

IN THE CIRCUIT COURT OF THE  
NINETEENTH JUDICIAL CIRCUIT IN AND FOR  
INDIAN RIVER COUNTY, FLORIDA

CASE NO. 1974289

JUDGE DAVID MORGAN

STATE OF FLORIDA

Plaintiff,

vs.

JAMES CULBERTSON,

Defendant.

EXCERPT OF TESTIMONY FROM TRIAL

This cause came on for Trial on January 28, 1998, before the Honorable David Morgan, at the Indian River County Courthouse, Vero Beach, Florida.

The appearances were as follows:

FOR THE STATE:

MARGARET KEYS  
Assistant State Attorney  
2000 16th Avenue  
Suite 329  
Vero Beach, Florida 32960

FOR THE DEFENDANT:

ANDREW METCALF  
1245 20th Street  
Vero Beach, Florida 32960

1        TESTIMONY OF RICK SWOPE

2                                P R O C E E D I N G S

3                THE COURT: Mr. Metcalf, you may continue.

4                MR. METCALF: Thank you.

5        Whereupon,

6                                RICK SWOPE,

7        called as a witness by the defense, having been duly sworn,  
8        testified as followed:

9                                DIRECT EXAMINATION

10        BY MR. METCALF:

11                Q        Good afternoon.

12                A        Good afternoon.

13                Q        Can you please introduce yourself to the jury.

14                A        My name is Rick Swope, S-W-O-P-E.

15                Q        And where do you reside, Mr. Swope?

16                A        I reside most of the time in Davie, Florida. I also  
17        have a place in Atlanta. I go back and forth quite  
18        frequently.

19                Q        Okay. And what do you do for a living?

20                A        I do primarily accident reconstruction. That's  
21        about ninety percent of my business. The other ten percent  
22        encompasses working in the fields of breath testing, and I  
23        also do testing on field sobriety tests and exercises, and  
24        that's primarily the two things I work with.

25                Q        Okay. Let's get this out of the way early. Are you

1 being compensated for your time here today?

2 A Yes. I bill for my time, absolutely.

3 Q Okay. And will this in any way affect your  
4 testimony?

5 A No.

6 Q Okay. So your results are the same no matter what  
7 you're paid?

8 A That's correct. I charge you a fee, I give my  
9 results and it's your option to call me or not. That's up to  
10 you.

11 Q Okay. Well, let's get into your qualifications.  
12 What's your educational background?

13 A Well, I was a police officer for fifteen years, the  
14 last six years, for the last six years, I was administrative  
15 coordinator at the Broward Sheriff's office for the traffic  
16 homicide and DUI task force and testing units. I have over  
17 two thousand hours training in the accident/alcohol field, or  
18 alcohol testing field. I've been a breath operator, or  
19 tester, since 1974 on several models and types of breath  
20 machines. I have a bachelor's degree in criminal justice from  
21 St. Thomas University. I have a master's degree, master's of  
22 science and technology and engineering from the University of  
23 Miami. I have a certificate from the National Highway Traffic  
24 Safety Administration as an instructor and, in field sobriety  
25 and testing. I also have a permit to teach officers in the

1 state of Florida. I have a teaching certificate from the  
2 State of Florida, also. I, until 1996 I had a valid breath  
3 permit to do work on the machine or to do breath testing, but  
4 by that time I had been out of the criminal justice system for  
5 six years, so I didn't really need a breath test permit any  
6 more because I was really not arresting anybody, so I didn't  
7 need that. [REDACTED]

8 Jensen and Dr. Rose, I work at FIU. There's a grant program  
9 there now that we work on with the Intoxalyzer 5000 series.

10 There are actually three different series of Intoxalyzers, all  
11 called 5000, but they have different model numbers. I've been  
12 involved in numerous blood and breath correlations and testing  
13 of impaired and intoxicated people. I have also worked

14 closely with the medical examiner's office in Broward as far  
15 as toxicology results with breath testing as far as alcohol

16 [REDACTED] I've dosed up well over between three and five hundred  
17 people as far as taking them from sober level to an  
18 intoxicated or impaired level and used those testing results.

