collections
17 sites, setting aside three hours to watch -- watch
18 paint dry, and that's kind of what you're doing with
19 this. So again, I don't -- don't have the expertise on
20 terms of other methods of -- of drawing these things or
21 what you ship them in, but again, I think that time is
22 -- is a -- is a main issue here. The other issue that
23 I think that's come up has been the idea of -- they
24 also emphasize don't use plastic, yet they send a
25 plastic bag to put these things in. Which again, it's

1 like co -- confounding to me. I'm not quite sure where
2 we're going with all that.

3 Q. Okay. Well, you're anticipating me again.
4 So let me try to catch up with you. Katy, if we could
5 slide down to point number 19. And I think this was
6 what you're referencing. Here there is a special
7 reference in bold at the bottom of point number 19,
8 "Caution: Do not place inside an airtight plastic
9 specimen bag." Would you consider this protocol as
10 imperative to the integrity of the testing process?

11 A. That's an essential, because again, they're
12 talking about the how -- how significant it is to make
13 sure these things are dry. If you're going to put it
14 in a plastic bag, I mean, come on. I mean, that's
15 going to just -- that's going to slow down or stop the
16 -- whatever drawing is going on. So again, that just
17 to me is -- is -- I mean, I agree with that statement.

18 Q. Okay. Are you familiar with the use of
19 desiccant pouches or sachets in the context of DBS
20 testing?

21 A. Well, once again, the whole idea of this is
22 just like when you get your pill bottle from the
23 pharmacy, you know, you're going to have a desiccant in
24 there because you don't want to have moisture, you
25 know, mixing in with your -- with your medications.

1 And that's the same thing here. You want to get the
2 moisture away from it. So you're going to want to
3 include something that will keep -- make this thing as
4 dry. And again, even though it may be dry here, but
5 you know, you -- you send this, you know, off to -- to
6 the Post Office or FedEx truck, you know, there --
7 there may be moisture in the air, you collect this in
8 the summertime, it's -- it's a lot more humid, so, you
9 know, the desiccant thing is -- is an important element
10 to this.

11 MR. SEHAM: Okay. Katy, if you could take down
12 this document and put up Union Exhibit 53.

13 (Union Exhibit 53 marked for identification)

14 Q. Just for the record, it's a treatise or a
15 study entitled, "Dried Blood Spots-Preparing and
16 Processing for Use in Immunoassays and in Molecular
17 Techniques" with the lead author being Nico Gruner.
18 Are you familiar with this study, and if you are, is it
19 a reputable source?

20 A. Yeah. I've read it and I think it's a
21 reputable source.

22 Q. If you could, Katy, if we can move down to,
23 let's see, page 5 of this document. Let's see if I
24 have the right page. It might be page 4. And if you
25 could move down further, I want to -- yeah, perfect.

1 Under this heading of storage and transportation of
2 dried blood spots, point number 4 reads, "Exclude the
3 filter cards from further processing if the desiccant
4 packs and/or the additional humidity indicator card
5 changes to a pink color." Could you explain that, first
6 of all, this process of desiccant packs changing to a
7 pink color?

8 A. Well, once again, you want to make sure that
9 this stuff is dry and stays dry. So you have -- this
10 is an indicator, this is just to help for the -- the
11 collectors and/or the laboratory personnel to assure
12 that, okay, it -- it arrived here with the desiccant,
13 and it looks like it's been dry because we haven't seen
14 any -- any color change with the -- with the thing that
15 changes color in humidity.

16 Q. And do you agree with this statement that
17 filter cards that arrive with the desiccant pack that's
18 changed to a pink color should be excluded from further
19 processing?

20 A. Yes. I mean, you know, if you -- you're
21 going to write rules, you might as well follow them.

22 (Union Exhibit 54 marked for identification)

23 Q. All right. Yes, if we could bring up Union
24 Exhibit 54. Are you familiar with this study?

25 A. Yeah. This is an interesting -- yeah. I am.

1 This is the --

2 Q. Go ahead.

3 A. It is an interesting study because, you know,
4 I mean, I have, I -- I -- I monitor my glucose levels
5 as well being a diabetic. So again, this is something
6 -- this is what we're looking at here. You know, the
7 A1C test is basically a way for your physician to see
8 how well you're controlling your sugar levels. You
9 know, as -- if you have excess sugar in your blood, it
10 basically hooks onto the -- to the hemoglobin or -- or
11 the red blood cell. And then that -- it's
12 proportionate to how -- how high the blood sugar is for
13 a -- for a period of time. So even if you knock it
14 down, it takes about 30 days for that to clear. So
15 this is an interesting thing to show, you know, how the
16 -- you can have basically different results, depending
17 on where you're collecting it from. And this is not
18 even for phosphatidylethanol, this is for A1C, you
19 know, red blood cells with hemoglobin with
20 glycosylated.

21 Q. And then you consider this report, Union
22 Exhibit 54 to be a reliable toxicological source?

23 A. It is. And -- and in fact, I -- I -- I
24 conceptualize all of this in terms of A1C, because
25 we're looking at a red blood cell artifact, you know.

1 And then -- so the idea of, you know, how fast can you
2 push this one way or the other kind of lead into the
3 next topic we're going to talk about. You know, that
4 -- that this thing is -- once it's in your system, it's
5 in your red blood cells, how fast does it disappear.
6 So again, just thinking about in terms of -- of A1C,
7 this was an interesting thing showing that you get
8 different results depending on, you know, a humid
9 environment or not a humid environment, et cetera, et
10 cetera. And, you know, you'd be misclassifying a whole
11 group of patients here as being diabetic when they're
12 not or vice versa. But most of the time it's -- it's
13 the -- the -- the misdiagnosing them as being Type 2.

14 Q. Okay. We can take down that exhibit, Katy.
15 Now, you have described the EtG test as exquisitely
16 sensitive. Would you describe the PEth test in similar
17 terms?

18 A. Yes. But not at traceable amounts, it takes
19 a little bit more than a trace to be
20 phosphatidylethanol. But the EtG, it -- all it does is
21 take, you know, I mean, literally a very minimal amount
22 of alcohol.

23 Q. Okay. Are you familiar with the references
24 to PEth having a detection window of one to three
25 weeks?

1 A. Yes.

2 Q. Okay. Is that following cessation of the
3 alcohol exposure?

4 A. Yes. And again, it -- it really also depends
5 on, to some degree, what, you know, how much -- how was
6 -- how -- how -- how much alcohol was in this first
7 place. So that -- that will also be -- but I think one
8 to three weeks is a fair characterization of what the
9 expectation is with phosphatidylethanol.

10 Q. And Katy, if we can move back to -- okay,
11 hold on. Before we do that. Yes, let me ask this
12 question. In view of the EtS and EtG results that
13 we've discussed, relating to the May 1 urine collection
14 for Mr. Danford, could the PEth test utilizing the DBS
15 spots collected on May 9th, indicate the consumption of
16 alcohol prior to May 1?

17 A. So the EtG is positive on May 1st, and then
18 you have a -- a dried blood spot done on May 9th.

19 Q. Correct

20 A. And that's probably --

21 Q. What I'm referring to is having an EtS -- the
22 May 1 results being EtS as a negative, EtG at 117 with
23 a creatinine of 259.

24 A. Uh-huh.

25 Q. And if that -- if that occurred on May 1, do

1 you have an opinion as to whether a PEth test utilizing
2 DBS on May 9, eight days later, could reflect
3 consumption of alcohol prior to May 1, prior to the EtS
4 and EtG results?

5 A. I don't think it could. I don't -- I don't
6 think you've gotten, you know, the -- that kind of tail
7 on it. And particularly, since you just have a
8 marginal level there, and we also have history, you
9 know, looking prior to that, of having negative EtGs.

10 Q. Okay. Katy, if we could move -- and yeah.
11 Well, exactly right, you hit it just right. Maybe if
12 we could magnify that just a tad. And I'm going to
13 refer in the chart down to May 15th. So if you could
14 slide down a little bit, so we can get 11 towards the
15 center. Yes. Thank you. Perfect. Your chart
16 indicates here a negative hair based EtG test on May
17 15th. That's on the chart test number 11.

18 A. Uh-huh.

19 Q. Are there any significant characteristics
20 concerning a hair based EtG?

21 A. Well, it really was until I saw this result
22 that I kind of bought into the idea that Mike was
23 telling the truth. I mean, again, you know, I get all
24 -- as -- as -- as we all do, you get all kinds of
25 stories. But this really just -- just jumped out at

1 me. This is not possible -- this is not possible. If
2 that PEth test was right, that -- you're not going to
3 get a negative EtG in hair, you know, on the 15th. You
4 know -- you know, kind of like, you know, just -- just
5 a, you know, 7, 10 days later, you know, in -- in hair.
6 Because, again, it's exquisitely sensitive and you've
7 got -- it's a permanent record too, that hair. So
8 you've got that going for you. So that -- if that's
9 what you're going for, that would be what -- what my
10 thought would be. But I don't have any concerns about
11 it because, again, it's -- it's negative, and again,
12 it's a pretty straightforward test.

13 Q. Okay. Now, moving down to test number 12 on
14 your chart, which reflects a PEth whole blood negative.
15 In your opinion, is it possible to have an accurate
16 positive DBS PEth test on May 9th and a negative DBS
17 PEth test on May 15th, six days later?

18 A. Not really. Again, once again, I have this
19 -- this problem with the fact that, you know, you've
20 got -- you have a -- you have a -- a half-life of -- of
21 -- of -- of 5-10 days. And then how are you going to
22 turn over all your red blood cells in that -- in that
23 period of time? So again, this is something where,
24 again, this is a -- a DBS, but it's been run twice, and
25 again you're getting a negative result, which again is

1 inconsistent with that -- the positive result you got
2 earlier.

3 Q. Okay. Now, the test at number 12 was whole
4 blood. If we move down one --

5 A. Right. Right. Now, we're going to dry blood
6 spot again. Yeah. Okay. Yeah. No. Clearly the
7 whole blood is what -- what -- what jumped out at me.
8 This is something that -- this is a very reliable kind
9 of methodology to use and which we -- which
10 unfortunately we should have been using here too,
11 because again, you eliminate all of those variables
12 with the dry blood spot stuff. So this is, again, I
13 know it's a pain to poke somebody, and I know it's, you
14 know, kind of a -- involved with getting a
15 phlebotomist, etc, etc, but it saves an awful lot of
16 aggravation. Because we had so many variables with
17 that DBS stuff. So here we have a -- a -- a good PEth
18 negative test that, which again is inconsistent with
19 what we found earlier.

20 Q. Okay. So now we're moving, we move down to
21 13. We're back to the dry blood spot. Negative at
22 cutoff, negative at LOD, which I'll submit to you is at
23 8 nanograms per milliliter. Is it possible, in your
24 opinion, to have an accurate DBS PEth test on May 9th
25 and a negative PEth test on May 16th at an LOD of 8?

1 A. I would -- I'll tell you one of these has to
2 be wrong. And my guess is that it's going to be the
3 one that was done on the 9th. Again, because this one
4 it looks -- you know, again, it's just a -- just a
5 repeat. It's done -- it's run twice and you have a --
6 and you go to limited detection, you know, now it's not
7 even how much, it's can we see any of it? Is there any
8 there? This report says no, you don't see it at all.

9 Q. Okay. And you may have addressed this in
10 passing, but I would like to hear it again in the
11 context of these specific results. Could dehydration
12 reflected in a high creatinine level of 200 or higher
13 impact the accuracy of DBS PEth testing?

14 A. Absolutely. And of course, the problem here
15 is that we don't even -- because the -- the -- the high
16 creatinine suggests a high hematocrit just because of
17 physics. You know, you drain off a lot of water out of
18 somebody, they're going to have a more packed cell
19 volume for red blood cells. The problem is, there was
20 no estimate of what -- what the hematocrit level is
21 here. And if you go back and look at some of those
22 recommendations for validation studies or other --
23 other literature, you're going to find that there are a
24 number of ways of sort of estimating that just to
25 minimize the hematocrit effect that's going on with

1 DBS. Again, it's not even for forensic, but just for
2 clinical tests. So here none of that was done. We
3 don't even know what the hematocrit is other than we --
4 it should be high because the creatinine is so high.

5 Q. Can a high hematocrit level impact the drying
6 process?

7 A. I suspect so although I don't have any
8 studies to show that one way or the other.

9 Q. Well, if the drying process requires
10 additional time, can there be a resulting impact on
11 blood fermentation?

12 A. Sure. Sure. The question is, how does the
13 collector know that they need additional time? You
14 know, that's how -- how they would do that. But again,
15 I think that that's why they gave him a minimum of
16 three hours. But again, it may be longer. But again,
17 I don't know how the -- the -- the, you know, the
18 collected -- collection site is going to know that
19 they're going to need another hour or two to -- to dry
20 this out.

21 Q. Do you have any opinion as to whether DBS
22 PEth testing should be used for forensic purposes or at
23 least as -- as it existed in 2018?

24 A. I -- I do now. I might say -- I wouldn't --
25 I would not go near this for a DBS test.

1 Q. Any final comment on whether Mr. Danford's
2 termination based on a purported failure to abstain
3 from alcohol should be based on the May 9th DBS PEth
4 test?

5 MR. KASSIN: Objection. Hold on a second. That's
6 really for the board to determine. I think Mr. Shults
7 has expressed his opinions and I think the board can
8 weigh it in the scope of all the testimony of the case.

9 Q. Well, this is a forensic -- well, I can
10 rephrase that. I think that's frankly a picayune
11 objection, but I'll rephrase it in order to avoid any
12 controversy. Do you think -- do you have an opinion as
13 to whether any determination as to whether Mr. Danford
14 failed to abstain from alcohol consumption should be
15 based on the May 9th DBS PEth test?

16 A. I do. And I don't think it should be conclus
17 -- a conclusion that there was a violation of his
18 contractual agreement.

19 Q. What conditions would you attach, if any, to
20 his return to flight duty?

21 MR. KASSIN: Objection. Sorry. Again, that's a
22 board issue. This individual is not a doctor. He's a
23 toxicologist with limited experience and a master's
24 degree. I mean, he's not in the position of advising
25 the board as to how -- how the Delta ALPA monitoring

1 program and DPAC program should be interpreted. I
2 mean, that's something that's fully invested in the
3 board and it's not up to this witness to opine on that.

4 Q. Well, if I can lay -- I think the
5 foundation's already been laid, but let me re-lay it.
6 Sir, you've had -- you certify and train medical review
7 officers, correct?

