UNITED STATES
INTERNATIONAL TRADE COMMISSION

In the Matter of:	)	Investigation No.
CERTAIN HIGH-STRENGTH ALUMINUM OR ALUMINUM-ALLOY COATED STEEL, AND AUTOMOTIVE PRODUCTS AND AUTOMOBILES CONTAINING SAME	)	337-TA-1402

OPEN SESSIONS

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Posco Co. LTD. v. ArcelorMittal
IPR2025-00370

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

BEFORE THE HONORABLE MONICA BHATTACHARYYA

Administrative Law Judge

In the Matter of:	)	Investigation No.
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International Trade Commission

500 E Street, S.W.

Washington, D.C.

Wednesday, March 5, 2025

EVIDENTIARY HEARING - VOLUME 3

The Hearing commenced remotely, pursuant to the notice of the Judge, at 9:31 a.m. Eastern.

Reported by: Marjorie Peters, FAPR, RMR, CRR

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P R O C E E D I N G S

JUDGE BHATTACHARYYA: Good morning. Please be seated.

Before we begin, I want to address certain objections that were made yesterday to Dr. Fekete's testimony and exhibits.

Based on review of the expert reports -- we can be on the public record.

Based on review of the expert reports and the parties' arguments, the general objection to CX-826 through 878 is overruled; the general objection to CX-870 to 872 is overruled. I'll issue a written order with the reasoning.

To the extent Respondents believe that there is objected-to testimony that is not addressed by the record order, they may let me know, and we'll address that at that point.

Other than that, I understand that some new issues have been raised with respect to the demonstratives that will be provided today.

MR. HERSHKOWITZ: Your Honor, Benjamin Hershkowitz from Complainants.

You will be happy to know that one of the two was resolved this morning.

JUDGE BHATTACHARYYA: Okay.

MR. HERSHKOWITZ: So the one involving Bradley

has been resolved.

JUDGE BHATTACHARYYA: All right.

MR. HERSHKOWITZ: As to the one concerning Dr. Brown, my colleague, Ray LaMagna can address that, if you would like.

JUDGE BHATTACHARYYA: All right. Let's do that.

MR. LAMAGNA: Thank you, Your Honor.

We regrettably have one minor issue that we weren't able to address.

Can I see slide 186 from Dr. Brown's proposed slides. Are you able to bring that up.

(PAUSE in the proceedings.)

MR. LAMAGNA: If we could go back one slide to 186.

There's a build of slides that they have. This is the final build. We don't believe that this is anywhere in Dr. Brown's report. He doesn't have this image in his report, and some of the predicate information that you see here is not in his report.

We're not taking issue with some of the quantification down at the bottom, which I think has been resolved by, you know, the rulings you just had. The issue is simply that this image and the math that necessarily goes in to reflect this image is just not in his report.

If we can pull up, for example, Dr. Brown's

report. This is his invalidity report at Paragraph 72. If you could just do those callouts that I was identifying for you.

In Paragraph 72, Dr. Brown says that there is an unspecified number of DI products that are at issue in this case. He also says that there is an unspecified -- that there is no evidence concerning the number of Tier 1 hot-stampers.

If I could just show that second callout further down in Paragraph 72.

Sorry, we're getting our technology spun up.

There we go.

There's an unspecified number of DI products. So what is in Dr. Brown's report here is that there is an unknown quantity of DI products, and there's an unknown quantity, that he's not aware of, of hot-stampers. That's all that we have in his report.

What he does not do is then present the quantification or the argumentation that is reflected necessarily in the flowchart.

If we could go back to the flowchart.

That's the basis for our objection.

I think, if you recall, yesterday, we had argumentation regarding Dr. Malackowski's report, and whether there was math that was shown or not in his report,

and that, as Respondents argued, was the basis for exclusion. Here, you have an argument that is being made that is just simply not reflected in his report.

JUDGE BHATTACHARYYA: All right.

So which portions of this demonstrative are at issue? So the "not subpoenaed," there's a question mark. Is that all right?

MR. LAMAGNA: Well, I think that is the point, is that we have here a number of precursor products that are entering on the left of the screen.

Like I said, this image is not -- you know, this analysis is not directly in his report.

At the top, you see that there's a number of "not subpoenaed" products. At the bottom, there's a number of parts. And there's a relative characterization established between those.

Necessarily, when we graphically represent this, we have to be making decisions as to which lines are going to be fatter, which lines are going to be thinner, et cetera, visually in order to show this.

So he's making a quantification here. There's no legend here that says, not drawn to scale, for example. He says in his report, expressly, I don't know what these numbers are.

So this is really something that would have been

appropriate to cross-examine with Dr. Malackowski who does know whether or not one number is bigger than the other number, or to what extent, et cetera.

Having Dr. Brown as the mouthpiece for what is essentially a pseudo-econometric analysis of the flow of products is not appropriate, especially given that there isn't -- that analysis is not presented in his report.

JUDGE BHATTACHARYYA: How about the bottom, do you have an objection to the numbers at the bottom, the seven subpoenaed, 170-plus parts, the tested 13 parts, and the four parts not practicing?

MR. LAMAGNA: Well, I think, yes, a small bit, which I think is addressed in Your Honor's ruling.

The 170-plus parts, no, but we do have the issue where the 13 should be 16 because they've omitted the three Tesla door rings that I believe I understand Your Honor just ruled on, and -- or overruled the objection that Complainants had. And the nine should also then be 12 to reflect that there's actually three extra products.

But the gravamen of the objection here, Your Honor, is the analysis as a whole is not present, and this is not something -- you know, Dr. Brown did not opine on the comparative value of that which is subpoenaed versus that which is not. That's something that's in Dr. Malackowski's camp, and Dr. Brown is a technical expert

and not presenting an econometric analysis, balancing what has been subpoenaed and what hasn't been.

JUDGE BHATTACHARYYA: All right. Thank you.

MR. WILSON: Good morning, Your Honor. Jack Wilson.

We disagree that this was -- may I proceed?

JUDGE BHATTACHARYYA: Yes, you may.

MR. WILSON: We disagree that this was not presented in his report.

I'm going to try to use the ELMO here.

We can see that he -- in Paragraph 72, following the portion that you were just shown, Mr. -- excuse me, Dr. Brown identifies that there are hundreds of other DI direct products from the Tier 1 manufacturers. That's the rest of Paragraph 72 that counsel just identified.

If we continue in the paragraph, it identifies that there are 123 hot-stamped products from one of the manufacturers, 16 from the next, 39 from the next. So that's how we get to that 170 number. And he continues. So he's identifying that there are a specific number, and there's also additional ones.

Then he continues in the next paragraph, and identifies that Dr. Fekete has only provided testing results for a small fraction of the alleged DI direct products.

He then goes on to identify what those DI direct products are, so this is where we narrow down to the 13 -- obviously, that's a disputed number -- well, no longer disputed, but we're down to that very small fraction, and he continues at length in the rest of his section.

So we think this -- although this specific figure, we agree, was not shown, the analysis is Dr. Brown is not going to provide an economic opinion that says, specifically, you know, it's 64.-whatever percentage. He's showing the relative share of the tested products and subpoenaed products.

We think this is squarely within his report, Your Honor.

JUDGE BHATTACHARYYA: Okay. Thank you.

Could I have a copy of the expert report.

And Mr. Lamagna, did you have anything else you wanted to say?

MR. LAMAGNA: I'll just address that very briefly, Your Honor.

Again, I think that it's telling that at the bottom of this particular slide, I think it's probably the only slide they have, doesn't have a citation on it.

The point I'm making is not about the lower band. You know, my -- Respondents' counsel pointed you to places in his report where he describes what is the other

170 products that were not tested, that is in that lower swoop in the demonstrative.

The question really is that Dr. Brown had no basis to make a comparison between the hot-stampers that are subpoenaed versus the hot-stampers that are not subpoenaed, because that analysis and that comparative data is not in his report.

Thank you.

JUDGE BHATTACHARYYA: Understood.

If we could get copies of the expert report, that would be helpful.

MR. WILSON: Yes, Your Honor.

If I could approach, Your Honor?

JUDGE BHATTACHARYYA: Thank you.

I'll rule on this before Dr. Brown's testimony.

MR. WILSON: Thank you, Your Honor.

JUDGE BHATTACHARYYA: Is there any other housekeeping matters that we should discuss or address before we begin again with our witness?

MR. MCKEON: Not from Respondents, Your Honor. Thank you.

MR. LEE: Your Honor, I believe the parties are still trying to confirm the list of exhibits to be submitted today, so we're happy to do that as soon as it's ready, perhaps after lunch if that works for Your Honor.

JUDGE BHATTACHARYYA: Yes. That's fine. Thank you.

MR. LEE: Okay. Thank you.

MR. REITER: Nothing further from Complainant, so we can resume with Dr. Fekete.

JUDGE BHATTACHARYYA: Excellent.

MR. REITER: Thank you, Your Honor.

Your Honor, with all of the excitement yesterday, I realized I forgot to provide you with copies of the demonstrative slides. Is that okay?

JUDGE BHATTACHARYYA: Yes.

Just as a reminder, we are on the public record.

MR. REITER: We should probably go on -- this is technical DI, so I don't know whose confidential record -- it's third-party confidential record.

JUDGE BHATTACHARYYA: So we're on the all-parties confidential record, including third parties.

MR. REITER: Yeah.

JUDGE BHATTACHARYYA: Could I have confirmation from counsel that we can proceed.

MR. MCKEON: We're all clear, Your Honor.

(Whereupon, the trial proceeded in confidential session.)

O P E N S E S S I O N

MR. MCKEON: May I approach?

JUDGE BHATTACHARYYA: You may, but it's not necessary for us to have binders of the exhibits.

MR. MCKEON: May I proceed, Your Honor?

JUDGE BHATTACHARYYA: Yes, please, go ahead.

MR. MCKEON: Thank you.

CROSS-EXAMINATION

BY MR. MCKEON:

Q. Good morning, Dr. Fekete.

A. Good morning.

Q. My name is Mike McKeon. It's nice to meet you.

I have to say right out of the gate here, we share a common love because one of my majors in engineering school was metallurgy, so I love metals like you love metals. It is really a quite fascinating topic, so congratulations on your successful career in that business.

Now, we know based on your testimony that you've offered yesterday and today that your work in this case involved infringement issues and technical domestic industry issues; isn't that right?

A. Correct.

Q. Of course, you've reviewed the two patents at issue, and the claims at issue in arriving at your conclusions; isn't that right?

A. Correct.
Q. There is no dispute in this case, of course, that all the claims at issue require these four layers that we've heard a lot about in this trial; isn't that right?
A. Yes.
Q. In fact, these are really critical elements of the claim.
You agree with that; right?
A. Yes.
Q. Let's pull up Claim 1 of the '602. Let's just reference that as we discuss the claim and what's required.
You recognized this as the Claim 1 of the '602 patent; is that right?
A. Yes.
Q. Of course, you understand the claim and all the language in the claim; isn't that right?
A. Yes.
Q. The claims, of course, recite base steel.
We agree on that?
A. Yes.
Q. Of course, on top of the base steel, you have the four different layers that are required by the claim; isn't that right?
A. Yes.
Q. One thing I know we're going to agree on, the

claims do not recite any parameters of the process of obtaining the layers on top of the steel; isn't that right?

A. The claims do not disclose process parameters. Is that --

Q. Yeah, so there's no process parameters that are required at all by the claims of these patents; isn't that right?

A. Correct.

Q. So, for example, you don't see oven time, for example, in the claim; isn't that right?

A. Correct.

Q. You are not going to see the temperature of the oven, not required by any of the claims; isn't that right?

A. Yes.

Q. Heating rate, that's not required, either; isn't that right?

A. Not in the claims.

Q. To determine whether a material has the four-layer structure, your analysis involved looking at SEM images of steel products; right?

A. That was part of what we used for our analysis.

Q. You keep saying "we."

When you say "we," who are you referring to?

A. The laboratories that produced the testing.

Q. The laboratories that produced the testing.

Okay. We'll get to that in a minute.

Of course, you heard Dr. Drillet testify on Monday.

Were you here for his testimony?

A. Yes, I was.

Q. He mentioned again and again in his testimony about the process parameters, the process parameters of the patents.

Do you recall that?

A. Yes.

Q. But of course, in this case, with respect to the infringement and technical domestic industry issues, process parameters are irrelevant, isn't that right, because the claims don't require that; is that fair?

A. The claims don't require the process parameters. The process parameters are not in the claims.

Q. So we're not really required to look at them or consider them, in this case, at least; isn't that right?

A. For doing the analysis of whether parts practice or infringe.

Q. Is that right? You agree with me, then?

A. That you would not need to know the process parameters in order to -- I'm just trying to understand the question.

Q. You don't need to know the process parameters in

order to determine whether there's infringement and technical domestic industry?

A. Yeah, that was not part of the analysis, that's correct.

Q. You recall in the testimony we heard from Dr. Drillet on Monday that, you know, he got this part from Magna, and there was this SEM in it with the four layers, and he testified that this was the last part of the process puzzle for him, because it was the upper limit of the process window.

Did you hear something to that effect on Monday?

A. Yes.

Q. You agree, though, that despite what Dr. Drillet said about the sort of eureka moment where he got the last process window, the last process window doesn't matter for the purposes of this case; isn't that right?

A. In order to result in materials that practice the patent, you do have to process it correctly.

Q. Well, did this process involve -- we all know that these are being made. We heard a lot about that, right, but for the purposes of your analysis, whether it was infringement, technical domestic industry, you're just looking at the claim, and see if it's satisfied, and that doesn't account for any process parameters; right?

A. The claims of the patent are looking at the

product and the characteristics of the product, yes.

Q. To do your infringement analysis, you relied on these SEM micrographs; isn't that right?

A. In part. We reviewed those as part of the analysis.

Q. Okay.

Of course, you agree that the SEM micrographs that you reviewed had sufficient resolution to resolve the presence, or not, of the claimed four layers; isn't that right?

A. Well, once again, we didn't rely solely on the four layer of the SEM micrographs to assess that.

We could assess based on chemical composition data whether the four layers were present.

Q. All right. Well, we're going to get to that, okay?

A. To answer your question. If I understood the question, do we rely on them.

Q. The micrographs --

A. In part we rely on the micrographs, but we don't rely on them completely for the analysis.

Q. Okay. We'll get to that.

But one thing we know for certain is that you believe that looking at a micrograph is the only way to really know whether there is a four-layer structure

required by the claims; correct?

A. No.

Q. Well, let's get to your deposition, sir. You took a deposition in this case.

Do you recall that?

A. Yes.

Q. You were under oath.

Do you recall that?

A. Yes.

Q. Let's get your deposition at 48, line 6 to 14, please.

"Question: What else would you need to do to determine whether it would form the four-layer structure or not?

Answer: I mean, the only way of really knowing is to look at a micrograph of the material."

Did I read that correctly, sir?

A. Yes.

Q. Now, despite the SEMs being very important in the analysis that you conducted in this case, you yourself did not take the SEM micrographs; isn't that right?

A. That's correct.

Q. You relied on a guy named Dr. Baskin; is that right?

A. No, that's incorrect.

Q. Well, we know that Dr. Baskin oversaw all of the testing that resulted in the data you rely on for your opinions; isn't that right?

A. We worked together on that. He did the direct oversight of the laboratories. I reviewed all of the results. We really worked together on that.

Q. Okay. Well, let's get your deposition at page 98, 12 to 15.

"Question: And Dr. Baskin oversaw all of the testing that resulted in the data that you relied on in your report; correct?

Answer: That is correct."

A. Yes. That's correct.

Q. And Dr. Baskin himself actually didn't conduct the testing. It was the labs that conducted the testing; isn't that right?

A. Yes, correct.

Q. We don't know. We haven't heard anything in this trial about the names of these people, and who they were and what their experience are. You didn't provide any testimony on that in your direct testimony; isn't that right?

A. Yeah. What was that question again?

Q. Let me -- you identified the labs that you relied on, the three labs that you relied on for testing;

isn't that right?

A. Yes.

Q. Okay. But we -- in your direct testimony, you mentioned Dr. Baskin, correct, as overseeing?

A. Yeah, he oversaw the testing, yeah.

Q. But you didn't mention anybody else that was involved in the project specifically by name; is that right? In the testing.

A. No. We've talked about the testing quite a bit, and we disclosed in our presentation that we contracted labs to do the testing.

Q. That's precisely my point. So you contracted labs --

A. Yeah.

Q. -- but we don't know if it was Tom, Dick, Harry, Jane, or Sally that did the testing at the labs; correct?

A. I don't need to know that.

Q. Okay. Well, let's talk about that.

We did establish that Dr. Baskin, he just oversaw the testing performed by the testing labs; right?

A. Yes.

Q. In fact on one of your slides, slide 33, you say that you had the responsibility to visit places like Calvert and Special Projects, and Dr. Baskin had the responsibility to oversee testing.

Do you recall that slide?

A. Yes.

Q. Just so I get a handle on the process here of collecting the data, I believe you testified that you worked with Dr. Baskin to come up with protocols; is that right?

A. Yes.

Q. Then the labs were given the protocol; do I have that right?

A. Yes.

Q. Then the labs did the testing, including looking at the compositions, taking all of the SEM micrographs; is that right?

A. Yes.

Q. These are the people in the labs that we don't know what their names are; is that fair?

A. No, we do not.

Q. Then the labs collected all of that information and put it together; isn't that right?

A. Yes.

Q. And one of the things that the labs did is they created a -- what your counsel referred to yesterday as a summary chart; isn't that right?

A. Yes.

Q. In fact, of your -- a couple of your slides had

an image of the summary chart; isn't that right?

A. I would characterize it as a report.

Q. A report, but --

A. Yes.

Q. -- but the lab created that report?

A. Correct.

Q. Not you; isn't that right?

A. Correct.

Q. Then you came here and told the judge about the report that the lab created; isn't that right?

A. Correct.

Q. The lab chose in that -- in that report, the lab chose what numbers to put in there, and the lab chose what SEMs to put on the report, isn't that fair?

A. Correct.

Q. Then the -- you got the materials from the lab, and then you identified all of that collection of materials in a bullet point in the materials considered in your expert report; isn't that right?

A. All of the materials were considered were cited in the report.

Q. Right, well, let's be specific about it. I'm going to pull up Exhibit A of your expert report. For the record, this is RX-1146.0220 to 227.

Then this is -- okay, I cannot get the ELMO, and

I'll take care of this.

Okay. Sorry about that, Dr. Fekete.

Do you recall this entry in your expert report, the "The test results found at," and there's a series of Bates numbers here.

Do you recall that?

A. Yes. Yes.

Q. Just so we're all grounded here, that's the collection of the materials that the testing lab put together and gave to you; is that right?

A. Correct.

Q. That collection of materials we can see here, that's on the table here in the courtroom; isn't that right?

A. I can't confirm that it's all here, but I'm guessing some of it is here.

Q. Okay.

Well, we do know that there's a number of CX exhibits that apparently they're binder exhibits, all of the collection of the different materials that the lab put together; isn't that right?

A. Yes.

Q. Now, one thing that caught my eye yesterday, or caught my attention yesterday was you had said that the testing labs were told to be looking for a four-layer

structure. They should expect to see one.

Do you recall saying that?

A. Yes.

Q. Now, isn't that really kind of a big no-no to tell your testing labs to go look for a particular structure?

A. No. Not in this case.

Q. Well, I mean, the labs are paid for their work; isn't that right?

A. Yes.

Q. You're telling them what to see; isn't that right?

A. No.

Q. Well, at least indirectly, you are; isn't that right?

A. We're telling them what to look for, yes.

Q. Go look for four structures because you need to show four layers to show infringement of domestic industry, so you tell the lab, go look for the four layers, isn't that what's going on here?

A. We told the labs that they should expect to see four-layer structure in these. They didn't always find four-layer structures, and in fact they told us whether they didn't find a four-layer structure.

But in order for them to do all of the analysis

that we asked them to do, because we were just telling them, well, we need you to tell us the thickness, and we need you to tell us the composition, we needed to tell them what they were looking for.

Q. Is it fair to say, then, that it was really the lab that determined whether the four-layer structures were there or not; is that fair?

A. Ultimately, they reported the data that they thought represented those parts best, which was their decision.

When they create a report, they're providing the data that best represents that part, or you know, whatever that sample is that they're doing. That's their job is to tell us the truth about what's going on there.

Q. Okay.

Well, one thing we do know, there's a lot of detail that goes into testing the sample; isn't that right?

A. Yes.

Q. It starts with preparing the sample; isn't that right?

A. Yes.

Q. If you don't prepare the sample correctly, that could really throw off the SEM images, for example; correct?

A. Yes.

Q. But you don't know whether they prepared the sample correctly or not, sitting here, you don't know?
A. No, I don't agree with that.
Q. Well, you weren't there watching them prepare the samples. You just don't know sitting here in the court today?
A. I'm highly confident that they did.
Q. You are confident because these are certified labs, but you don't know whether Tom, Jane, Dick, or Harry, who prepared the sample did it correctly, you don't know here. You can't tell the judge that I know they did it?
A. I can tell the judge that I'm highly confident they did by the quality of the labs that we chose, and our oversight of the work.
Q. You don't know whether the SEM instrument was properly calibrated; right?
A. No. That's not true.
Q. Well, again, you weren't there, you don't know if the lab technician actually calibrated the instrument before taking the pictures; isn't that right?
A. Well, I'm highly confident that they did.
Q. Highly confident, but you don't know; correct?
A. I'm highly confident.
Q. Okay.
You don't know whether the person who did the

EDS measurements, whether they calibrated the EDS detector.

You don't know that, either; do you?

A. I don't think I agree with that.

Q. Well, sir, you --

A. I know -- I mean, I -- we picked laboratories that are accredited, that accreditation is founded on their business practices and their traceability. You know, it's a system of just technical competence that we all depend on. You know, every time you get into your car, and you believe that, you know, you're going to survive if your car hits -- you know, gets hit by a bus in the door, you're depending on laboratories like that to save your life.

I mean, that's the foundation of our system.

Q. I understand that, and I'm not going to quibble with you on this, but I just want to make sure it's clear.

You just don't know for certain. You think they did it, but you just don't know for certain; that's fair, right?

A. That's not fair. I don't think that's fair at all.

Q. Okay.

But one thing we do know, other than your conversation with Dr. Baskin, and your lawyers over here, you do not know how the testing labs produced the test data you rely on for your opinions; correct?

A. Can you repeat that question, please?
Q. Yes.
Other than the conversation with Dr. Baskin and your counsel, you do not know how the testing labs produced the test data you rely on for your opinions; correct?
A. When you say produce, what do you mean by produce, like, how did they collect it and report it, or how did they --
Q. How they generated it, how they produced it.
You don't know?
A. I'm not sure that's -- I guess -- I don't think that's a fair question. I mean, we issued a contract to do certain testing. We received the results. I reviewed the results. Dr. Baskin oversaw the testing.
It's sort of a chain of competence that's there. I don't --
Q. All right. Well, let's get your deposition, and we can get some clarity on this.
At page 100, 7 to 12. Ms. Park took your deposition. Let me get the document camera -- is it Respondent 3? I'm sorry, the -- let me get the system back up here.
Let me read it. Ms. Park took your deposition and the question is:
"Other than your conversation with Dr. Baskin

and counsel, you have no knowledge as to how the labs conducted the tests that produced the testing results that you rely on in your report; correct?

Answer: That is correct, yeah."

Did I read that correctly?

A. Yes. You read it correctly.

Q. Of course, Dr. Baskin is not going to come to this courtroom, and provide testimony to the Court; isn't that right?

A. That's correct.

Q. Now, getting back to the patent issues and the infringement DI analysis, you agree that the specific process parameters for the hot-stamping process are not things that need to be considered when doing an analysis of whether a product is covered by the claims; correct?

A. Correct.

Q. So to determine whether the claims are met in your expert report, you did not consider the temperature of the oven; isn't that right?

A. Correct.

Q. You didn't consider the amount of time the steel was in the oven; correct?

A. Correct.

Q. You didn't consider the heating rate of the steel; isn't that right?

A. Correct.

Q. Now, what you did, though, in your expert report, is to determine that the required four layers are present, you compared the SEM images you obtained from the testing labs to Figures 1 and 2 of the asserted patent; isn't that right?

A. That was a part of the overall analysis.

Q. Okay.

Well, let's get your deposition, at 59, 12 to 17.