19 I've written several articles involving either breath testing  
20 or field sobriety exercises. I personally have done over  
21 fifteen hundred arrests myself involving alcohol impaired  
22 drivers and have either assisted or signed off or tested well  
23 in excess of several thousand people who have been apprehended  
24 for the offense of DUI. So I'm pretty familiar with breath

25 testing. And I've also been certified under HRS and then,

1 eventually, FDLE, which took over breath testing on several  
2 different types of machines. And I'm also working with a  
3 group out of Minnesota that teaches, it's the only company or  
4 area that teaches the Intoxalyzer on a national level. We  
5 teach it to police officers, lawyers, judges, pretty much  
6 everyone. And I'm also on staff at, or have taught at  
7 Broward, Dade and Palm Beach Community Colleges and I lecture  
8 about seven or eight different times per year. I've lectured  
9 recently at Emory University, Harvard Law School. I have  
10 adjunct faculty, have been, for the University of North  
11 Florida in Jacksonville, University of Louisville in Kentucky,  
12 the Southern Police Institute, the National Highway Traffic  
13 Safety Administration, and I travel quite frequently either  
14 for the Trilords (phonetic) Association or the National  
15 College for DUI.

16 Q Well, how many years were you a law enforcement  
17 officer?

18 A Fifteen.

19 Q I think you might have briefly mention but you've  
20 taught, you've actually taught classes on this machine before?

21 A Yes, quite a few, yes.

22 Q And that was part of your job as a law enforcement  
23 officer?

24 A Yes. Well, there was a few of us that tested  
25 primar-- or actually taught officers in what we call the tri-

1 county area, Palm Beach, Dade and Broward, and we would teach  
2 officers in the area of operating the Breathalyzer or field  
3 sobriety exercises.

4 Q Okay. And you, you still attend seminars and things  
5 like that regarding Breathalyzers.

6 A Right. I usually go at least once a year, but  
7 mostly I give the seminars. We do our own testing. We don't  
8 do them at a, in other words, we don't do them in a school  
9 setting. We do the testing individually. There's usually  
10 three of us that work on the machine and we, we have access,  
11 I have two that, at my disposal and the people I work with  
12 have, I believe right now we have six Intoxalyzers, plus my  
13 two is eight, and they're frequently actually out of service  
14 because we do all kinds of testing, so we actually blow them  
15 up, so to speak, and we have to send them up for repairs and  
16 then bring them back. So we usually have a couple on line.  
17 The other ones are usually being repaired.

18 Q And is it fair to say you know how these machines  
19 work, in and out?

20 A I'm pretty familiar, yeah. I'm not maybe a hundred  
21 percent familiar but I'm fairly familiar with them.

22 Q Okay,. And have you actually published articles  
23 regarding the Intoxalyzer 5000 and breath results?

24 A Yes.

25 Q And have you, you actually participated in writing

1 some chapters for books regarding your experiences as an  
2 expert witness?

3 A Yes. In other words, I, I published with the  
4 Intoxalyzer or field sobriety three articles or issues myself,  
5 and then, but most of it in my field, almost everyone works  
6 together. In other words, like, I may write down what I, what  
7 I do with the, say, the slope detector, and somebody else may  
8 work on differences in alcohol concentration, so then we all  
9 put it together and an article comes out. But we all have  
10 some type of access in it. We just don't write it  
11 individually.

12 Q And have you been declared an expert witness at  
13 trial before?

14 A Yes.

15 Q About how many times?

16 A Over six hundred.

17 Q Now, in these trials we're talking about, have you  
18 testified solely for the defense, or have you testified for  
19 the State?

20 A No. I testify for both sides. It just depends.  
21 I'm a witness. I don't keep track of defense or State or  
22 whoever calls me. I'm asked to testify. If I can help you,  
23 I help you and then, obviously, the attorney makes that  
24 decision. I don't keep track of how many times I work for one  
25 side or the other.

1 Q Well, in fact, you've been approached by this State  
2 Attorney's office to consult before, haven't you?

3 A yes. About a year ago.

4 Q Okay,. Did you actually do that?

5 A No. Actually I already had the case, but I had been  
6 consulted by another attorney here in town and I couldn't be  
7 of assistance. Obviously I can't talk to one side and give  
8 the same information to the other unless it's in a courtroom  
9 situation or a depo.