8 A. Yes.

9 Q. Okay. Are medical reviews officers
10 frequently in the position to have to evaluate
11 substance abuse issues or use of ancillary drugs that
12 triggered positives or false positives and make a
13 determination as to whether an individual is ready to
14 reenter a safety sensitive position?

15 A. Yes. And they're also charged with opining
16 as to whether or not they feel there's a significant
17 safety concern with even the abuse of prescription
18 medications.

19 Q. So I would ask the question again, but we'll
20 pause to see if the objection is made once more. But
21 what conditions would you attach, if any, to Mr.
22 Danford's return to flight duty?

23 MR. KASSIN: Again, I'm going to object. I mean,
24 that is not the purview of a medical review officer.
25 And we had testimony from this witness as to the

1 limited role of medical review officers under Part 40
2 of the DOT regulations. He's not a medical review
3 officer, he's not a licensed physician, and he's not --
4 and again, beyond all of that, this is something that
5 the board considers within the scope of its
6 jurisdiction. I assume that Mr. Shults has given the
7 board his relevant opinions, and we'll -- we'll talk
8 more about those in cross-examination. But it's not up
9 to him to tell the board what sort of conditions to
10 assert, or whether even conditions are appropriate, or
11 whether reinstatement is appropriate.

12 MR. SEHAM: Well, if I could respond briefly, the
13 objection is based in part on Delta counsel's
14 testimony, which of course has to be not considered as
15 to what the role of an MRO is. Now, we have an
16 individual who is the president of the lead
17 organization responsible for certifying MROs in this
18 country, educates and certifies MROs throughout this
19 nation, and is therefore fully familiar with those
20 practices necessary in terms of MROs vetting the return
21 to duty.

22 Now, this termination in this process was at least
23 in part, substantial part, not just because there was a
24 quantitative result that purportedly indicated a
25 failure to abstain, but also because there's an

1 argument that Mr. Danford should have submitted himself
2 to further inpatient treatment. I think as the
3 testimony of Captain Graham indicates, and as the
4 termination letter indicates, the termination would not
5 have occurred if Mr. Danford had humbled himself and
6 returned to an extensive inpatient program. So that is
7 in our view, or certainly appears to be in terms of
8 Delta's presentation to be a pivotal issue as to
9 whether these test results warranted insisting,
10 demanding that Mr. Danford return to inpatient
11 treatment on pain of termination if he did not.

12 So the question to this individual who is a
13 qualified expert on MRO procedures, is whether in his
14 view, in order for this person to return -- Mr. Danford
15 to return to a safety sensitive position, whether in
16 his view it would be required that he return to an
17 inpatient program. I think that's a core issue in this
18 proceeding, that this individual -- we've laid the
19 foundation at the beginning and again recently, that
20 this individual is qualified to render an opinion on
21 that. And with that, we'll leave it with Arbitrator
22 Burdette to make a ruling on whether we can ask that
23 final question.

24 MR. KASSIN: One second. I mean, counsel has just
25 introduced another element, and that is the level of

1 qualifications of this witness in addictionology. He's
2 not a medical doctor. He's not a psychiatrist that
3 specializes in addiction medicine. He's not a doctor
4 that specializes in addiction medicine. And again, so
5 he lacks qualifications to address that element. On
6 top of that, I just renewed by objection to him. This
7 is an issue for the board to decide.

8 MR. SEHAM: I didn't hear anything new just then,
9 so I'll let it go at what we said before and request
10 that the arbitrator make a ruling, and we will respect
11 whatever that ruling is.

12 THE REPORTER: You're muted, Arbitrator Burdette.

13 THE ARBITRATOR: Thank you. I'm sorry about that.
14 I'm going to sustain Mr. Kassin's objection. I think
15 that we've got other sources for that information and
16 the board will take it under advisement.

17 MR. SEHAM: Okay. I have no further questions and
18 we pass the witness.

19 THE ARBITRATOR: Thank you very much. Mr. Kassin?

20 MR. KASSIN: Sir, let me -- let me just ask. In
21 terms of the board preference, I think if we took like
22 a ten-minute break, we can go ahead and do our
23 cross-examination at this point. And I'm anticipating
24 approximately an hour. Maybe it may go a little bit
25 longer. It just depends on the answers to the

1 questions. So it might be, don't hold me to the hour.
2 So we could -- we can do that or we could take a lunch
3 break if that's the board's preference. We're open to
4 whatever the board wants to do.

5 THE ARBITRATOR: I'm fine with just proceeding
6 ahead with a short break if everybody else is. Okay.
7 Yeah?

8 MR. KASSIN: Okay. That'll be fine so we shall
9 return at, is it 32? So about approximately 42 minutes
10 after the hour.

11 THE ARBITRATOR: Okay, let's just make it 45.
12 We'll make it easy.

13 MR. KASSIN: Thank you. I appreciate that. Thank
14 you.

15 THE ARBITRATOR: All right. Thank you.

16 THE REPORTER: We're off the record. The time is
17 12:32 p.m.

18 (OFF THE RECORD)

19 THE REPORTER: We are back on the record. The time
20 is 12:46 p.m.

21 THE ARBITRATOR: Okay. All right. Mr. Kassin,
22 proceed.

23 CROSS EXAMINATION

24 BY MR. KASSIN: .

25 BY MR. SEHAM:

1 Q. Sure. Mr. Shults, I want to clarify
2 something. I noticed in our Union exhibit book there
3 are two exhibits. There's Union Exhibit 81 that I
4 believe you testified about, which is your curriculum
5 vitae. And there's also Union Exhibit 49. Is that the
6 same curriculum vitae?

7 A. I'll have to take a look.

8 Q. Yeah, and don't do that right now. I just
9 wanted to clarify which one you want to rely on or are
10 they both the same? Let's call that a housekeeping
11 matter we'll get to later.

12 A. Okay. Well, pick either one, either one will
13 work.

14 Q. The way of your background, as you mentioned
15 you are an attorney, correct?

16 A. Yes.

17 Q. And you have a master's degree in toxicology?

18 A. Yes, uh-uh.

19 Q. But you do not have a doctorate degree in
20 toxicology?

21 A. That's true -- that's true.

22 Q. You've never served as a laboratory director?

23 A. Well, almost, but I -- I'd actually turned a
24 position down.

25 Q. But you so --

1 A. No, actually I have not run as officially as
2 a lab director.

3 Q. Okay. And you're not a qualified laboratory
4 inspector for SAMHSA drug testing laboratories?

5 A. I am, but I just don't do it.

6 Q. Okay. So you've never done a SAMHSA
7 inspection?

8 A. Not a SAMHSA inspection, but I've done them
9 for the NRC.

10 Q. Okay. Your experience as far as working with
11 laboratories is primarily the Equine drug research
12 laboratories at the University of Kentucky, when you
13 were a master's student?

14 A. Well, that's -- that was where I started, but
15 I've -- since then I've worked at Roche Biomedical
16 Laboratories in Burlington. I've worked for CompuChem
17 where the lab director of USTL has -- has spent some
18 time. I've worked with a number of other laboratories
19 as a consultant. So -- so that help -- help clarify
20 that.

21 Q. Sure. When you were at CompuChem, you were
22 corporate counsel, right?

23 A. Well, I had multiple hats. I was brought on
24 eventually as corporate counsel, but again, I played a
25 role in developing what the methods were for doing the

1 testing. And I was supposed to be the new sheriff in
2 town. The idea was -- the reason they brought me in
3 was because they were getting their -- their ears boxed
4 in by the lawyers down at Fort Bragg. So they needed
5 to have somebody come in and defend their results in
6 these court marshals and administrative proceedings and
7 that was my primary job. Then when this federal
8 government started requiring drug testing, they sent me
9 out to the railroads to kind of convince them to use
10 our lab, which was not a hard sell since most of the
11 railroad docs -- directors were running the program and
12 most of them were ex-military. So I said, look we're
13 DOD certified and that's all I had to do. So that led
14 to me to say, hey, how would you like to be our
15 marketing director? I said no, you need a corporate
16 counsel here. They said, okay, we'll make you the
17 corporate counsel and that's how you make yourself a
18 job.

19 Q. I missed on your CV your time at Roche. When
20 was that period of time?

21 A. When I left -- after I left CompuChem. I was
22 -- I was hired by Roche Holding up in New Jersey to
23 come in and kind of work with Roche Biomedical over in
24 Burlington to try to help them get their act together
25 to move into the marketplace. So that -- I worked

1 there for about six months or -- or maybe a year
2 working with them again. Visiting their laboratories
3 and kind of helping them with it. Again, I -- I, you
4 know, didn't put that on my resume, but again, it -- it
5 eventually that day -- and I also kind of like laid
6 framework for what's now LabCorp out here in the park.
7 So I mean, I've been involved with it very heavily
8 although I didn't put that on my resume.

9 Q. Okay. And you talked about the organization
10 you founded that certifies MROs. But isn't it true
11 only a licensed doctor can be an MRO?

12 A. That's true.

13 Q. And you're not a doctor, correct?

14 A. That's correct.

15 Q. And you're not an MRO?

16 A. That's right.

17 Q. So MROs are used in the review of DOT
18 required drug tests and you talked about their role in
19 the part -- under Part 40. What -- if someone has a
20 positive drug test, what would the MRO ask them, and
21 what do you train the MROs to ask?

22 A. Well, basically they're going to follow the
23 DOT procedures and calling them and asking them if they
24 have an explanation. If they have a prescription for
25 the drugs that they were positive for? And then of

1 course there'll be other issues that will come up, you
2 know, in terms of whether they, you know, are -- are --
3 you know, if they're using prescription medications.
4 You know, whether or not the MRO feels that they're
5 safe to return to duty or not. So those are the --
6 those are the kind of tasks, but basically, once
7 they've identified a prescription then it goes -- they
8 also have to produce evidence that -- that they -- that
9 that is a legitimate prescription and then it was
10 filled. And that once that's done, the MRO then can
11 turn that around into a negative test and then make the
12 second decision. Is this person safe to go back to
13 work?

14 Q. Okay. And the information that the MRO
15 relies on and that they're informed of when there's a
16 positive drug test under the DOT regs, it's just a
17 summary telling them what the drug is -- what the
18 result of the test was?

19 A. The -- all the lab results, you know, from
20 all of these certified laboratories are supposed to go
21 to the medical review officer. And basically, that's
22 it. I mean, when -- if they get a certified result
23 from a certified laboratory they can rely on that. And
24 then they move onto the next step as to whether or not,
25 you know, the -- there is an alternative medical

1 explanation.

2 Q. Right. But the MRO does not request or look
3 at the litigation package as part of their review?

4 A. No. But they do if -- if there's an issue
5 that comes up. And basically, they're the ones that
6 have to order the litigation package. And if the donor
7 says this is a screw-up, I'm not -- I didn't do that
8 drug. I don't know what you're talking about. And
9 then they come back, the MRO says, listen, you need to
10 get me all the litigation package. The DOT regs say
11 that the laboratory has to turn it over, but it's
12 facilitated through the MRO. So and again, you know,
13 the MRO does not have to be a toxicologist. You know,
14 that -- that -- that's the other thing I should point
15 out. But again, it is helpful to know one or at least
16 be able to have a good relationship with the
17 laboratory.

18 Q. So you anticipated one of my questions, which
19 is that an MRO does not have to be a toxicologist.

20 A. Right.

21 Q. Okay. And as you pointed out, alcohol is not
22 something that requires a prescription and therefore
23 it's not reviewed, alcohol tests -- DOT alcohol tests
24 are not reviewed by MROs?

25 A. That's correct.

1 MR. KASSIN: Okay. I'd like for Katy, could you
2 bring up Company Exhibit 26, please?

3 (Company Exhibit 26 marked for identification)

4 Q. And if you could kind of screen down so we
5 can see the date of this program. Okay. And Mr.
6 Shults, this is the cover page of a presentation that
7 you made on alcohol testing presentation number 6 in
8 Charlotte, North Carolina for the MRO training and
9 certification course?

10 A. Yes. Uh-huh.

11 Q. And if you can look at -- Katy, can you bring
12 a page 3 there, please? And can you blow up the bottom
13 slide number 57 on phosphatidylethanol. And make it a
14 little bit bigger, please. Okay. Slide 57 is from
15 your presentation at that program, correct?

16 A. Yes. Uh-huh

17 Q. And then you say, "Phosphatidylethanol, the
18 newest biomarker for chronic alcohol use," correct?

19 A. Yes.

20 Q. And you said, "The diagnostic sensitivity for
21 PEth was 99 percent," correct?

22 A. Yes.

23 Q. Define sensitivity for us.

24 A. Sensitivity or -- I guess going to be
25 specificity, but sensitivity is how -- how low -- how

1 -- how sensitive is it up to pick this up. And it may
2 not be, you know, looking at it now, it may be I
3 should've said specificity. You know, that it really
4 just picks up alcohol and nothing else. But remember,
5 look at the line above it. I said, you know, is this
6 being used for a clinical or forensic test.

7 Q. So sir, I know that there may be things that
8 your counsel are going to want to point out for you --

9 A. Okay.

10 Q. -- in redirect. So we're going to be here a
11 long time if we could just -- unless you can just focus
12 on what I'm asking you.

13 MR. SEHAM: I'm going to object to that he was
14 being responsive to the question, and that it --
15 perhaps Delta counsel didn't like the answer, but
16 having posed the question, the witness should be
17 allowed to answer what he meant by that final bullet
18 point. So I object to the interruption, and I would
19 ask the Arbitrator Burdette rule that the witness
20 answer as he was proceeding to do.

21 THE ARBITRATOR: I will say that Mr. Shults, you
22 should confine your answer to the question that was
23 asked by counsel and your counsel will have an
24 opportunity to clarify anything that you wish to later
25 on when he has an opportunity to redirect. So.

1 MR. SEHAM: Thank you.

2 Q. And Mr. Shults, the slide actually says the
3 diagnostic sensitivity for PEth was 99 percent,
4 correct?

5 A. Yes. Uh-huh.

6 Q. And it's fair to say that sensitivity is the
7 ability of a test to identify a true positive?

8 A. That's a separate criteria. True positives,
9 true false positives, you know, but it is -- it's --
10 it's -- it is extreme -- extremely sensitive. So
11 that's -- that's what it says. Doesn't read more into
12 it or less.

13 Q. Okay. And so for a monitoring program, for
14 somebody like Delta that has a monitoring program or
15 these impaired physician monitoring programs, when
16 you're saying that the diagnostic sensitivity for PEth
17 was 99 percent, that means that out of 100 tests, 100
18 people that have been drinking, it's going to catch 99
19 of them, correct?

20 A. At the risk of going out of bounds here.
21 This is not talking about dried blood spot testing.
22 This is talking about whole blood testing.