Again, Ms. Park took your deposition and the question is:

"And when you were doing the element-by-element analysis for the claimed layers, you compared the SEM micrographs taken from the parts with the four-layer structure depicted in Figure 1 of the asserted patent; right?

Answer: Correct."

Did I read that correctly, sir?

A. Yeah. That's an accurate statement.

It was part of the analysis.

Q. Let's look at Figure 1. Why don't we pull that up from the patent.

And of course, the patent describes Figure 1 as preferred embodiment; isn't that right?

A. Yes.
Q. It actually labels each of the layers, interdiffusion layer, intermediate layer, aluminum-rich intermetallic layer, and the superficial layer.
Do you see that?
A. Yes.
Q. Of course, that's on the steel substrate in Figure 1; isn't that right?
A. Yes.
Q. Of course, you believe that Figure 1 showed the claimed structure; isn't that right?
A. It's not a complete representation of the claimed structure.
Q. You believe that Figure 1 shows the claimed four-layer structure; isn't that right?
A. It's a picture of a four-layer structure.
Q. Well, let's get your deposition, sir. 59, 18 to 21, please.
"Question: And that's because you believe Figure 1 shows the claimed four-layer structure; correct?
Answer: Correct."
A. That's what I just said, I said it's a picture of the four-layer structure. It's a photograph. It's a photograph of an SEM image.
Q. All right.

Well, let's look at -- by the way, Figure 1, we established in this trial actually came from that Magna-related TAV report.

Do you recall that testimony in this case?

A. I do recall that testimony.

Q. Now, we go to Figure 2, if we can, of the patent, and you considered Figure 2 as well; isn't that right?

A. Yes.

Q. And Figure 2 has -- it shows an interdiffusion layer; isn't that right?

A. Yes.

Q. It shows an intermetallic layer; isn't that right?

A. What the figure says.

Q. So it's got two of the four layers?

A. Yes.

Q. Okay.

But of course, the patent establishes that Figure 2, the layer morphology of Figure 2 is not practicing the claims, is what the patent says; correct?

A. Yes.

Q. You agree with that; right?

A. Yes.

Q. Now, interdiffusion, of course, you hear from

Dr. Drillet, and he talked about how interdiffusion was a part of his invention.

Did you recall something to that effect?

A. Yes. I was here for his testimony.

Q. But you and I are going to agree, and since today is Ash Wednesday, the beginning of Lent, I can call upon the Lord above, the interdiffusion is sort of the law of nature, no one invented interdiffusion; isn't that right?

Well, you put two pieces of metal together, and you heat them up, you get interdiffusion; right?

A. Yeah.

Diffusion is a physical process.

Q. Physical process, sort of a law of nature. No one invented it.

Isn't that fair to say?

A. No one invented it, but certainly people discovered it.

Q. Okay.

Well, discovered it, fair enough, but certainly Mr. -- strike that.

Certainly, Dr. Drillet didn't invent it, and he didn't even discover it.

Isn't that fair to say?

A. That's fair.

Q. In your analysis for DI and infringement, you essentially took the SEM, and if it looked like Figure 1, you established in your mind, okay, you concluded, that this was covered by the patent.

If it looked more like Figure 2, you concluded it was not.

That was your analysis with respect to the SEMs; isn't that right?

A. No.

Q. All right.

Well, let's get your deposition again, at 64/13 to 65/6.

Okay.

Let me read this. 64/13 to 65/6. Let's see here. Let's see here. Do I have 64/13 and 65 -- 64; right?

64/13. Okay.

So here we go.

"Question: I see. So you were comparing it with Figure 1 and Figure 2 with the image?

Answer: Right.

Question: And thought it was closer to Figure 2?

Answer: Correct. You got it.

Question: Okay.

So aside from comparing it with Figures 1 and 2, did you have to do anything else to determine this product did not meet the claim?

Answer: Well, the other feature that we looked at in this figure, if you are comparing it to Figure 1 and 2 of the patent -- in the patent, is whether there is a preponderance of an intermetallic layer at the surface. In this micrograph, there's evidence of some intermetallic material at the surface, but not -- it wouldn't have enough, in my opinion, to say it doesn't practice.

So really, for me, the reason it didn't practice was the morphology of this layer, which was a layer, but it looked more like Figure 2." (As read.)

Did I read that correctly?

A. You read it correctly.

Q. You take an SEM, you got an image, Figure 1, it's Figure 2, it's Figure 1, it's Figure 2, that was the analysis that you conducted in this case; isn't that right, sir?

A. No.

Q. All right.

Well, we talked about the testing results that were generated by the testing labs.

Do you recall that this morning, we already talked about that?

A. Yes.
Q. And the testing results, there were car parts relating to the VF 8 on infringement issues, and testing results for car parts relating to the DI products.
Do you recall that?
A. Yes.
Q. It's been represented in this courtroom that the collection is 5,786 documents generated from the testing.
Do you recall that?
A. Yes.
Q. Of course, those are the ones that are listed in your materials considered; isn't that right?
A. Yes.
Q. Of course, in conducting your analysis in this case, in reaching your conclusions, you did not review each and every one of those documents; isn't that right?
A. 5,786, no, I did not.
Q. In fact, of the over 5,000 pages that you referenced as materials considered, you reviewed only upwards of 100 test results; isn't that right?
A. No, I reviewed more than that.
Q. Let's get your deposition.
107/25 to 108/1. 107/25 is where I need to start, and I need to go to 108/1.
Just so the record is -- 107/25 to 108/1. Okay.

I'm going to read this.

Question: Again, by Ms. Park, "Do you know roughly how many you actually reviewed from this set of 5,000 test results?

Answer: Oh, probably -- probably upwards of a hundred."

Did I read that correctly?

A. Yes, you did.

Q. So at least based on your deposition testimony, you reviewed a hundred of the over 5,000 files, less than 2 percent of the actual documentation from the testing lab that you cited as additional materials considered, you reviewed less than 2 percent based on your deposition testimony; isn't that right?

A. Based on the deposition testimony.

Q. All right.

Now, there was an issue that came up in this case, as you've heard from the lawyers wrangling before the Court, about your expert report, and what you actually cited as evidence of the four layers.

Do you recall that?

So I want to talk a bit about that, but you understand that your expert report is the opportunity for us to understand your opinions, so when we come to trial, we know what you're going to say.

You understand that's what the purpose of it is?
A. I understand that.
Q. You think that process is fair, right, so we have notice; right?
A. Oh, I have no idea whether it's fair or not. I'm not a lawyer.
Q. Well, good for you, because that's lawyer stuff, so I won't get into that.
But needless to say, you produced an opening expert report, and then you did a supplemental expert report; isn't that right?
A. Correct.
Q. That's all we got from you in terms of the reports in this case; isn't that right?
A. I would have to ask counsel if that was the case.
Q. Well, but in terms of what you prepared, you prepared two reports, an opening report, and a supplemental report; isn't that right?
A. Those are the two reports I prepared.
Q. I'm not missing a report out there, am I?
A. No, you're not.
Q. Okay.
So I want to take some time to go through that. One of the things I'd like to do is mark, if we can, and we

can discuss what we received from you in your expert report.

You recall this document or this chart that was prepared in your opening report.

Do you recall that?

A. Yes.

Q. The reason we have -- you probably understand, the reason we have some blacked-out portions is because of an order by the Court.

So what was relevant at the time of your report, for the purposes of this case, we see here in the chart; isn't that right?

A. Yes.

Q. Okay.

Now, we have this dispute, I guess, and we're going to talk about it, between nine -- or strike that -- 13 and 16 products.

Do you recall that debate we were having?

A. Yes.

Q. So let's just talk a little bit about that first.

At least with respect to what you showed us in your opening expert report, we have one, two, three, four, five, six, seven, eight, nine identified description of products in your list; isn't that right?

A. There are nine rows on that table, yes.
Q. Okay.
We have a dispute about the Tesla door ring. You have a x4 there.
You think that's four separate products; isn't that right?
A. Four separate parts.
Q. Four separate parts. Okay.
So if it's four separate parts, then you agree with me, at this point in your report, you identify 13 different products; is that fair?
A. Yeah, including the four parts of the --
Q. Including the four.
If it's four, it's 13; if it's the nine -- if it's not the four, it's just one, it's nine.
Is that fair in terms of how I look at this?
A. Yeah, if you consider -- if you consider that row as one part, then that's correct. If you consider it as four parts, then it's the bigger number.
Q. Okay.
Then we got your supplemental report, and do you recall the supplemental report, you had the four Volkswagen -- I'm going to -- just for the record, that page I put on the ELMO was RX-1146.38. And now I'm going to put on the ELMO 1147 -- RX-1147, pages to 4 to 5.

You recall, sir, this is an excerpt from your supplemental report. I'll turn the page here, but you can see the Volkswagen parts we got in your supplemental report.

Do you see that?

A. Yes.

Q. One that we know for sure that in the supplemental report, the Volkswagen parts were the only one that you supplemented for the supplemental report; isn't that right?

A. In the supplemental report, that's correct.

Q. In the supplemental report, you didn't include any additional Tesla door rings in your report; isn't that right?

A. That's correct.

Q. The one thing you say here, "I understand that when my Opening Expert Report was submitted, testing was still in progress for parts received from Cleveland-Cliffs."

Do you see that?

A. Yes.

Q. There, you are -- I assume, you're referring to the Volkswagen parts, isn't that right, because that's what we see in this supplemental report; isn't that right?

A. Yes.

Q. Then, of course, you refer to Exhibit Z, which are the charts, photographs and scanning electron microscope -- micrographs; isn't that right?

A. Yes.

Q. Is it fair to say that with this supplemental report, you included Exhibit Z with attached additional material; isn't that right?

A. Yes.

Q. Now, with respect to the domestic industry issue in this case, in your report, when you did your analysis, you -- and of course, the products that were presented in your opening report, shown here on the ELMO, which is, again, 1146.38, you referred us to Exhibit U of your report for the SEMs showing the four layers; isn't that right?

A. Yes.

Q. Let's take a look at that.

1146, page 150. Let me get the laptop back. 1146.150 is the page, and if I can get Paragraph 213, please.

Again, we have a redaction because it was based on a court order, but we see Paragraph 213 is very clear with respect to the intermetallic layer. You say, "SEM micrographs of the DI direct products tested as part of this investigation show that the DI direct products each comprise a coating with four layers."

Do you see that?

A. Yes.

Q. Of course, you go to -- you tell us to go to Exhibit U to see that evidence; isn't that right?

A. Yes.

Q. Here, you're talking about the intermetallic layer; isn't that right?

A. Yes.

Q. Why don't we just do another one for good housekeeping.

If we can get Paragraph 216 of the report, which is 1146.152.

Again, this is for the superficial layer, and here, again, you say, for the DI direct products, each comprise a coating with four layers. You tell us to go to Exhibit U for that evidence; isn't that right?

A. Yes.

Q. We could do the same with the interdiffusion and the intermediate layers. In those paragraphs, you also tell us to go to Exhibit U; isn't that right?

A. Yes.

Q. You didn't tell us to go anywhere else with respect to the four layers in these paragraphs with respect to the SEMs; isn't that right?

A. Yeah. In these paragraphs, that's correct.

Q. Okay.

JUDGE BHATTACHARYYA: We're still on the public record. I just wanted to make sure you --

MR. MCKEON: Thank you, Your Honor. I think we're good with this. Thank you.

BY MR. MCKEON:

Q. So I'm going to put -- if I go back to the document camera, and I'm going to -- we got Exhibit U that you told us to go to; isn't that right?

A. Yes.

Q. In Exhibit U, I see -- let's just kind of walk through it together. Can you see it, sir? If I zoom out, you can see it.

I got the Honda Odyssey A-Pillar here; right?

A. Yes.

Q. In the SEM; correct?

A. Yes.

Q. Again, this was taken by the lab; right?

A. Correct.

Q. I got the GM Chevrolet Silverado part here. Again, that was taken by the lab; am I right?

A. Yes.

Q. That's two I got; right? That's two SEMs you told us to go to; isn't that right?

A. Yes.

Q. So far.

Let's flip the page. I got a Toyota reinforcement.

Do you see that?

A. Yes.

Q. Of course that's the redacted portion, so we'll skip that. Another redacted portion. We'll skip that. I have the Chrysler door ring.

Do you see that?

A. Yes.

Q. Flipping the page, and I have the Tesla door arm, do you see that?

A. Yes.

Q. Then that's it, right, that's it for this?

A. For the exhibit, that's correct.

Q. Okay.

So in this exhibit, you told us, hey, this really important issue in this case for the domestic industry issue on the four layers, I want you to go to Exhibit U, and you gave us five SEMs; isn't that right?

A. Exhibit U contains five SEMs.

Q. That was the collection of SEMs you pointed to in your expert report for us to review for the four layers; isn't that right?

A. It's what was in Exhibit U, but it's not the

complete set of what I was -- used for my analysis.

Q. Well, sir, you got a lot of stuff cited in the report, and I know you worked hard to put it together, okay. So I'm not debating that.

What I'm focusing now is on the four layers.

When you were making your conclusion on the four layers, you pointed us to Exhibit U, to those particular SEMs; isn't that right?

A. Those are what was in Exhibit U, yes.

Q. It was just five of the products, isn't that right, that we have here in your report, according to Exhibit U; is that right?

A. Yes.

Q. Then the Ford parts, the three Ford parts that we have here on the diagram, which is RX-1146.38 those three Ford parts, you also had SEMs for; isn't that right?

A. Yes.

Q. They were contained in a separate exhibit; isn't that right?

A. Yes.

Q. You pointed to us that exhibit as well in your expert report; isn't that right?

A. Yes.

Q. In fact, that exhibit was Exhibit W.

Do you recall that?

A. Yes.
Q. For the record, that's RX-1146.371 to 374.
Just for completeness, I'm going to put W on the ELMO, and I got one Ford part, SEM, two Ford part SEM, three Ford part SEM, and then the final -- I guess -- that's the final page.
Did I go through that correctly?
A. To the best of my knowledge here, yes.
Q. So those are the three Ford parts. So far I've got three for the Ford, and I have got Exhibit U, I've got five. So far I've got nine -- so far I have eight SEMs that I'm looking at; isn't that right?
A. That's what you have shown so far.
Q. Of course, the Kia, the Kia product, you put an SEM in the body of your expert report; isn't that right?
A. Yes.
Q. That was the SEM that was your -- included your analysis regarding the four-layer issue; isn't that right?
A. What --
Q. Let me strike that. Let me ask a better question.
You put that SEM in your report to demonstrate that the Kia did not have four layers; isn't that right?
A. No, that's incorrect.
Q. Well, it didn't meet the thickness requirements

required in the claim; isn't that right?

A. That's correct, but it did meet the four-layer structure. It does have a four-layer structure.

Q. You determined it wasn't a proper technical domestic industry product because it wasn't covered by the patent?

A. That's correct.

Q. Okay.

So, so far, I have got -- we've got an accounting we just did here, and you agree with me, so far in total, I've got 13 SEMs that we've seen in your expert reports regarding the four layers, isn't that right, that you referred us to; isn't that right?

A. That's what's referred to, yes.

Q. Importantly, it's what was referred to for the four layers; isn't that right?

A. Once again, it's part of the analysis. It's not all of the analysis.

Q. You testified about some of the other analyses, but for this critical issue of the four layers, and the requirement based on your prior testimony that we need an SEM to determine whether it had the four layers, those are the SEMs you identified in your report, we just went over; correct?

A. The SEMs' micrographs are insufficient to

disclose whether you've got the four layers, because you need the chemical compositions as well, which also comes from the SEM, just not shown in the micrograph.

Q. Okay.

But from the micrograph, you see the visual, the way to see the four layers, to visualize them is in the micrographs; isn't that right?

I mean, in order to see them, you've got to have a photograph, and that's the micrographs; right?

A. But that's not how the patent describes the definition of a layer. The definition of a layer is by its chemical composition. Its mean chemical composition.

Q. Okay, well, we'll get to that.

Okay, so then I just want to do one other exhibit to your report, and this is Exhibit Z. Exhibit Z was the -- we referred to it when we looked at your supplemental report earlier, that was the exhibit you said, hey, go to Exhibit Z to see my additional materials regarding the Volkswagen parts; isn't that right?

A. Yes.

Q. I'm going to put that one again on the ELMO. For the record, it's RX-1147.18 to 37. If you see Exhibit Z on the ELMO, and you actually have a collection of different things here, including composition, data that you supplemented your report with, but I'm going to turn

the pages, and then you have sort of the pictures of the parts, the Volkswagen parts, and you supplemented your prior exhibits with that.

But now I'm turning the page to RX-1147.29. Here, you're supplementing Exhibit U, and it's upside-down, so let me turn it correctly here.

Here you're supplementing Exhibit U to include the Volkswagen parts; isn't that right?

A. Yes.

Q. And, again, Exhibit U was what you referred to in the opening report for those critical four layers; isn't that right?

A. Yes.

Q. We have got one Volkswagen SEM, and I got another two, I got three, and I got four, and that was it for Exhibit U. This next one is Exhibit V.

So for Exhibit U in the four layers, for the Volkswagen analysis, you've got the four SEMs in your supplement; correct?

A. In the report, correct.

Q. Now, the Tesla door ring, 2, 3, and 4 that we've heard a lot about in this case, in the opening expert report, and in the supplemental expert report, you didn't cite to a single -- not one -- Tesla, which became to be known as the Tesla door ring, 2, 3, and 4, you didn't cite

to a single SEM, with respect to the four layers for those parts; isn't that right?

A. In the opening expert report?

Q. Opening, and in the supplemental expert report with respect to this four layers, the issue of the four layers for this what came to be known as Tesla door ring, 2, 3, and 4, you didn't cite to a single SEM; correct?

A. Correct.

Q. All right.

Now, let's go back to the laptop here, and I want to talk about some of the SEM images now, all right.

One of them is the GM Chevrolet Silverado. That was one of the parts you considered; isn't that right?

A. Yes.

Q. We'll go, again, to your Exhibit U, but we'll just pull it up on the screen here at page 357, it's 1146.357.

This is the image that was in your Exhibit U for the Silverado; isn't that right?

A. Yes.

Q. This part was over 40 inches long; isn't that right?

A. Yes.

Q. We can see that, and why don't we just -- just to put a pin in that, or just to bring that home before the

Court, go to page 349 of 1146, and this is the photograph that you had of the part, and the ruler there indicates this is about 48 inches; isn't that right?

A. Yes.

Q. Now, going back to the SEM, which is at 357, we see this SEM, and there's a scale bar of 100 microns; do you see that?

A. Yes.

Q. The whole SEM image is about 250 microns across based on the scale bar; is that fair?

A. Yes.

Q. Of course you understand that a human hair is 60 microns; isn't that right?

A. Well, I'll assume you've given me good information. I don't know that myself.

Q. Well, this is what my colleague over here told me, so I assume that's right.

But it's in the order of a micron level?

A. It's in the microns, yeah.

Q. So if we assume it's 60, with respect to this SEM, we're talking about four human hairs, if you assume a human hair is 60; isn't that right?

A. Okay.

Q. Well, you have got 250, and you do the math, it's 240, it's four human hairs. Okay.

And we just discussed that the part is 48 inches long; isn't that right?

A. Yes.

Q. Of course, a human hair is a lot less than 48 inches.

We agree on that?

A. Hair is --

Q. A lot less than 48 inches?

A. Yeah.

Q. So for the SEM that you examined out of the 48 inches, we're talking about 250 micron SEMs is what you used in terms of the micrograph imaging to establish the four layers; isn't that right?

A. No, it's not.

Q. Well, that's what you cited with respect to the micrographs in the exhibits to your report; isn't that right?

A. It's not what we used to do the full analysis.

Q. All right.

Well, let's take another one.

A. We looked at much more data than what you're showing me on the screen.

Q. All right.

Well, let's look at another one, sir.

If I can go to 1146, again, RX-360.

This is the Tesla door arm; isn't that right?
You used this SEM image for the Tesla door arm in your report, you cite to it; isn't that right?
A. Yes.
Q. This is a magnification 2000x; isn't that right?
A. Yes.
Q. We have a scale bar of 20 microns.
Do you see that?
A. Yes.
Q. This image is about 60 microns; is that fair?
A. Yeah.
Q. Across?
A. Yes.
Q. About a human hair -- if we go with the 60 as a human hair, it's about one human hair width?
A. Yes.
Q. The Court has already been informed about the -- I guess, which -- is that a Tesla door ring there -- over there?
A. Both every these are.
Q. Both of them are. Okay.
The Tesla door ring, at least for the Tesla 1 part is -- is that the Tesla 1 part, or -- which part is the Tesla 1 part?
A. I don't -- they're not labeled, one of them.

Q. They're not labeled, so we don't know, but it looks like this if it's not it; is that right? All right.

Again, the SEM that you pointed to in Exhibit U as support for the four layers is human hair, and then we have got -- that was -- and the conclusion that you reached based on the human hair was that door ring had the four layers; isn't that right?

A. No.

Q. Well, that was the only SEM micrograph that you considered to draw that conclusion; isn't that right?

A. No.

Q. It's the only micrograph, sir, that you cited in your opening expert report with respect to the four layers for the Tesla door ring; isn't that right?

A. The only image that was shown in the direct report, and not cited in other ways.

Q. All right.

Now, with respect to infringement, so shifting now to infringement issues.

Are you with me?

A. (Nods head up and down.)

Q. Similarly, you pointed to Exhibit L in your opening expert report for the SEM micrographs for the four layers on the infringement side of the case; isn't that right?

A. Yes.
Q. Let's just take a look at that as an example, 1146.48, we have Paragraph 68, if we can draw that up, going into, I guess page 47. Well, you can actually see it here.
You see here, it's "SEM micrographs of the VinFast parts tested as part of this investigation, show that the VinFast parts each comprise a coating with four layers."
Do you see that?
A. Yes.
Q. The collection of micrographs that you point to is Exhibit L of your report; isn't that right?
A. Yes.
Q. And we can go through it, but you confirm for the Court that with respect to the other three layers, it's the same thing.
You refer to Exhibit L for that; isn't that right?
A. For what?
Q. Well, you got the intermetallic layer, and then we have three other layers; right?
A. I gotcha, yes.
Q. Okay.
Then you tell us for each of those, you tell us

to go to Exhibit L, for infringement; isn't that right?

A. Yes.

Q. That's where we're going to find the micrographs, according to your opening report, that show the four layers for the VinFast V 8 -- strike that.

The VinFast 8 vehicle; correct?

A. You will find some of them, yes.

You will find all of them that were cited in the report. You won't find all of them that I used for my analysis.

Q. Well, I got your analysis, sir, and you know, you gave us a whole lot of materials considered in your opening expert report, but you understand that I can't -- I don't know what's in your mind, I got to rely on what you cite to us.

With respect to the micrographs that are critical in this case for the four layers, on the infringement for the VF 8, you told us to go -- for the four layers, you told us to go to the micrographs in Exhibit L; correct?

A. Exhibit L contains the micrographs that were shown in my opening expert report.

They are not the sum total of SEMs that we used to do our analysis.

So that's where we're at.

Q. You did some other analysis, but with respect to the four layers, the micrographs that you pointed to were L; isn't that right?

A. That's not the sum total of micrographs we looked at to do the analysis.

Q. Well, so, your testimony is you looked at micrographs in this pile over here, but for me, when I'm looking at your report, I got to go to L, which is what you cited to in your report for the four layers; isn't that right?

A. I don't know if that's all you had.

All I know is that was what was in the expert report, with citations to other information that we used to do the analysis.

Q. Okay.

Well, let's just -- I'm going to go through L with you briefly now; okay?

I want to do a count so we can count the micrographs that you cited in L for the four layers; okay?

If you can get the document camera again.

Just going through the exhibit, sir, we're going to do a simple count, and it's one, two -- follow along -- three, four, five, six, seven, eight, nine, ten, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 -- 19, 20 -- strike that. 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33.

33 SEMs were in Exhibit L, which you told us showed the four layers; isn't that right?

A. There are 33 micrographs in Exhibit L.

Q. Exhibit L is what you said in your expert report showed the four layers; isn't that right?

A. Those were the micrographs we put in Exhibit L, and I'll repeat that -- that was not the sum total of the micrographs we looked at to do the analysis.

Q. All right.

You looked at a bunch of stuff, but at least what you told us in your expert report was go to Exhibit L, and I can pull up the paragraph again if you would like, but that's what you told us to look at; right?