10 Q Just out of curiosity, who do you charge more money  
11 to; the State or the defense?

12 A Well, any cases that are what I call private cases,  
13 that are non-governmental, I charge a higher rate to.  
14 Governmental cases I charge twenty-five percent less in fees,  
15 and that's just because I was a cop so long and I did a lot of  
16 work with governmental agencies. I still do. I do a lot of  
17 work with the U. S. Attorney's office on cases, defense cases,  
18 and I charge them less. But that's just a personal thing with  
19 no particular reason for it.

20 Q All right. Well, let's be specific. You're  
21 familiar with the Intoxalyzer 5000?

22 A Yes.

23 Q Okay. And you're experienced with the Intoxalyzer  
24 5000-R?

25 A Right. It's, it's basically the same machine,



1 really.

2 Q And are you familiar with field sobriety exercises?

3 A Yes.

4 Q Okay. How are you familiar with those?

5 A Well, I'm, was certified 1985 by the National  
6 Highway Traffic Safety Administration to be an instructor. I  
7 also published two different articles and studies involving  
8 field sobriety exercises and I've taught in excess of, I  
9 believe at last count, it was over 2500 officers from around  
10 the country, from all fifty states.

11 Q Have you ever administered field sobriety exercises?

12 A Oh, sure.

13 Q Okay. And you're qualified to interpret the results  
14 of these exercises?

15 A That's one of the things we do, yes.

16 Q Are you familiar with the effects of alcohol  
17 consumption?

18 A Yes.

19 Q Okay. Is that -- how are you familiar with that?

20 A Well, I'm familiar with that, obviously, through the  
21 training, through the work that I did as an officer in the  
22 training, and then primarily through experiments. In other  
23 words, giving alcohol, measured amounts of alcohol to  
24 volunteers, seeing what their blood and breath tests are at a  
25 certain point in time, seeing how they react, videotaping

1 them, scoring them on how they perform at certain levels.  
2 I've even had people drive on a closed course with cones out,  
3 and things, to see how they react. I've used driving  
4 simulators --

5 MS. KEYS: Your Honor -- excuse me, mr. Swope -- at this  
6 time, I'm going to object. May we approach?

7 THE COURT: Sure.

8 (Bench conference.)

9 MS. KEYS: Your Honor, I'm just going --

10 THE COURT: Wait. Okay.

11 MS. KEYS: -- if -- are you going to tender him to the  
12 court as an expert, or --

13 MR. METCALF: Yes.

14 MS. KEYS: Okay. I'm just going, you know, are you just  
15 going to

16 THE COURT: There's no requirement that he, that he do  
17 anything formal. At any time you can object as to somebody  
18 giving their opinion because that is not allowed under the  
19 evidence code except in certain situations. At that point you  
20 have the right to inquire and if you tendered him, then he  
21 will be declared an expert witness. There's no formal  
22 mechanism required for him to say (inaudible). I have no  
23 problem with anybody giving their opinion as to these field  
24 sobriety tests. I'll tell you that now. I'm not going to  
25 allow any witness to testify how a field sobriety test should

1 be done Meader versus State makes it very clear these  
2 tests. They are actions individual take and if one can  
3 garner --

4 MR. METCALF: Judge, I'm just preparing, if there seems  
5 to be a rebuttal witness --

6 THE COURT: I won't let the State do it either. I won't  
7 let anybody go into field sobriety tests, passing and failing  
8 and all that business.

9 MR. METCALF: The only reason I'm going into it is, you  
10 know, Mr. Parsons just told me he's an expert on alcohol  
11 consumption interpretation of the effects of alcohol and I got  
12 mount, if he's going to be called, I got to mount a rebuttal

13 THE COURT: No, no, you hear what I'm saying.

14 MR. METCALF: I understand.

15 THE COURT: No matter what they say, I don't care if it's  
16 him or him, I'm not going to let anybody take and interpret on  
17 pass, fail, points, and all those things that Meader talks  
18 about.