23 Q. Okay. But what I said -- you would agree
24 with what I said on PEth testing, with your
25 qualification. I understand that's your testimony, but

1 in a monitoring situation, out of 100, you're going to
2 catch the 99 of those 100 who were drinking?

3 A. Okay. That's fine with me. That's, you
4 know, that's -- I'm not so sure that's exactly what I
5 meant there, but that's certainly an interpretation.

6 Q. Okay. I'd like you to -- Katy, you can take
7 that down, and I'd like to go back to Union Exhibit 50,
8 and go to that table of result on page 4. There you
9 go. And if you could pull that up, so we could kind of
10 get the whole table in there from number 1-16 if that's
11 possible. I may have to shrink it. Mr. Shults, can
12 you see that okay?

13 A. It needs to be blown up maybe one more step.

14 Q. If you blow it up, and you can -- there you
15 go. So the preface to this is on page 3, and Katy, if
16 you could just pull it back to the bottom of page 3 and
17 then we'll come back to page 4 very quickly. The very
18 last line on page 3 before the footnote is, "All of the
19 testing done -- this is for Mr. Danford, "Pre and post
20 PEth DBS test are presented on table 1." That's what
21 that says, correct?

22 A. I believe that -- that's all the ones that I
23 relied on for this opinion, I think there's one that I
24 may have left off. I think there's a hair test that
25 was out there that I considered to be a negative test,

1 but was not included in here.

2 Q. Okay. But let's just focus on what this
3 document says. Right there on the bottom of page 3 in
4 black and white. In expressing your opinion, you say
5 all of the testing done pre and post PEth DBS test are
6 presented in table 1, correct?

7 A. Correct.

8 Q. Okay. Who provided those tests to you?

9 A. Mr. Danford or Mr. Seham or even the prior
10 counsel may have sent me some -- most of these tests.

11 Q. Okay. And Katy, can we go back to page 4,
12 please? And if you could kind of get it down. There
13 you go. You got down to 16. I just want to have
14 everything up there as much as we can. That's close
15 enough. And it sounds like you were prepared for this
16 question, Mr. Shults. If you look between test number
17 13 on May 16th and test number 14 of August 2nd, it's
18 missing the June 20th, 2018 hair EtG test, correct?

19 A. And I think that was my error. I mean, I
20 just think that I just didn't -- didn't include that
21 and in reviewing it, I realized it was out, but again,
22 it was pretty much late in the game. In fact, I just
23 learned it -- I just realized it yesterday. So that's
24 kind of where I'm at so just keep it straight as I can.

25 Q. Okay. Katy, can you take us to page 2 and

1 towards the bottom there's in bold letters, the word
2 opinion. Mr. Shults, the very first line starts out,
3 "Even with the inability to review laboratory
4 documentation or request a retest or confirmed split
5 specimen, I believe this case presents clear laboratory
6 error that has resulted in the unjust dismissal," etc.
7 And then below that it says, "I can state this with a
8 high degree of certainty, even without the opportunity
9 to review the laboratory analytical results, quality
10 assurance data, and standard operating procedures,"
11 correct?

12 A. Yes.

13 Q. So you prepared this letter without reviewing
14 the laboratory analytical results, the quality
15 assurance data and the standard operating procedures,
16 correct?

17 A. I have not seen an SOP. And again, I have
18 seen no validity data. And I did look at the lab
19 documentation package for this result based upon the
20 immunoassay and GC mass spec.

21 Q. But at the time that you wrote this, had you
22 written at the -- had you reviewed the labs litigation
23 package?

24 A. Yes.

25 Q. Okay. Why did you say you didn't have the

1 opportunity to review the laboratory analytical
2 results?

3 A. I think when I was talking, you know, this --
4 let's see. This was -- this opinion came out in
5 January and at that point, I may not have got -- have
6 reviewed it. So I do think that there's a -- you have
7 a legitimate point there. But I would say that the
8 problem -- what I think what I'm trying to get at was
9 the problem here is not the analysis per se of this
10 specimen, but really the collection procedure. All --
11 my testimony has all been about the DBS procedures.

12 Q. Okay. So your testimony is not directed at
13 the procedures at USDTL once they receive DBS sample,
14 correct?

15 A. Correct.

16 Q. Okay. So with respect to the May 1, 2018
17 urine test that Mr. Danford had, that was analyzed at
18 Quest, are you saying that Quest made a laboratory
19 error?

20 A. No. They basically just followed the
21 instructions that they received. And basically I think
22 that their procedure is to do a creatinine correction
23 for these things. And again, they don't determine what
24 the cutoff level is either. My sense would be that
25 they would have a -- a higher cutoff level and do a

1 creatinine correction for this, in which case this
2 would have been a negative.

3 Q. Okay. And we understand what your testimony
4 was. And if I understand your testimony at this point,
5 and I do want you to make sure I'm understanding it
6 properly. You're not saying that USDTL made a
7 laboratory error once they received the DBS sample?

8 A. I just don't have enough information to know
9 that. Their -- their chromatograms look good. Their
10 -- the QC on their lab package looks good. But that's
11 not what this case is all about. You know, my sense of
12 it is --

13 Q. Well, just answer my question please and this
14 will go a lot easier. So I think you've got there.
15 And I believe the point that you made in your testimony
16 was that you have not reviewed the validation data for
17 the PEth testing that you USDTL has done; is that
18 correct?

19 A. That's correct.

20 Q. And you've not reviewed the validation data
21 at Quest for the test that it did on May 1st; is that
22 correct?

23 A. I'm more familiar with Quest operations than
24 I are with USDTL.

25 Q. Okay. So you are familiar with their

1 validation data for the test that they ran on Mr.
2 Danford's urine for the EtG?

3 A. No, but I don't need to know that.

4 Q. Okay. Did you review the validation data for
5 the Expertox test on his June 20, 2018 hair test?

6 A. No.

7 Q. Okay. I think that we have established with
8 your testimony a couple of core facts, and one of those
9 facts is that EtG is a biomarker, correct?

10 A. Yes.

11 Q. And it's fair to say that PEth is also a
12 biomarker, correct?

13 A. Yes.

14 Q. And there are scientific peer-reviewed
15 articles available that establish that PEth is a highly
16 sensitive and specific biomarker for alcohol
17 consumption. Is that fair to say?

18 A. Yes.

19 MR. KASSIN: Okay. Katy, can you switch us from
20 the exhibit we're looking at to Company Exhibit Number
21 27, please?

22 (Company Exhibit 27 marked for identification)

23 Q. Okay. And to show us, this is the Javors
24 article on PEth. Are you familiar with this article?

25 A. Yes.

1 MR. KASSIN: And Katy, could you bring us down to
2 under abstract, there's a paragraph that says results.

3 Q. And in this article, you had had some
4 testimony about the half-life of PEth?

5 A. Right.

6 Q. Javors determines that the half-life of PEth
7 is a range of 1 to 13.1 days, correct?

8 A. Right.

9 Q. And Katy, can you bring us to page 7.
10 There's a little bit more detail about that on page 7.
11 And I'm looking for right below the synthesis article
12 heading, there's one half-life of combined PEth. And
13 do you have the capability of highlighting the second
14 sentence that begins the mean half-life of combined
15 PEth for us? Just that one sentence there. Thank you.
16 So this study concludes the "mean half-life of combined
17 PEth was 4.6 plus or minus 3.5 days with a range of 1
18 to 13.1 days," correct?

19 A. Yes.

20 Q. And Katy, you can take that down and can you
21 bring us to -- just to take that down for now. Mr.
22 Shults in your testimony, you talked about the
23 half-life of PEth and we just established with this
24 scientific study that it could be a range of anywhere
25 from 13.1 days. You do not know what Mr. Danford's

1 half-life was for PEth, do you?

2 A. No.

3 MR. KASSIN: Okay. Katy, can you bring up Company
4 Exhibit 28, please.

5 (Company Exhibit 28 marked for identification)

6 Q. And, Mr Shults, this is the Ulwelling article
7 on PEth blood test in the security environment. Are
8 you familiar with this one?

9 A. I don't think so. This is a little bit more
10 -- more recent paper, but I don't -- I don't think I --
11 I might -- I may have seen it, but I'm not -- off the
12 top of my head I'm not.

13 Q. Okay. I guess the point that I was going to
14 try to make is that the scientific literature, and I'm
15 specifically referring to the Ulwelling article, agrees
16 with your statement that you had in your slide for that
17 presentation in Charlotte, that PEth is a highly
18 sensitive and specific biomarker for alcohol
19 consumption.

20 MR. SEHAM: Is that a question or is that just
21 testimony?

22 Q. Well, I'm just going to ask him -- if he's
23 not familiar with the article, I'll just let the
24 article speak for itself. And Katy, you can take it
25 down. And you've alluded to this in some of the

1 questions that I've asked you, but specifically Mr.
2 Seham had asked you several questions about normalizing
3 creatinine. And isn't it true that Quest Laboratories,
4 as a matter of practice, does not normalize creatinine
5 when it's doing the testing of the urine?

6 A. That's my understanding and -- but they
7 report creatinine results out. And again, I've seen
8 some MROs who -- who will do that correction
9 themselves.

10 Q. Right. And it's also fair to say that none
11 of the United States laboratories that do that urine
12 testing for EtG normalize for creatinine, do they?

13 A. But they often report the creatinine level
14 out, but you -- I agree that they don't.

15 Q. Okay. I believe you made some reference to
16 the fact that the PEth testing and specifically, you
17 were talking about USDTL, but the PEth test is not an
18 FDA approved test, it's a laboratory developed test?

19 A. Yes.

20 Q. The laboratories that you've worked for in
21 the past, don't they have laboratory developed tests of
22 their own?

23 A. I believe some of them do. Most of them --
24 yeah, go ahead.

25 Q. Yeah. And isn't it true that the FDA has

1 nothing to do with laboratory developed tests?

2 A. Historically, they made it -- they came out
3 with an opinion a few years ago, which I understand is
4 under review, that for simple tests, they're not going
5 to get involved, but this is hardly a simple test.

6 Q. Okay. But they are not involved in reviewing
7 the laboratory developed test for PEth testing, either
8 for USDTL or other labs that you alluded to in your
9 testimony, correct?

10 A. Correct.

11 Q. You did mention that you -- it was your
12 opinion that USDTL was the only laboratory in the
13 United States that does dried blood spot PEth testing;
14 is that correct?

15 A. For PEth.

16 Q. So you're not aware of any other laboratories
17 that do that?

18 A. Right.

19 Q. Okay. And what laboratories are you familiar
20 with that do PEth testing in whole blood?

21 A. I think the -- the -- most of the clinical
22 labs will do it. Quest obviously will do it. LabCorp
23 will do it. I -- I think probably CRL will do it. So
24 there are a number of labs that will do it, but it's
25 not -- again, it's a whole blood test.

1 Q. Okay. I didn't -- in the context of this
2 case -- I know it's an interesting case, the Theranos
3 case, but in the context of this case, I didn't make
4 the connection from your testimony as to what you were
5 saying. Are you saying that Quest is perpetrating a
6 fraud with its EtG testing?

7 A. Not Quest, USDTL. In other words, the other
8 ones using the dried blood spot. It's not Quest that's
9 using a dried blood spot. The -- that similarity
10 between Theranos and this -- this -- this test is
11 nothing other than it's one spot of drop -- one -- one
12 -- one -- one spot of blood. You know, in one case,
13 they can test for everything. In the other case, they
14 can test for phosphatidylethanol with -- at some -- at
15 some peril.

16 Q. That's a pretty broad statement to accuse
17 USDTL of perpetrating a fraud, so --

18 A. I'm not saying it's a fraud, but what -- what
19 -- what -- what -- what is similar to this is that a
20 lot of smart people bought into Theranos until the
21 whole house fell apart. And this is a thing where I'm
22 afraid that the laboratory itself may be fooling itself
23 with this DBS stuff. Again, I can't put myself in
24 their shoes, but that's my impression. And it also
25 strikes me is that there -- there's a reason why

1 they're the only lab that's doing it.

2 Q. Okay. So before you just answered, I thought
3 your earlier answer was that USDTL was perpetrating a
4 fraud. So let's just be clear on that. Is it your
5 opinion --

6 A. I'm not say -- I have no evidence that
7 anyone's defrauding anybody. I think you can be
8 fooling yourself, which I see a lot, but -- but I don't
9 think there's an -- an intent to defraud anybody here.

10 Q. Okay. And how long, to your knowledge, has
11 USDTL been doing PETH testing?

12 A. I don't know.

13 Q. Okay. Are you aware of any peer-reviewed
14 scientific articles that establish the -- establish
15 false positives?

16 A. No.

17 Q. Okay. So for the -- never mind. You talked
18 a little bit about hair testing for EtG and cutoffs.
19 And you said that you had read an article recently that
20 talked about a cutoff at 30. Can you tell us that
21 article, please?

22 A. Yeah. It's actually on your clients or on
23 USDTL's website. It basically -- when you Google low
24 level and -- glucuronide in hair, the USDTL comes up
25 with a paper that's a summary of the literature out

1 there. And one of them deals with this -- the idea of
2 the -- it's an Italian study, I think, that looked at a
3 lot of drinkers and basically looked at the level of
4 EtG in their hair. And they said the Society of -- the
5 Society of Forensic Hair Testing recommended a cutoff
6 of 30 or so nanograms per millimeters. So that's where
7 I got it from.

8 Q. Okay. Tell us what your understanding is of
9 the monitoring program that Mr. Danford was in at Delta
10 Airlines and the monitoring program that Delta and its
11 union, the Airline Pilots Association, had put
12 together? What's your understanding of that program?

13 A. Well, I have sort of a peripheral
14 understanding of the HIMS program and the idea that,
15 you know, this is an idea of getting folks back into
16 the system by giving them support and treatment as
17 appropriate. And again, I -- I -- I've been asked to
18 speak at these HIMS meetings a couple of times. But I
19 -- I've -- I've always had a conflict. But again, I --
20 I'm -- I'm -- I'm -- I think it's a great thing. I'm
21 -- I'm all for it. But the problem is, is this.