A. That's what's in the expert report, yes.

Q. Then I believe the number we just arrived at was 33; isn't that right?

A. Yes.

Q. If we go to your slide 78 -- oh, yes. Thank you.

This is the slide you presented to the Court yesterday.

Do you recall this slide, sir?

A. Yes.

Q. You told the Court that you had considered 34 parts; isn't that right?

A. Yes.
Q. So at least with respect to the SEMs, and I don't want to cover old ground here, but at least the ones in Exhibit L that you told us were the four layers, you're short one, aren't you?
A. That's what it looks like.
Q. All right. All right.
So let's, if we can, pull that down, and if you can get the Magna Chevy Silverado SEM again at 1146.357.
This is the example of the -- of the SEM that you analyzed in your report; isn't that right?
A. Yes.
Q. Okay.
Of course, this part was made by Magna by hot-stamping coated steel; isn't that right?
A. Pardon?
Q. It was made by Magna, this part?
A. Yes.
Q. At the time of your expert report, you said that these four layers you see here are evidence to you, the four layers of the patent, is what you said?
A. Yes.
Q. Now in your deposition, of course, as you recall, we showed you some SEM images, and asked you whether those images looked like Figure 1 or Figure 2.

Do you recall that exercise?

A. I recall looking at photographs. I didn't know if they were SEM images or not. There was no information on them. They had clearly been altered from the folks that had taken them.

Q. Okay.

Well, let's take a look at that. If we can get RX-1148. Pull that up. I have to go back to the -- yeah -- the laptop.

Do you recall this image from your deposition?

A. Yes.

Q. It was marked as Exhibit 9.

Do you see that?

A. Yes.

Q. When we asked you in your deposition, well, was this a Figure 1 or a Figure 2, do you recall telling us that this looked more like Figure 2 of the patent; isn't that right?

A. That's correct.

Q. Of course, if you look more at Figure 2 of the patent, it wouldn't be covered by the claims; isn't that right?

A. Correct.

Q. Of course, you now know if we put this image, 1148, next to RX-1146.357, next to each other, you now know

that it's the same image; isn't that right?

A. No, I do not.

Q. Well, let's take a look at that.

The one on the left is from your report; isn't that right?

A. The one on the left is from my report.

Q. You are convinced there, you say, oh, the four layers are there in that image, it's Figure 1 of the patent; isn't that correct?

A. That's correct.

Q. On the right, you see -- you understand it's the actual image -- it doesn't have the bottom black line of information, but the image is otherwise identical.

Do you understand that?

A. No, I don't.

This was an image that you threw in front of me in my deposition that, at that moment in my deposition, I didn't know what it was, and all I knew for sure is that it had been altered from its original state. That's all I knew.

So the exercise that you were giving me was to look at a photograph, and tell me -- and just tell you whether it looked more like two other photographs, figures in the patent.

Q. Well --

A. So that's not a reliable way of doing an analysis of this type of a situation.

Q. Well, we went through that earlier --

A. It just isn't. It just isn't.

It was an exercise I did not understand, and still do not understand, and the only thing I knew in that moment is that I was looking at a picture that had somehow been altered, and I didn't know how that picture had been altered.

Q. Let's not rehash your prior testimony about Figure 1 versus Figure 2. Okay? Let's just focus now on what happened in your deposition. Okay?

In your deposition, you told us what's on the right here, which is RX-1148. You said this looked like Figure 2, not figure Figure 1.

That's what you said in your deposition; isn't that right?

A. Correct.

Q. In fact, if your deposition testimony is to be credited, that would mean this would not be the morphology that's required by the claims of the patent; isn't that right?

A. No, that would not be correct, because I wasn't looking at a four-layer structure. I didn't know what I was looking at. That was the point. I did not know what I

was looking at.

Q. So you didn't see a four-layer structure in -- well, let me ask you this question:

What's on the left here, do you see a four-layer structure --

A. Yes.

Q. -- which is on the left, which is from your expert report?

A. Yes.

Q. Looking to the right, do you see a four-layer structure there?

A. I don't know what I was looking at. I was looking at photographs. I was trying to figure out what you people were doing when I was looking at that photograph. It was the first one you put in front of me, and it was like, what is this?

It's clearly something that has been changed, and if you tell me that it is an SEM image, then it's been altered; otherwise, I don't know what I'm looking at here.

So it was -- to me, it was a nonsensical exercise because it was not giving you the information you needed, whether that was a four-layer structure.

Q. Let's take another one. Okay? We'll go to 1146, expert report, .360, which is the Tesla door arm.

Again, this was in your -- the SEM in your

Exhibit U to the report; isn't that right?

A. Yes.

Q. By the way, just the -- well, let's do this first:

This is made by Simwon, isn't that right, this part?

A. Yes.

Q. Of course, at the time of your expert report, you told us that, yes, this is the four layers that practices the claims of the patent, looks like Figure 1; isn't that right?

A. It was part of the analysis that we used.

To continue to be clear about this: When you talked to me about whether an SEM micrograph gives me some information, that it's the only thing we looked at, which is the implication I'm hearing. Maybe I'm wrong, but it's the implication I'm hearing. I just want to be clear that it's not all that we looked at when we were doing our infringement analysis.

Q. We have the record all clear on that, sir. Okay? We are not going it rehash that. We'll looked at a lot of things. I'm just focused now on the exhibits that you told us to look at in your expert report. That's all I'm focusing on now. Okay?

A. Gotcha. Yes, sir.

Q. Okay.

Of course, again, in the deposition, we showed you another SEM. So let's just pull that up, it's RX-1150. And you recall this on the right was from your -- was marked at your deposition.

Do you recall that?

A. Yes.

Q. We asked you, was it more like Figure 1 or Figure 2. At the time of your deposition, you said, well, actually, it doesn't look like either one of them.

Did I get that right?

A. Correct.

Q. So you couldn't tell whether it was a Figure 1 or Figure 2 at the time of your deposition; isn't that right?

A. It didn't matter. It didn't matter. I didn't know what it was. It was an altered something. I didn't know what it was.

So I was just sort of -- you know, you asked me a question, does it look more like that or like that? Okay. But it's not an analysis of a micrograph as to whether or not you have the four-layer structure. It was a nonsensical exercise.

Q. Let's just do a few more for the record. Okay?

1147.30 is one of the Volkswagen parts. We can

pull up the comparison.

This is one of the Volkswagen parts. Again, in you supplemental report, you took us to the Exhibit Z, which supplemented Exhibit U.

Do you recall that?

A. Yes.

Q. This is one of the four you pointed to; isn't that right?

A. Yes.

Q. Again, this was -- at the time of your opening report, this was -- you were convinced this was covered by the patents; correct?

A. Yes.

Q. So you were convinced it had the four layers; isn't that right?

A. Using other analysis, yes.

Q. Okay.

A. We concluded that the part was practicing.

Q. Well, let's look at what we showed you in the deposition, which is RX-1159.

Again, we have put 1159 in front of you. We said, hey, does this -- is this covered by the claims? Does this look like Figure 1 or Figure 2? And again, here, you couldn't --

A. No, no, no. Wait a minute. No, that's not what

the -- the question was very specific.

It was -- the question -- there was never a question about whether we were practicing the claims.

The question on the table for all of these exhibits was, does it look -- does this photograph look more like Figure 1 or Figure 2.

Q. All right. Well, let's -- I don't want to rehash the analysis that you did in this case, sir, all right. We already went through that. We cited your depositions on that. Okay?

With respect to whether this looks like Figure 1 or Figure 2, at the time of your deposition, you couldn't -- you didn't think it looked like either figure; isn't that right?

A. That's correct.

Q. Let's pull up, then, if we can, just to speed this along, RX-1147 next to RX-1160.

This is another Volkswagen part, sir.

Do you see that?

A. Yes.

Q. Again, on the left, you said it was covered by the claims, and on the right, you said this didn't look like, to you, either figure; isn't that right?

A. Deposition, that's what I said.

Q. Now, can I ask you a question in terms of the

process.

We established earlier that the markings, as I recall, the markings for the SEMs you received from the lab, the labs put the markings on it; isn't that right?

A. That's correct.

Q. On the left, you said, oh, there's four layers. This is from your expert report. You said there's four layers here; isn't that right?

A. Yes.

Q. Do you see four layers here, sir?

A. Yes.

Q. You see the four layers?

A. Yes.

Q. And you don't see them on the right?

A. I don't know what I'm looking at on the right.

Q. Well --

A. We go down this path again if you want to.

I looked at that picture in my deposition, did not know what it was. Did not know if it had been altered beyond having the information at the bottom removed. Didn't know that at the time. Was asked a question, does it look like Figure 1 or Figure 2, and I answered the question to the best of my ability. That's what happened in the deposition.

Q. All right. Let me ask you this question:

You see on the left, you -- you are telling the Court you see four layers in the SEM micrograph on the left that was attached to your report; isn't that right?

A. Yes.

Q. You are convinced of that; isn't that right?

A. What this picture shows me, yes.

Q. But on the right, you just have no idea, whether that's four or not, the image on the right?

You don't know one way or the other whether the image on the right has four layers or not; right?

A. Well, given the fact that now you have told me what it is, you have told me where it came from, you have basically represented that they are the same, then I would come to the same conclusion.

But in the deposition, when I did not have any of that information, and you just threw a picture in front of me, and said, it is more like picture 1 or Figure 2, I gave you a different answer.

Q. The one that we do know is that the lab put the 1, the 2, the 3, and the 4 on the SEM micrograph on the left; isn't that right?

A. I don't know who put that on there because I -- at the time of the deposition, I did not know where that picture came from. All I knew is that it was an SEM image that had been altered by virtue of the fact that the

information at the bottom had been stripped away from it, so I didn't know what I was looking at.

Q. Make sure I'm clear on my question. All right. I don't want to confuse you.

I'm talking about the micrograph on the left now. Okay? This is the one that was attached to your expert report.

You with me?

A. Yes.

Q. The lab put the 1, the 2, the 3, and the 4 on here; isn't that right?

A. Yes.

Q. You don't actually know who at the lab put the 1, the 2, the 3, and the 4 there; right?

A. I don't think I need to know that.

Q. You don't need to know, but you got an SEM, and you told the Court earlier, yeah, you see four layers there, but somebody, we don't know their name, we don't know -- we don't know anything about them, somebody --

A. We know something about them. They work at an accredited laboratory. We know they are trained. We know that they are calibrating their instruments correctly. We know all that. That's why we went with accredited laboratories so we could be confident in the quality of the testing that we were getting, and that's how every

laboratory works. It's how industry works. It's how the system works.

Q. All right.

A. So I'm -- once again, I'm highly confident that a very skilled operator of a scanning electron microscope looked at that image, put on those four layers.

Q. But one thing we know, though, sir, is that they're the ones that put the 1, the 2, the 3, and the 4 on the micrograph; correct?

A. That is correct.

Q. It wasn't you?

A. That is correct.

Q. When you received this micrograph from the lab, it had the 1, 2, 3, 4, and of course, your conclusion is going to be there's four layers here because you told the lab to look for four layers, and they put the 1, the 2, the 3, and the 4 there in the micrograph, it was already cooked up, wasn't it?

A. No.

Well, let me rephrase that.

We did tell them that when they're analyzing these structures, they should find four layers, and if they find the four layers, then to make the measurements we requested them to make.

So yes, they were looking for four layers,

there's no question about that, but we did not tell them they had to find four layers. We just told them that they should be looking for four layers. I admit that freely, that that's what we told them in our protocol.

If they found them, then, yes, they identified them, but that -- once again, you know, a laboratory is trying to give us a valid, reproducible -- they're an honest broker of our results, and they gave us what they gave us.

But yes, you're right, they did tell us that -- you know, we did tell them they should be look for a four-layer structure.

JUDGE BHATTACHARYYA: Mr. McKeon, could we take a 15-minute break.

MR. MCKEON: Perfect timing, Your Honor. Thank you.

JUDGE BHATTACHARYYA: On break for 15 minutes.

(A recess was taken at 11:17 a.m., after which the hearing resumed at 11:36 a.m.)

JUDGE BHATTACHARYYA: We're still on the public record.

MR. MCKEON: Thank you, Your Honor.

May I proceed?

JUDGE BHATTACHARYYA: Yes.

MR. MCKEON: Thank you.

BY MR. MCKEON:

Q. All right. Dr. Fekete, staying with the domestic industry issues, there are two types of domestic industry products at issue; isn't that right?

Well, let me ask a direct question.

You're aware, of course, that one of the domestic industry products that the economic experts relies on is DI precursor products. Do you understand that?

A. I understand what a DI precursor product is, yes.

Q. Okay.

Of course, the DI precursor product is a product that hasn't been hot-stamped yet; isn't that right?

A. That's correct.

Q. So based on the patents in this case, of course, that means that the DI precursor product is not practicing the patent; is that right?

A. In the state as they roll off the steel mill processing line, no, they don't practice. They don't practice until they're hot-stamped.

Q. They got to be hot-stamped, then you may have a practicing product, you may not, depending on the result?

A. Right. Right. Yes, sir.

Q. Then, of course, we have the DI direct products; do you understand what I mean by that?

A. The hot-stamped products.
Q. Yeah, the hot-stamped.
A. Yes.
Q. Okay.
In this case, of course, the DI precursor products are based on Usibor; is that your understanding?
A. In part.
Q. There's Ductibor as well?
A. Other products.
Q. And there's another name, I'm forgetting it now. It's luminim (phonetic) or something like that.
A. Usibor and Ductibor, and something else.
Q. So -- but Usibor and Ductibor are two of the types of the precursor products; isn't that right?
A. Yes.
Q. In fact, you heard Dr. Drillet testify that Usibor has been around since 2001; isn't that right?
A. Yes.
Q. It's been hot-stamped since then; isn't that right?
A. Yes.
Q. You understand that what we have been calling the Tier 1 manufacturers, there are a set of Tier 1 manufacturers which were the hot-stampers that actually were subpoenaed in this case and provided information.

Do you understand that?

A. Yes.

Q. There were a whole bunch of others that were not subpoenaed, and we don't know much about them; is that right?

A. Well, I wouldn't say we don't know much about them, but they weren't subpoenaed.

Q. Okay. We'll talk more about that in a moment.

But with respect to the ones that were subpoenaed, it is that universe of products that are part of your test, isn't that right, the ones that were subpoenaed; isn't that right?

A. Yes.

Q. There's a debate about whether there's 13 or 16 products. Let's leave that aside for a moment.

It was those set of products that were tested; isn't that right?

A. That's correct.

Q. Now, as far as we can tell, only three of them, of the Tier 1, three of the seven, provided a list of products that they hot-stamped for the auto manufacturers; are you aware of that?

A. I'm sorry. Could you repeat that one?

Q. So three of the seven provided lists of the parts that they were hot-stamping for automobile

manufacturers.

Do you recall that?

A. I don't recall that offhand. Is that in my -- I don't. Sorry.

Q. We'll look at that. No problem. We can look at that together.

But what you do understand is that Gestamp, Magna and Topre, there are at least 150 parts hot-stamped by these three Tier 1 manufacturers; isn't that right?

A. I don't know that I have that information.

Q. All right. Well, let's just refresh your recollection on that, sir.

A. Yes, please.

Q. I'll just publish the deposition. 129/15 to 20. Do you see here in your deposition, you agreed that with respect to Gestamp, Topre and Eagle Bend, which is Magna; right?

A. Yes.

Q. With respect to those three, there's at least more than 150 parts hot-stamped in total; correct?

A. Yes. I recall that conversation at the deposition.

Q. Okay. Well, we can take that down now.

Of course, one of the Topre parts is the Toyota reinforcement part; isn't that right?

A. Yes.
Q. If we look at the -- why don't we pull up, if we can, CX-341. This is a document -- are you familiar with this document?
This is the list of Toyota parts, that Toyota has hot-stamping for; isn't that right?
Strike that.
This is a list of Topre parts that are hot-stamped by Topre; isn't that right?
A. Yes.
Q. And you see here there are 35, and I'll represent to you there's 35 in this list.
Do you see that?
A. Yes.
Q. Okay.
But only one of the hot-stamped parts from Topre was tested in this case; isn't that right?
A. Yes.
Q. So of the 35 from Topre, your testing just did one; isn't that right?
A. Yes.
Q. Okay. That ended up in a Toyota vehicle; isn't that right?
A. I believe that's correct.
Q. If we put this down, you can see there's Topre

parts that also go into Nissan and Honda as well; isn't that right?

A. This was the Topre list.

Q. Yeah. The Topre list.

A. Okay.

Q. Okay.

So of the 35, your testing was just of one of the parts; isn't that right?

A. Right.

Q. For Gestamp, we can do the same exercise, but you agree that Gestamp has 16 different hot-stamped parts; isn't that right?

JUDGE BHATTACHARYYA: Excuse me. I believe there's an objection.

MR. REITER: I'm sorry. We should be on the confidential record.

MR. MCKEON: Can we go on the all-parties confidential record.

JUDGE BHATTACHARYYA: Move to the all-parties confidential record.

Let's wait for the room to clear.

Can we proceed?

MR. MCKEON: Yeah. Your Honor, yes, we can proceed. On our end. All right.

(Whereupon, the trial proceeded in confidential

session.)

O P E N S E S S I O N

BY MR. MCKEON:

Q. Now, we have already established with respect to the products that you tested, and if I can get the document camera, the ELMO.

Looking at the ELMO in RX-1146.38, this is the chart that you provided in your report.

Do you recall that?

A. Yes.

Q. We have established already that the three Ford parts here don't have the four layers; isn't that right?

A. That was -- yes.

Q. Okay.

Just for our recordkeeping, I'm going to mark -- I'm going to highlight -- these are the four -- the three parts that you looked at -- at the testing, and the results was your conclusion that they didn't have the four layers; isn't that right?

A. Yes.

Q. Those are made by Magna; isn't that right?

A. Yes.

Q. We already discussed Kia and you said, well, it had four layers, but it didn't have the right thickness.

Did I get that right?

A. You got that right.

Q. Why don't we go back to the laptop here, and look at RX-1146.372.

This is the -- this is the SEM that was attached to -- for the Magna Ford parts that you attached to your report; isn't that right?

A. Yes.

Q. Do you see that?

With respect to what we see here, this -- you concluded there was no layers; isn't that right?

A. I concluded -- not based on this, individual micrograph, the entire analysis of the data that we looked at came to the conclusion that it didn't practice.

Q. Didn't practice the patent, but yet the hot-stamp people -- strike that.

The testing lab -- somebody in the testing lab, put these markings on this document, 1146.372; isn't that right?

A. That's correct.

Q. When they did this, the people in the testing lab were measuring ostensibly thickness of layers; isn't that right?

A. Yes.

Q. But we don't have the four layers in this case; isn't that right?

A. This part, after we considered all of the

evidence and all of the data, we concluded that this part did not practice.

Q. Okay.

Just so I'm --

A. We didn't use just this micrograph to come to that conclusion.

Q. Again, sir, just to be clear, you keep saying "we," I want to make sure that the "we" is you; right?

A. The "we" is me.

I apologize for the inconsistency.

Q. Well, I want to make sure that the record is clear.

A. No. That's great. I appreciate that.

Q. Then we can go to 1146.373, which is the second part that's in your Exhibit W to your expert report.

This second part also, you concluded, doesn't practice the patent; isn't that right?

A. That's correct.

Based on all of the evidence that we collected, all of the data.

Q. Looks more like Figure 2 than Figure 1; isn't that right?

A. Once again, we used a lot of other evidence to come to that conclusion.

I didn't look at this particular picture --

actually, I might have, but I looked at many pictures, and compared them to the data, and compared them to the claims.

The figures are not -- the Figures are a preferred embodiment, but they are not the claims.

We were doing an analysis against the claims.

Q. Well, I understand that's what you are saying here in court, sir, but when we took your deposition, that's not what you said in your deposition; right?

Your deposition was about Figure 1 versus Figure 2.

A. But I didn't do any review of the patents in your deposition.

I looked at photographs that had been altered, compared them to Figure 1 and Figure 2 from the patent, but they had no relevance because I had no information about them.

You didn't supply any information. You changed the pictures.

So -- once again, it was not what we based our entire analysis on. So...

Q. Let's put away the comparisons that we went through in your deposition.

I'm just talking about your analysis in your deposition.

You told us what you did for your analysis in

this case was you looked at an SEM, and to decide whether it was a practicing product, you compared it with Figures 1 and 2.

We went through that, and that's the analysis that you conducted; isn't that right?

A. It was part of the analysis. It was not the complete analysis. As I'm sure you realize from our direct testimony, we did a lot of other data because in order to do a complete claim construction, you need more than knowing whether a picture looks more like a picture in the body of the patent, or not. That's not how you do the claims construction. You do the claims construction against the claims or --

Q. With all respect, sir --

A. -- the claim.

Q. -- you didn't say that in your deposition. In your deposition --

A. You didn't ask me in my deposition -- you did ask me, and I told you, I didn't do it.

You did ask me. You asked me, does this picture -- and you -- I don't have the citation because I can't do it, but I remember the conversation.

We said -- you said -- or your colleague said, you know, does this picture practice the four-layer patent? I said, no, it does not.

Then finally, you started saying, well, does it look more like picture 1 or picture 2, and then I started answering the question, but the answer to whether it practices the four layers is not there.

Q. Let's be clear on this.

All right, sir, I want to just put this to bed. This is your first expert report. This is what we got in your expert report. We're going back to the document camera, the ELMO.

This is what you said in your expert report. You're talking about the VF 8 and the VF 9.

Are you with me?

A. Yes.

Q. "To determine whether the SEM micrographs of the VinFast parts tested according to the protocol developed by Dr. Baskin and me, I compared the SEM micrographs taken of the VinFast parts with the four-layer structure of Figure 1 of the asserted patents, which Mr. Drillet confirmed the deposition shows the four-layer structure." (As read.)

Did I read that correctly from your report?

A. Yes.

Q. So before your deposition, in your expert report, you told us that, my analysis consisted of comparing it to Figure 1; correct?

A. That -- among other things. You're taking one

piece of the analysis out of there.

Yes, we did do that, but we did much other work to come to a conclusion about the patents. You will find a number of sections of that report where we looked at compositions, and we looked at thickness layers, we looked at all of the elements of the claim.

You can't do that from one micrograph. You can't do it.

Q. Let's go through the report as evidence. Sir, this is your report.

You cite to Figure 1 of the patent in the report, after that paragraph; correct?

A. Correct.

Q. Then we have the infamous paragraph where you tell us to go to Exhibit L. "SEM micrographs of the VinFast tested parts -- tested as part of this investigation show the VinFast parts each comprise a coating with four layers (see Exhibit L)." (As read.)

Did I read that correctly?

A. Yes.

Q. Then you specifically referenced the interdiffusion layer.

Did I read that correctly?

A. Yes.

Q. Now, going to page 29 of your report.

Are you with me?

A. Yes.

Q. And you cite an SEM image pointing to an interdiffusion layer from the VinFast SEMs; isn't that right?

A. Yes.

Q. Then you talk about -- in Paragraph 63, you go on about the composition issues with respect to the layers; isn't that right?

A. Yes.

Q. That's it for that element; isn't that right? That's what you gave us in your expert report.

A. There's more in the expert report than that.

Q. Well, with respect to this element, sir, about whether you got the four layers or not, that's what you told us?

A. The element in the claim is defined by composition, and you can't even do that from looking at a picture. That's -- this is the point. I'm trying to come to some understanding on this, is that you can -- Figure 1 is an image in a patent, but to do the claims analysis, you have to do a lot more work.

Q. Let me read it again.

"To determine whether the SEM micrographs of the VinFast parts tested according to the protocol developed by

Dr. Baskin and me, I compared the SEM micrographs taken of the VinFast parts with the four-layer structure depicted in the Figure 1 of the asserted patents." (As read.)

That's what you did in your opening expert report?

A. It's true, but it's incomplete.

Q. Now, one thing, though, we can agree on is that -- give me a moment here.

Going back to the ELMO, sir, the four parts, and you've got three of them that are not covered by the claims of the patent; isn't that right?

A. Yes. That's what our analysis showed.

Q. We have a total of six Magna parts; isn't that right?

A. Yes.

Q. And then the Kia is also not covered by the claims of the patent; isn't that right?

A. Correct.

Q. And that's a Magna part?

A. Correct.

Q. So four of the six Magna parts are not covered by the claims of the patents; correct?

A. Correct.

Q. You, in your direct testimony, referred to a manufacturing anomaly.

Do you recall that testimony?