19 MR. METCALF: No. Absolutely.

20 THE COURT: Now, it's very doubtful if somebody can lay  
21 a proper predicate also to say I looked at a video, for  
22 example, and based on that I think someone's drunk or not. I  
23 mean, unless you were really, in my judgment, I'm letting you  
24 know that because I may step in and ask you all to approach  
25 the bench myself because I feel that strongly about it that it

1 would unfair to both sides if either Mr. Parsons said that or  
2 your expert did that.

3 MR. METCALF: (Inaudible.) Thank you, Judge.

4 THE COURT: One more. What did you all originally come  
5 up here for?

6 MS. KEYS: I was objecting to the fact that he was  
7 getting into field sobriety and also that he --

8 THE COURT: (Inaudible.)

9 MS. KEYS: -- that he hasn't tendered him as an expert --

10 THE COURT: He doesn't have to do that, (inaudible) offer  
11 an opinion if you have an objection, do it and we can handle  
12 it at that time.

13 MR. METCALF: Thank you.

14 (End of bench conference.)

15 MR. METCALF: Judge, at this time I would ask, I would  
16 tender Mr. Swope as an expert in blood and breath alcohol  
17 result interpretation, an expert in field sobriety exercises  
18 and their administration and interpretation of the effects of  
19 alcohol consumption.

20 THE COURT: Okay. State, do you wish to inquire?

21 MS. KEYS: Yes, Judge, I do.

22 VOIR DIRE

23 BY MS. KEYS:

24 Q Mr. Swope, are you --

25 A Yes, ma'am.

1 Q -- do you have any biology background?

2 A No.

3 Q A chemistry background?

4 A I've had some clashes in chemistry but I don't have  
5 a chemistry background. In other words --

6 Q No degree --

7 A No.

8 Q -- in chemistry?

9 A I have an engineering is my, my main forte.

10 Q Is that a master's of science in engineering, or do  
11 you have a master's of arts in engineering?

12 A No. It's a master's of science and technology and  
13 engineering. Technology, which is basically one half of the  
14 course, is involving experimentations and technologies in  
15 things like that. The other half is industrial engineering.  
16 That's primarily what it is.

17 Q Do you have a master's degree?

18 A It's a master's of science from University of Miami,  
19 it's called in technology and engineering.

20 Q And is it a master's degree, or master's  
21 certificate?

22 A No. It's a master's degree.

23 Q Okay. Now, but you're not a toxicologist, are you?

24 A No. I never said I was. No.

25 Q Okay. You're not a physiologist?

1 A No.

2 Q You're not a pharmacologist?

3 A No. I do not have a chemistry degree.

4 Q You don't have any type of background in the  
5 forensics sciences; is that correct?

6 A No, it's not true. I have a very heavy background.  
7 It's just that engineering is involved in it. **The Intoxalyzer**  
8 **was built by engineers, not forensic chemists. It was not**  
9 **built by biologists. It was built by an engineer.**

10 Q But, sir, to interpret what that says don't you need  
11 a background in the hard sciences?

12 A To build --

13 Q (Inaudible.)

14 A -- the Intoxalyzer?

15 Q Yes.

16 A No. All you're doing, the Intoxalyzer was built by  
17 engineers using a background of people that basically told  
18 them what breath testing was about.

19 Q Right. so to be able to interpret the breath  
20 testing, you need to have somebody like a biologist, a  
21 chemist, a toxicologist, a pharmacologist, or a, some type of  
22 person in those hard sciences to be able to tell engineers how  
23 to build such an instrument --

24 A If you're --

25 Q -- is that right?

1           A     Yes.    If you're going to build one for blood,  
2     absolutely.  But this is not a blood test, it's breath.

3           Q     No.    For breath.

4           A     Right.  For breath, no.  Absolutely not.

5           Q     You don't need that for breath?

6           A     No.    Absolutely not.

7           Q     Sir, do you have a, now, you claim that you are a,  
8     a an expert in the field of - what was that again?  Breath and  
9     blood?

10          A     I haven't said a word about me being an expert in  
11     any field.  I just testify as to the questions today.

12          MR. METCALF:  Judge, may we approach?

13          THE COURT:  Okay.

14     (Bench conference.)