22 Q. Okay. And do you understand that airlines
23 have a legal responsibility to exercise the --

24 A. Oh, heaven, I sure do. And -- and I
25 understand how difficult this is and I'm very

1 sympathetic to the airlines and I'm very sympathetic,
2 you know, to the idea that it's very difficult to
3 basically determine compliance with -- with alcohol and
4 even these other drugs and it's more so every day. But
5 at the same time, I also know of -- of -- of, you know,
6 again, the equitable issues in terms of fairness and --
7 and -- and supportability. So it's -- but again, I'm
8 not -- I -- I -- I know how important it is and I don't
9 want to have anybody flying a plane around that's
10 either using drugs or is at relapsed or close to
11 relapse. And I've -- I've been -- I've been exposed to
12 this for a long time. Well, my first -- our first big
13 client at CompuChem was American Airlines. There was a
14 famous medical director who -- who added that program
15 up. A guy by the name of Dr. Wick. But I don't want
16 to go -- spare you the details on all that. But --

17 Q. Okay. So you do understand that one of the
18 objectives of the Delta and ALPA agreed upon HIMS
19 program is to keep impaired pilots out of the cockpit?

20 A. You bet.

21 Q. Okay. And another primary objective is to
22 help people and help them maintain their careers,
23 correct?

24 A. Yes.

25 Q. And to do it -- do you understand with

1 alcoholism that relapse sometimes occurs?

2 A. Oh, it occurs more times than not. No, I do
3 understand that.

4 Q. Okay. And in order to keep impaired pilots
5 out of the cockpit and help people maintain their
6 careers, you have to have a way to identify people
7 before it gets too late, correct?

8 A. Correct.

9 Q. Okay. You talked about programs that have a
10 higher cutoff than the 100 nanograms per milliliter
11 that's used by the Delta ALPA program for its EtG
12 testing. Tell us what programs those are.

13 A. Most of the state medical boards have
14 adjusted their cutoff for compliance for, you know,
15 people who have conditional licenses to the 200 or 300
16 level. I want to say North Carolina, but there may be
17 some others. I just don't -- I don't monitor it all
18 the time.

19 Q. Okay. So only one that you could -- that you
20 think might have one is North Carolina?

21 A. Yeah. I -- I could Google it in a minute and
22 you could do it too.

23 Q. Okay. We're not going to refer to Google
24 during your testimony. So you did look at -- as part
25 of your testimony, you looked at the exhibit that had

1 the -- from Quest laboratories that had the summary of
2 the results from the May 1st urine test for Mr.
3 Danford. And then you went on to talk about him being
4 dehydrated on May 9th for his PEth test. How do you
5 know he was dehydrated for his PEth test on May 9th?

6 A. I don't know for sure. But again, I don't --
7 we didn't -- we don't -- nobody knows what his -- his
8 -- his hematocrit is or -- or what his creatinine level
9 was because it wasn't measured. But, you know, I'm
10 assuming whatever the medical condition was that got
11 him in -- in -- in -- into the dehydration did not
12 clear overnight. But again, I don't know. It could've
13 been.

14 Q. Okay. And you had a good bit of testimony
15 referring to a couple of exhibits as Mr. Seham showed
16 you about collection process, but you were not present
17 for the collection process of the dried blood spot on
18 Mr. Danford on May 9, 2018, were you?

19 A. That's correct.

20 Q. And even in a hypothetical situation where
21 somebody puts hand sanitizer on a dried blood spot
22 card, that hand sanitizer doesn't have PEth in it, does
23 it?

24 A. It has alcohol in it. And the enzymes in the
25 blood cells have the enzyme available to transform that

1 alcohol into PEth. And I understand that, you know,
2 some of these cards are impregnated with a denaturing
3 agent, but that's not the denaturing agent that will
4 stop that process.

5 Q. So you're saying that hand sanitizer does
6 have PEth in it?

7 A. No. Hand sanitizer has a good deal of
8 alcohol in it. It's almost all alcohol. So it doesn't
9 take much of anything for that to show up as a
10 significant amount of PEth if given the right
11 conditions.

12 Q. Okay. You talked about a couple of the PEth
13 tests that were run, that were self tests by Mr.
14 Danford on May 16, 2018. What was the level of
15 detection those were run at?

16 A. Oh, I -- off the top of my head, I don't
17 know. I think it was probably the -- the PEth testing
18 I think was -- I don't know, I don't know.

19 MR. KASSIN: Okay. Arbitrator Burdette, can I have
20 five minutes? I think I'm getting close to finishing
21 my cross-examination.

22 THE REPORTER: You're muted arbitrator, Burdette.

23 THE ARBITRATOR: Thank you again. We'll go off the
24 record for five minutes.

25 MR. KASSIN: Okay. Thank you, sir.

1 THE REPORTER: We're now off the record at 1:23
2 p.m.

3 (OFF THE RECORD)

4 THE REPORTER: We're back on the record at 1:27
5 p.m.

6 MR. KASSIN: We have no further questions. Thank
7 you, Mr. Shults.

8 THE WITNESS: Thank you.

9 MR. SEHAM: I'm sorry. Just a few questions.
10 Katy, if we move to Union -- excuse me, Company Exhibit
11 9. And it was that same page you were on before that,
12 the handwritten 111. Perfect. If you could blow that
13 up a little bit, and excuse me while I close my door
14 here.

15 REDIRECT EXAMINATION

16 BY MR. SEHAM:

17 Q. Okay. Mr. Shults, looking at this report
18 from Quest, does it say anywhere here that Quest is
19 reporting alcohol consumption?

20 A. No, it doesn't.

21 Q. Is the information presuming that this is
22 provided to the customer, is the customer, including
23 the customer MRO, provided with the necessary
24 information to normalize the result based on
25 creatinine?

1 A. Well, they have to know what it is to start
2 with and they have to know, you know, what goes over
3 what and what numbers you're looking at. So, you know,
4 I don't think that -- I don't see it on -- on this
5 report on how to do that.

6 Q. No, no. I'm saying if someone knows the
7 process, is the creatinine information --

8 A. Yes. Yes. You've got -- you've got that on
9 the top line there of it being at 256.9 milligrams per
10 deciliter.

11 Q. And if you could move to -- Katy, if you
12 could move to Union Exhibit 75. And if you could
13 magnify it sufficiently so that the witness can -- can
14 read it. Tell us when -- there you go. So this is an
15 ExperTox test using EtG performed on hair with the
16 collection being June 20, 2018. Do you recall whether
17 Mr. Danford provided you with this test result?

18 A. He did indeed provide it and for reasons I
19 don't recall now. I either forgot it or omitted it
20 from my report and I apologize for that. Because
21 there's no reason why I couldn't have in sold -- folded
22 this in. I mean, they reported out a very low level of
23 EtG of -- of 4.8. And then at the bottom where they
24 have their notes, they basically say, they suggested
25 cutoffs, is that, you know, a positive being above a 7.

1 And so that to me is why I don't think this is -- this
2 -- that had a whole lot of probative value.

3 Q. This reference to approximately three-month
4 time frame. Is that a look back reference? In other
5 words, this is the measurement.

6 A. And here's the problem with hair testing.
7 You know, I know an awful lot about hair testing. I've
8 worked with both Psychemedics and the other -- other
9 lab, Omega Labs with their hair testing program. One
10 of the things about hair testing is you're basically
11 taking a strand of hair and cutting an inch and a half
12 off. But then the question is, where are you going to
13 segment it? Are you going to do the -- just a few
14 strands or the whole thing? And of course then you get
15 a dilution factor. So I'm not quite sure what their
16 process is because I'm just not that familiar with --
17 with their -- with their hair testing techniques or --
18 or procedures.

19 So basically, all I can tell you is that based upon
20 their own guidance is that they're considering a
21 positive to be something -- what does it say here,
22 greater than seven picograms per milligram. And here
23 they've got a 4.8. So once again, I -- there's sort of
24 a disconnect between what the labs are telling you and
25 what they're reporting. So again, it's -- it's -- it's

1 helpful information, but at the same time, I'm not so
2 sure, you know, what -- what the -- what the value of
3 that is if you're going to ignore it.

4 MR. SEHAM: Very good. No further questions.
5 Thank you.

6 MR. SHULTS: I do.

7 THE ARBITRATOR: Re-cross?

8 RE-CROSS EXAMINATION

9 BY MR. KASSIN:

10 Q. Mr. Shults, we're looking at Union Exhibit
11 75. If you had that document, it should have been
12 included in your report, correct?

13 A. Yes.

14 Q. And you chose to leave it out of your report?

15 A. No. I -- I -- I probably just omitted. I --
16 there's was so much data in this -- in this -- in this
17 case. I think I just -- was just an error on my part,
18 not an intentional. And I -- I had to remember this
19 because, you know, as -- as you suggested -- I mean,
20 Mr. Seham mentioned it to me last night, he said
21 whatever happened to that? And I said what? And then
22 I had to go back. Oh, yeah, this. So -- and then I do
23 remember saying, well, this has no real probative
24 value. But again, I -- I -- it would have been easier
25 for me to put this in and avoid this issue, to tell you

1 the truth. So that's -- that's where we're at. It's
2 not Mike's fault, it's my fault.

3 MR. KASSIN: No further questions.

4 THE ARBITRATOR: Thank you. Any further, Mr.
5 Seham?

6 MR. SEHAM: No, Arbitrator Burdette. Thank you.

7 THE ARBITRATOR: Thank you very much. Okay. Mr.
8 Shults, you may be excused. Thank you very much for
9 your time and participation.

10 MR. SHULTS: Thank you, sir.

11 THE ARBITRATOR: Okay. Mr. Seham, do you have
12 anything? Do you have other witnesses, or?

13 MR. SEHAM: I have no other witnesses. I do have a
14 couple of housekeeping issues in front -- we're on the
15 cusp of closing our case, but there may be three issues
16 I wanted to raise. Back on October 30th, I sent an
17 e-mail both to Arbitrator Burdette, and Mr. Kassin, and
18 Ms. Samuda, about our inadvertent introduction of a
19 testing exhibit through Dr. Joseph Tordella, concerning
20 his patient. And that we had multiple test results
21 based on collections on May 28th. We put in an EtG
22 test. We meant to also include a PEth test, also
23 requested by Dr. Tordella. So I never -- what I had
24 asked Delta counsel was to stipulate to the admission
25 of the exhibit that we had attached, and my preference

1 being not to have to call back Dr. Tordella to confirm
2 that he commissioned that test. I never heard back on
3 that, so I don't know where we are in terms of that
4 exhibit.

5 MR. KASSIN: Give me one second, please.

6 Arbitrator Burdette, there's been a lot of emails since
7 then. I think that if Mr. Seham wants to put that in
8 the record, and with that explanation that he's just
9 provided, there's no need to call Dr. Tordella back.
10 The board can consider it for what it's worth.

11 THE ARBITRATOR: I agree.

12 (Union Exhibit 84 marked for identification)

13 MR. SEHAM: Thank you very much. The second
14 housekeeping matter was that there had been a request
15 that Mr. Stepanian, for -- there was a reservation of
16 rights to cross-examine Mr. Stepanian, and there was a
17 request for information in that same email of October
18 30th. Pursuant to Delta counsel's request, we
19 identified the relevant court as being the 255th Family
20 District Court of Dallas County, Texas, before the
21 honorable Judge Beauchamp, and that the hearing dates
22 that were requested were identified as October 27th,
23 2017, January 26th, 2018, March 16th, 2018, September
24 7th, 2018. There was a request that the toxicologist
25 be hired, be identified, and the attorney -- the

1 attorney was Karen Bellingham, of Bellingham Law, and
2 the toxicologist was Dwayne Fuller, of V-A-N -- this is
3 his organization, apparently V-A-N-T-H-C-S Toxicology
4 B113, I think that's his suite number, 4500 South
5 Lancaster Road. On October 3rd, together with the
6 Union Exhibit 84 was PEth test results that were Mr.
7 Stepanian. But we never heard back from Delta counsel.
8 It's our view that if we're closing our case, that
9 means the reservation of cross-examination has been
10 waived since we provided this information back in
11 October.

12 MR. KASSIN: Everything that Mr. Seham just
13 referred to is under review, and what we'll do is
14 reserve the right to recall Mr. Stepanian for rebuttal,
15 if we decide to do so. We're still under review.

16 MR. SEHAM: Well, I have to say, we don't consider
17 that acceptable, that this is a working class man who
18 opened up his life records. There was a reservation
19 made back in October 30, 2020. And the case has to
20 come to a close, this person can't be left twisting in
21 the wind. If we provided this information October
22 30th, 2020, and we never received any response at this
23 point with our closing our case, that reservation of
24 right to further cross-examine our witnesses is waived.
25 That would be our position.

1 THE ARBITRATOR: I understand your position. And
2 Mr. Kassin, I would encourage you to come to that --
3 come a conclusion pretty quickly. From the board's
4 perspective, and the board has had a brief executive
5 session already about this. I'm not sure that there
6 would be anything further that would be very
7 elucidating to the board by further testimony from Mr.
8 Stepanian. That's the boards -- that's the board's
9 view of it. But I'm not in a position to dictate to
10 either counsel how you perceive to present your case,
11 so you'll present your case in the best manner that you
12 can. I understand where we're at and I am sympathetic
13 to Mr. Seham's comments, and that we probably -- there
14 will be very little gain by bringing him back again.
15 But that's up to Mr. Kassin and company.

16 MR. SEHAM: The final housekeeping matter that I
17 have relates to where we go from here. So my
18 understanding, and please, Mr. Kassin, correct me
19 immediately if I'm wrong. But that we have two further
20 dates, and those dates next week had been reserved for
21 Dr. Howard Taylor's testimony; is that correct?

22 MR. KASSIN: The dates next week have been reserved
23 for rebuttal testimony, and that will include testimony
24 from of Howard Taylor, PhD, or Dr. Taylor. And we are
25 analyzing what additional rebuttal that we will need.

1 We are going to provide counsel and the arbitrator with
2 the names of three additional doctors, I believe,
3 hopefully by tomorrow who may be presenting rebuttal
4 testimony. We'll get you their curriculum vitae
5 and/or biographies as appropriate. But we have to make
6 these decisions and we haven't made a final decision on
7 that at this point. But we'll try to have a final
8 decision so that everybody can know what we're looking
9 at for next Tuesday and Wednesday. We would like to
10 see after a break today, we're trying to track down a
11 couple of witnesses to get them in here today for
12 rebuttal, for our rebuttal case if that's acceptable to
13 everybody. I know we'll need -- what is it? It's 1:40
14 Atlanta time, 12:40 your time, Central time, we'll need
15 some time.

16 THE ARBITRATOR: Would it be appropriate to take a
17 lunch break at this time, Mr. Kassin and --

18 MR. KASSIN: There you go. Yeah. That would be
19 helpful if we could have an hour and 20 minute lunch
20 break. So that would be getting us back together at
21 2:00 Central, 3:00 Eastern. We'll have a report for
22 you and hopefully we'll have located a couple of
23 witnesses.