A. Yes.

Q. You said, oh, the Ford parts are manufacturing anomalies.

Do you recall that?

A. Yes.

Q. So what we have in this case, sir, is a situation where we have six parts you tested. Four of them don't practice the patent.

So isn't the manufacturing anomaly actually the two parts that do practice the patent, because four of six, majority, don't practice the patent?

A. No, that's not accurate.

Q. Well, you agree with me that four of six don't practice the patent?

A. Yeah. Four parts don't practice.

Q. And you're basing your entire opinion on all of these other products out in the world from the seven subpoenaed parties that we went over, and these other 51 stampers out there, you're basing your entire analysis -- you say, oh, they're all -- these -- they are all practicing the patent.

Yet, I have got here right in front of you, we know that four of six Magna parts don't practice the patent; isn't that right?

A. That's what our testing showed.
Q. Despite that, you're telling the Court -- you want the Court to accept your testimony that all of these other parts out there, from the 51 hot-stampers, and all the other parts that you didn't test from the seven subpoenaed parties, they're covered by the patent.
This is what you're telling the Court; isn't that right?
A. Yes, that is my opinion.
Q. Despite the fact that four of the six Magna parts don't practice the patent; isn't that right?
A. Yes.
Q. All right. Let's get the laptop.
Now, one reason why I believe you said yes to that -- well, let me ask you this question: And one way is to look at slide 184, which is a slide you presented to the Court. Okay? This is CDX-3.184.
Do you recall presenting this to the Court?
A. Yes.
Q. What you showed the Court here in your demonstrative slide at 188 -- actually, this is 184, sorry -- your demonstrative slide at 184, is the two stars indicating to you that the Magna process parameters to be within the process window; isn't that right?
A. Yes. The information that they had given us, I

showed on the slide previous, on 183, gave the temperature that the furnace was set to, and then what the process time was supposed to be. We translated those numbers to the red stars on this chart.

Q. Okay.

You believe that if the process parameters are within the process window, that means the Claim 4 structure will be created; correct?

A. Just barely, but yes.

Q. Thank you.

You can take that down.

Now, you testified yesterday about some OEM specifications. Do you recall that testimony?

A. Yes.

Q. There's a lot of OEMs -- by the way, when we say "OEM" in this case, we are talking about the car manufacturers, like GM and Honda?

A. Correct.

Q. You spent some time talking about OEM specifications.

Do you recall that testimony?

A. Yes.

Q. Just so we're clear on this, of all the OEMs at issue in this case, the only specifications that you rely on with respect to the -- let me reask this question.

The only OEM specifications that you cited that you rely on that's going into the evidence in this case is the OEM specification from GM and the one from Honda; isn't that right?

A. Oh, and the one from VinFast.

Q. And one from VinFast. Okay.

So just stick with the DI case, the two that you got are GM and Honda.

Did I get that right?

A. Correct. I believe we took the Ford one out even though we looked at it.

Q. Okay. Well, we can put that aside.

A. Right.

Q. I just want to focus on GM and Honda, all right.

You believe it is the expectation of the OEMs through their specifications for the OEMs to need a product that practiced the patents; isn't that right?

A. Yes.

Q. In particular, I think you said something about the requirements of weldability and corrosion resistance; isn't that right?

A. Weldability and corrosion resistance are benefits that the OEMs expect from the material they're purchasing.

They write into the specifications the

characteristics of the product that they want in order to bring those benefits to their products.

Q. Well, you agree with me, of course, that good weldability does not necessarily lead to the conclusion that the four claimed layers are part of the structure; isn't that right?

A. Would you repeat that?

Q. There's other ways to get good weldability in this business, isn't that right, other than the four claimed layers of these patents; isn't that right?

Are you with me?

A. No. I'm not. Not at the moment.

Q. Okay.

A. I'm trying to parse that question.

Q. Let me get a better question, then, okay?

You say that -- I believe you said yesterday that because of the invention here, the four layers, you get good weldability. Are you with me?

A. Yes.

Q. But you agree with me that you can get good weldability through other mechanisms; correct?

A. I --

Q. This patent, the technology here in these patents is not the only way to get good weldability; right?

A. I don't know that I can answer that question,

honestly, without thinking about it some more because it's a very complex issue.

I mean, you're talking about materials trying to meet a part requirement. There's a lot of moving parts in there.

Q. You just can't answer that one way or the other.

A. No. Not really, not that --

Q. How about corrosion resistance, these patents are not the only way to get good corrosion resistance. You agree with that, don't you?

A. Yeah. There's other ways to get corrosion resistance.

Q. Now, just to put a pin on it, you got the GM and the Honda spec, we already established that; am I right?

You tested Tesla parts; isn't that right?

A. Correct.

Q. But in your report, you did not consider Tesla OEM specifications; correct?

A. That's correct.

Q. You tested Chrysler parts; correct?

A. Yes.

Q. But in your report, you do not consider the Chrysler OEM specifications; correct?

A. That's correct.

Q. You tested Kia parts, correct, but in your

report, you did not consider Kia OEM specifications; correct?

A. Correct.

Q. You tested Toyota parts; correct?

A. Yes.

Q. But in your report, did you not consider Toyota OEM specifications; correct?

A. Correct.

Q. Now, you didn't test any Mercedes-Benz parts; correct?

A. No.

Q. You didn't cite and --

A. That's correct.

Q. Correct. Yes.

You didn't cite to any Mercedes-Benz OEM specifications either; isn't that right?

A. That's correct.

Q. But, of course, your technical domestic industry opinion applies to parts that go into Mercedes-Benz vehicles; isn't that right?

A. Yes.

Q. So you're saying that you don't have SEMs, you don't have analysis of the Mercedes-Benz parts, you don't have OEM specifications, and in your view, the parts going into the Mercedes vehicles practice the patent?

A. No, I won't be able to say that in court. I don't know the answer to that. I don't know if they practice.

Q. So with respect, is it fair to say, then, with respect to parts you didn't test, and parts where you don't have an OEM specification, is it fair to say you don't know one way or the other whether the parts that go into these vehicles practice the patents?

A. Yeah, I don't know that. I don't know that. I suspect that, just because it's that -- that is a -- the benefits of the material are known widely throughout the industry, and the industry has been building a lot of vehicles with those parts because of that, but to know it, no, I do not.

Q. A fine point.

With respect to the Mercedes-Benz, with respect to Nissan, with respect to Acura, with respect to Cadillac.

A. Acura is a Honda company. I would not speculate to that.

Q. Acura is a Honda company?

A. Acura -- yeah, Acura vehicles are made by Honda?

Q. You don't have an Acura OEM spec; is that right?

A. No, they would use Honda specs. They wouldn't have their own.

Q. How do you know that?

A. Experience in the industry.
Q. Just speaking by experience that Acura OEM is going to use an OEM from a different brand; is that right?
A. It's built by Honda. Honda makes the cars.
Q. With respect to Mercedes, with respect to Cadillac, with respect to Acura.
A. Cadillac, that's built by General Motors. That was a spec we looked at.
Q. You're just saying that based on the OEM spec; is that right?
A. Yeah. Cadillacs are built by General Motors, so, sure.
Q. Okay. So let's put a fine point on this. Let's take it one a at a time. I was trying to short-circuit, but let's be very clear here in your testimony.
With respect to Mercedes-Benz, you've already testified, because you didn't do any testing, you don't have OEM spec, you don't know whether the parts going into the Mercedes-Benz practice the patents; correct?
A. Correct.
Q. With respect to Acura, you don't have OEM spec. You didn't do any testing of the parts. You don't know whether parts going into the Acura vehicle practice the patents; correct?
A. Incorrect.

Acura vehicle is built by Honda, would use Honda specifications for those parts.

Q. Again, you are drawing the conclusion based on another specification from Honda to conclude that the Acura practices the patent; am I right?

A. Say again. Sorry.

Q. You're drawing a conclusion based on -- you didn't do any testing for Acura; correct? You didn't do any testing for the Acura parts.

Are with you me?

A. I'm with you.

Q. Do you agree with that?

A. I'm thinking, sir. I'm thinking.

Q. Okay.

A. I'm thinking about my answer.

Once again, I -- they're built by Honda. I guess that's all I can say. They would be using Honda's material specifications for those parts.

Q. You just know that based on your experience, but you don't have evidence to present to this --

A. My experience in the industry, yes. That's exactly right. Yes, sir.

Q. All right.

Let's put a finer point on this.

The one spec I know you relied on in this case

is the GM spec; right?

A. Yes.

Q. You told the Court that based on the GM spec, you were able to conclude that the four layers are present in the parts made by GM; is that right?

A. Yes.

Q. Of course, you tested at least one GM part; isn't that right?

A. Yes.

Q. But let's focus on the GM spec that you testified earlier to the Court about, and let's pull up CX-638.22.

Do you recognize -- well, let's -- do you recognize this as the GM spec?

A. Yes.

Q. Okay.

Of course, you see the diagram that we have brought up here is within the spec; isn't that right?

A. Mm-hmm.

Q. And you see this spec is very clear that there's an interdiffusion layer; do you see that?

A. Yes.

Q. Now, but the GM spec does not say anything about the creation of the remaining three layers, the intermediate, intermetallic, and superficial layers;

correct?

A. You're correct. It does not say that.

Q. In fact, we can review your expert report, but in your expert report, you don't cite the GM spec as evidence of any of those layers; do you agree with that?

A. Yes.

Q. So with respect to the GM spec, then, at least, you can't draw a conclusion that the four layers are present in the vehicles; isn't that right?

A. Repeat that question.

Q. Just based on the OEM spec, the GM spec you relied on, there's an indication SEM in here that specifically shows products without the four required layers; correct?

A. It only discloses the interdiffusion layer and the total thickness. That's what this image discloses.

Q. This part, to Chrysler -- I'm sorry.

This part to GM is a qualified part. It's okay to put in its vehicles; correct?

A. It's a qualified part. It's okay to put in the vehicles, and GM will be looking for the weldability benefit that is being delivered by the product.

They aren't going to really write their specification around the patent, but they are going to write a specification that's going to deliver them the

benefits of the patented material.

Q. Well, GM doesn't care if it's got four layers, three layers, 50 layers, according to the spec; isn't that right?

A. They care about getting the good weldability that the patented material will give them.

Q. Well, but there's a lot of ways to get good weldability; isn't that right?

A. Not really. Not for this product, no. Not for this product.

Q. You're saying GM wants good weldability, it says that in their spec; therefore, domestic industry products, they're covered by the patent. Is that what your conclusion is?

A. Basically. I mean, it's based on experience in the industry. Once it gets out, once word gets out that we have now a hot-stamped, aluminum silicon coated product with good weldability, everybody's going to want it. I can tell you that for a fact. Everybody's going to want it.

Q. All of the products that are out there from the General Motors companies, all of the product lines, based on the spec that doesn't even show the four layers, because they say we want good weldability, you're telling the Judge, all of the General Motors cars out there in the universe practice the patents; correct?

A. They are out there getting the benefit -- the weldability benefits of that material.

That's what I'm telling the Court.

Q. The specification doesn't require the four layers of the patent; correct?

A. That is correct.

Q. All right.

Let's take a look at the Honda spec, which is -- well, actually, let's pull up a slide you had on Honda, CDX-1963C.

This is one of your slides that you presented to the Court.

Do you recall this slide you presented to the judge yesterday?

A. Yes.

Q. I believe your testimony is you believe that the Honda specification describes the creation of the four layers; is that right?

A. Correct.

Q. Based on what you told the judge, you could extrapolate that any Honda part would have the four layers because the spec would require it.

Is that what you're telling the judge?

A. That would be the expectation of the OEMs if they're buying to this specification, yeah, it's going to

have four layers.

Q. But you didn't tell the judge the whole story on the Honda spec; isn't that right?

A. Say more.

Q. Well, let's take a look at it.

If we could pull up CX-719.

This is the --

MR. REITER: Your Honor.

(Clarification requested by the Realtime Stenographer.)

MR. REITER: I'm sorry.

We need to go on the confidential record for this document.

MR. MCKEON: Okay.

JUDGE BHATTACHARYYA: All right. Moving to the -- which party?

MR. MCKEON: All parties?

MR. REITER: Yeah.

MR. MCKEON: All parties, Your Honor.

JUDGE BHATTACHARYYA: Moving to the all-party confidential record.

MR. MCKEON: All right.

I think we can proceed, Your Honor?

JUDGE BHATTACHARYYA: Yes.

(Whereupon, the trial proceeded in confidential session.)

O P E N S E S S I O N

REDIRECT EXAMINATION

BY MR. REITER:

Q. Already afternoon. Good afternoon, Dr. Fekete.

A. Good afternoon.

Q. Let's start where Mr. McKeon left off about your prior opinion.

So do you recall submitting an expert report in a prior case?

A. Yes.

Q. When was that?

A. It was in 2010.

Q. Was that case about the patents that are at issue in this case?

A. No, it was not.

Q. I'll put up -- or put on the ELMO, RX-1144C.

Is there the portion of your prior expert report that you were asked questions about at your deposition?

A. Yes.

Q. Was your opinion in that prior expert report related to the patents here?

A. No, it was not.

Q. What was it related to?

A. It was related to the '805 patent, prior hot-stamping patent from I guess what is now ArcelorMittal.

Q. Have you considered your opinions on commercial success in submitting this report 15 years ago?
A. Yes, since --
Q. With respect to the patents at issue here, what is that opinion?
A. Well, I believe there's been commercial success of the product, and it really is founded on the benefits that the patented products are bringing in terms of weldability, corrosion resistance, painted surface appearance -- or painted surface adhesion, yeah, it's been a big commercial success.
Q. What is that commercial success attributable to?
A. To the patented material, to creating that structure.
Q. So you were also asked by Mr. McKeon some questions, I think, about this chart. You went through and highlighted some things, and I want to focus on the Tesla door ring.
Do you see that I have circled that on the chart?
A. Yes.
Q. How many Tesla door rings did you analyze?
A. We looked at four.
Q. Were they all the same?
A. No, they were four different parts.

Q. Are any of those parts in this courtroom today?
A. Well, yeah, two of them. One behind me, one before we. One's, I think -- this one is the door outer, that one is the door inner. A door --
Q. Are those the same parts?
A. -- armature inner.
What.
Q. Are those the same parts?
A. No.
Q. How many different components make up each one of those parts?
A. This one -- that one's five. I think that one's five, too. I'd have to go count them up.
Q. Did you just test one piece of those parts?
A. No, we -- like I think I said in direct, we had -- those parts are made from five separate blanks, five separate pieces of material that are laser-welded together and hot-stamped.
So we would have tested basically five hot-stamped components, and then gone through our test protocol with each one.
Q. Did you consider all of the tests from each of the components in your analysis?
A. Yes.
Q. Put up slide 110 from your presentation. Oh.

Do you recognize this slide, Dr. Fekete?

A. Yes.

Q. I'm just really putting the slide up just so we can all see the three independent claims from the '602 patent.

Do you recognize those?

A. Yes.

Q. You were asked some questions by Mr. McKeon about interdiffusion.

Do you recall that earlier this morning?

A. Yes.

Q. Is there an interdiffusion component besides the layer associated with this claim?

A. No. The only reference to interdiffusion is the interdiffusion layer.

Q. Okay.

But how is the layer -- how is the coating formed?

A. The coating is formed through diffusion, interdiffusion between the iron and the aluminum silicon in the coating.

Q. Is that in the claim?

A. Yes. It's in the claim. It's in the --

Q. Does interdiffusion just happen randomly?

A. No. It happens as a function of the heat that

you put into the material.

Q. Does any interdiffusion process result in creation of the four layers required by the claim?

A. No. It would need to be a very specific process.

Q. You need to know the parameters?

A. You need to know the parameters.

Q. Let's go to slide 99.

Mr. McKeon spent quite a bit of time asking you questions about how you discern the four layers.

We all agree the four layers are important; right?

A. Correct.

Q. Was it just one SEM?

A. No.

Q. What else?

A. Well, we depended on, mainly, the chemical composition data from the SEM, the line scans, which do a better job of relating directly to the patent, because the patent is talking about mean compositions, whether you are talking about an iron composition, aluminum composition or total composition.

The chart in the upper right basically shows that in a way that's actually better than the image. The image gives you an idea, because they use back -- in this

particular image, they use backscatter electron imagining, which gives you atomic number contrast.

So you should be able to see, you know, iron -- you know, heavy iron layers versus heavy aluminum layers, you have different images, but that doesn't tell you anything about the chemical composition.

The way we got the chemical composition was to actually use the SEM, but we used the electron spectroscopy detector to actually measure those compositions, both in these line scans so you could really visualize where the coating was.

And then we did the spot analyses, too, just really confirmative and to answer more clearly the claims of the patent.

Q. Why do you have -- under the line scans, why do you have layer (a), (b), (c), and (d) labeled there; why is that there?

A. Because that relates to the layers, that are disclosed in the patent. Layer (a) being the interdiffusion layer in this case, layer (b) being the intermediate layer, (c) being the intermetallic layer, and (d) being the superficial layer.

Q. Shortly before he sat down, Mr. McKeon was asking about a lot of different OEM specifications. He was talking about Honda, talking about GM. I think there was

some discussion between the two of you about whether Honda and Acura were the same.

Do you recall that?

A. Yes.

Q. You worked at General Motors, didn't you?

A. Yes.

Q. How long did you work there?

A. 15 years.

Q. Were you involved in any of the specifications at all?

A. Yes, I was.

Q. How so?

A. I wrote some myself.

I worked with our sheet metal specialist team and our global steel team to approve some others.

We worked with the suppliers to develop the materials.

Worked with our product engineers to make sure that the product performance requirements we were writing in the specs would meet their needs.

So quite a bit of work around specifications.

Q. Those were metallurgical related?

A. The ones we worked on, yes.

Q. When you wrote or worked on a spec for General Motors, did you write one for Chevrolet, one for Cadillac,

one for -- I'm thinking of Oldsmobile, but I know they're no longer around, but --

A. Try Buick.

Q. Okay. Buick. There we go.

Did you write separate ones for each of those different brands?

A. No. The General Motors engineering standards were written for the whole company.

Q. Did that have anything to do with your explanation to Mr. McKeon about Honda and Acura?

A. Yeah.

I mean, effectively, it's the same situation. You know, the Honda Motor Company manufacturers vehicles under the Honda brand and also under the Acura brand. They're engineered by Honda engineers. The structures certainly are, the power trains are, too.

So, you know, I'm very confident in saying that, an Accura vehicle, if you went and found the specs for that, those would be Honda specifications.

Q. A lot of questions about whether or not you can conclude, based on the testing of the parts that you've done, that other non-tested parts would be covered by the patent.

Do you recall that?

A. Yes.

Q. Do you stand by your opinion?
A. Yes.
Q. Why?
A. I stand by that opinion, because we looked at -- you know, in evidence we have the GM and the Honda specification. I also looked at the Ford specification, to where that one, it does show the four-layer structure in their patent or in their specification documents.

Then as I think I said, when I was talking with Mr. McKeon that, you know, the world -- you know, ArcelorMittal made sure the world knew when this material came out, and they made this substantial improvement in weldability and corrosion resistance and paint adhesion, that all of the OEMs knew it.

So, you know, I'm -- like I say, highly confident that, you know, if ArcelorMittal or their licensees are manufacturing the precursor materials for hot-stamping, that those hot-stamped parts are very likely to be practicing the patent.

Q. I'd like to pull up your expert report, just briefly touch upon some portions of your report that perhaps Mr. McKeon overlooked.

So if we could go to page 18 of your report, which is CX-79C.

What does page 18 begin with, or there at

Section VIII?

A. On testing?

Q. I'm sorry?

A. On testing?

Q. Yes, on testing. Why did you include that?

A. Well, we were asked -- I was asked to provide an opinion as to whether the VinFast parts, you know, infringed and DI parts practiced.

In order to do that, you know, as part of the analysis, we decided to test parts to be able to really do a strong claims -- you know, claim analysis.

So that was the methodology that we put together to do reliable testing of all of those parts.

Q. Now, was it just taking an SEM picture?

A. No.

Q. Go to Paragraph 50, please, on the next page.

What does Paragraph 50 explain?

A. It talks about the fact that, you know, we felt -- I felt it was important that we get reliable test results. Because we're going to be getting a lot of test results. We're going to be relying on those test results. So we want to ensure we're getting, you know, valid and repeatable test results. So we chose to go with laboratories that were accredited to ISO 17025.

It's an industry -- it's common -- I read in the

report, it's common for the OEMs. I know GM, it was. It was a requirement that our supplier labs be accredited. I think the same for Ford and Stellantis. I don't know about the others. We didn't work too much with them.

But, you know, all of the OEMs, as part of their quality systems, would be demanding, you know, reliable test results, and they would be doing some level of understanding whether laboratories were competent to do their testing.

So we thought that was important -- I thought that was important here.

Q. We talked about OEM specifications for the tech DI. You just explained that. We talked about testing, and I'm going to come back to that in a moment.

But I think during your testimony, and you mentioned this to Mr. McKeon, there were -- VinFast documents were produced. So maybe we can look at page 24.

Did materials other than just the testing of the parts influence your opinion about whether VinFast infringes?

A. Yeah. Just -- and we talked about it a lot on direct, but we looked at control plans. We looked at process flow diagrams for all of the VinFast parts that we tested, and also the same parts or similar parts for the VF 9, as part of the analysis.

Q. Are some of those documents listed here in this --

A. Yeah.

Q. -- these footnotes?

Let's just briefly turn to -- back to the testing, and this idea that it was just a single SEM. I want to turn to Exhibit 846C, and we talked a lot about that. I believe that's the 7022 part that --

A. Yeah.

Q. -- you used throughout.

So this came up yesterday. It was produced -- the first page was produced native.

Do you recognize what this is?

A. Yes.

Q. What is that?

A. This is the data report we got from the labs that they reported on an Excel spreadsheet for us.

Q. If we go to the next page, what is that?

A. Oh --

Q. Not of the -- of the -- the next page of the exhibit. Sorry. Yeah.

What is that?

A. That's pictures of the parts as they were received from the laboratory.

Q. We scroll a couple of more pages in. Keep

going.

What is that?

A. That's one of the line scans that we -- that was presented by the lab.

Q. Was it just one line scan? We can do another page.

A. No. There's a number of line scans in there.

Q. Can we kind of scroll through that. We can see each of the page numbers, moving forward.

So it's more than just one line scan?

A. Yes. Substantially more.

Q. Now, there was also a question -- if we can go to Bates Number 2942. This was also in the exhibit.

What is this?

A. Well, that's a calibration grid for SEM distance measuring application.

Q. This was part of what the labs did?

A. Yeah. They provided those to us.

Q. If we go to the next -- a couple of more pages, we see -- I think what's important, because I'm not going to go through this, but 2944 is the Bates number.

Do you see that in the lower right-hand corner?

A. Yes.

Q. We can scroll through quickly. Go to the -- what are all of these?

A. These are all of the SEMs that the laboratory took as part of the investigation on this part.

Q. We can go to the last one, which is 3033.

So 3033, to the first one, I have to admit, I cheated while Mr. McKeon was doing his cross-examination. That's 89 different micrographs.

Were all of this part of your report?

A. Was all -- yes. It was all part of the report.

Q. Now, you didn't look at all of the micrographs, did you?

A. No, we didn't look at every one. We looked mainly at the ones that were in the Excel spreadsheet report that we got from the labs.

Q. Did you look at every Excel spreadsheet for every part that you considered and you provided an opinion on?

A. Yes. Every one.

MR. REITER: I have no further questions, Your Honor.

JUDGE BHATTACHARYYA: Thank you.

MR. MCKEON: Just briefly, Your Honor, may I?

JUDGE BHATTACHARYYA: Yes.

RECROSS-EXAMINATION

BY MR. MCKEON:

Q. Just a couple of questions, all right,

Dr. Fekete?

I'm a little -- I want to get clarification of your last answer.

You said it was all part of your report, what counsel just walked you through.

Do you recall that?

A. Yes.

Q. What you gave us in your report, sir, was a reference to materials considered, which we see here on the desk. That was in Appendix A; isn't that right?

A. The references, yes.

Q. What you say -- what Mr. Reiter just walked you through, when you say it was all part of your report, it was because in the materials considered attached in Exhibit A; correct?