15          MR. METCALF:  Judge, we can clear up some of these  
16     questions by letting me ask Mr. Swope as Ms. Keys was, did  
17     when she asked Mr. Parsons what he's an expert in, we can hear  
18     it from him.  She's --

19          THE COURT:  Well, it's been suggested by the lawyer as to  
20     the areas.  No he didn't say what the areas.  That was  
21     suggested by the lawyers.  Now, you may ask him questions to  
22     test his educational background if you object to him being,  
23     giving an opinion.

24          MS. KEYS:  Yes, your Honor.

25          THE COURT:  That's the purpose of the voir dire.  You did

1 state the areas. If you want to ask him if he's an expert in  
2 those areas, that's fine.

3 MR. METCALF: Thank you, sir.

4 VOIR DIRE (Continued)

5 BY MS. KEYS:

6 Q Sir, you stated, or you've been tendered to the  
7 Court as an expert in blood and breath alcohol analysis; isn't  
8 that correct?

9 A I believe that's one of the things Mr. Metcalf said,  
10 yes.

11 Q Do you have any certification requirement in  
12 analyzing those areas, any certifications?

13 A As to which ones? You asked me two questions --

14 Q Ana--

15 A -- blood and --

16 Q --lysis of --

17 A -- breath.

18 Q -- breath or blood.

19 A I had a state permit for fifteen years, yes.

20 Q Okay. Well, that's just --

21 A Or ten years.

22 Q -- that's just to be able to administer the  
23 Intoxalyzer test; correct?

24 A Well, not at the time I was given the permit, no.  
25 Now, now that would be a correct statement. But when I got



1 my permit, no, it wasn't. At that time you had to be able to  
2 know how the machine operated, you had to be able to speak  
3 about the blood and breath correlations, and that was back in  
4 the eighties. Now, I think the technician today said he had  
5 three different levels, there was no such thing when I had my  
6 permit. You had to go through a long course to learn all  
7 that.

8 Q Well, sir, you don't hold a current permit, then; is  
9 that correct?

10 A No. There are no permits.

11 Q To analyze --

12 A No, ma'am. There are no permits, no, ma'am. There  
13 are no permits unless you're law enforcement personnel.

14 Q Well, certainly, sir, there are certified,  
15 certifying bodies in the field of your basic toxicology,  
16 chemistry, physiology, pharmacology, there are certain  
17 certifications and certificates you can get from those bodies.

18 A If you're performing toxicology, correct. I have,  
19 I am not performing a toxicology service. That would be a  
20 toxicologist. They analyze blood samples, urine samples, I'm  
21 not doing that. I'm doing breath testing. There is no  
22 specific area for that in the nation, no.

23 Q Thank you.

24 MS. KEYS: I have no further questions.

25 THE COURT: Anything. Any objections from either side or

1 any further argument?

2 MR. METCALF: No, your Honor.

3 THE COURT: All right. Then I will allow the witness to  
4 give his opinion in the area of the analysis of blood and  
5 breath analysis. I'm not going to allow any opinions  
6 regarding field sobriety testing as I've previously made that  
7 ruling known to the attorneys. With that, we may continue,  
8 Mr. Metcalf.

9 MR. METCALF: Thank you, Judge.

10 DIRECT EXAMINATION (Continued)

11 BY MR. METCALF:

12 Q Do you know how the Intoxalyzer 5000 works? I think  
13 I've already asked you that.

14 A Yes.

15 Q Okay. And you were in here earlier for the  
16 testimony, you heard about the maintenance operation and his  
17 experience with it; is that correct?

18 A Yes, I did.

19 Q Okay. Would you say that you're a little bit more  
20 familiar with the operation of this machine than that  
21 gentleman.

22 A A little more, yes.

23 Q And can you describe basically the premise, the how  
24 this machine is, what's it designed to do, and what it  
25 actually does.