24 THE ARBITRATOR: Okay. Go ahead, sir.

25 MR. SEHAM: Well, the reference to the fact that I

1 was going to make this statement and reservation of
2 rights even before I knew it was going to be four
3 doctors as opposed to one doctor. But as the board is
4 aware, Delta conceded that it had the burden of proof
5 in this case. We didn't have any expert testimony
6 concerning the PEth test in their case in chief, and
7 now we're going to be met with a deluge in rebuttal of
8 information that should have been presented in the case
9 in chief. So as we close our case, our position is
10 that we are entitled to surrebuttal and some period of
11 time to prepare given that we are meeting a deluge of
12 expert witnesses. The company has had our information
13 for a year or for the better part of the year and now
14 we are going to have under a week of prior notice. So
15 that's all to say in our view, we're closing our case
16 today, but we reserve the right to present further
17 testimony in surrebuttal.

18 MR. KASSIN: That's the right of counsel.

19 THE ARBITRATOR: Yeah, absolutely. Okay. All
20 right, let's get back together at 2:00 Central, 3:00
21 Eastern and we'll go from there. We're off the record
22 until then. Thank you.

23 THE REPORTER: We're off the record at 1:43 p.m.

24 (OFF THE RECORD)

25 MR. KASSIN: Arbitrator Burdette, our first

1 rebuttal witness will be Dr. Thomas Faulkner and I'm
2 hoping that he's in the waiting room.

3 MR. SEHAM: Is the other witness going to be
4 testifying about EtG/EtS or PEth, because I'd like to
5 let our technical adviser go if we're not slated for
6 that kind of witness.

7 THE ARBITRATOR: No. Well, the second witness
8 we're hoping to be Captain Harry Miller and he is to
9 testify about his role in the DPAC program and his
10 interactions with Mr. Perez and Mr. Danford and he will
11 mention the word EtG and PEth and --

12 MR. SEHAM: Oh no, I'll back up.

13 THE ARBITRATOR: Mr. Seham, he's not a scientific
14 expert. He is the pilot DPAC rep at Delta.

15 MR. SEHAM: All right. Then we will release our
16 technical adviser, he has other conflict or other
17 issues.

18 THE ARBITRATOR: Okay. Do we have Dr. Faulkner?

19 MR. FAULKNER: Hello.

20 THE ARBITRATOR: There he is. Okay. Dr. Faulkner,
21 would you please raise your right hand? I'm going to
22 swear witnesses. Do you swear or affirm that the
23 testimony you're about to give in this case will be the
24 truth, the whole truth, and nothing but the truth?

25 MR. FAULKNER: I do.

1 THE ARBITRATOR: Thank you very much. And can you
2 affirm for us that there's nobody else in the room with
3 you? Very good. Thank you. And do you have access to
4 any documents that are not exhibits in this case?

5 MR. FAULKNER: No, sir.

6 THE ARBITRATOR: Thank you very much. And Mr.
7 Kassin, you may proceed.

8 THOMAS FAULKNER, M.D.,
9 having been first duly sworn, testifies as follows:

10 DIRECT EXAMINATION

11 BY MR. KASSIN.

12 BY MR. KASSIN:

13 Q. Thank you. Please state your full name for
14 the record.

15 A. Thomas Bond Faulkner.

16 Q. Okay. Dr. Faulkner, do you serve as a senior
17 aviation medical examiner?

18 A. I do.

19 Q. And are you also qualified to be a HIMS
20 aviation medical examiner?

21 A. I am.

22 Q. In addition to your separate roles as a
23 senior aviation medical examiner and HIMS aviation
24 medical examiner, are you also have a role with Delta
25 Airlines?

1 A. I do.

2 Q. And what is that role?

3 A. I'm a Contract B, the Director of Health
4 Services regarding the pilot working agreement
5 contract.

6 Q. Okay. Is that a separate and independent
7 role from your work as a senior AME and HIMS AME?

8 A. It is.

9 Q. And under your agreement with Delta, are you
10 permitted to see pilots as a senior aviation medical
11 examiner and HIMS AME?

12 A. I am.

13 Q. Okay. And are pilots that come to see you
14 made aware of the role that you have with Delta as
15 Director of Health Services?

16 A. They are from before they meet me, but also I
17 have a disclaimer or a statement in my waiting room
18 regarding my role with Delta.

19 Q. Have you served as Mr. Danford's HIMS AME
20 since July of 2018?

21 A. Yes.

22 Q. Okay. I'd like for Katy to bring up a copy
23 of Union Exhibit 75. And Dr. Faulkner the connection
24 which your role as Mr. Danford's HIMS AME, did he
25 provide you with copies of alcohol tests that he had

1 taken before seeing you?

2 A. Before seeing me?

3 Q. Yes, sir.

4 A. I believe I did get records from Dr. Harper,
5 who was his previous HIMS AME.

6 Q. Okay. Did Mr. Danford ever provide you any
7 of the tests that he took after he had his positive
8 PEth test with Delta on May 9th, 2018?

9 A. No.

10 Q. And looking at Union Exhibit 75, that's a EtG
11 hair test that was collected on June 20, 2018. Did Mr.
12 Danford ever provide you with a copy of this June 20,
13 2018 test?

14 A. No.

15 Q. Did he ever show it to you?

16 A. No.

17 Q. If he had given it to you or showed it to
18 you, would you have passed that onto the Federal
19 Aviation Administration you connected with your
20 application for a special issuance for him?

21 A. Yes.

22 Q. And why would you have done that?

23 A. As a HIMS AME, if you will, I serve as a
24 monitor for the pilots' recovery and their
25 participation in the HIMS program, meeting the

1 requirements. That includes the biological random
2 testing, to include any tests, positive, negative,
3 dilute. You -- you submit all the tests that have
4 been done.

5 Q. Okay. And in connection with the test that
6 Mr. Danford may have taken after his positive May 9th,
7 2018 tests, these would be tests that were self tests,
8 not the test that Delta DPAC had him do or the Talbott
9 Recovery Center. Were you aware that he did some
10 testing on his own?

11 A. I do know he did testing on his own,
12 especially after the positive test for Delta.

13 Q. Okay. And at any point, were you provided
14 information on those and shared that information with
15 the Federal Aviation Administration?

16 A. I -- I did.

17 Q. Okay. At any time, did you provide advice to
18 Mr. Danford to not share Union Exhibit 75 with either
19 Captain Graham or Captain Burns in connection with his
20 appeal hearing or his contract grievance?

21 A. No.

22 Q. In your role as a Senior AME or HIMS AME,
23 would you ever give any pilot advice as to how they
24 should interact in terms of their employment
25 relationship with Delta or any other carrier for other

1 pilots that you see?

2 A. Well, let me qualify that. No, unless they
3 were in a HIMS program, a company-directed HIMS
4 program. In this case, Mr. Danford and I had an
5 understanding I was not -- this was not part of the
6 Delta HIMS program. We were working as a general
7 aviation pilot on this. So -- but typically, that's --
8 that's -- the information like this that I gather, I
9 wouldn't tell anything to share, unless they were
10 showing non-compliance with a company-directed HIMS
11 program.

12 Q. But just to be clear, he had never shown you
13 what we've identified as Union Exhibit 75?

14 A. No.

15 MR. KASSIN: Thank you, sir. That's all I have for
16 your questions.

17 MR. SEHAM: I'd like to take 10 minutes, please. I
18 don't think I have -- I may have no questions but more
19 than a handful, but I want to consult with my client.
20 Can I have a few minutes, Mr. Arbitrator?

21 THE ARBITRATOR: Absolutely. You may.

22 THE REPORTER: We are off the record at 4:09 p.m.

23 (OFF THE RECORD)

24 THE REPORTER: We're back on the record. The time
25 is 4:13 p.m.

1 THE ARBITRATOR: Thank you.

2 MR. KASSIN: Mr. Burdette, there -- there was one
3 question that I meant to ask Dr. Faulkner that I
4 forgot. Would the board give me permission to ask
5 that? It's reference Union Exhibit 35, which is the
6 Dr. Sager memo.

7 THE ARBITRATOR: Sure.

8 BY MR. KASSIN:

9 Q. Okay. Katy, can you bring up Union Exhibit
10 35, please? Dr. Faulkner, what I'll represent to you
11 is that this is a memorandum, Dr. Sager at the Federal
12 Aviation Administration. And what I wanted to do was
13 show you some of the tests that he listed in his
14 memorandum. And Katy, can you bring us to page --
15 second page of that exhibit? Let's see. Actually, I
16 meant to start at the bottom. I'm sorry. At the
17 bottom of page 1. Dr. Faulkner, there's a list of
18 tests that Dr. Sager refers to. The first one is on
19 the bottom of page 1. It's a laboratory test dated
20 April 26th, 2018, which indicates the negative EtG
21 tests. And then Katy, bring us to the top of page 2,
22 please. And then there's a series of other tests.
23 There's the May 1st, 2018 test positive for EtG at 117
24 nanograms per milliliter. There's a lab test dated May
25 9th, 2018, which indicates the pilot had a positive

1 PEth of 98 nanograms per milliliter. There's a hair
2 test dated May 15th, 2018 which was negative for EtG.
3 There's a test dated May 15th, 2018 for PEth which was
4 negative. There's a PEth test dated May 16th, 2018,
5 which was negative. There's a negative EtG test for
6 urine collected on August 21st, 2018. There's a
7 negative EtG test collected on September 12th, 2018,
8 and there's a negative EtG test collected October 5,
9 2018.

10 So all the tests that I just listed and referred to
11 on Dr. Sager's memo, are those tests that you provided
12 to the FAA?

13 A. I believe so, yes.

14 MR. KASSIN: Okay. That's the question I had,
15 Arbitrator Burdette. That's all I have. Thank you.

16 THE ARBITRATOR: Okay. Thank you very much. Mr.
17 Seham?

18 CROSS EXAMINATION

19 BY MR. SEHAM:

20 Q. I hadn't anticipated asking this question,
21 but Doctor, why do you say I believe so as to the tests
22 you provided to the FAA?

23 A. He's referencing them. I put them in the
24 report as part of the package. I -- I would stand by
25 that I did submit those to them.

1 Q. So you had a specific recollection that all
2 those tests were supplied to you -- were supplied by
3 you to the FAA?

4 A. Right. Now, I -- I got -- I will say also
5 the FAA also had -- because we -- as part of the
6 process with HIMS, you do request the file that they
7 have on the airman. And so I get those files that had
8 a lot of other information. I do not -- I can't speak
9 for Dr. Sager in terms of when he's going through that
10 list, if he's mentioning some other things. I -- I
11 don't have his file here in front of me. But I put in
12 -- as I think I indicated earlier, I put in -- as I put
13 in my briefing letter on him, what the concern was of
14 positive tests, negative tests, and then what I've been
15 getting since I've been following him. So I would say
16 that I -- I submitted all that to tell the story to the
17 FAA about before I was monitoring him and after I was
18 monitoring him.

19 Q. Well, I'm sorry. You referenced a concern.
20 What was your concern?

21 A. I have no concerns. I would -- I'm just
22 trying to think. I would've been in his file since
23 laboratory tests, including the ones that caused issue
24 here for the positive test, the PEth test that
25 conflicted, and what I had since I've been following

1 him.

2 Q. Okay. Well, I just thought I heard in your
3 testimony that you identified the positive PEth test of
4 May 9th and a concern arising -- I think the term you
5 used was concern arising from the subsequent negative
6 tests. Do you recall testifying to that effect?

7 A. I could have. I -- do you have someone who
8 can read that for me?

9 Q. Well, did you have -- so you're saying now
10 that you had no concern with respect to all these
11 negative tests coming after the positive test?

12 A. No. And -- and again, I'm not a
13 toxicologist. I put down what was tested in the past.
14 So as I -- I -- I shared with Mr. Danford there, you
15 have positive tests, you have negative tests. I -- I
16 will just pass on to the FAA what the tests are there
17 and try and explain since I've been working with him,
18 we had negative tests, but I give it to the FAA to
19 review all the information I have, that was provided to
20 me, and make a decision.

21 Q. Well, did you make any recommendation to the
22 FAA one way or the other as to whether he should obtain
23 a special issuance?

24 A. In my working as HIMS with general aviation
25 AME, I did recommend that he be certified based on the

1 information I had from -- since he worked with me.

2 Q. Okay. Certified for a first-class medical?

3 A. Correct.

4 Q. Okay. Were there any restrictions as to how
5 he applied that first-class medical, that you can
6 recall?

7 A. No.

8 Q. Okay. Now you say you serve as a DHS? And
9 actually, let me back up. So your recommendations were
10 not based on the test results that you submitted?

11 A. My recommendations were based on, since I've
12 been working with him I believe in late July, getting
13 the testing, getting the aftercare. I believe I also
14 had him seen by Dr. Lynn again. We had doctor care
15 reports from Dr. Prewitt, that my work with him was
16 supportive of his getting medical certified.

17 Q. Okay. And the testing you say refers to
18 testing starting in July of 2018?

19 A. Well, that's when I started working with him.
20 I think the first test actually that I was overseeing
21 was in August.

22 Q. Okay. Now, you said -- are you the current
23 DHS for Delta Airlines?

24 A. I am.

25 Q. And were you at this time in 2018 -- through

1 the course of the year 2018, did you serve in that
2 capacity as well?

3 A. I did.

4 Q. And what are your responsibilities as DHS for
5 Delta Airlines?

6 A. Well, under the -- again, under the contract
7 of the pilot working agreement, it's several-fold. One
8 is to act as a resource for pilots to use for medical
9 certification, answer their questions. Can I fly on
10 this medication? Can you help me get my medical
11 certification back or maintain my medical
12 certification? And then if a pilot has been out for
13 more than four months for -- consistently for a medical
14 reason, and/or is issued a special issuance, I review
15 their cases to make sure that they had met the FAA
16 medical standards to -- and -- and full information was
17 shared with the FAA, and then recommend that they be
18 returned to work. And then the final issue is for
19 fitness for duty evaluations. If the pilot is not
20 being seen by me as his AME, I do get involved as a
21 medical representative for what we call a Section 15
22 fitness for duty evaluations.

23 Q. So in this context, with respect to Mr.
24 Danford, you would not have performed any Section 15
25 function, you would've been disqualified?

1 A. Correct. He was not in active Delta
2 employment at that time. He was not in active Delta
3 employment.

4 Q. My question is, would the company have -- if
5 they had a Section 15 issue, would you have been
6 disqualified from considering that?