A. Yes.

JUDGE BHATTACHARYYA: Thank you.

MR. REITER: Nothing further, Your Honor.

JUDGE BHATTACHARYYA: All right.

Thank you, Dr. Fekete.

It's good timing. It's time for lunch. We'll be on break for one hour.

(Witness excused.)

(Whereupon, at 12:45 p.m., a lunch recess was taken.)

A F T E R N O O N S E S S I O N

(1:51 p.m.)

MR. HERSHKOWITZ: Good afternoon, Your Honor.

JUDGE BHATTACHARYYA: Good afternoon.

MR. HERSHKOWITZ: Ben Hershkowitz on behalf of Complainants.

Two things.

We resolved all of the issues regarding the exhibit list from yesterday, so Mr. Lee will move that in.

That was our final witness on our case-in-chief, so I will turn it over now to Respondents.

JUDGE BHATTACHARYYA: Okay.

MR. LEE: Your Honor, may I approach with the parties' agreed list of Day 2 exhibits?

JUDGE BHATTACHARYYA: Yes, you may.

I have received the list of exhibits entitled "The joint list of admitted exhibits, Day 2."

I understand there's no objection to admission of those exhibits into evidence; is that correct?

MR. COLAIANNI: That is correct, Your Honor. No objection.

JUDGE BHATTACHARYYA: Very well, then. The exhibits on that list are admitted.

(Joint List of Admitted Exhibits, Day 2, was received into evidence.)

MR. LEE: Thank you.

JUDGE BHATTACHARYYA: Thank you.

Before we start, I can provide a ruling on the issue regarding the Brown demonstratives.

The objection is overruled.

MR. COLAIANNI: Good afternoon, Your Honor. Joseph Colaianni for Respondents.

We are prepared to present our case-in-chief, and our first witness will be Ms. Lan Anh Nguyen.

Ms. Nguyen will be using an interpreter for her testimony.

JUDGE BHATTACHARYYA: Okay.

Okay. Thank you. Please move to your places, and I will swear in the translator first.

Whereupon--

PHUONG-ANH NGUYEN,

a Vietnamese Interpreter, was first legally sworn to interpret, and continued as follows:

JUDGE BHATTACHARYYA: Ms. Nguyen, could you please raise your right hand.

Whereupon--

NGUYEN THI LAN ANH,

having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COLAIANNI:

Q. Good afternoon, Ms. Nguyen.

Could you please introduce yourself to Judge Bhattacharyya.

A. My name is Thi Lan Anh.

Q. What is your current title at VinFast?

A. At the moment, I am the chief financial officer of VinFast Auto Limited.

And I am also a member of board of directors of VinFast Auto Limited.

At the same time, I am also the head of finance of VinFast Trading Production, TSC, in Vietnam.

Q. How long have you been with VinFast?

A. I joined VinFast in October 2023.

Q. What are your job responsibilities in the role that you just described?

A. My responsibility is to be in charge of the finance and accounting of the entire VinFast company.

Q. Could you tell Judge Bhattacharyya a little bit about VinFast, please.

A. VinFast is a company established in Vietnam in the year 2017. We manufacture EV. VinFast have the manufacturing facility in Haiphong, Vietnam, and we are opening another facility in other countries.

Q. Approximately how many employees does VinFast

currently have?

A. At the moment, VinFast has more than 20,000 employees worldwide.

Q. What are some of VinFast's key markets?

A. The main market for VinFast is Vietnam; however, we are expanding other markets also. The other market we are planning to expand into including the US, Canada, Middle East, and other Asia countries.

Q. Could you talk a little bit about VinFast's US operations.

A. In the US, we have totally four entities.

The first one is Vingroup USA, LLC.

The second one is VinFast Auto, LLC.

The third one is VinFast USA Distribution, LLC.

And the fourth one is VinFast Manufacturing US, LLC.

Q. At a high level, what do those US entities do; what operation do they perform?

A. VinFast imports automobiles from Vietnam, and then distribute to American users.

In the US, we have two distribution channels.

The first one is we import automobiles from Vietnam, and sold it to the dealership.

In the second one, we import, and then we will sell it directly to the end user through our showrooms.

Q. Approximately how many VinFast showrooms are there in the United States?

A. At the moment, we have 13 showrooms under VinFast in the US.

Q. Approximately how many dealers does VinFast associate with in the United States?

A. We have 38 dealers in the US.

Q. Does VinFast currently manufacture any vehicles in the United States?

A. At the moment, we have not yet manufactured automobiles in the US.

Q. Do you have plans to do so?

A. Yes. We established VinFast Manufacturing US, LLC, in North Carolina.

Q. Is there any activities of that LLC in the United States currently?

A. This project, with the support of $20 billion -- $2 billion US of investment, and last year, we came out with the announcement that we will delay this project until the year 2028.

Q. What's the reason for the delay of the factory in North Carolina?

A. Because we would like to balance our resources, and also focus on the near-future objectives of the company.

Q. What are the current VinFast models being sold in the United States?

A. At the moment, we have two, VF 8 and VF 9.

Q. What types of vehicles are those?

A. That is SUV in which VF 8 is a five-seater and VF 9 is seven-seater.

Q. Does VinFast offer a warranty program for its customers?

A. VinFast provides total warranty for our customers, which is either 10 years warranty or 125,000 miles, whatever comes first.

Q. For US customers, where does the warranty repair work take place?

A. We provide guarantee for the US customer in our service center, and the service center of the dealers in the US.

Q. Does VinFast utilize suppliers in its manufacturing?

THE INTERPRETER: Could you repeat again.

MR. COLAIANNI: Sure.

BY MR. COLAIANNI:

Q. Does VinFast work with suppliers as part of its manufacturing process?

A. Yes. VinFast, the same as other automobile companies, we have source of the part from suppliers.

Q. Does VinFast apply any criteria in selecting suppliers for its parts?

A. Yes. VinFast has a special process to outsource for suppliers, and we choose among the global supplier what are reputable.

We actually source suppliers from the global -- we source the supplier from global recognized and reputable suppliers in the world.

Q. Does VinFast produce the pre-coated steel that is at issue in this investigation?

A. VinFast doesn't produce that kind of steel, coated steel.

Q. Does VinFast utilize suppliers for that purpose?

A. (In English) Can you say the question again.

THE INTERPRETER: Can you rephrase your question.

BY MR. COLAIANNI:

Q. Does VinFast work with suppliers for purposes of obtaining steel for its cars?

A. Yes, we work with the supplier for parts.

Clarification: We work only with the supplier for parts, not for the steel material.

Q. Do the suppliers provide VinFast parts made of steel?

A. Will you clarify your question.

Q. Sure.

Do VinFast suppliers supply it with parts made of steel to use in assembling its vehicles?

A. Yes. We work with the supplier of parts, and those supplier of parts work with the supplier of steel.

MR. COLAIANNI: Thank you.

I'll pass the witness.

JUDGE BHATTACHARYYA: Thank you.

We're on the public record, by the way.

MS. TABAT: I plan to stay on the public record. I have one exhibit, not witness binders.

Julia Tabat for ArcelorMittal, Complainant.

May I approach the witness to give her the exhibit?

JUDGE BHATTACHARYYA: Yes.

MR. COLAIANNI: Thank you.

CROSS-EXAMINATION

BY MS. TABAT:

Q. Good morning, Ms. Nguyen, or good afternoon.

A. Good afternoon.

Q. I have handed you CX-0066.

Do you recognize this as a printout from VinFast's website?

A. Yes. Correct.

Q. Do you see this printout is dated January 2,

2024?

A. Yes. Correct.

Q. Below that, it says there are five dealers in four states across the country, referring to the US; is that right?

A. Yes. Correct.

Q. I believe you testified on your direct that there are now about 15 dealers; is that correct?

A. The figure you have is from January 2024, and the figure I provided was the most updated information we have.

Q. Thank you for the clarification.

So it's safe to say that since January 2024, VinFast has expanded its US dealerships; is that right?

A. Yes. Correct.

Q. I'd like to direct you now to the last sentence of the article before where it says "About VinFast."

A. Do you mean highlighted in yellow?

Q. That's correct.

Do you see that?

A. Yes. I see it.

Q. There it says that VinFast expects to expand its dealer network to 125 points of sale across the United States.

Do you see that?

A. Yes. I see it.
Q. Is that still what VinFast expects to do?
A. The correct number as of this time is 13 retail stores -- 13 dealer store, and the number here you see -- 13 retail stores is correct.
The number you see here, 125 points is for the long-term objective.
As of this time, until 2025, we expect to open up to 45 points.
Q. Thank you.
MS. TABAT: No further questions.
MR. COLAIANNI: Nothing further.
JUDGE BHATTACHARYYA: Thank you. Thank you, Ms. Nguyen.
(Witness excused.)
MR. LEE: Good afternoon, Your Honor. Daniel Lee for the Respondents.
We would like to call our next witness, Dr. Bradley. We have a demonstrative for Dr. Bradley's testimony, and may I approach the bench to give you the slides?
JUDGE BHATTACHARYYA: Yes, you may. Thanks.
Good afternoon, Dr. Bradley.
THE WITNESS: Good morning, Your Honor. Good afternoon. I'm sorry.

JUDGE BHATTACHARYYA: Could you please raise your right hand.

Whereupon--

JOHN PHILLIP BRADLEY, PhD,

having been first duly sworn, was examined and testified as follows:

THE WITNESS: I do.

DIRECT EXAMINATION

BY MR. LEE:

Q. Good afternoon, Doctor.

A. Good afternoon.

Q. Can you please introduce yourself.

A. John Philip Bradley.

Q. Did you prepare a demonstrative to help with your testimony today?

A. Yes, I did.

Q. There we go. Is that what we see on the screen?

A. Yes.

Q. For the record, this is RDX-4.

What is your current profession?

A. At present, a senior research scientist at the University of Hawaii. I also hold an honorary affiliate faculty position at the National Center For Electron Microscopy at Lawrence Berkeley National Laboratory.

Q. What is your educational background?

A. I have a BSC and MSc in chemistry from the University of Canterbury in Christchurch, New Zealand, and a PhD in chemistry from Arizona State University.

Q. Have you held other roles before?

A. Yes, from 2014 to 2022, I was a full professor at the University of Hawaii.

Prior to that, from 2002 to 2013, I was the director of a University of California Academic Institute embedded within the Lawrence Livermore national security complex at Livermore, California.

Prior to that, 1992 to 2001, I was primarily a technical and scientific consultant to industry and federal agencies.

Q. Please tell us about some of your research experiences.

A. So some of them are listed here. I will just highlight a few of them.

The US Treasury, Bureau of Engraving, I was engaged to examine US currency bank notes, specifically the ink on bank notes. More specifically, in my case, the ink lines on George Washington's coat.

For the United States Navy, this is a current project, we're looking at corrosion layers on steel coupons from the Navy's Red Hill fuel storage complex adjacent to their lab at -- on Oahu.

For NASA I have been working on space hardware. This is the surfaces of spacecraft and other surfaces exposed to the space environment as well as astromaterials. These include samples of astroids and comets that have been returned to Earth by Japanese and American spacecraft missions.

Q. How many papers have you published?

A. In excess of 300.

Q. What type of publications have you published in?

A. Mainly, mainstream material science, astromaterial science, and environmental sciences. They include at least 20 papers in some of the more prominent international journals, for example, Nature and Science. These three examples here contain papers, which the journals chose to highlight on the front covers of the issues.

Q. I see that one of the covers you highlight is the Science cover with the caption, "Stardust."

A. Yes.

Q. Can you tell us a little bit more about that, please.

A. In brief, Stardust was a mission we launched in 1999. It traveled to a comet close to the orbit of Jupiter. It used aerogel. You can see an example here. Aerogel cells which is an ultralow density silica, and

particles coming out from the comet as the spacecraft traversed the coma, impacted into the --

(Clarification requested by the Realtime Stenographer.)

A. The coma, the nucleus of the comet.

Particles traveling at high velocity impacted into the aerogel, and left these bulbus-shaped tracks which contain cometary materials.

We collected a total -- in two minutes we collected a total of about a milligram of a sample at a cost of $200 million. These samples were returned to Earth, parachuted into Utah and flown over to Johnson Space Center in Houston.

Q. Is that what that photo on the left shows?

A. Yes.

This is the stardust curatorial facility at Johnson Space Center.

On the left, you see the collector, this is the two-dimensional array of the aerogel cells. The individuals of the preliminary examination team or the PET team, the job was to remove the sample from the capsule and photo document the cells individually and prepare a brief report about what we were seeing.

Q. Who is that young man on the left of the photo?

A. That's me in a bunny suit.

Q. Seems like it's a while ago?

A. Yes. It was. Yes.
Q. What happened next after that photo?
A. So after returning to our home institutions, we subsequently received samples from NASA of the collected samples. In my case, I was at Livermore, and I received them in the Livermore labs. Which I should point out I'm not an accredited testing facility.
Then I proceeded to prepare the samples and analyze them using electron microscopy.
Q. NASA didn't require their precious stardust to be tested in an accredited laboratory?
A. No.
Q. In fact, they trusted you to extract and test the stardust sample.
A. Yes.
MR. LEE: Your Honor, Respondents tender Dr. Bradley as an expert in the field of microscopy and preparation of samples for electromicroscopy.
JUDGE BHATTACHARYYA: Any objection?
MR. HERSHKOWITZ: No objection, Your Honor.
JUDGE BHATTACHARYYA: At this time, Dr. Brown --
THE WITNESS: Bradley.
JUDGE BHATTACHARYYA: Sorry. At this time, Dr. Bradley is admitted as an expert in the field of microscopy and preparation of samples for

electromicroscopy.

MR. LEE: Thank you, Your Honor.

BY MR. LEE:

Q. Could you please summarize your opinions for this case, Dr. Bradley?

A. Yes, they're based on the physical characteristics of multiple samples, for example, I examined the coating microstructure, elemental composition and mechanical strength of samples from a Volkswagen 2006 Passat.

In addition, I also examined the coating microstructures on multiple VinFast parts, and also the coating microstructures on several technical domestic industry parts.

Q. In forming those opinions, what materials did you consider?

A. In addition to the physical properties of these samples. I also reviewed a declaration of a Mr. Bartosek from the Roush Corporation. These are the folks that acquired and tore down a 2006 Passat.

I had some work performed at IMR, that's an accredited testing laboratory in Portland, Oregon. I also reviewed technical documents, for example, ASTM procedures and the like, as well as additional documents relevant to the ASTM testing I carried out in the case.

Q. Those materials are on slide 9; is that right?
A. Yes, correct.
Q. Let's now talk about your testing methodology.
What is the equipment that you show here on slide 11?
A. Okay. This is the scanning electron microscope or SEM I used for this investigation.
So the SEM enables one to take images of magnifications ranging from about 100 times to in excess of a million times.
This particular instrument is manufactured by Thermo Fisher Scientific, one of the major manufacturers of electron microscopes. It's also equipped with an x-ray detector, specifically an energy-dispersive x-ray system or EDS system. That's manufactured by the German company, Bruker. They are also a major manufacturer of x-ray detectors for electron beam instruments.
Q. What types of imaging modes do those scanning electron microscopes or SEMs have?
A. So when we say SEM image, they're actually multiple types, and I use so-called secondary electron images which primarily provides information about the surface morphology of a sample.
I also use backscattered electron images that provides information primarily about the composition of a

sample.

It does this because the yield of backscattered electrons coming off a specimen under electron radiation depends on the atomic number of the target material. So, for example, a high atomic number, species like iron, will give bright contrast in a backscattered image.

Conversely, lighter elements, for example, aluminum silicon, will give less brightness or contrast in the backscattered image.

For example, in this backscattered image here, the brightest regions is the middle substrate, which of course is rich in iron, and darker regions within the coating on that substrate usually contain more aluminum and silicon relative to iron.

Q. The next slide.

What type of maintenance is performed on the SEM that you used?

A. So the instrument I used is maintained in a service contract, which means that every three months or so, a service engineer comes out and checks out the microscope. This includes checking out the calibrations on the instrument itself.

In this example -- in this slide here, I show two examples.

On the left-hand side, we show a certified image

calibration standard that enables us to confirm that the magnification reported by the instrument is, in fact, accurate.

On the right, we have about a one-inch puck containing elements and compounds of many different compounds -- many different elements throughout the periodic table.

Now, these materials have been previously analyzed using other analytical techniques and subsequently certified -- their compositions have been certified. So thus, we use the certified standard to calibrate the detector on the SEM.

Q. Independently of the service contract, did you also verify the calibration?

A. Yeah.

I have a long habit of performing the calibrations myself, as I did in this study.

Q. Specifically, what elements did you verify the calibration for for the EDS measurements?

A. For x-ray detection, I calibrated specifically aluminum, silicon, and iron.

Q. Something you do in the course of your regular work?

A. Yes.

Q. Now turning to your sample preparation.

What were the initial steps for your preparation?

A. So Dr. Fekete briefly described the sample preparation earlier this morning, and I use essentially the same preparation with some slight differences.

So upon receiving the samples from Roush, the coupons, first thing I did was extracted about a 1-centimeter-by-1-centimeter piece of the coated metal. And you can see this in the image on the left. It's mounted on a platform.

Now, to look at a surface coating, one needs to present the sample in the scanning electron microscope in a vertical orientation. We use these clips we see here in the image on the left to hold the sample vertically positioned.

Now, immediately upon doing that, I attach the label, which you see on the image on the right, to the outside surface of that clip.

I did this because that -- there could be no subsequent ambiguity about which sample is which as you proceed downstream with the analyses.

Now, I was able to fit up to three different samples on each of those substrates on the left.

Once I had done that, I put a sleeve over the platform, and poured in low-viscosity epoxy. That was

allowed to cure for about 24 hours at about 45 degrees C.

The product of this curing, as seen on the right, this is a solid block containing three deeply embedded metal samples in this case.

Note once again, each of those samples is labeled, and that label is also fixed in the epoxy so that there can be no subsequent ambiguity about which sample is which, or any evidence of subsequent tampering, because once you cure epoxy, it cannot be uncured.

Q. Once cured, what were the next steps?

A. So this is a standard metallographic polisher. You have seen them in laboratories all over the planet.

What happens here is the puck is inserted in a holder sitting on a rotating substrate. This is a felt substrate.

Then as the felt substrate is rotated, various abrasives are put on the substrate, and they slowly polish the sample downwards through the epoxy overburden, and then deeply into the metal samples within that puck.

Now, we start off with a coarse grit, usually silicon carbide, work our way down from 60 microns with various grits, each time taking the sample out after one grit, cleaning it and --

(Clarification requested by the Realtime Stenographer.)

A. Solvent, and then ultrasonicate, and then return

it to the polishing substrate.

Finally, we transfer the diamond paste. We start off with 3 microns, then down to 1 microns, and sometimes down to .5 microns. What we end up with is a puck with a highly polished surface with highly polished metal samples, cross-sections exposed at that surface.

Q. Why this endeavor to achieve that finely polished surface?

A. So this is critical for high-quality SEM imaging, and also for the quality of the x-ray spectroscopy.

Q. Once you are done polishing, what additional steps you have taken?

A. So on the left, in this image, we see a highly polished puck with two samples, in this case, two pair set samples.

Now, the next step is to apply -- there's a nice shiny surface, highly polished surface of the samples.

So the next step is then to apply a 3 percent nitric acid solution to the surface of the metals. This is for about 15 to 60 seconds, and you will see a slight change in the color, or the reflectivity of the metal. This is because the acid is etching the steel substrate, and bringing up the indigenous microstructure of the steel.

Then the sample is prepared to go into the SEM.

Now, epoxy charges under electron radiation. This can degrade the quality of the SEM imagining. So to mitigate this effect, I also apply conductive copper straps on the top of the puck as close as possible to the samples.

In addition, I also label the samples on top of the puck. So in the SEM where the view is top-down, I'm able to confirm which sample I'm looking at in the SEM.

Q. Now, let's move on to your testing of the 2006 Volkswagen Passat. Turning to slide 18.

What is the box that you show on this slide?

A. So this is a box that I received from the Roush Corporation in October of last year.

So when I received the box, I checked it out for any signs of damage or tampering. There were none.

Q. Who is Roush?

A. Roush are the folks who acquired and tore down the Volkswagen Passat.

Q. What did the box that you received from Roush contain?

A. It contained seven coupons, metal coupons of various sizes from the Volkswagen Passat.

Q. Is that what you show here on the slide 19?

A. Yes, correct.

Q. How do you know that these metal coupons are that of a 2006 Volkswagen Passat?

A. So I reviewed a declaration by a Mr. Bartosek of the Roush Corporation, and I believe he's the individual who physically tore down the Passat and produced these parts.

Q. Do you have any additional bases for knowing that this is the coupons off the 2006 Volkswagen Passat?

A. Yeah.

So subsequent to reviewing the declaration, I spoke to him by telephone, and once again, he confirmed that these were Passat parts.

Q. When you say Mr. Bartosek's declaration, is that what you mean that's shown on slide 20?

A. Yes.

Q. What other information did you learn from the Bartosek declaration?

A. They actually purchased the vehicle, they had taken title of it, and the VIN number of that vehicle is shown in the upper right of this slide.

Q. For the record, this is slide 21.

What did you do with the 2006 Volkswagen Passat coupons that you received?

A. So using the sample preparation procedure that I described initially, I prepared two pucks of the Passat sample.

The top row shows one puck, which contains the

two samples, BL1 and BL2, and the lower row of images shows the second puck, which contains Passat samples BL3, BL4, and BL5.

Q. What did you do once you had prepared those Passat pucks?

A. So then I examined them in the SEM.

Q. What is it that we see on slide 23?

A. This is an example. This is Passat sample BL1, this is a backscattered electron image.

Q. What is the analysis that you show on this slide?

A. On this slide, it's the same field of view, but here, I have measured the thickness of the various regions within the coating throughout -- across that field of view at seven different locations.

Q. Does the table on the right of slide 24 summarize your thickness measurements that are shown on the left?

A. Yes, it does, yeah.

Q. Believe these thickness measurements that are summarized in the table to be representative of the image that is on the right -- on the left, rather, which is Exhibit 86?

A. I do.

Q. For the record, that's RX-86.

What do you see on the slide 25?

A. So this is a backscattered electron image of a second Passat sample labeled BL5.

Q. What analysis do you show here?

A. Again, in this field of view, I measured the thickness of the regions at four locations across that field of view.

Q. Does the table on the right of slide 26 summarize your thickness measurements on the BSE image of BL5 shown on the left, which is RX-174?

A. It does, yes.

Q. Do you believe these measurements you show on the table to be representative of the coating that is shown on RX-174?

A. Yes.

Q. What other analysis did you perform on the Volkswagen Passat coupons?

A. So if you look at the image on the left, the instrument I used, the x-ray detector, collects a spectrum of every pixel in the image. In this case, there are 1200-by-1600 pixels in that image.

Once you've done that, you can go and you can ask -- you can draw a box or area, as you see in the image labeled 1 through 4, and you can extract every spectrum from each pixel in that particular box.

Then you can sum the spectrum and then quantify the abundances of the elements in each of those areas.

So, for example, if we look at Box 4 on the left, the composition of the coating within that box is seen on the table on the right in the first three rows.

The composition of the area in Box 4 contains 52.41 percent aluminum, 2.63 percent silicon and 44.96 percent iron, expressed in mass percent.

Q. Does the table on the right of slide 27 reflect the element of compositions for each of the numbered regions shown on the left?

A. Yes. That's correct.

Q. What do you show on slide 28?

A. So the software that comes with the EDS detector, so-called ESPRIT software enables one to also collect line profiles from selected areas on the specimen.

In the slide on the left we see an area, a vertical labeled Number 5 from which I expected a line profile. That's seen on the left where yellow represents the silicon in the profile. Blue represents aluminum, and red represents iron.

Q. Slide 29, can you please describe the two images you show here?

A. All right.

So -- right. So these are two backscattered

electron images of Passat sample BL1 taken at two different magnifications. So on the left we have a high magnification image at 1200 times X, and on the right we have a much lower magnification image, 650 times.

The purpose of these two images is to highlight the post-etching microtexture of the steel substrate.

Q. Earlier, you mentioned that you worked with IMR Testing Labs; is that right?

A. Correct.

Q. What were the work that you commissioned IMR to do?

A. They were commissioned to measure the tensile strength of a Passat sample, and also the trace element composition of the base steel after the surface coating had been removed.