1           A        Sure. The machine itself is actually, uses infrared  
2 energy absorption technique. That's kind of a long word, so  
3 to speak, but I guess the best way that I can tell you the  
4 machine works is the individuals are asked to blow into the  
5 machine for a period of a minimum of six seconds. The breath  
6 goes into a sample chamber where an infrared light goes  
7 through the chamber and measures the difference in the ambient  
8 light, or the ambient air which was in there originally, and  
9 secondly with the actual suspect or defendant's air that was  
10 put into the chamber. To give you an example of how it works,  
11 if you have your headlights on at night and you're driving,  
12 your headlights can see a certain distance in front of you.  
13 On a clear night, your headlights go a very long way. So if  
14 you could take the maximum effect of your headlights on your  
15 car, and let's say you could measure that and say, well, I can  
16 five hundred feet on this particular night. Now, somewhere  
17 down the road you run into a patch of fog. Well, the amount  
18 of light is going to be less, you can't see as far because the  
19 fog is going to cloud up the amount of light that goes  
20 through. If you could measure the difference between the  
21 clear air or the clear air outside where you have the five  
22 hundred feet of beams and now it's only three hundred feet, if  
23 you can measure the difference between the two, it would give  
24 you a numerical value. And that's the way the Intoxalyzer  
25 works. It sucks in room air, so to speak, like we're

1 breathing now. Air then is, from the defendant is, or  
2 subject, is put in the Intoxalyzer and it actually analyzes  
3 the difference between the room air and any ethanol or alcohol  
4 that may be in your vapor as it goes into the machine. That's  
5 a quick way, I guess.

6 Q Okay. Well, does it actually test a sample of  
7 blood? Is that a part of it?

8 A No, it does not. The machine is based on a blood  
9 rating. In other words, it's based on twenty-one hundred  
10 liters of air to one cc of blood, which, basically, the way  
11 that works is that it's known as a partition ratio, meaning  
12 that it bases itself on deep lung air. As you blow, the  
13 deeper the lung air you get, the closer to your blood line it  
14 gets, so to speak, and the truer reading you're going to get.  
15 And that's pretty much the way it works.

16 Q And this partition ratio, is that, you had mentioned  
17 the word average, is that something the machine adjusts  
18 itself, depending on who's giving the breath sample?

19 A No. It's set on a permanent result.

20 Q So, each, doesn't take into consideration what sex  
21 you are, how much you weigh --

22 A That's correct. It doesn't.

23 Q -- how old you are.

24 A That's correct. It's set on one unit, which is  
25 twenty-one hundred to one, and the machine makes the

1 assumption that everybody is either at or at least very near  
2 that level.

3 Q Was it possible for someone to be above or below  
4 this partition rate, this average that it gives.

5 A Yes.

6 Q Okay. What's, on each side of the scale, what's the  
7 most abnormal you've heard of?

8 A Well, the most abnormal I've heard of is a thousand  
9 to one. I've never seen that, but that's the most that I've  
10 read in the literature. But normally it goes between thirteen  
11 hundred and twenty-six hundred to one. So it can fall  
12 somewhere within there.

13 Q Now, this seems a little complex, but would it, if  
14 someone was different, other than twenty-one hundred to one,  
15 would that be something that could cause a skewed reading in  
16 this machine?

17 A Yes, it could be very skewed, depending on where in  
18 that scale that they're at, yes. And especially for  
19 scientifically reliability reading. I mean, I can show you  
20 the difference, but that's what it would be.

21 Q Why don't you go ahead and demonstrate that.

22 THE COURT: That would be fine. You may step down.

23 THE WITNESS: Is there anything on that board?  
24 Basically, I use an L curve whenever I'm graphing something  
25 and what we're looking at here is basically those two things.

1 In other words, we have a line, whatever that line may be.

2 MR. METCALF: I'm sorry, your Honor.

3 DIRECT EXAMINATION (Continued)

4 BY MR. METCALF:

5 Q Can you read in the record in case --

6 A Yeah. That's reliable and accurate. Sorry. You  
7 would think I was in school or something. That's reliable and  
8 accurate. Then we have an L curve and I just drew this line  
9 here to show you differences as to particular reading. I'll  
10 put this here, which would be an oh eight oh, which is the  
11 legal limit. In this case, it's a point one one eight and  
12 point one one seven. I'll use the higher one. I'll use the  
13 point one one eight. You have a line of reliability and a  
14 line of accuracy when you're doing this. You have a, so, in  
15 other words, if the point one one eight was on this line, when  
16 you have the partition ratio, which we've already discussed,  
17 which could be higher or lower on your reading, the error  
18 readings would be, could be higher or lower. And you would  
19 see that it's just a very minute amount. in other words if  
20 you make an error between these two numbers, the error is  
21 going, could be magnified very greatly because you're only  
22 dealing with this much. If, in other words, you have somebody  
23 who is, let's say, a point two oh, point two zero zero  
24 percent, and you're up here, it doesn't really matter. You  
25 can make all kinds of errors and have all kinds of