7 A. If I had seen him, if I had worked with him
8 as his AME, yes, I would.

9 Q. Okay. And when did you start working with
10 him as his AME?

11 A. I believe I saw him -- I don't have it in
12 front of me. I'm going to say July 2018.

13 Q. And in the event you're disqualified as the
14 DHS in the context of the Section 15 analysis, who
15 would undertake that Section 15 analysis?

16 A. I wouldn't know. Who -- I know they have
17 several other doctors that they use for that, I
18 believe.

19 Q. Okay. So Delta never came to you to inquire
20 as to the medical qualifications of Mr. Danford; is
21 that correct?

22 A. No.

23 MR. SEHAM: Okay. No further questions.

24 THE ARBITRATOR: Any redirect, Mr. Kassin?

25 MR. KASSIN: No, sir. Thank you.

1 THE ARBITRATOR: Okay. Thank you very much, Dr.
2 Faulkner. You may be excused.

3 MR. FAULKNER: Thanks. Have a nice day.

4 THE ARBITRATOR: Thank you. You too.

5 MR. KASSIN: Arbitrator Burdette, as we mentioned,
6 our next witness is Captain Harry Miller. We're going
7 to check and see if he has some flexibility to start
8 earlier. What's the best way to communicate with
9 everybody? An email again?

10 MR. SEHAM: Yeah. I guess so.

11 THE ARBITRATOR: Yeah.

12 MR. KASSIN: Otherwise, we'll see you at 5:00, but
13 we'll try to do it earlier.

14 THE ARBITRATOR: Okay. That would be good.

15 MR. KASSIN: Okay. Thank you.

16 THE ARBITRATOR: Thank you.

17 THE REPORTER: Are we going off record? Is that
18 what I understand?

19 THE ARBITRATOR: Yes. Off the record.

20 THE REPORTER: Off the record at 4:23 p.m.

21 (OFF THE RECORD)

22 THE REPORTER: Okay. We are on the record. The
23 time is 5:02 p.m.

24 MR. KASSIN: Arbitrator Burdette, the company at
25 this time calls its second rebuttal witness, Captain

1 Harry Miller.

2 THE ARBITRATOR: Okay. We haven't sworn him yet.
3 Right? Have we?

4 MR. KASSIN: No, sir, we have not.

5 THE ARBITRATOR: All right. Captain Miller, would
6 you raise your right hand, please, we're swearing
7 witnesses. Do you swear or affirm that the testimony
8 you're about to give in this case will be the truth,
9 the whole truth, and nothing but the truth?

10 MR. MILLER: Yes, sir. I do.

11 THE ARBITRATOR: Thank you very much. And will you
12 also attest for us that there's nobody else in the room
13 with you?

14 MR. MILLER: That is correct. There's nobody here.

15 THE ARBITRATOR: Okay. And that you don't have any
16 documents in front of you that we would be referring to
17 other than the exhibits in this case?

18 MR. MILLER: That's correct.

19 THE ARBITRATOR: Thank you very much. You may
20 proceed, Mr. Kassin.

21 CAPTAIN HARRY MILLER,
22 having been first duly sworn, testifies as follows:

23 DIRECT EXAMINATION

24 BY MR. KASSIN:

25 Q. Sure. Please state your full name for the

1 record.

2 A. Harry Miller.

3 Q. Okay. And Captain Miller, what's your
4 position with Delta Airlines?

5 A. I am a 8350 captain.

6 Q. Okay. Have you ever held a position in
7 Delta's management?

8 A. I have.

9 Q. And what was your most recent position in
10 Delta management?

11 A. I was the International Chief Pilot in
12 Atlanta, for Delta.

13 Q. Okay. And during what period of time were
14 you the International Chief Pilot for Delta in Atlanta?

15 A. August of 2015 through end of October of last
16 year, 2019.

17 Q. And as the International Chief Pilot in
18 Atlanta, what was involved in that? In other words,
19 your duties and responsibilities.

20 A. Well, I had the -- the management of the
21 international based pilots, even though sometimes I
22 would work on the domestic side. I had those, and for
23 standards for the international pilots also. If there
24 was anything related to any of the international
25 destinations that -- that need to be addressed, I did

1 that. And also worked on the HIMS program and the DPAC
2 program for the Atlanta based pilots.

3 Q. Okay. Still focusing on the International
4 Chief Pilot duties. Approximately how many pilots were
5 you responsible for?

6 A. Well, Atlanta at the time was 5,000 plus
7 pilots, and international we were over 2,000.

8 Q. And you mentioned that you also worked on the
9 Delta HIMS or the DPAC program. Can you tell us what
10 you did?

11 A. I was in charge of the monthly meetings for
12 all the Atlanta based pilots. Every -- every month
13 they have to see the chief pilot. So I was in charge
14 of that, and also in charge of the monitoring. I
15 attended many of the meetings at the Talbott Recovery,
16 and also at MARR, when we had a pilot in treatment at
17 those facilities.

18 Q. And what are your responsibilities in terms
19 of pilots that would be in the Talbott Recovery Center,
20 is there something called the Midterm Meeting that you
21 were involved in?

22 A. That's correct. It was a mid-phase --
23 midterm meeting that -- usually the pilot's treatment
24 is roughly 30 to 35 days. And somewhere in the first
25 two to three weeks we would have a -- a midterm just to

1 see how the pilot was doing in treatment.

2 Q. And there was some reference in earlier
3 testimony on the case about Big Wednesday. Was there
4 something that you did once a month, and what was it
5 called?

6 A. Yeah. That was called Super Wednesday. We
7 did that over on the Delta campus at OC building, OC 3.
8 And what that did, it helped relieve a lot of my
9 duties. Because if we had 50 some pilots -- Atlanta
10 based pilots that needed to basically have a monthly
11 meeting with their chief pilot, it was able to do one
12 group meeting, and we would normally have anywhere from
13 25 to low 30s attend that meeting. And it really cut
14 down on my time, paperwork, so forth, you know,
15 throughout the month, because I would've had to have
16 done, you know, meeting -- almost a meeting -- meeting
17 in half-a-day for all the -- all the pilots.

18 Q. Okay. In that role overseeing the DPAC
19 pilots for the Atlanta base, were you familiar with
20 what we refer to as the Contract A?

21 A. That's correct. I am.

22 Q. When would pilots sign the Contract A?

23 A. Contract A would be signed right if they're
24 graduating from -- from TRC, that would usually be
25 within a day or two of their release.

1 Q. Okay. And are you also familiar with what is
2 referred to under the substance abuse policy for
3 pilots, the Contract B?

4 A. I am familiar with the Contract B.

5 Q. And when would a pilot enter into a Contract
6 B?

7 A. That would be considered a Last Chance
8 Agreement. So that would be -- Contract B would be
9 given to a -- to a pilot that has either relapsed on a
10 Contract A and has had to go to the MARR facility for
11 treatment, or if a pilot had an on-duty positive, he
12 would go -- immediately bring him to a -- into a
13 Contract B, he would bypass the Contract A, so to
14 speak.

15 Q. You were a primary point of contact for the
16 Atlanta based pilots from the Delta management side.
17 Did you also work with the ALPA DPAC committee members?

18 A. I did.

19 Q. And what was your working relationship with
20 the ALPA DPAC members?

21 A. I think we had a very good relationship.
22 There was many of -- many of times that, you know, I
23 would get that phone call at late night needing to
24 address a situation. We were on a, so to speak, speed
25 dial with each other and we worked hand in hand

1 throughout the whole process.

2 Q. And for the work that you did with the DPAC
3 committee, over the years, did you ever receive any
4 rewards or recognitions from ALPA for that work?

5 A. I did. It was -- actually, I was given the
6 Toni Curry Award last November.

7 Q. Just briefly, tell us what that is.

8 A. That is an award given to volunteers and
9 mentors that have worked with alcoholics, specifically
10 pilots in alcohol recovery. And they give that award
11 out once a year. And I was very fortunate to receive
12 that. Toni Curry was a woman that worked specifically
13 towards the end of her life with a lot of recovering
14 pilots. And she was very well-known for her
15 compassion, working with alcoholics for many, many
16 years. I think she passed away in 2012.

17 Q. All right. We've also had some discussions
18 in this case about the annual HIMS conferences. Are
19 you familiar with those and did you ever attend any?

20 A. I did. I've -- I've been to, I believe, two
21 of them over the course that I've been in management.

22 Q. And during those HIMS conferences, would
23 there be training sessions on issues related to what
24 you were doing to help the pilots?

25 A. Yes. And all that -- all the HIMS is -- is

1 really pilot specific and there'll be breakout sessions
2 on new ways of different treatments, different rules,
3 regulations, FAA requirements. It's usually a
4 three-day.

5 Q. Okay. And is there also something called the
6 Pilot Assistance Network?

7 A. PAN, is what we call it. It is Pilot
8 Assistance Network that helps deal with pilots who are
9 struggling in everything. Not so much -- they -- they
10 do -- do the alcohol stuff and we do get some -- some
11 that end up in the DPAC program. But it's also dealing
12 with pilots having hardships either with the family --
13 family issues. They'd go through the PAN group, also.

14 Q. And would the PAN group have conferences, and
15 would you attend those?

16 A. Yes, they did. They were doing their
17 conferences -- the last few years, they were doing them
18 in Atlanta and I'd -- I would attend, try to -- to go
19 over there for at least a day to -- to sit in.

20 Q. Okay. One of the key participants in the
21 pilot's recovery and we've heard about is the HIMS AME.
22 Are you familiar with the role of the HIMS AME?

23 A. I am.

24 Q. And generally, how would you describe it?
25 And would you have any interaction with the HIMS AMEs

1 for the DPAC pilots that you were responsible for?

2 A. I did. And they -- they were kind of
3 orchestrating the whole recovery process for the pilot
4 being -- some pilots need certain other things than --
5 than others do. But I -- I consider them kind of like
6 the orchestra leader on -- on getting the pilot back to
7 -- back to flying. So I worked with Dr. Harper Senior,
8 Dr. Harper Junior, and we have two more doctors,
9 Koworsky and Dr. Faulkner that we worked with. In
10 Atlanta when Dr. Harper got to the point that he had --
11 he was very busy and we had to kind of form out a
12 couple of other -- just another.

13 Q. Now, could you let the arbitrator and board
14 members know what your understanding is of the
15 monitoring program that's been agreed to by Delta and
16 ALPA for pilots that are in DPAC?

17 A. Well, you know, it starts with monthly
18 meetings obviously with -- with the chief pilot which I
19 thought I have dealt with, and obviously monitoring the
20 progress of how they were doing. Also, they're
21 required to -- to have a minimum of 14 random tests a
22 year. Sometimes that is over 14 by -- by a few or
23 more, that can be generated by Choice Labs who -- who
24 does the service for us. But that's the main part of
25 it right there.

1 Q. As part of their Contract A, do the DPAC
2 pilots agree to be subject to the random testing
3 including PEth testing?

4 A. Yeah. I believe that's in -- under Section
5 13 of the -- of the -- of paragraph 13 of the Contract
6 A.

7 Q. Okay. And are you -- were you familiar with
8 the types of tests that would be used for the
9 monitoring program?

10 A. The two most primary tests were the EtG
11 urine, EtS urine, and also the PEth test, which was
12 blood.

13 Q. Are you familiar with what the cutoff was for
14 the EtG test, the urine test?

15 A. EtG, EtS was both 100.

16 Q. And do you know why it was picked for 100?

17 A. Any pilot that enters into a Contract A or
18 attends DPAC program has to abstain totally from
19 alcohol, and that's why it's such a low number.

20 Q. Okay. And do you know what the cutoff was
21 for a positive test on a PEth test?

22 A. Yeah. A positive would've been anything 20
23 and above.

24 Q. Okay. And in terms of the monitoring
25 program, were you like the point of contact if a pilot

1 received a positive test result?

2 A. In monitoring, that's correct.

3 Q. Okay. So once you were notified of a
4 positive test result in monitoring, what steps would
5 you take from the Delta management side?

6 A. Anytime we had a -- anytime we had a positive
7 test, then we had to remove them from flying, if they
8 were flying at that point. If they were between
9 recovery, leaving TRC up to flying, I didn't have to
10 deal with the safety issue of -- of removing them from
11 flying at that point. But anytime -- anytime that we
12 had a positive test and the pilot was flying, then he
13 had to be removed.

14 Q. Okay. And you mentioned Choice Labs just a
15 minute ago, what was their role?

16 A. Choice Labs would be Michele Gable. And what
17 she does is -- the pilots, by the 25th of every month,
18 they have to send Michele and Choice Labs their
19 schedule for the following month. And in turn, she
20 puts that into the computer, which in turn generates
21 the random testing dates.

22 Q. Okay. You mentioned that you got notified
23 when there was a positive test, but would Choice Labs
24 notify you anytime a pilot was randomly selected for a
25 test?

1 A. No.

2 Q. Okay. So no reason for you to be involved at
3 that point?

4 A. No.

5 Q. Okay. If you got notified of a pilot that
6 had a positive test and you had to contact him to
7 remove them from flying, were you the person that would
8 speak with them and let them know that they had a
9 positive result?

10 A. Yes. I -- I had to make the phone call and
11 in turn, I had to remove them from flying. And in
12 turn, I would be -- have to let the regional director
13 know that -- that we were removing somebody for flying
14 because of that.

15 Q. So you reported to the regional director of
16 flight ops?

17 A. That's correct.

18 Q. And during this period of time, do you recall
19 who that was?

20 A. Through my term, it was Chris Frederick. And
21 then he rotated out, and then there was Wayne Cochran,
22 and then Bryan Dickerson.

23 Q. Okay. Did you ever have situations arise
24 where a pilot has taken a urine test, random urine
25 test, might have had a positive EtG but a negative ETS?

1 A. Yes. It doesn't happen often, but three or
2 four times a year, yes, it does happen.

3 Q. Okay. And how were those situations handled?

4 A. What we would do -- what I would do without
5 -- first of all, we got to think of safety. So if a
6 pilot was on a trip, they have to come off the trip.
7 And at that point, we have to schedule them for a PEth
8 test to verify if -- if they had been drinking.

9 Q. Okay. And if the PEth test was negative,
10 would you get notified?

11 A. If the PEth test was negative, yes. Yes.
12 Correct.

13 Q. I'm sorry, I didn't hear you.

14 A. Yes. Yes. I would be notified.

15 Q. Okay.

16 A. Negative. And then at that point, I would
17 return them to fly.

18 Q. Got it. And if it was positive, were you
19 notified then too?

20 A. I was.

21 Q. Okay. And I mean, just briefly, once -- if
22 you got notified of a positive, what was your
23 responsibility in terms of what you had to say to the
24 pilot at that point in time?