Q. Is what you show on slide 30 a testing report from the IMR Testing Labs?

A. Yes. This is the tensile strength report.

Q. Let's talk about the tensile strength results.

Can you describe that -- results you received from IMR?

A. Yes. So they reported the results in terms of kilopounds per square inch, or ksi. So I used this in a conversion procedure to convert them to SI units, that is pascals. When you look at that conversion, the results are

the BL7 has a tensile strength of 1,4034.11 megapascals and the yield strength is 1,0842 megapascals.

Q. What were the results of the second measurement that IMR performed on your behalf?

A. So these are shown on this slide here. This is the trace element measurement of the base steel after removal of the coating. The results are shown on the right for BL7. These are expressed in mass percent.

Q. For the record, that's slide 32.

Now, let's move on to your testing of the VinFast parts. Can you please describe the sample preparation process you employed for the VinFast parts you received?

A. Yes.

So I received another box later on containing a suite of samples of the VinFast samples.

Using the specimen preparation procedure I described earlier, I prepared pucks of those samples, and you can see images of them in this -- on this slide, and the identification numbers of each of the samples in each puck are listed below the images.

Q. When you received the box, did you inspect the boxes?

A. I did indeed.

Q. What did you do once you prepared those VinFast

SEMs pucks?

A. So I took backscattered and secondary electron images of the samples.

Q. Is that what you show here on slide 35?

A. Yeah. So this is a backscattered electron image of one of the samples of VF BL1.

Q. Did you take any additional images?

A. Yes, I did.

Q. Is this table on slide 36 a summary of the SEM images you have taken?

A. Yes. It provides, on the right, the identification numbers of the additional SEM images that I took.

Q. Now let's move on to your testing of the technical domestic industry products. Slide 38.

Can you please also describe the sample preparation steps that you have taken for the technical domestic industry products?

A. Yes. So these are Gestamp and Topre products that I received at some point. Again, using the sample preparation procedure I described earlier, I prepared pucks with these samples. The identification numbers of the samples on each puck are shown above the images.

Q. Next slide. How about these pucks?

A. Yes. These are pucks containing samples I

received of Magna and Cosma products. Again, the identification numbers of these samples in each puck are shown before the images.

Q. For the record, that's slide 39.

On slide 40, can you describe the pucks you show here?

A. Now, these are Simwon products. Again, using the same procedure to prepare the specimens. I embedded them in these pucks. I polished them. The identification numbers of each of the samples in the puck is shown above the images.

Q. Lastly on slide 41, can you please describe these pucks.

A. Yes. These are Cleveland-Cliffs products prepared and examined in the same manner.

Q. Please describe the two images you show on slide 42.

A. So on the left is a backscattered electron image of a Simwon product. On the right is the backscattered electron image of a Cleveland-Cliffs product.

Q. Any additional images of those pucks you prepared?

A. Yeah.

MR. LEE: Your Honor, at this time, we would like to briefly move on to the confidential record.

JUDGE BHATTACHARYYA: Is it the all-parties confidential record?

MR. LEE: It's all-parties confidential.

JUDGE BHATTACHARYYA: We're moving to the all-parties confidential record.

(Whereupon, the trial proceeded in confidential session.)

O P E N S E S S I O N

MR. HERSHKOWITZ: We're good on the public record. Thank you.

CROSS-EXAMINATION

BY MR. HERSHKOWITZ:

Q. Good afternoon, Dr. Bradley.

A. Hello.

Q. So I'm Ben Hershkowitz. I'm counsel for the Complainant, ArcelorMittal, and I just have a couple of questions for you.

A couple means more than two in this case.

A. Right.

Q. Before we begin, I just want to clarify a few points of terminology with you.

You used the word "coupon" to refer to the pieces of metal that were sent to you; correct?

A. Correct, yes.

Q. You used "sample" to refer to those smaller slivers that you had then taken out of those coupons; correct?

A. That's correct, yes.

Q. Thank you.

Turning now to your testing that you performed on the Passat. You tested what you understood to be coupons from the B-Pillar of the 2006 Passat; correct?

A. That's correct, yes.
Q. You did not test coupons from any other part of the 2006 Passat, not the A-Pillar, for example?
A. I don't believe so, no.
Q. Not the roof rail?
A. Correct.
Q. It was just that one B-Pillar?
A. I believe so, yes.
Q. You were not involved in the acquisition of the Passat; is that correct?
A. No.
Q. In fact, you had not personally seen the Passat before you performed your testing; is that correct?
A. Correct. Yes.
Q. You don't know whether the B-Pillar you tested was in the Passat when that vehicle was originally sold?
A. Correct.
Q. You did not contact Volkswagen about the Passat?
A. No.
Q. You did not speak with the first owner of the Passat?
A. No.
Q. You didn't speak with any subsequent owners of the Passat; correct?
A. No.

Q. You don't know whether, for example, the first owner of the Passat may have replaced a part in the vehicle?
A. No.
Q. You don't know whether any subsequent owner may have replaced a part in the vehicle?
A. No.
Q. The part you received, it didn't have a VIN number or anything on it?
A. No.
Q. As a matter of fact, it didn't have any identifying mark indicating that it would have been an original part that was in that vehicle?
A. Correct.
Q. Dr. Bradley, now, I understand you have a lot of expertise, I'm not trying to cast any aspersions, but you're not an expert in the manufacture of automobile parts; correct?
A. Correct.
Q. So you're unable to confirm, just looking at that B-Pillar, whether or not it was the original part that was in the vehicle?
A. Correct.
Q. You were not personally involved in the teardown of that Passat; correct?

A. Correct.
Q. You were not involved in deciding which part of the Passat should be cut up for testing; correct?
A. Correct.
Q. Instead, it was a company, I believe, Roush Industries, I may be mispronouncing that, that you understand performed the teardown?
A. Yes.
Q. That's the company that Mr. Bartosek, I believe you had indicated --
A. Bartosek, yes.
Q. Bartosek. I will make that mistake repeatedly, but I will try.
You were not involved in selecting where the coupons should be taken from from that pillar, were you?
A. Correct.
Q. You don't know who decided which coupons that were labeled on that part should be sent to you; correct?
A. Correct.
Q. You did not provide any instructions to Roush or Mr. Bartosek on how they should tear down the car; correct?
A. Yes. Correct.
Q. You did not watch the teardown of the car?
A. No.
Q. Rather, I believe you had indicated you relied

on a declaration from Mr. Bartosek to describe what he had done with respect to the teardown; correct?

A. A declaration, plus a telephone conversation I had with him.

Q. Thank you.

I'd like to, assuming I hit the right button, put on the screen just Paragraph 7 from RX-85, which is the Bartosek declaration.

Did I hit the right button, please?

This was the Bartosek declaration that you had attached to one of your reports?

A. I believe so, yes.

Q. If we could just go to Paragraph 7, please, just the text of that. Right at the top.

So I've got on the screen right now, Paragraphs -- just the text, please.

This declaration says that, below, further in Paragraph 7, are photos that were from the Passat?

A. You mean this particular photo is from the Passat?

Q. Yes.

A. Yes.

Q. You see on that, what's represented to be the B-Pillar, there are markings in, looks like, indelible marker.

Do you see that?

A. I do, yes.

Q. So if we can turn now to the page ending -- I think it's just the next page. If we could go there, please. Actually, go back a page.

Do you see -- if you can zoom in, please, just to the very middle.

Do you see there are two adjacent squares? I believe they say on them, BL3 and BLV3.

Do you see that?

A. Yes. I think you have better eyesight than I do.

Q. I know. Our eyes -- that's why we all need glasses.

A. I can't read the one on the right. The one on the left is BL-something.

Q. Will you accept my representation, it says BLV and 3 and BL3?

A. Sure. Yeah.

Q. Actually, if you could scroll up. That's actually not the right spot. It is right where the -- where that little cutout is. Looks like -- there we go. It's not going to do much better, but that is BL3 and BLV3.

You assume that the area labeled BL3 refers to coupon BL3 that you had received in that package?

A. I would assume so, yes.
Q. You see, too -- if we scroll back out again, please -- to the left -- well, actually, it's to the right because mine's upside-down.
To the right of that square labeled BL3 is an area labeled BL9, that sort of funny-shaped all the way on the right?
A. So would you mind indicating it with a pointer.
Q. If I had one, I would.
We can just go to the next page. I'm told there's a more zoomed-in picture. It's the picture on the upper right, please.
Can you see that there's a label there, BL9?
A. Yes, I can.
Q. Below that area square labeled BL3, you see there's one labeled BL8 that's directly below it?
A. Can you point to that, please.
Q. With this thing or that. There we go.
A. Yes.
Q. Okay. Wonderful.
If we can now turn to the top left image that's on that page, please. If you can zoom in on that.
Toward the bottom of that image, there are two adjacent squares next to each other labeled BL1 and BLV1.
Do you see those?

A. Yes, I do.
Q. Above those squares, there is a square labeled BL6.
Do you see that?
A. Yes, I do.
Q. Now, finally, let's turn to the bottom image, please.
You see there's a long rectangle in between those two holes labeled BL7.
Do you see that?
A. I do.
Q. To the right of the rectangle labeled BL7, there are two squares that are labeled BL5 and BLV5?
A. Yes. Correct.
Q. If we could take that down, please.
So in sum, this part has squares that are labeled BL1 through 9, that part, and also squares or shapes, I should say, labeled BLV1 through BLV5; correct?
A. Yes. Correct.
MR. HERSHKOWITZ: If we could put up -- and, Your Honor, I'm sorry, I forgot to actually hand it to you, but we do have a demonstrative.
May I approach?
JUDGE BHATTACHARYYA: Yes.
BY MR. HERSHKOWITZ:

Q. Please go to the second slide.
So on this slide, you see those were all of the labels for potential coupons that were on that part.
Do you see that?
A. Correct.
Q. In fact, you did not receive coupons that were labeled with the BLVs, the BLV1 to 5; is that correct?
A. Yes. With the caveat that I have no firsthand knowledge where the coupons were extracted. I did not see coupons with those labels.
Q. You anticipated my next question, so we can move on. We're making great progress.
Do you know whether the "V" in "BLV" stands for VinFast?
A. No.
Q. Do you know whether or not any of the BLV coupons were actually sent to counsel for VinFast?
A. No.
Q. So you don't know whether they tested them before sending you coupons to test?
A. No.
Q. So you wouldn't know whether or not, if they did testing, they may have receive different results than the results that you got?
A. Possible.

Q. Do you know whether VinFast had tried to identify portions of that B-Pillar that were not representative for you to test?

A. No.

Q. In addition to not receiving the BLV coupons, I don't believe you received BL6 or BL8; is that correct?

A. I believe so.

Q. You had received BL1 to 5, 7 and 9 from those coupons; is that correct?

A. Correct.

Q. So these are the coupons that you received, and then my understanding is you didn't test BL9 at all; is that correct?

A. I'm not sure I had BL9.

Let's see. I had 1 through 5. I'd have to look at my expert report.

Q. I can pull up your deposition testimony, but I will represent to you, at that deposition, we asked, did you -- do you believe you retained coupon BL9 for yourself?

Yes.

But you did not test BL9; right?

You answered, "Correct."

A. Yeah, it sounds like I had that coupon, and I did not test it, correct.

Q. Okay.

You sent BL7 off to a lab called IMR for testing; is that correct?

A. Correct.

Q. You relied on IMR to perform the base steel, I think I have this right, elemental composition testing?

A. I did.

Q. You relied on IMR to perform the mechanical strength testing?

A. I did.

Q. But you did not personally perform all of the testing that you discussed today with counsel for VinFast on your direct testimony?

A. Can you run that by me again, please.

Q. So you did not perform all of the testing. You relied on IMR for certain of the testing?

A. Correct.

Q. You did not personally oversee IMR's testing of that BL7 part?

A. Correct.

Q. But you trusted IMR to perform these tests properly; correct?

A. Correct. I had vetted them very carefully, and the message I got from people that do this kind of work, that they were the go-to lab on the West Coast for rapid turnaround analysis.

Q. You trusted them because of their reputation?
A. In part, yes.
Q. And because they're an accredited laboratory?
A. In part, yes.
Q. Just to confirm, you never prepared a sample from that BL7 coupon for the testing that you did?
A. Correct.
Q. So you have no images of the coating or measurements of coating thickness on the BL7 sample; is that correct?
A. Correct.
Q. So if we go to the next slide.
So to summarize, these are the coupons that were tested either by you or by IMR?
A. Some of them I tested myself. One they -- the BL7, they tested by IMR.
Q. Right, you tested 1 to 5?
A. Not all of them, as far as I know.
Q. Thank you.
Now, when you did your testing, you were not at an accredited laboratory?
A. Correct.
Q. You were not an employee of an accredited laboratory?
A. Correct.

Q. You didn't write a testing protocol in advance before you started your testing?

A. I used a protocol used by myself and your colleague on your side that's been around for about 70 years using standard metallographic preparation of equipment.

Q. Okay.

You didn't provide a written protocol over to IMR, did you?

A. No.

Q. You did not speak to Dr. Brown about your testing protocol before --

A. No.

Q. Okay.

And the samples that you tested, you performed, again, technical term, and I don't have the metallurgy degree -- scanning electron microscopy or SEM of all five?

A. Yes.

Q. Thank you.

Can I just call it an SEM?

A. Sure.

Q. It will help us all a lot.

This SEM resulted in you collecting images of the samples?

A. Right.

Q. And specifically, you collected the SEM images, and something called backscatter electron images?
A. Correct.
Q. Those images were collected, I think the word that I had heard was in pairs or twins?
A. Correct.
Q. You collected, I believe you said, at least five image pairs of each of the Passat samples that you imagined. So samples 1 to 5?
A. Correct.
Q. But you may have taken more than those five images for some of the samples?
A. Correct.
Q. During your deposition, you couldn't remember exactly how many of the images you had taken?
A. Correct.
Q. You also couldn't say whether each image you had collected as part of your testing had actually been produced over to ArcelorMittal?
A. Correct.
Q. Indeed, you agreed, I believe, that not all of the testing that you performed for this investigation is discussed in your report?
A. Correct.
Q. Today I think you really discussed, of the

testing that you personally did, from the coupons, just from coupons BL1 and BL5.

Do I have that right?

A. BL1 through BL5.

Q. Okay.

But today -- I'm sorry, correct.

In addition to -- in your report, though, when you analyzed them, you only analyzed images from BL1 and BL5 in your report?

A. That's correct.

Q. In addition to the SEM, you also measured the thickness of the sample coatings; correct?

A. I did.

Q. All of the measurements of thickness that you've taken for this investigation are reflected in your reports?

A. I believe so, yes.

Q. So in your opening report, just to summarize, you had only reported thickness measurements from samples taken from coupons BL1 and BL5; correct?

A. Correct.

Q. So you did not report the thickness measurements on every image you took from the 2006 Passat?

A. Correct.

Q. You also collected, and, again, you will excuse my pronunciation, energy-dispersive x-ray spectroscopy,

EDS, did I get that close?

A. (Nods head up and down.)

Q. Wonderful.

Spectra and maps, certain samples from what you understood to be the Passat; correct?

A. Correct.

Q. And specifically, in your report data, from EDS maps only for a sample cut from BL1, you only gave that EDS data for BL1 in your report?

A. Probably -- I'm not sure, but I think so. That's probably correct.

Q. If we could go to the next slide, slide 5, please.

So to just summarize, so out of the coupons, this is basically the work that was done: You did SEMs on at least 1 to 5, and you had sent out sample 7 for testing by IMR.

A. Yes. Correct.

Q. Go to the next slide, please.

In your report, what you discussed is you discussed the SEM for BL1 and 5, the EDS for BL1, and then the rest of the data you rely on the testing by IMR on BL7?

A. Correct.

Q. Go to the next slide, please.

So if we take a look at as to where those

samples were, going back to that B-Pillar. So to have it correct, so the EDS and the SEM were on BL1, which is down at the bottom of the -- I think this may be upside-down, so maybe the top, but at the bottom of this image, on what is the B-Pillar; correct?

A. Yes. Correct.

Q. For BL5, it's all the way up on the top left; correct?

A. Yeah. That's right.

Q. For 7, BL7, that's also up at the top, above that line, that sort of appears on the part?

A. Yes. That's correct.

Q. Do you know how big a B-Pillar is?

A. No.

Q. Would it surprise you if it could be 5 feet long?

A. No.

Q. We have some examples of what a door ring is here.

A. That's just a monster.

Q. So the samples that were taken, BL1 could be 4, 5 feet away from the samples at the top of this figure?

A. That's possible.

Q. You did not speak with Mr. Bartosek at Roush before you submitted your reports; is that correct?

A. Correct.
Q. You had not spoken to anybody else at Roush prior to submitting your reports?
A. Correct.
Q. In fact, you testified you would not have wanted, in deposition, to speak to Mr. Bartosek before submitting your reports?
A. You know, I didn't think it was necessary, frankly.
Q. I believe during your deposition, you testified you did not know what a tailor-welded blank is?
A. Correct.
Q. You don't know whether the 2006 Passat B-Pillar is a tailor-welded blank?
A. Correct.
Q. So you don't know whether the 2006 Passat B-Pillar is a single hot-stamped part; correct?
A. Correct.
Q. Did you hear the testimony from Dr. Fekete earlier today and yesterday?
A. Doctor --
Q. Fekete?
A. Fekete.
Q. Fekete. Fekete. I may have that one wrong, too, even though it's not a technical term.

A. I did, yes.
Q. All right.
Are you aware that he testified that B-Pillars can be made up of multiple steel parts or components?
A. I may have heard that, yes.
Q. You're aware that Dr. Fekete worked as an engineer at GM for 15 years?
A. Yes.
Q. You have no basis for disagreeing with him about the -- that a B-Pillar can be made up of multiple components or steel parts?
A. Well, I have no reason to doubt him.
Q. But you don't know whether that B-Pillar that you analyzed was made up of multiple components or multiple parts?
A. Correct.
Q. But you don't even know whether BL1 and BL7 which were at opposite ends were from the same steel part?
A. I believe they're from the same pillar, but beyond that, I have no information.
Q. Again, you don't have any testing data indicating whether BL1 or BL7 are made from the same steel because you only sent BL7 out for testing?
A. Correct.
Q. Nor do you have any testing data whether they

have the same coating, because you didn't test the coating on BL7?

A. Correct.

Q. Now, you also discussed today results from the EDS maps that you collected of the Passat B-Pillar; am I correct?

A. Correct.

Q. I'm going to go to the old-fashioned way and use the ELMO. I don't even know if it's still called an ELMO.

So, Dr. Bradley, this is, I believe, slide 28 of your opening slide deck.

Do you recall that?

A. Yes, I do.

Q. This graph represents a line profile or line scan of the elemental composition found within the EDS map that you had run for that sample 1?

A. Can you repeat that, please.

Q. So you had run this line graph test on the BL1 sample; am I correct?

A. Yes.

Q. Okay.

At the top of this graph, if we could just -- are you able to zoom in or do I have to do it? I think I have to do it.

So you had -- at the top of this, you had

labeled these horizontal arrows 1, 2, 3, 4?

A. Yes.

Q. Those arrows correspond to what you had indicated were interfaces that exist between the four regions of the coating?

A. The arrows -- the arrows -- yes. The arrows show changes in the composition to those points along the profile.

Q. You -- the red line that appears on this graph, that corresponds to iron?

A. Yes.

Q. And the -- well, I think it's supposed to be blue, but I'm not sure that that's the color that's showing up.

We'll call it the gray line --

A. Yeah.

Q. -- represents aluminum?

A. Correct.

Q. The orangey-yellow line, depending on one's monitor, is for silicon?

A. Correct.

Q. Did you draw those vertical lines?

A. Correct.

Q. Okay.

You selected for the vertical lines where the

iron and aluminum lines, composition lines, crossed?

A. In part.

Q. So you had drawn a horizontal line, for example, between where -- if we go between 1 and 2, where, for example, the iron dipped below the aluminum?

A. Yeah. Yes.

Q. Then you drew another vertical line where -- now between 2 and 3, where the iron went above the aluminum?

A. Yeah. It was an inflection point, yes.

Q. You see in that region, it also has more silicon?

A. Yes.

Q. Then you drew another horizontal line between the numbers 3 and 4, where, again, the iron has now dipped back below the aluminum?

A. Correct.

Q. The silicon has, again, dropped?

A. Yes.

Q. Then you drew a line at the very end, where the iron and aluminum cross again.

Do you see that?

A. Correct.

Q. But just to the right of that, the iron and aluminum cross also.

Do you see that?

A. Yeah.
Q. Just right over here.
A. Yes, yes.
Q. I think my finger is wider than the --
A. I can see it.
Q. -- what was it, the 60 microns of a human hair?
A. Some hair, yes.
Q. All right.
But you didn't draw a line there?
A. No. I could have, I guess.
Q. Okay. So let's move on.
You discussed earlier your measurement of coating thickness for the Passat; am I correct?
A. Correct.
Q. For the BL1, I believe you took seven different coating thickness measurements. I can put it up if it's easier.
A. That's all right.
That's correct, yes.
Q. Okay.
For coupon BL5, you took four?
A. Correct.
Q. So you took a different number for those two, BL1 and BL5?
A. Correct.

Q. You had testified, I believe, that you took fewer measurements of the coating thickness if, in your opinion, there was less variation in the total thickness of the coating?

A. Yes. The more thickness variation in the coating across the field of view, of course, the more --

Q. And you --

A. -- measurements I made, yes.

Q. Sorry. I didn't mean to interrupt.

A. All right.

Q. You used your personal judgment to determine whether or not there was that variation?

A. Correct.

Q. When you put those lines, you didn't space them evenly?

A. What are you talking about?

Q. What you talk about the measurements -- I'm sorry. Why don't I put it up to make it easier.

So, for example, these lines are not evenly spaced?

A. That's correct, yes.

Q. Okay.

You used your personal judgment to determine where to put those measurements?

A. Yes. Based on my experience doing this sort of

thing.

Q. Now, let's switch gears, and talk about your testing of the VinFast parts.

So you had indicated, I believe, in your direct, that you had tested coupons from four different VinFast parts?

A. I don't recall. That sounds about right.

Q. Besides the four parts that you had listed -- and I can pull it up from your report. If we can bring up CX-20 -- I'm sorry, CPX-86, Paragraph 12. Right there.

These are the, I believe, four parts that you had tested; is that correct?

A. Right.

Q. Besides those four parts that are listed in Paragraph 12, you did not conduct tests of any other VinFast coupons or parts?

A. Not that I recall.

Q. Are you aware that ArcelorMittal, that we had tested 16 distinct VinFast parts?

A. Who is that, please?

Q. The Complainant.

A. Oh.

Q. We had tested 16 different parts.

A. No.

Q. Dr. Fekete. Thank you.

If we could just put up the demonstrative slides, slide -- I believe it's 8.

Are you aware that these are all of the parts that were tested by Dr. Fekete?

A. No.

Q. If we could go to the next slide.

But you understand that you only tested those top four parts?

A. I believe so, yes.

Q. So as a result, you don't have any test data on any of the other eight parts that have a "no" next to them?

A. Oh, no. I don't believe I received them.

Q. You can take that down, please.

Let's turn back to the four parts that you did test, sir.

You did not include with your report on the VinFast parts any statement or declaration from Mr. Bartosek explaining how he had cut those coupons from the VinFast parts?

A. I believe that is true, yes.

Q. You did not speak to anybody at Roush before receiving the coupons from those VinFast parts?

A. Correct.

Q. You did not provide instructions to Roush on whether to remove these coupons from the VinFast parts?

A. Correct.
Q. Or how to remove them?
A. Correct.
Q. Or where they should be cut from?
A. Correct.
Q. At the time you had tested those coupons that you had received, you did not know where those specimens came from; correct -- coupons, excuse me.
A. Came from? Roush, or the vehicle?
Q. You don't know what part it came from at the time you received it?
A. That's correct, yes.
Q. In fact, you had not either evidenced -- even seen the VinFast parts before you submitted your reports, the full parts?
A. Well, if they're in the report, I had seen the parts.
Q. You do not know whether additional coupons of the VinFast parts were generated by VinFast in the course of this investigation?
A. No.
Q. You don't know whether VinFast conducted any additional testing on the VinFast parts before sending you those coupons?
A. No.