1 differences. You can be high, low, it doesn't really matter  
2 because the ultimate income, or outcome is that you're so high  
3 it doesn't really matter. So, if you make a little error, or  
4 you make a couple of errors, it doesn't matter. But where  
5 this is would be a borderline case. So if you're off just a  
6 little bit, high or low, you could have that problem. And  
7 using the numbers I gave you, again I'm using the point one  
8 one eight, which is the higher reading, you could be anywhere  
9 within a point zero seven three and a point one four five.  
10 Now, whether it's up or down, I couldn't tell you.

11 DIRECT EXAMINATION (Continued)

12 BY MR. METCALF:

13 Q Okay. And how did you, how did you come to those,  
14 those calculations? What do you consider?

15 A Well, what I considered is a ratio of thirteen  
16 hundred to twenty-six hundred. We know that in the middle,  
17 twenty-one hundred is what the machine uses. But the problem  
18 is we don't know where a person falls between those two  
19 levels. Now blood testing it wouldn't matter, but breath  
20 testing it does matter. So, and again, remember our error  
21 margin is very small but because we're borderline, any error  
22 that we make is going to be greatly magnified.

23 Q So, is it your testimony that the partition ratio on  
24 a human being whoever blows into this machine is a thirteen  
25 hundred, mark, would that give you the rating of point oh

1 seven three?

2 A Right.

3 Q And if it was as high as twenty-six hundred, that  
4 would give you the skewed rating of point one four five.

5 A Right. So the factor is anything in between there,  
6 and of course, the assumption is made, I am assuming, just so  
7 you're aware, that the point one one eight is in itself a  
8 valid and accurate reading, and I don't know that. I'm just  
9 saying that if that is okay and it's on the card, I'm just  
10 using that figure but that figure I'm going from. If there's  
11 an error on this, which there could be on the machine, high or  
12 low, then that could also skew this as to what this is going  
13 to be.

14 Q So the short of it is you can get a reading of point  
15 one one eight that prints out on that card and it can actually  
16 be, because of this built-in error factor that you've  
17 explained, the reading can actually be point oh seven three or  
18 point one four five, we don't know.

19 A Right. I, I, it's not a built-in error factor. I  
20 want to make that clear

21 Q Okay.

22 A I mean, it's not an error factor. It's just the  
23 fact that that's the best the machine can do because it's an  
24 extra step. In other words, it's trying to convert, even  
25 though it's a breath sample, it's using the blood analysis to



1 convert this sample to breath and give a reading. And because  
2 you're one step removed, you have an error range in there.  
3 You don't get the error range if you do it with blood testing.  
4 But you do get it if you do the breath testing.

5 Q Is there any way to eliminate this -- well I call i  
6 an error -- is there any way to eliminate this factor --

7 A Sure.

8 Q -- this extra step? How would you do that?

9 A I'd do blood.

10 Q Excuse me.

11 A Do a blood test.

12 MS. KEYS: Objection, your Honor.

13 THE COURT: Okay.

14 MS. KEYS: May I approach?

15 THE WITNESS: Can I sit down?

16 THE COURT: You can have a seat, sir.

17 (Bench conference.)

18 MS. KEYS: Judge, he did it again. You and I spoke this  
19 morning about --

20 THE COURT: Did what?

21 MS. KEYS: -- mentioning the blood --

22 THE COURT: I've, I've not told him he couldn't mention  
23 blood.

24 MS. KEYS: Okay. He said you could take blood to get a  
25 more accurate, you know (inaudible) alcohol, breath alcohol