25 A. Well, that's never a good conversation, but

1 at that point, then I'll have to talk with the pilot,
2 told him that he tested -- tested positive on the PETH
3 test and that he is now removed from flying and that if
4 he was on a Contract A, then he would have to attend
5 the MARR facility for -- for treatment, 90-day
6 treatment.

7 Q. Okay. I'm going to shift gears on you a
8 little bit and I want to talk about Captain Michael
9 Perez. And was Captain Perez one of the DPAC pilots
10 that was in your group in Atlanta?

11 A. Yes, he was.

12 Q. And do you recall whether he had an
13 assessment at TRC and whether you were part of the
14 meeting with him at some point in that assessment
15 process?

16 A. Yes, I was part of that.

17 Q. Okay. By way of background, what's generally
18 involved in a TRC assessment? I mean, how long did it
19 take and what's your understanding of it?

20 A. Yeah. It usually last three, could last four
21 days. And basically what it is, is blood work. The
22 majority of it is blood work and then obviously,
23 interviews, counseling and so forth to try to get a
24 little bit of a background on what the pilot's been
25 doing.

1 Q. Okay. And do you recall what triggered the
2 need for Captain Perez to have an assessment at TRC?

3 A. Yes. He had a DUI. I believe he was in an
4 accident at that point.

5 Q. Okay. And do you recall what his
6 breathalyzer results were at the scene of the accident
7 when the police met with him?

8 A. I remember Dr. Bedi talking about that,
9 during the -- during the assessment that it was -- I
10 believe it was 0.2 -- over 0.2.

11 Q. Okay. And at some point -- so you mentioned
12 overhearing Dr. Bedi. Do you recall the questions that
13 Dr. Bedi would ask Captain Perez and your reaction to
14 it?

15 A. I remember Dr. Bedi asking Captain Perez how
16 he felt when he was driving and leaving that concert
17 that -- it was a concert, and I think he rear-ended
18 somebody in the parking lot. And I remember Dr. Bedi
19 mentioning to him, so Mike, how -- how did -- how were you
20 feeling? And -- and he made the comment that he did
21 not think that he was drunk or didn't think he was --
22 could not drive.

23 Q. Okay. And Dr. Bedi's response, if you
24 recall?

25 A. Dr. Bedi's response was that, Mike, you were

1 close to three times the -- over the limit, and that if
2 you felt that you did not feel that you were -- you
3 still had control of your senses and the ability to
4 drive, that you probably have alcohol dependency
5 because pretty much anybody in this room with that high
6 of a blood count would be rather affected, and
7 staggering, and unable to achieve that kind of
8 function.

9 Q. Okay. Do you recall who was the HIMS AME for
10 Captain Perez?

11 A. That would've been Harper Senior.

12 Q. Right. And as you've already described to us
13 in terms of general background, Captain Perez would've
14 been subject to alcohol monitor testing as part of his
15 recovery process following leaving TRC?

16 A. Correct.

17 (Company Exhibit 29 marked for identification)

18 Q. Okay. I want to ask you about a urine test
19 that he was given on March 3, 2016. And I'd ask Katy
20 to bring up Company Exhibit 29 at this point. And you
21 should see, Captain Miller, in the screen in front of
22 you Company Exhibit 29. And Katy, can you can you
23 scroll it down towards the bottom where we're going to
24 see the results. A little bit further. Right there
25 will be fine. That shows essentially a positive for

1 EtG at 167 nanograms per milliliter, negative for EtS.
2 So that's one of the splits that I had asked you about
3 earlier. First of all, I mean, were you ever shown
4 this document before?

5 A. I was -- have not seen this document.

6 Q. Okay. But were you notified either by Choice
7 Labs or by Captain Perez about this test result?

8 A. I remember getting a phone call not from
9 Choice Labs, but from Mike that there was a split,
10 negative-positive, and that he was concerned about it,
11 and that they were asking him to go and get a PEth
12 test. That's the only one -- I even knew about that.

13 Q. Okay. And he had signed his Contract A after
14 graduating from TRC on December 18, 2015 and had not
15 yet received a special issuance, which he later got on
16 June 22nd, 2016. So was there any need for you to take
17 him offline flying at that point?

18 A. No.

19 Q. Okay. And he told you he was going to get a
20 PEth test. Were you ever informed of the PEth test
21 results?

22 A. I was not informed by Choice Labs of it. I
23 believe Mike called me, said that it came back
24 negative, and it was -- it was good.

25 (Company Exhibit 30 marked for identification)

1 Q. Okay. Katy, I'd like you to pull up Company
2 Exhibit 30 at this point. That's going to be a
3 document that's also part of Union Exhibit 23 and it's
4 on page 5 of Union Exhibit 23. And I'd just say that
5 for purposes of the record as a cross-reference, but I
6 thought it would just be easier to show this one page
7 to Captain Miller as this exhibit. Katy, can you pull
8 that up a little bit more just so we can get it --
9 thank you. And Captain Miller, were you ever shown
10 this document before?

11 A. No.

12 Q. And did anybody from Choice Laboratories call
13 you and tell you what the results was about the test
14 that was given to him on March 16, 2016?

15 A. No.

16 Q. So did anybody from -- did Dr. Harper Senior
17 call you and tell you what the results of this was?

18 A. No.

19 Q. Anybody from ALPA DPAC call you and tell you
20 what the results were?

21 A. No.

22 Q. Anybody else from Delta that knew about it
23 that -- did anybody from Delta tell you about it?

24 A. No.

25 Q. Okay. And with that result of 10 nanograms

1 per milliliter, using the 20 nanogram cutoff that DPAC
2 used, would that -- would there have been any reason
3 for anybody to tell you about it?

4 A. No.

5 Q. Do you have any knowledge as to why it was
6 run at a limit of detection of eight nanograms per
7 milliliter?

8 A. I have no idea why that was done.

9 Q. Okay. And following this test, I mean, are
10 you aware that Dr. Harper Senior eventually submits a
11 packet recommending Captain Perez for his special
12 issuance and in fact he gets a special issuance on June
13 22, 2016?

14 A. I am familiar that he did, yes.

15 Q. Okay. Now, I would like to switch gears on
16 you and ask you a couple of questions about Mr.
17 Danford. And was he one of the pilots that you were
18 responsible for out of the Atlanta base?

19 A. Yes.

20 Q. Now, he had a random urine test, on April 26,
21 2018 and it was negative. Did you get notified about
22 that test at all?

23 A. I did not.

24 Q. Okay. On May 1st, 2018, he was given another
25 random urine test and it was positive for EtG and

1 negative for EtS. Were you notified about that one?

2 A. I was.

3 Q. Okay. And what steps did you take after
4 being notified of that?

5 A. At that point, I called Mike and told him
6 that -- that he had a -- a split test and that he
7 needed to come in and do a PEth test.

8 Q. Okay. And then did you remove him from
9 flying?

10 A. I did.

11 Q. Okay. And he was given a PEth test. He did
12 a PEth test, dried blood spot sample on May the 9th,
13 2018. Were you ultimately informed the result of that
14 test?

15 A. Yes, I was.

16 Q. And that was a positive?

17 A. That was a positive.

18 Q. Okay. So you had to have a conversation with
19 him about that test. Do you recall that discussion and
20 can you tell us about it?

21 A. When I called Mike and told him that the PEth
22 test was -- was positive, that -- that our policy is
23 that at -- at that point, that he would need to -- to
24 go to MARR because he relapsed and that -- that -- that
25 basically was our -- our company position that he did

1 that. And the only other options would be if he did
2 not want to go to MARR, then Delta is going to then
3 make you either resign or -- or retire from the
4 airline.

5 Q. Okay. And now, when you saw that result, did
6 you think that he had had a relapse?

7 A. The number was high enough and that was -- we
8 weren't talking about a number that was real close to
9 -- to the cutoff at -- at that point that yes, I
10 believed there was a relapse.

11 Q. Besides the discussion that you had with him
12 where you had to call him and tell him he had a
13 positive PEth test, did you have any other discussions
14 with him before he received a notice of intent to
15 terminate in July of 2018?

16 A. Yes. I had several conversations with him,
17 many conversations with him prior to that time.

18 Q. And why? Why were you -- what was the
19 purpose of you having all of those discussions with
20 him?

21 A. I do not want to see him become unemployed.
22 You know, he's been -- he's been with Delta many years.
23 I -- I -- I wanted to save his job, bottom line. And I
24 had a discussion with him and I was hoping that -- and
25 I remember having a discussion with him saying, you

1 know, it's a lot easier to fight -- because he was
2 saying he was not -- he was not drinking. And I said,
3 you know, it's a lot easier to fight this if you have a
4 job and just go to treatment. And I tried to -- many a
5 times tried to get him to do it and not just me. ALPA
6 did the same things.

7 Q. Okay. And you mentioned your responsibility
8 in terms of reporting to the regional director. At the
9 time that this was occurring, the 2018, who was your
10 direct report?

11 A. That would've been Wayne Cochran.

12 Q. Okay. So you kept Captain Cochran informed
13 of your efforts to talk with Mr. Danford?

14 A. Every discussion that I had with Mike, I -- I
15 would report that directly to Wayne. Every -- every
16 one.

17 Q. Did you ever have -- as part of these several
18 discussions that you had with him, did you discuss with
19 him that whether you thought he was in denial and how
20 that relates to the disease of alcoholism? Can you
21 tell us a little bit more about that?

22 A. Well, I -- I -- I really thought that he had
23 -- one, had relapsed and was in denial because the PETH
24 number was so high. And he just did not agree with me.

25 Q. If you were to summarize the Delta philosophy

1 in terms of working with pilots and trying to help
2 pilots, in a couple of words, what would you -- how
3 would you describe that philosophy?

4 A. We really try to save the man. Obviously, we
5 tried to save the job. Even if a pilot was on a
6 Contract B, basically a Last Chance Agreement and was
7 to relapse, Delta goes so far as to even pay for
8 another -- another set of recovery treatment. And that
9 comes right out of Delta's operational fund. That's
10 right out the bottom line. But we do that because we
11 believe that we can save the man.

12 MR. KASSIN: Okay. Arbitrator Burdette, if I could
13 just have a couple of minutes. I believe that I'm
14 almost finished or finished with this direct
15 examination.

16 THE ARBITRATOR: That's no problem. I'm sorry.

17 MR. KASSIN: That's all right. Thank you, sir.
18 We'll be right back.

19 THE REPORTER: Off the record at 5:32 p.m.

20 (OFF THE RECORD)

21 THE REPORTER: We're back on the record at 5:35
22 p.m.

23 THE ARBITRATOR: Thank you.

24 MR. SEHAM: Yeah, I have some questions.

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CROSS EXAMINATION

BY MR. SEHAM:

Q. Good evening --

A. Good evening.

Q. -- Captain Miller. What is your understanding of the term cutoff, in the context of biomarker testing for alcohol?

A. Well, to be honest with you, I just deal with numbers and the number being 100 for the EtG/EtS and the number being 20 for -- for PEth. And that's all I focus on.

Q. Well, if someone had a 90 quantitative result for EtG, would you treat that as a evidence of abstinence?

A. Like I said, I -- I just -- I just -- I just deal with a number. And then -- then 90 being -- would be considered a negative to me.

Q. Okay. And now, are you comfortable with the adjective dispositive? Are you familiar with that word?

A. I am not familiar with that at all.

Q. Okay. Did you -- well, let me use the term undisputable. Was it your understanding throughout your participation in this oversight of DPAC and HIMS, that a 100 quantitation nanograms per milliliter for

1 EtG was indisputable evidence of a relapse?

2 A. I don't have that knowledge.

3 Q. And did you have knowledge as to whether a
4 100 quantitative level for EtS was indisputable
5 evidence of a relapse?

6 A. I do not have that knowledge, no.

7 Q. So who told you to take action based on those
8 quantitative results?

9 A. That has been the process that we use and
10 have been using for, I don't know how long, but way
11 before me. And that's the numbers that Delta has
12 agreed to and that's the numbers that -- that we use.

13 Q. Okay. Did anyone ever tell you that many
14 laboratories use quantitations for EtG testing of 200
15 or even 500 nanograms per milliliter in order to avoid
16 false positive results for absence?

17 MR. KASSIN: Arbitrator Burdette, this is Tom. I
18 want to object. We tried to present this information
19 as to how these numbers were arrived at through Captain
20 Storbeck and got a number of objections. Captain
21 Storbeck was the author of the policy and put a lot of
22 effort and thought into it. And I think this is going
23 beyond the scope of cross examination when you start
24 asking about other laboratories -- I mean, the scope of
25 rebuttal, I'm sorry. This is going -- this is going

1 beyond the scope of rebuttal when you start going into
2 questions like that. But, you know, we made a good
3 faith effort to present the background information for
4 this and there were numerous objections for Mr. Seham
5 for that with Captain Storbeck.

6 MR. SEHAM: And if I might respond, one of the --
7 first of all, the direct testimony went on at length
8 about quantitative values and how that triggered
9 specific actions. This is relevant to the question of
10 was there a meaningful investigation of the relevant
11 issues prior to termination? And that is one of the
12 core elements. It's often referred to as one of the
13 seven pillars of just cause, is was there a meaningful
14 prior investigation?

15 THE ARBITRATOR: Okay. But how does that question
16 get to -- I'm not following you, Mr. Seham. Is it in
17 terms of how that question would relate to whether or
18 not there was a meaningful investigation?

19 MR. SEHAM: Well, that this individual was advising
20 Captain -- excuse me, First Officer Danford, that in
21 essence, he had one of two choices, either to be
22 terminated or accept his relapse as a fact. And we're
23 trying to point out that that ultimatum presented by
24 this witness was based on ignorance.

25 MR. KASSIN: It was based on the agreed-upon

1 program between Delta and ALPA. Like I said, we're
2 glad to re-call Captain Storbeck to give more
3 background information on how all of that came to be.
4 But as this witness and others have made clear, both
5 representatives from Delta and from ALPA made the
6 significant effort to try to get Mr. Danford to go --
7 to go to re-treatment and the -- that was not -- their
8 efforts were not successful. So that -- that -- this
9 question doesn't get anywhere to -- to the point of
10 whether there was a meaningful investigation.

11 MR. SEHAM: This witness, again, presented an
12 ultimatum. He said I interpreted the results, I
13 determined that he had a relapse. He interpreted the
14 significance of the quantitative value of PEth. He
15 approved of the PEth -- resort to PEth based on
16 quantitative values of EtG/EtS. That was the direct
17 testimony. If we're going to object now, then all his
18 testimony ought to be struck.