Q. So you don't know whether the parts they tested were, for example, seconds?
A. No.
Q. Or whether they passed quality control?
A. I'm not sure what that means.
Q. If we could please bring up CX-86 at Paragraph 55. There we go. Could you just -- no, one back. Next page, please. There we go. If we could just zoom in on the whole thing. Just get rid of the white space at the bottom. Thank you.
Now, this is your measurement thickness information that you provided for one of those four VinFast parts.
Do you recognize that?
A. Yes, I do.
Q. You see that for position 3 on there, which I believe is the third one from the left --
A. Yes.
Q. -- you see 26 micrometers?
A. Correct.
Q. I'm going to use a very technical term now.
If you had moved your selection a smidge to the right, it would have been thicker; is that correct?
A. Correct.
Q. If we look down at the table, that was the

overall coating thickness at the spots that you chose to measure; is that correct?

A. The average coating thickness, correct.

Q. Okay.

So -- but for portion 2, you would agree with me, or line 2, it was over 30 microns?

A. Yes.

Q. The same with -- for position number 6?

A. Yes.

Q. All right. We can take that down.

Now, let's turn to your testing of the domestic industry parts.

In your discussion today, you discussed how you understand that you had tested coupons from parts from a number of the hot-stampers, Gestamp, Topre and several others; is that correct?

A. Those are the companies, yes.

Q. For the purposes of this question, just to make life easy, can I just refer to those as domestic industry parts that you had tested?

A. Sure.

Q. Again, before submitting your expert report, you had not spoken to Mr. Bartosek about the coupons that you received on those domestic industry parts?

A. Correct.

Q. Didn't include in your report any declaration or statement from Mr. Bartosek about how he cut those coupons?
A. Correct.
Q. Did not provide directions to Mr. Bartosek from where those coupons should be taken?
A. Correct.
Q. Nor did you witness the coupons being extracted from the parts?
A. That's correct.
Q. Before submitting your report, you had not seen pictures of the domestic industry parts showing where the coupons came from?
A. You mean on the vehicle, you mean?
Q. Yes.
A. No, I had not.
Q. Okay.
So you don't really know where the domestic industry coupons that you had received actually came from?
A. On the vehicle, no, I don't.
Q. So let's talk about the Simwon, the Tesla door rings. I believe we have two of them in this -- in the courtroom.
You understand that the coupons you tested came from two Tesla door rings manufactured by Simwon?
A. I believe so, yes.

Q. I believe -- I may get them confused, but I believe the left-hand outer door ring --

MR. HERSHKOWITZ: Which, Your Honor, we did not make a demonstrative of the door rings, but they're here in the courtroom. I was just going to point them out.

BY MR. HERSHKOWITZ:

Q. So I'm going to show you right now that the left-hand door ring that ArcelorMittal brought to the hearing -- is this the first time you've seen these door rings?

A. Yeah. Actually, to be quite honest, I didn't really focus on whether it was a ring or not.

MR. LEE: Objection, Your Honor. Beyond the scope.

JUDGE BHATTACHARYYA: Yes.

MR. HERSHKOWITZ: Your Honor, I don't see how it's beyond the scope when he got done saying he received testing samples from the door rings. That's exactly what he testified he tested. I'm just asking a few questions about the door rings themselves. It will be brief.

JUDGE BHATTACHARYYA: The objection is overruled.

MR. HERSHKOWITZ: Thank you, Your Honor.

BY MR. HERSHKOWITZ:

Q. Have you seen that, for example, the outer door

ring, which is the one directly behind you.

Can you see that?

A. Yes.

Q. You provided SEM images, I believe, from two coupons from the left-hand outer door ring?

A. So I think -- I know I prepared specimens of two samples from a Tesla vehicle. Whether or not I knew at the time they were rings, I don't know, I don't think I did. If I were told, it didn't mean a heck of a lot to me.

Q. Understood.

Do you understand that these door rings are actually manufactured from multiple components?

A. No.

Q. In other words, there's multiple parts that make it up?

A. No.

Q. I believe Dr. Fekete had indicated that each of these is either made of four or five separate components?

A. I heard that, yes.

Q. All right.

So the two coupons you tested -- I think we can all agree, two is not representative of four. You only tried two. You didn't test the other two?

A. I don't know.

Q. As a matter of fact, it could have been two

coupons from the exact same component, not even of the other three components?

A. I don't know.

Q. The same thing. Here's another door ring. If that one was the inner, then this is the outer. I may have that backwards.

But again, the same thing, you, I believe, had received three coupons that you tested from that door ring?

A. If you say so. I don't recall specifically.

Q. Okay.

But you would agree that you don't know where they came from, so they all could have come from the same component on the ring?

A. I just don't know.

Q. Even if they came from different ones, three -- it means you didn't -- there were two that you did not receive coupons from?

A. I don't know.

Q. So just to shift topics again, the testing that you did, you agree it takes a fair amount of time to do all of the testing on those coupons and samples?

A. I do.

Q. You agree it takes a lot of time to collect and synthesize those test results?

A. Yes, depending on the volume of data collected.

Q. In fact, you recall that at -- during your deposition, you stated you had to remind Fish, I believe Fish & Richardson, that there were only 24 hours in a day --

A. Yes.

Q. Okay.

That's because the sheer volume of testing, it's -- it would be impossible to test, for example, hundreds and hundreds of parts?

A. I think the time taken for the procedures would have -- on my own, yes, correct. Hundreds and hundreds would be not feasible in the time allocated.

MR. HERSHKOWITZ: Bear with me one second, Your Honor.

I have no further questions. Thank you very much for your time.

THE WITNESS: Thank you.

MR. HERSHKOWITZ: I believe your counsel may have some follow-up.

MR. LEE: May I proceed?

JUDGE BHATTACHARYYA: Yes.

MR. LEE: Mr. Sayres, could you go to Dr. Bradley's demonstrative, slide 19, please.

REDIRECT EXAMINATION

BY MR. LEE:

Q. Dr. Bradley, you were asked some questions about the BL7 and the BL9 earlier; right?
A. Correct.
Q. Do you see on the slide the sample that's marked -- or rather, the coupon that's marked BL7?
A. Yes.
Q. Do you recognize the shape of the BL7 to be different from BL9?
A. Yes.
Q. The BL7 has a pointed edge at the top compared to the BL9?
A. It's tapered, yes.
Q. Now let's go to, Mr. Sayres, CDX-11, slide 7. It might be better for me to turn on the ELMO, so I'll do it on the ELMO. This is CDX-11.7.
You recall being asked about the BL7 sample as being located at that green location at the bottom of the B-Pillar?
A. Yes, yes.
Q. Also, we just talked about the shape of the BL7 sample, it being different from the BL9 sample?
A. Yes.
Q. I'll try to do this on this, but if not, I'll point you to a different exhibit.
But do you see that location right there?

A. Nope.
Q. This is going to be hard to tell, so I'm going to use a different exhibit.
(Off the record between counsel.)
MR. LEE: Your Honor, may I approach to hand you a native copy of the RX-85, which is the Bartosek declaration that Dr. Bradley relied on.
JUDGE BHATTACHARYYA: Are there any objections?
MR. HERSHKOWITZ: No objection.
JUDGE BHATTACHARYYA: Sure.
BY MR. LEE:
Q. Dr. Bradley, do you recall seeing this portion of the Bartosek declaration?
A. Yes.
Q. You received this Bartosek declaration in this color form in high resolution, not the grainy form that the counsel showed you?
A. As I recall, yes.
Q. Zooming in, do you see that shape right there?
A. I do.
Q. What does that coupon indicate?
A. That the shape of that area is consistent with the sample BL7 that I received.
Q. Can you also make out the writing that's written on that sample? If easier, I'll try to turn it over for

you. Now.

A. Ah, yes. It looks like BL7.

Q. That, you see at the bottom, is not BL7; correct?

A. You mean on the left-hand image?

Q. Yes.

A. There's something labeled BL8. Oh. Yeah. Yeah. Okay.

Q. Please.

A. That's all right. It's BL8, I believe.

JUDGE BHATTACHARYYA: Mr. Lee, could you please indicate which photo on what page of the declaration you're referring to.

MR. LEE: Yes. This is the native of the RX-85 at page 7.

BY MR. LEE:

Q. So going back to CDX-11 at 7, do you agree that the BL7 is at the bottom of that image, as indicated on this slide?

A. You mean in the green area?

Q. Correct.

A. I would assume so, yes.

Q. But you just identified the shape of the BL7 to be from a different portion?

A. Yes, I -- yes. I think it's clearer in the

image we just discussed.

Q. Right. So the BL7, would you agree, came from this portion of that image?

A. Oh, yes, yes.

Q. And not that portion, as indicated on CDX-11?

A. That's correct, yeah.

Q. ArcelorMittal's counsel asked you about the testing you did with IMR?

A. Yes.

Q. When you handed over the BL7 sample to IMR, did you ask IMR to look for layers?

A. No. No.

Q. Counsel also asked you whether you saw the Passat being torn down?

A. He did, yes.

Q. Would your testing have changed if you saw the car being torn down?

A. I don't think so.

MR. LEE: No further questions, Your Honor.

JUDGE BHATTACHARYYA: Thank you.

RECROSS-EXAMINATION

BY MR. HERSHKOWITZ:

Q. Hello, Dr. Bradley. Just a few followups.

A. Sure.

Q. Now, you didn't ask IMR to look for layers

because they were not doing SEMs, were they?

A. I just did not think about it, frankly.

Q. You never saw the B-Pillar from that VinFast -- sorry -- let me try again.

You never saw the B-Pillar that was in the photograph in person; is that correct?

A. That's correct, yes.

Q. And that image, the grainy image, that's what was actually in your report; correct?

A. I don't recall.

Q. Do you know where the samples came from other than trying to decipher that photo? Where from the part the coupons came from other than trying to decipher that photo?

A. I believe -- I assume they came from the regions that were labeled, that was shabby with the appropriate BL number on them.

MR. HERSHKOWITZ: Fair enough. Thank you.

No further questions, Your Honor.

MR. LEE: No further questions, Your Honor.

JUDGE BHATTACHARYYA: Thank you.

Thank you, Dr. Bradley. You may step down.

(Witness excused.)

JUDGE BHATTACHARYYA: Let's take a 15-minute break.

(A recess was taken at 3:35 p.m., after which the hearing resumed at 3:49 p.m.)

MS. PARK: Good afternoon, Your Honor. April Park on behalf of Respondents.

Respondents would like to call Dr. Brown at this time.

We have some demonstratives to assist with his testimony.

May I please approach with the demonstratives?

JUDGE BHATTACHARYYA: Yes.

Good afternoon, Dr. Brown.

THE WITNESS: Good afternoon.

JUDGE BHATTACHARYYA: Could you please raise your right hand.

Whereupon--

STUART BROWN, PhD,

having been first duly sworn, was examined and testified as follows:

THE WITNESS: I do.

JUDGE BHATTACHARYYA: Thank you.

MS. PARK: May I please proceed?

JUDGE BHATTACHARYYA: Yes.

DIRECT EXAMINATION

BY MS. PARK:

Q. Good afternoon, Dr. Brown.

A. Good afternoon.
Q. Could you please introduce yourself.
A. My name is Stuart Brown.
Q. Did you prepare some demonstratives to help with your testimony today?
A. I did.
Q. Is RDX-2 that demonstrative?
A. Yes.
Q. Dr. Brown, what is your current profession?
A. I am currently a consultant at Veryst Engineering, which is an engineering and scientific consulting firm in the Boston area.
Q. Could you tell us about your educational background.
A. Certainly.

I have two bachelor's from Washington University in St. Louis. I have a bachelor's in mechanical engineering, and one in English literature.

I have two master's from Stanford University, a master's in mechanical engineering, and an MBA.

Then I have a PhD in mechanical engineering from the Massachusetts Institute of Technology, MIT.

Q. What did your PhD research consist of?
A. My PhD was in the area of hot forming. It was trying to understand how metals behave when you heat them

up, and then try and shape them into a useful geometry.

Two materials that I used in my research were steel and aluminum.

Q. What roles have you held?

A. So after finishing my PhD in mechanical engineering, I walked down the hall and joined the Department of Material Science and Engineering as a member of the faculty. I was there from '87 to '95.

There, I did research -- continued to do research in hot forming of metals.

Then I also worked in an area call MEMS, microelectromechanical systems, which are small mechanical devices formed using semiconductor technologies.

After MIT -- I'm sorry, I should back up.

While I was at MIT, I also did consulting with Allegheny Ludlum Steel Corporation, and Alcoa, US Steel and Thixomat.

Allegheny Ludlum, Alcoa and Thixomat provided funding for some of my research.

Thixomat is an aluminum company, Allegheny Ludlum is steel, Alcoa is obviously aluminum, and US Steel is steel.

At the same time I was at MIT, I developed a technology for aluminum manufacturing. So a group of my grad students, upon finishing their degrees, started a

company called Semisolid Technologies. Then we did a joint venture with Gibbs Die Casting making aluminum silicon components for Ford Motor Company.

Okay. So after leaving MIT, then I went to run the Boston office of a national engineering consulting firm called Exponent, where I continued my consulting both in metal forming and MEMS. MEMS are funded by government research.

I ran the Boston office of Exponent for ten years, and then I resigned and started Veryst Engineering, and I have been a member of Veryst Engineering since December 2005.

Q. Turning to slide 4, do you understand that there were some definitions of person of ordinary skill in the art in this investigation?

A. I do.

Q. Is that what you're showing here?

A. Yes. Yes, it is.

Q. In terms of your analysis, did you apply the definitions that are here?

A. I did.

I consider there to be some small differences between the two, but I think they are effectively the same, and my opinions would be the same under either definition.

MS. PARK: Your Honor, at this time, Respondents

tender Dr. Brown as an expert in the field of hot forming of metals, including steel, and the subject matter of the '602 and '227 patents.

JUDGE BHATTACHARYYA: Any objection?

MR. LAMAGNA: Respectfully, Your Honor, we don't believe that she's quite laid the foundation yet for as broad of a proffer as what she's made, specifically with the subject matter, the '602 and '227 patents.

I can explain, if you would like, Your Honor.

JUDGE BHATTACHARYYA: Is this an issue that needs to be discussed?

MS. PARK: This issue has never been raised, Your Honor.

MR. LAMAGNA: Well, we believe that they certainly have laid a foundation for him with respect to being an expert in mechanical engineering, in chemical engineering, and even in hot forming basically what is the base steel. There's no doubt that he's an expert in those fields.

We also would agree that he is -- they have laid a foundation that he is a person of skill in the art at least under his own definition relating to the patents.

But the patents themselves don't involve the hot forming, strictly speaking, of only the base steel. What is at issue in the claims is the formation of the

microstructure in the aluminum coating.

So there's a difference, technologically speaking, in the chemistry of what's going on in deformation of the steel from the formation of the aluminum coating, of the layers of the microstructure.

We haven't heard that yet in the foundation.

JUDGE BHATTACHARYYA: Ms. Park, how would you prefer to proceed, do you want to amend the definition -- the area of expertise in which he's being admitted, should we partially admit him, and then --

THE WITNESS: I can elaborate.

JUDGE BHATTACHARYYA: -- defer this issue until later?

MS. PARK: Your Honor, I will ask a question to Dr. Brown so that he can elaborate on his experience.

JUDGE BHATTACHARYYA: Okay.

MS. PARK: Does that work for you?

BY MS. PARK:

Q. Dr. Brown, could you tell us about your experience related to the subject matter of the '602 and '227 patents.

A. Certainly.

I mean, there are material science phenomenon associated with the formation of these coatings, particularly at high temperatures, and I would mention two

areas of my activities which address that.

One is I taught material science and material kinetics while I was on the faculty at MIT, both on a graduate and undergraduate level, and that includes the topics of diffusion, interdiffusion and formation of microstructures.

I also performed research on the effect of microstructure on deformation behavior, because under certain circumstances, the structure of the material affects how it deforms. If you look at my publication list, you will see some articles which address that topic.

Then third, the work that we did at Thixomat, which was addressing the processing of aluminum silicon alloys, also included issues of solidification and segregation, the formation of what I would call secondary phases, meaning intermetallics, which are a reaction between aluminum silicon, and at the same time, we had to pay attention to that process with iron -- the processing equipment which was composed of steel.

So I would say those, in their totality, address the issues in terms of interdiffusion forming microstructure, and also thin films, because the work that I was doing in MEMS, these microelectromechanical systems, involved the characterization, measurement, and measurement of properties of very thin films.

JUDGE BHATTACHARYYA: Thank you.

Does the objection stand?

MR. LAMAGNA: We'll lift the objection. Just leave the rest for cross-examination. Thank you.

JUDGE BHATTACHARYYA: Ms. Park, could you please repeat the area in which Dr. Brown is being offered.

MS. PARK: Yes, Your Honor.

Expert in the field of hot forming of metals, including steel, and the subject matter of the '602 and '227 patents.

JUDGE BHATTACHARYYA: Thank you.

At this time, Dr. Brown is admitted as an expert in the field of hot forming of metals, including steel, and the subject matter of the '602 and '227 patents.

MS. PARK: Thank you.

BY MS. PARK:

Q. Turning to slide 5, could you please summarize your opinion in this investigation?

A. Certainly.

There are three broad opinions.

First is that the VinFast product does not infringe the '227 and '602 patents; the '227 and '602 patents are invalid; and third, there is no technical domestic industry.

Q. Turning to slide 6, what did you review in

forming your opinion?

A. Well, this slide just provides a summary statement of what I considered.

Obviously, the asserted patents and file histories. Hot-stamping technical specifications by OEMs and Tier 1 manufacturers. A range of testing that was done on different products.

Scientific literature, both from my library and literature that I reached out to and located related to the technology at issue.

Prior art references and publications, deposition transcripts, and then, of course, the reports of Doctors Fekete, Raabe and Bradley.

Q. Turning to slide 8, what are the products at issue in this investigation?

A. It's my understanding that the products at issue are the two vehicles that we see here, the VinFast VF 8 and the VF 9.

Q. What is the technology at issue in this investigation?

A. The technology that we're talking about is the entire process of hot-stamping pre-coated steel. There's a schematic that I prepared to illustrate that.

We start at the left, and go to the right. We start with a pre-coated steel, aluminum alloy without

coatings, without layers.

You stamp out blanks, which are basically flat geometries using a press, called blanking. You then put it in a furnace. The furnace does two things.

One, it raises the temperature of the steel to a high enough temperature that it becomes austenite. It's a process we call austenitization. It changes the crystal graphic structure of the metal.

Then you also induce diffusion between the steel and the aluminum coating, the aluminum silicon coating, and the atoms diffuse aluminum into the steel, steel into the aluminum, and thereby forming aluminum-iron-silicon compounds called intermetallics, in other words, alloying the coating on the surface of the steel.

Once that's done, the hot blank is then transferred very quickly into the press where it -- again, two things happen.

One because it's at high temperature, it can deform more easily in a lower load. That's why you hot form. So the press forms the geometry of the part, but at the same time, because the die is cooled, it rapidly cools the sheet steel, quenching it, and that introduces the transformation of the austenite into this very high-strength phase, which we call martensite.

So we have two processes occurring in the

heating and two processes occurring in the hot-stamping process, ending up with the product, in this case, we're illustrating the B-Pillar, which is shown where it sits within a vehicle.

Q. Does the chemical composition of the base steel change during this process?

A. No. No.

The crystallographic structure and the strength of the base steel changes as we go through the process, but the chemistry does not change.

Q. Turning to slide 11, how long has hot-stamping been around?

A. Well, hot-stamping has been around since the '70s. This is, I believe, a chart that we've seen before, but this is just an indication by a timeline provided by ArcelorMittal that in 2001 there was the first use of a pre-coated PHS, press-hardened steel, on bumper beams and A-Pillars using Usibor 1500.

Then in 2005, there was the first use of pre-coated Usibor 1500 on platform parts, meaning parts which went into the frames of vehicles, the platform parts.

Q. Turning to slide 12, what was Arcelor presenting about Usibor 1500 in the early 2000s?

A. There's going to be a series of references that will be appearing in the next slides.

This is an article by Cornette, Hourman, Hudin, Laurent, and Reynaert from Usinor Research, Usinor is a precursor to Arcelor. It's dated from 2001, it's the Society of Automotive Engineers technical paper associated with a conference that was that was I believe, the SAE annual technical conference in Detroit.

It just illustrates from that time, a set of processing conditions for Usibor for hot-stamping, meaning, as we see in this ellipse, this shaded ellipse, heating for a certain period of time, 5 to 10 minutes, within a certain temperature range, 880 to 950 Celsius. And then an alloying reaction associated with the coating.

So this is just a schematic for the process in someone 2001.

Q. Turning to slide 13, are there any other Arcelor publications you're aware that are about hot-stamping Usibor 1500 in the early 2000s?

A. Yes. This is another SAE paper. Again, at a SAE conference in 2002. A body engineering conference. It describes the development of a pre-coated boron steel.

This time it is coauthored by someone from Renault, Laurent, who we saw in the previous paper, who to my understanding is an inventor on one of the first patents in the portfolio of IP associated with Usibor, and Reinhardt, who is with Peugeot Citroδn.

If you look at the drawing, it's the same drawing that we saw before, which sets up processing conditions for the Usibor for hot-stamping.

Q. Turning to slide 14, were there other publications about hot-stamping of Usibor 1500 in the early 2000s?

A. Yes. This is a presentation given by Kefferstein, who is one of the inventors on the named patent. Again, providing the schematic for hot-stamping, providing processing conditions. When I say processing conditions, this is conditions in the oven before it is hot-stamped.

Residence time of 4 to 10 minutes and a temperature range from 900 to 950 C. This is a meeting which took place in France in 2004.

Q. Do you know who R. Kefferstein is?

A. Yes. Yes. He is a Arcelor employee, and, again, was one of the inventors on the patents we're discussing.

Q. Let's move on to patents at issue.

What are the patents at issue in this investigation?

A. The two patents are in shorthand, '602 and the '227 patents. With the same title, "Coated Steel Strips, Coated Stamped Products and Methods."

Q. Turning to slide 17. At a high level, what are the asserted patents about?

A. The major content of the patent addresses hot-stamping of, as we've seen, Usibor 1500, the aluminum silicon coated steel, with claims which describe the structure of the coating and properties of both the steel and the coating.

But this is just a brief description of the -- basically, the hot-stamping process.

Q. Turning to slide 18, what are you highlighting here?

A. This is part of the specification which indicates that "The inventors have discovered that the control of the homogeneity of the pre-coating thickness over the entire sheet within given tolerances is an important factor for obtaining the desired degree of intermetallic alloying, allowing one to improve resistance to the subsequent melting of the coating during travel on rollers."

This relates to another issue, which is the coating, because it an aluminum silicon alloy, in the furnace, it can melt. And it can gum up the rollers of the furnace as it passes through on its way to the hot-stamper.

Q. Turning to slide 19, we have Claim 1 of the '602 and '227 patents here. What did the asserted claims

require?

A. I couldn't hear you.

Q. What do the claims require?

A. Well, the claims require a strip of base steel having a first and second side, a coating on at least one side, with a coating resulting from interdiffusion between the base steel and the aluminum or aluminum alloy pre-coating, wherein the coating includes moving from the base steel outwards to the outer surface, an interdiffusion layer with a first -- in Claim 1 of the '602, with the first mean iron composition, 1(d), an intermediate layer with a second iron composition different from the first, 1(e), an intermetallic layer having a third mean iron composition different from the first and second. The third mean iron composition being higher than the second. 1(f) being a superficial layer, the outermost layer having a fourth mean iron composition different from the third mean iron composition.

Then a coating, total coating thickness greater than 30 microns.

Claim 1 of the '227 patent is less restrictive. It only calls for the four layers, and each having a different mean composition, one from the other.

Q. Do the claims talk about how one would get to the four-layer structure elemental composition or the

coating thickness?

A. I'm sorry. I can't hear you again.

Q. Do the claims talk about how one would get to the four-layer structure elemental composition or the coating thickness?

A. No. It's purely structural. It just indicates the characteristics of the final process. There's no processing conditions indicated in the claims.

Q. Turning to slide 20, are these the asserted claims?

A. Yes. That's my understanding, and the independent claims are high bold-faced.

Q. We just looked at Claim 1 of the two patents. Do any of the other claims talk about how one would get to the four-layer structure, the thickness, or the compositions?