19 THE ARBITRATOR: Yes. Mr. Kassin, let's let him
20 proceed with his cross-examination and we'll get
21 through this as quickly as we can.

22 MR. KASSIN: Yes, sir.

23 THE ARBITRATOR: Go ahead, Mr. Seham.

24 BY MR. SEHAM:

25 Q. Yes. Did you have any -- the question was,

1 do you have any knowledge of laboratories applying a
2 200 or even 500 quantitative value for EtS or EtG in
3 order to avoid false positives?

4 A. I do not.

5 Q. Okay. And are you familiar with the term
6 matrix as it's applied to EtS and EtG testing?

7 A. No, sir.

8 Q. And what was the substance used in the
9 program to test for EtS or EtG?

10 MR. KASSIN: That's beyond the scope of rebuttal.

11 MR. SEHAM: Pardon?

12 MR. KASSIN: I'm objecting because that's beyond
13 the scope of rebuttal.

14 MR. SEHAM: It has to do with the testing and it
15 has to -- directly relates to the testimony elicited
16 with respect to Perez. And it's premature, actually,
17 to make that objection because we're going to lead to
18 those issues and as to the issues of matrix and the
19 consistency or inconsistency of Delta policy.

20 MR. KASSIN: This is not the witness to ask that
21 of.

22 MR. SEHAM: The simple question is, he's making
23 these decisions about whether someone gets fired or is
24 considered in relapse, and I'm asking him the question,
25 does he know what substance provided by the individual

1 as being tested for EtS and EtG.

2 THE ARBITRATOR: I think it's already -- excuse me
3 just one second, Mr. Kassin. I think that's already in
4 the record. We have the documents in the record, it
5 didn't indicate what was tested, so --

6 BY MR. SEHAM:

7 Q. Well, there's some conflict there. Let me
8 just ask, is it your understanding that EtS and EtG
9 tests were performed on urine samples?

10 A. Yes. Yeah.

11 Q. Okay. Do you have any knowledge of the use
12 of any other substance such as hair, or nails, or some
13 other substance for the performance of EtS or EtG
14 tests?

15 A. I do not. I do not.

16 Q. Now, you said that there were circumstances
17 -- your testimony was that there were circumstances
18 where there was an EtG positive and an EtS negative.
19 And how did the program treat that mixed result?

20 A. At that point, then we would request a PEth
21 test.

22 Q. Were there any concerns about the reliability
23 of an EtG test if it was using the same urine sample as
24 an EtS test that -- that resulted in a negative?

25 A. Not -- not that I understand, no.

1 Q. Okay. Do you have any familiarity with the
2 reverse occurring, an EtS positive and an EtG negative?

3 A. I believe -- I'd have to go look back, but I
4 believe that those have been reversed at -- at a time.

5 Q. Okay. And then what was the process where
6 there was an EtS positive and an EtG negative?

7 A. The same, then we would require a PEth test.

8 Q. Okay. If we could turn to Union Exhibit 33.
9 And on Union Exhibit 33, if we could turn to the Bates
10 stamp -- you'll have to look at the bottom of the Bates
11 stamp 001119.

12 MR. KASSIN: I'm going to object. This document is
13 clearly beyond the scope of the rebuttal.

14 MR. SEHAM: It's to show that the testimony on
15 direct is in error and the recent testimony on cross is
16 in error, and that representations made by this witness
17 and other witnesses are untrue. I would like to
18 proceed with the questions. I'm entitled to this,
19 especially because there's been no prior disclosure of
20 this witness. I'm entitled to some latitude. This is
21 a witness from whom it has been elicited testimony
22 concerning quantitation, concerning what the process is
23 for an EtG positive combined with an EtS negative and
24 an EtS positive combined with an EtG negative, and I am
25 trying to demonstrate that in fact there is no

1 consistent policy, and I would like to be able to
2 proceed with that questioning.

3 THE ARBITRATOR: Go ahead. You can proceed.

4 Q. Okay. Now, Mr. Miller, this is -- as you see
5 from this document, this is a test result for Michael
6 Perez, correct?

7 A. Yes.

8 Q. Okay. And it was collected on -- sample was
9 collected on December 7, 2015. Do you see that?

10 A. Yes, I do.

11 Q. And during that period, you would've been his
12 chief pilot?

13 A. Yes.

14 Q. And this reflects an Et -- excuse me, an EtS
15 positive. If you go down three lines from the break
16 under tests, it says ethyl sulfite positive at 36
17 nanograms per milliliter, with a confirmation value
18 being at 25. You see that as a EtS positive?

19 A. I see what that says there, yes.

20 Q. Okay. Do you know whether Mr. Perez was ever
21 tested for PEth after this EtS positive combined with
22 an EtG negative?

23 A. Well, it -- it looks like the date there, he
24 was -- probably would have still been at TRC, so I -- I
25 -- I -- I wouldn't have any dealings with any of this

1 right here.

2 Q. Okay. So you're not -- you're not aware
3 whether there was a PEth test in response to this mix
4 of EtS positive and an EtG negative?

5 A. No. And I'm trying to remember exactly when
6 we signed his contract, but I don't think it was any --
7 that would've been had to be later in the month of
8 December, not on the 7th or 8th. So I would've -- I
9 would've never seen this.

10 Q. Okay. And now, perhaps it's the same, if we
11 can move to 001115. And you see towards the bottom
12 again, there is a report indicates a positive for EtS
13 and a negative for EtG. You see where I'm reading?

14 A. Yes.

15 Q. Do you know whether there was ever a PEth
16 test administered to Captain Perez in response to these
17 test results?

18 A. I'm not aware of -- no. I would -- like I
19 said, I -- I would've never seen this either.

20 Q. Okay. And if you can move to what was
21 previously identified as Company Exhibit 30. It's your
22 testimony that you were never advised of this test
23 report that states that Captain Perez had a PEth
24 positive test?

25 A. I was never advised by Dr. Harper or by

1 Choice Labs on that -- of that right there, no.

2 Q. Okay. And if we could go back to Union
3 Exhibit 33 and go to 1108. You see here that there is
4 a EtG test. And if you look under sample information
5 to the right, it refers to nails. Do you know why
6 Captain Perez had a nail-based EtG test on May 4th,
7 2016, initiated by Michele Gable of Choice Lab?

8 A. No, I do not know why that was done. No.

9 Q. Isn't it true that First Officer Danford
10 attempted to familiarize you with test results based on
11 nail tests -- nail-based tested that he had initiated?

12 A. He did tell me he was getting a nail test.
13 Yes. That he -- I believe he said it was negative.

14 Q. And you decided to give that no consideration
15 in terms of what his employment options were or with
16 respect to your determination of relapse?

17 A. Well, what -- what I said was I passed that
18 on to my director at that. But there again, we don't
19 let people go out and do their own testing.

20 Q. Did you offer to have a nail-based test
21 conducted under Delta's offices?

22 A. I did not.

23 Q. Did you tell First Officer Danford that the
24 reason his nail test result was not going to be
25 considered was because he had initiated it himself?

1 A. I do not --

2 MR. KASSIN: I'm going to object. There's no
3 evidence that First Officer Danford had a nail test.
4 I'm sorry. We're aware that he did a hair test in May
5 of 2018, but not aware of an EtG nail test that he did
6 in May of 2018.

7 Q. Did he ask you -- he spoke to you of taking
8 tests using different body substances, correct?

9 A. He did. And that -- that -- that -- he did
10 mention that and I couldn't remember if it was nail or
11 hair, but I think he did -- did do one of the tests.
12 Yes.

13 Q. Okay. All right. And did you ever tell --
14 did you ever give them the option to have these
15 alternate tests, whether it was nail, or hair, or some
16 other substance, or matrix?

17 A. I did not.

18 Q. No? Now, based on your decision or your
19 determination that Mr. Danford had had a relapse, in
20 part because the PEth test was high in terms of
21 quantitation?

22 A. Yes.

23 Q. So might you have been embarked on a
24 different path if the test had just been 20 or 21
25 nanograms per milliliter?

1 MR. KASSIN: Objection. Speculation.

2 MR. SEHAM: Well, he either knows the policy or
3 doesn't. And if he know -- if he doesn't know, that's
4 an answer.

5 MR. KASSIN: Now, wait a minute. That's pure
6 speculation. What we're dealing with are the facts of
7 this case and to start speculating is beyond the scope
8 of this rebuttal.

9 MR. SEHAM: The testimony on direct was that he
10 based his decision in part because of the quantitative
11 value of the PEth, that it was so high. And that leads
12 to the question, especially in a context where we have
13 a 30 percent differential in the two PEth tests from
14 the same matrix, from the same sample on the same day.
15 The quantitative level is a significant issue here. So
16 the question is, what is the policy if this witness
17 testified that he based the relapse decision because
18 the PEth test quantitative result was in the 90s. At a
19 lower value, would he have considered himself to have a
20 different option under Delta policy?

21 THE ARBITRATOR: You can answer that question. Let
22 him answer it.

23 BY MR. SEHAM:

24 A. I'm dealing with a positive and negative and
25 20 would have been a positive. So I would have -- he

1 would have been -- the -- the same outcome would've
2 been that he would have to go to MARR.

3 Q. Now, who told you that the quantitative level
4 of a test indicated a relative quantity of consumption
5 of alcohol?

6 A. There again, I'm just dealing with a number.
7 So nobody. I mean, all I'm -- you know, past practice
8 has been that, you know, that was brought to my
9 attention when I took the job and that's the numbers
10 that I look at. What's negative, what's positive, and
11 go from there.

12 Q. Did anyone ever give you a policy document
13 that stated that 20 nanograms per milliliter was the
14 positive cutoff for PEth?

15 A. I don't remember if I saw the document or
16 not, I -- I don't remember.

17 Q. Okay. Did anyone ever give you a policy
18 document that cited 100 nanograms per milliliter as the
19 positive cutoff for EtS or EtG?

20 A. I don't know if I saw the document or that it
21 was given to me via phone, or in person by somebody.

22 Q. Is there any reference to quantitative values
23 in Contract A?

24 A. No.

25 MR. SEHAM: If I could have five minutes. I just

1 want to check with my client to see if he had any
2 notes.

3 THE ARBITRATOR: Okay.

4 MR. SEHAM: Thank you.

5 THE REPORTER: We're off the record at 5:56 p.m.

6 (OFF THE RECORD)

7 THE REPORTER: We're back on the record. It is
8 6:00 p.m.

9 BY MR. SEHAM:

10 Q. Captain Miller, I just have a few more
11 questions.

12 A. Sure.

13 Q. After you received the PEth positive for
14 First Officer Danford, did you have any conversations
15 with his peer monitor?

16 A. Well, I can't -- I can't really remember if I
17 -- in fact, I'm trying to remember who his peer monitor
18 was. I don't -- I don't remember off the top of my
19 head.

20 Q. Okay. Did you have any -- were there any
21 reports at this time in terms of the trips he had
22 recently flown that indicated that he had a performance
23 issue?

24 A. No. There was none of that.

25 Q. Okay. Were there any reports from an AME, or

1 a psychiatrist or a psychologist indicating that Mr.
2 Danford had an issue -- had a substance abuse issue?

3 A. No, not -- not at all.

4 Q. Okay. So the decisions you made to the
5 extent you made any decisions was based on the PEth
6 test?

7 A. The PEth test and the split test, correct.

8 Q. Okay. And you advised him that it would be
9 easier to fight when he had a job -- while he still had
10 a job. Was that your testimony?

11 A. My testimony was it would be better -- I
12 didn't want to see him lose his job, period. And I
13 knew the path that this was going was probably not
14 going to be good. So I was trying to convince him that
15 -- because he was talking about getting a lawyer and so
16 forth, I was trying to convince him to go to MARR and
17 do the process that you want to do while you're in
18 treatment and have a job.

19 Q. All right. And you used the verb fight,
20 correct? That it would be easier to fight while he
21 still had a job, correct?

22 A. I can't remember what word I used.

23 Q. Well, you understood that he was going to get
24 a lawyer to contest the test results, correct?

25 A. Well, he said he was going to -- looking to

1 have to get a lawyer. Yes. ALPA, you know.

2 Q. And you understood that he was denying that
3 he had a relapse?

4 A. Yes.

5 Q. And in fact, if he had gone to MARR, he would
6 have been expected to confess to a relapse; isn't that
7 correct?

8 A. He would have been expected to participate in
9 treatment. Yes.

10 MR. SEHAM: All right. No further questions.

11 THE ARBITRATOR: Mr. Kassin, anything else?

12 MR. KASSIN: No, sir. Thank you, Captain Miller.

13 Oh, I'm sorry. Mr. Burdette. It's up to you.

14 THE ARBITRATOR: Captain Miller, you may be
15 excused. Thank you very much --

16 THE WITNESS: All right.

17 THE ARBITRATOR: -- for your time and
18 participation.

19 THE WITNESS: You bet, sir.

20 THE ARBITRATOR: Thank you.

21 THE WITNESS: Bye-bye.

22 MR. MILLER: Arbitrator Burdette, we'd like to
23 reconvene on Tuesday, and we will be sending -- we have
24 not made decisions on the doctors, other than Howard
25 Taylor, who's the toxicologist PhD. But we will

1 endeavor to do that very quickly, but in the meantime,
2 to give counsel a heads-up, we'll send to Mr. Seham and
3 Ms. Samuda CVs or biographies of the three doctors
4 we've been talking to.

5 THE ARBITRATOR: Okay. Very good. Does anybody
6 have anything else before we close the record for this
7 day?

8 MR. SEHAM: No, sir.

9 THE ARBITRATOR: Okay. Thank you-all very much.
10 We'll close the record and reconvene on Tuesday,
11 December the 8th, I believe, isn't it?

12 MR. KASSIN: Yes, sir.

13 THE ARBITRATOR: Okay.

14 THE REPORTER: We're off the record. The time is
15 6:04 p.m.

16 (Whereupon the proceeding concluded at 6:04 p.m.)

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REPORTER CERTIFICATE

I, DAMIEN STONEBERGER, hereby certify that the foregoing proceedings were recorded by audio by me, a disinterested person, and that the proceedings were thereafter transcribed to typewriting, by computer;

That I am neither attorney for nor a relative or employee of any of the parties to the action; further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially interested in its outcome.

IN WITNESS WHEREOF, I have hereunto set my hand this December 2, 2020.



DAMIEN STONEBERGER
Digital Reporter, StoryCloud

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SCOPIST CERTIFICATE

I, the undersigned, do hereby affirm:

That the foregoing electronically recorded proceedings were scoped by me to the best of my ability.

I further affirm I am neither certified or financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: December 21, 2020

Stephanie Morano

STEPHANIE MORANO

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