A. No. No, they do not.

Q. What did the inventors say the -- what did the inventors say about what they invented?

A. Well, this is -- it's my understanding, an excerpt from Dr. Drillet's testimony earlier this week where the question is, "The four-layer structure could be created through hot-stamping before the filing of the '602 and '227 patents; correct?"

And his answer was, "I have already answered

your question. Yes, it could happen. It was not done on purpose.

Sir, the invention, your invention is how you generate the four layers; correct?

How we generate, yes, sir. I would say that."

Then the question following was, "Magna was able to create the claimed four-layer structure before December 2005; correct?"

And the answer is "yes."

Q. Turning to slide 22, what other resources did you rely on in forming your opinion?

A. Well, this is -- these are just some summary slides for different pieces of prior art. Starting from the upper left, we have Vaissiere, 2002, Suehiro in 2003, Lachmann in 2005, Engels in 2006, Takagi in 2004, Cornette in 2001, which we have already seen.

A physical product, the 2006 Volkswagen Passat, and Hein in 2006, Engels and Hein are presentations given at the same meeting in Germany in May of 2006.

Q. Turning to slide 23 what are you showing here?

JUDGE BHATTACHARYYA: There's an objection.

MR. LAMAGNA: I'm sorry. We're going to object to hearsay on that. I think he's referring to an excluded declaration.

JUDGE BHATTACHARYYA: Could you identify your

name for the record. We don't seem to have it.

MR. LAMAGNA: Raymond LaMagna on behalf of Complainants.

JUDGE BHATTACHARYYA: Thank you.

Ms. Park.

MS. PARK: Your Honor, Dr. Brown will explain why he believes these were presentations later on in his slides, so he will have more basis to explain why --

JUDGE BHATTACHARYYA: Okay.

So you're representing that he's not relying on the declaration that was excluded, or not referring to that declaration?

MS. PARK: Right, he's not relying on that declaration.

JUDGE BHATTACHARYYA: All right.

Based on the representation, you may proceed for now.

BY MS. PARK:

Q. Turning to slide 23, what are you showing here?

A. This is a process specification for Usibor 1500 provided by Magna for Chrysler products. I just point out that this is a set of processing conditions for the steel product with an origination date of August 26, 2004.

Q. Why are you showing this process specification for Magna?

A. Oh, it just demonstrates that Magna was making product for Chrysler using this product before the priority dates of the patent -- priority date of the patents.

Q. Turning to slide 24, has Dr. Fekete demonstrated that the accused products infringe the asserted claims?

A. No, I believe that his failure to provide any information or data for the VF 9 means that the VF 9 does not infringe the patents.

Q. Turning to slide 25, what about the VF 8 parts, has Dr. Fekete demonstrated that those parts infringe the asserted patents?

A. No. It's my opinion that he has not, for two reasons.

One is, to me, it's my opinion that you can't form an opinion associated with these products by examining one small microstructure from that component. The scale of these components are feet, multiple feet, and the scale of the images that we're looking at, as we look at these scanning electron micrographs, are very small.

The comment has been made earlier that a human hair has the width of 60 microns. I'll plead guilty. I think I provided that information. It's my hair which has a diameter of 60 microns. Other people may have more or less.

But across an entire component, one image is

just not sufficient.

The other issue is I don't believe that by comparing one of these images to Figure 1 of the patent is adequate, either.

Q. Is there any other evidence to support your opinion?

A. Well, I'll say that I believe that Dr. Drillet, in his deposition, agrees with that, and this is just a portion of his deposition, an excerpt.

"Question: How do I know whether a band of intermetallic compound is a layer or a phase?"

And his answer is, "I can't say based on an image. A multilayer structure of coating has to be the same across the entire part. It's not enough, one picture."

Q. Let's talk about your noninfringement opinion.

What is your opinion on whether the accused products infringe the asserted claims?

A. It's my opinion that the product does not infringe.

Q. Turning to slide 29, what are you showing here?

A. Well, this slide and the next just provides my use or interpretation of the different claims -- claim terms, I'm sorry -- that I use within the patent. In most cases, plain and ordinary meaning.

Q. Turning to slide 31, what are you highlighting here?

A. Well, this is just my highlighting of three limitations of Claim 1 of the '602 patent.

It is a representation of the three claims which I think are failed to be satisfied by Dr. Fekete's analysis for the reasons which I just provided.

Q. Turning to slide 32, how did you come to the conclusion that Dr. Fekete has not demonstrated infringement for the claimed layers?

A. Well, this circles back to what I had said earlier.

His statement in his report is, "I compared the SEM micrographs taken of the VinFast parts with the four-layer structure depicted in Figure 1 of the asserted patents, which Mr. Drillet confirmed at deposition showed a four-layer structure."

My contention is you can't do that, and I believe Dr. Drillet agrees, and I believe Dr. Raabe agrees that you can't do that with one image.

Q. How do you know he only relied on a single SEM per physical part?

A. Well, my understanding is that this is a summary of the different VinFast parts that were removed and tested as part of the investigation by Dr. Fekete.

It's my understanding that in his report, he provides one image per part to support his contentions.

Q. Sometime doesn't he provide two images for the same part number? Why do you say he only relies on a single SEM?

A. Oh. Right. There are multiple SEMs for the same part number, but they are -- though the same part number, they are different parts. So they are repeats of the same part number.

So, I mean, to be more accurate, it's one SEM per physical part examined.

Q. Turning to slide 35, did you rely on any other testing to form your opinion?

A. Yes. Yes, I did.

I relied upon testing performed by Dr. Bradley on extracted parts from a VinFast vehicle, and this provides SEM images from his examination. And I consider these not to be a four-layer structure. If we were to use Dr. Fekete's criterion, to me, these would resemble Figure 2 of the patent, not Figure 1.

Q. Turning to slide 36, did you rely on any other SEMs to form your opinion?

A. Yes.

This is just a collage of different SEM images taken by Dr. Bradley on different part numbers from the

VinFast vehicle -- excuse me -- again, showing the island structure, rather than resembling the four-layer structure claimed in the patent.

Q. Turning to slide 37, what are you showing here?

A. Well, this is just my indication of what I said earlier, that the inability to prove that one infringes based on one image means that limitation 1(d), (e), and (f) are not met by the VinFast product.

Q. What are you showing here on slide 38?

A. This is Claim 21 and Claim 24 of the '602 patent. It's my assertion that the three limitations indicated in both claims fail for the same reason.

Q. What are you showing here on slide 39?

A. Then, finally, for Claim 1 of the '227 patent, for the same reason, we fail to establish that the VinFast product infringes based on those layers as well.

Q. In summary, what is your opinion on noninfringement?

A. So in summary, I believe that the VinFast product does not infringe either patent.

Q. Let's move on to your invalidity opinion.

Turning to slide 41, what did you look into as part of your invalidity analysis?

A. Well, I looked at prior art, and we've seen this slide already, and we'll go through each of these in turn.

Q. Turning to slide 42, let's start with Cornette. What are you showing here?

A. This is the SAE paper from 2001, with Cornette as the first author, showing processing conditions for the Usibor 1500, published by Usinor, showing their labeled four-layer structure.

Q. Turning to next slide, 43, what are you showing here about Vaissiere?

A. This, again, is the SAE technical paper from 2002, once again, describing processing of Usibor 1500. Again, providing processing conditions to give the desired properties in terms of martensite strength for the steel sheet.

And then once again, this is published with Renault and Peugeot authors.

Q. Turning to slide 44, moving on to Suehiro. What are you showing here?

A. Well, this is a Nippon Steel technical report from 2003. Suehiro performed a number of studies associated with the Usibor 1500 describing properties, processing conditions, and microstructure.

JUDGE BHATTACHARYYA: I believe there's an objection. Sorry to interrupt.

MR. LAMAGNA: Yeah. Your Honor, we object to the lack of foundation with respect to the date that the --

the testimony from 2003.

JUDGE BHATTACHARYYA: From 2000, you said?

MR. LAMAGNA: Yes. He testified that this reference was "from 2003," and we object that it lacks foundation.

JUDGE BHATTACHARYYA: From 2003. Okay.

BY MS. PARK:

Q. Dr. Brown, why do you believe this document is from 2003?

A. Well, I have collaborated with Nippon Steel. I have worked with people from Nippon Steel, and I'm familiar with the process of them producing these technical reports.

They are not internal technical reports. They're available to download sometime after their publication.

When I say "sometime" --

JUDGE BHATTACHARYYA: Mr. LaMagna.

MR. LAMAGNA: Yeah. We move to strike this. This response is not in his report.

JUDGE BHATTACHARYYA: Ms. Park.

MR. LAMAGNA: He does not lay any of this foundation in his report.

MS. PARK: I'll ask a different question, Your Honor.

JUDGE BHATTACHARYYA: Excuse me?

MS. PARK: That's fine. I'll ask a different question.

JUDGE BHATTACHARYYA: Okay.

Then shall we strike the last question and answer?

MR. LAMAGNA: Yes. Thank you, Your Honor.

JUDGE BHATTACHARYYA: We're striking the last question and answer, and you can reask the question.

BY MS. PARK:

Q. What is the date of this publication on the face?

A. July 2003.

Q. Is that the basis of your opinion that it was available from 2003?

A. Yes.

Q. Can you please proceed and explain what you're showing here on slide 44.

A. Sure.

I may be repeating myself. So this is a study on Usibor 1500 indicating desired strength, conversion of the aluminum silicon coating to these intermetallic compounds, this iron-aluminum silicon phases through hot forming, and demonstrating that it has desirable properties, including paintability and weldability.

Q. Turning to slide 45, what are you highlighting

here?

A. Well, once again, this is an indication that they're working with Usibor 1500 through Nippon Steel, and he just states that this paper reports the work that the company has done on the characteristics required for the aluminized steel sheet products.

Q. Turning to slide 46, what are you showing here about Suehiro's disclosure?

A. There are two things I would like to highlight on this slide.

One is the left-hand chart, we don't have to worry about the curves on the plot, but I just wanted to highlight the heating rate.

So this is the rate with which the blank increases in temperature as it moves into the furnace, and the heating rate is listed at 10 degrees Celsius per second. So that's the temperature change per second, as it goes into the furnace.

Then the image on the right describes the resulting microstructure, and I would describe it as a four-layer microstructure after being heated at 950 Celsius for 30 seconds.

Q. Let's move on to Takagi.

What are you showing here on slide 47?

A. Takagi is a patent application published in

January of 2004. Takagi is with Nissan Motor Company and he describes an aluminum-coated structural member in production.

Q. Turning to slide 48, what does Takagi disclose?

A. Takagi describes an aluminum-coated steel sheet, once again providing a range of heating rate, once again as it goes into the furnace or the oven, in a range of 1 to 10 degrees Celsius per second. A temperature range of 900 to 950 Celsius for a duration of two to eight minutes.

Then, again, he describes a multi-layer structure resulting from that process.

Q. Turning to slide 49, what are you showing here about Engels?

A. The Engels paper is somewhat similar to the Suehiro in the sense that he considers a number of properties and processing conditions for a Usibor product. Presented, as I said, in May of 2006, he discusses relevant processing conditions.

JUDGE BHATTACHARYYA: Mr. LaMagna.

MR. LAMAGNA: Again. We don't think there's a foundation that's laid for whether -- when it was presented.

JUDGE BHATTACHARYYA: Ms. Park, would you like to lay a foundation?

BY MS. PARK:

Q. Dr. Brown, what are you showing here on the upper right of your slide?

A. I'm showing the date of the conference of May 9 and 10th of 2006.

Q. Where in the document is this information present on?

A. Oh. Sorry. I couldn't hear your question again.

Q. Sorry.

Where did you find this information from this document?

A. Oh. On the cover pages of the paper.

MR. LAMAGNA: Again, so if he's limiting his opinion to just that he recognizes that that's what is written on the document, that's fine, but he was not present at this event to testify directly that it was actually presented. So we would move to strike that he is testifying that it was presented.

JUDGE BHATTACHARYYA: The objection is overruled. You can explore that issue on cross-examination.

BY MS. PARK:

Q. Turning to slide 50, what are you showing here?

A. Well, the top chart is a table of composition for different layers that Engels has evaluated, and what he

describes as layers on the surface of the sheet.

He describes five layers. Layer number 2 is so thin it's unmeasurable, but he describes a layered structure. The image below is not a very good quality micrograph of that coating.

Q. Turning to slide 51, what are you showing here about Hein?

A. Hein is a paper from that same meeting entitled "Hot-Stamping of Usibor 1500P: Part and process analysis based on numerical simulation." I just point out that another author is Kefferstein from Arcelor.

In that publication, there is, again, a presentation of a four-layer structure.

Q. Turning to slide 52, what are you showing here about Lachmann?

A. This is a lecture by Carsten Lachmann from Volkswagen at an invited meeting from January 2005. It, again, describes a process flow associated with Usibor where, as you can see from the highlighted condition in the furnace, it provides a temperature range, 900 to 950 Celsius.

Q. Turning to slide 53, what are you showing here about the Passat?

A. Well, this is a summary slide describing the 2006 Volkswagen Passat. The upper left-hand box is an

excerpt from a Passat 2006 service training describing components that are manufactured from ultrahigh strength hot-formed steel panels.

The one -- the image next to it is one of Dr. Bradley's microstructures that he measured from a coupon from that vehicle. There's an image of the vehicle underneath it.

We have already seen images of this portion of the B-Pillar from the vehicle, and that was extracted from Mr. Bartosek's declaration.

The right-hand image is just a schematic showing where the B-Pillar actually sits in the vehicle.

Q. Based on the prior art references that we just went through, what can you tell about the state of the art?

A. Well, it's my opinion that the processing of Usibor 1500 prior to the priority date of the patents clearly demonstrates that it was possible to form a four-layer structure with known processing conditions.

Q. Let's move on to your element-by-element analysis.

Did you prepare some slides for the Passat?

A. I did.

Q. Turning to slide 55, what are you showing here about the 2006 Passat?

A. So there's a number of pieces of information

here. There's just an image of the same vehicle, and this is a collection of measurements that were taken by Dr. Bradley during his investigation.

The upper right-hand is an image of the microstructure taken with a scanning electron microscope.

The middle is a table of different elemental compositions, weight percentage within the base steel.

The lower left is what we have seen before, compositional profile, where we start from the left, which is the external surface of the coating, moving in, and until we end at the base steel.

Then the lower right is a series of measurements of thicknesses, by coating thickness and the entire coating, indicating individual measurements and averages.

MS. PARK: I apologize, Your Honor. The clicker is not working.

BY MS. PARK:

Q. Turning to slide 56, were there any prior art publications about hot-stamping of Usibor 1500 for the Passat or Volkswagen?

A. Yes.

Hein, which is the article that we talked about very briefly, has the -- included images in the language, the pre-coated solution, Usibor 1500P is more and more specified and used in the new European and US cars. For

example, Usibor 1500P is used in the pillars -- for the pillars and sills of the new Volkswagen VW Passat, and provides Figures 9 and 10 below.

Then as we have seen before, Lachmann also, I believe, 2004, provided this presentation from Volkswagen discussing the hot-stamping of Usibor.

Q. Turning to slide 57, how do you know the Passat was sold in the US?

A. Well, this is a Carfax history for the Volkswagen pictured on the left. In that document it indicates that this vehicle was offered for sale by Riverbank Volkswagen in Stamford, Connecticut, on August 16, 2005.

Q. Turning to slide 58, what does the preamble state?

A. Preamble states "a pre-coated steel product comprising" -- this is a pre-coated product.

Q. Is the Passat a pre-coated steel product?

A. Yes.

Q. Turning to slide 59, what are you showing here about element 1(a)?

A. 1(a) states, "a strip of base steel having a first and second side." So it's a strip of steel that, of course, has to have a first and second side.

Q. Does the Passat have a strip of base steel

having a first and second side?

A. Yes.

Q. Turning to slide 60, what are you showing here about element 1(b)?

A. Well, 1(b) requires a coating on at least one of the first side strip of base steel, and the second side of the base steel, where the coating results from interdiffusion between the base steel and an aluminum or aluminum alloy pre-coating.

Here we see the microstructure which results from the interdiffusion of the two -- or actually, three elements, aluminum and silicon moving in towards the steel, iron from the steel moving into the aluminum forming these layers.

Q. Turning to slide 61, what are you showing here?

A. This is just a compositional profile that Dr. Bradley, I believe, already presented demonstrating that this interdiffusion occurs. Because before it goes into the furnace, it's all aluminum on one side -- aluminum silicon, excuse me, and then all steel on the other, and here we see this combination of the elements which occur due to the high temperature interdiffusion of the different elements, aluminum and silicon moving in from the left, iron moving in from the right.

The interdiffusion layer that you see here under

1 is a canonical representation of that interdiffusion process.

Q. Turning to slide 62, what are you showing here about claim element 1(c)?

A. 1(c) requires an interdiffusion layer having a first mean iron composition. So that would be layer 1, with the mean iron composition of 83.3. So that is satisfied.

Q. Turning to slide 63, what are you showing here about claim element 1(d)?

A. 1(d) requires an intermediate layer having a second mean iron composition different from the first mean iron composition.

So layer 2 has a mean iron composition of 45.6, which is different from 83.3, so that is satisfied.

Q. Turning to slide 64, what are you showing here regarding element 1(e)?

A. 1(e) requires an intermetallic layer having a third mean iron composition different from the first and second mean iron compositions. The third mean iron composition being higher than the second.

So 61.5 is different from the compositions of the -- iron compositions of the previous two, and it is also higher than the 45.6 of layer 2.

So 1(e) is satisfied.

Q. Turning to slide 45, what are you showing here regarding claim element 1(f)?

A. 1(f) requires a superficial layer having a fourth mean iron composition different from the third mean iron composition.

So layer 4 has a different mean iron composition, and is different from the third, 45 being different from the 61.5, so that is satisfied.

Q. Turning to slide 66, what are you showing here regarding claim element 1(g)?

A. 1(g) requires the coating having a thickness greater than 30 microns, and this is just a representation of the thickness measurements that Dr. Bradley did indicating that the thickness, both at every location and on average, are greater than 30 microns.

Q. What is the average thickness?

A. The average thickness being 37.9. Again, greater than 30 microns.

Q. Turning to slide 67, in summary, what is your opinion?

A. In summary, the Volkswagen Passat satisfies each portion of Claim 1 of the '602 patent.

Q. Do you understand whether AM challenges these claim elements are met?

A. Yes.

Q. Do you believe AM challenges these claim elements are met?

A. Yes, I believe they do.

Are you saying, AM challenges whether these claim elements are met?

Q. Let me reask that.

Do you understand whether Complainants challenge whether these claim elements are met?

A. Oh, I'm sorry.

No. It's my understanding that Dr. Raabe has not challenged whether these claim elements are met.

Q. Does Complainant challenge any of the other asserted claims are met by the Passat?

A. No. It's my understanding that they do not.

Q. Turning to slide 68, what are you showing here regarding Claim 2?

A. Claim 2 is a requirement that the pre-coated steel product, as recited in Claim 1, wherein layers (c) and (d) are quasi-continuous by occupying at least 90 percent of a level corresponding to each of the layers, (c) and (d), wherein less than 10 percent of layer (c) is present at an extreme surface of the product.

From this SEM, it is apparent that the layers (c) and (d) are quasi-continuous because they occupy more than 90 percent of a level corresponding to each layer, and

there is certainly less than 10 percent of layer (c) on the external surface of the product.

So Claim 1 -- Claim 2, excuse me, is satisfied.

Q. How did you determine this limitation is met?

A. I followed the same process that Dr. Fekete did. By inspection, you can see that less than 10 percent of the external surface is occupied by layer 3.

Q. What about the level requirement?

A. Oh. I measured the intersection of a level line across layer (c) and layer 4 separately, and determined that they occupied more than 90 percent of that level, respectively.

Q. Turning to slide 69, what are you showing here regarding Claim 3?

A. Well, Claim 3 just sets up compositional ranges for the different elements in the base steel. So now we have left the coating, and now we're moving into the steel underneath.

The table to the right provides the measured compositions in the base steel provided in Dr. Bradley's report.

Q. Turning to slide 70, what are you showing here?

A. So now we're just going to step through each of the elements.

Slide 70 compares the carbon content to the

required range of .15 to .5. The carbon in the Passat is .215, so it's satisfied.

71, slide 71 provides a compositional range of .5 percent to 3 percent. The Passat has 1.271, so that is satisfied.

Slide 72, the range for silicon is .1 percent to .5 percent. The Passat possesses a value of .268. The silicon range is satisfied.

Slide 73, the chromium composition has to be a range of .01 percent to 1 percent. The chromium in the Passat is 0.191, so that is satisfied.

Slide 74, titanium has to be less than .2 percent. In the Passat, the percentage composition is .037. That is less than .2 percent, so that is satisfied.

Similarly, on slide 75, aluminum has to be less than .1 percent. The Passat has an aluminum composition of .034. That range is satisfied.

Slide 76, phosphorus has to be less than .01. The Passat has .012, so the phosphorus requirement is satisfied.

Slide 77, sulfur has to be less than .05 percent. The Passat has a sulfur concentration of .0016, so the sulfur concentration requirement is satisfied.

And finally, for boron, the boron compositional

range has to be between .0005 percent and .08. The boron composition of the Passat is .002, so that is satisfied.

Then on slide 79, the remainder is iron, and then there are traces of other elements which are inherent in iron because of its processing.

Q. Turning to slide 80, what are you showing here regarding Claim 4?

A. Well, to shortcut this process, I have color-coded the Passat chemistry values by color, comparing it to the corresponding element with the colored box next to it.

So one can go through those element -- either the element ranges, and compare them with the compositional values for the Passat, and see that those requirements each are satisfied.

Q. Just for the record, if Your Honor wants to do her own comparison, where could she look at?

Let me ask the question again.

Dr. Brown, if Your Honor wants to do her own comparison, where could she look at?

A. Oh, I'm sorry.

On Exhibit RX-87.

Q. Turning to slide 81, what are you showing here regarding Claims 7 and 8?

A. So the '602 Claims 7 and 8 set up a minimum

requirement for the ratio of titanium to nitrogen, and in this case, the requirement is that the ratio of titanium to nitrogen in weight percent has to be greater than 3.42, and if one looks at the ratio in the Passat, if we divide 0.037 by 00 -- .006, the value is around 6.

So both of these claims are satisfied.

Q. Turning to slide 82, what are you showing here regarding Claims 9, 10, 18 and 26?

A. Each of these claims set up specifications for the thickness of layer (a), the interdiffusion layer.

Claim 9 requires a thickness less than 15 microns.

Claim 10 has a requirement that layer (a) have a thickness less than 10 microns.

Claim 18 requires the interdiffusion layer, which is the same, has the thickness from 1 to 15 microns.

And Claim 26 requires that layer (a) has a thickness less than 15 microns.

We have seen this table that Dr. Bradley having done multiple measurements across the thickness of a micrograph demonstrates that the thickness is 9.4 microns, each of which satisfy these -- which satisfies each one of these claims.

Q. Turning to slide 83, what are you showing here regarding Claims 20 and 22, support the mean iron

composition compared to the third mean iron composition?

A. Sure.

Claim 20 requires the fourth mean iron composition to be lower than the third mean iron composition. So layer 4, 45, is less than layer 3, 61.5.

Claim 22 also imposes that requirement, so both claims are satisfied.

Q. Turning to slide 84, what are you showing here?

A. These are two independent claims for the '602 patent.

We've talked through Claim 1. Claim 22 is posed next to it, and I have just highlighted the one limitation which is different between the two.

1(f) says, the superficial layer having a fourth mean iron composition different from the third mean iron composition. 21(f) says, a superficial layer having a fourth mean iron composition different from the first, second, and third mean iron compositions.

Q. So turning to slide 85, why do you skip 21(pre), (a), (b), (c), (d) and (e), and go straight to 21(f)?

A. So as I've said, they're the same as Claim 1, and we have already demonstrated that those are satisfied.

And 21(f) states that we have a fourth mean iron composition different from the first, second, and third, and we can see that from the average compositions provided

by Dr. Bradley's study, 45 is different from 61.5, which is different from 45.6, which is different from 83.3.

So limitation 21(f) is satisfied.

Q. Turning to slide 86, what are you highlighting here?

A. In slide 86, we're comparing, again, Claim 1, but this time with Claim 24.

The preamble, 1(a), 1(b), and 1(g) are all the same. And we have seen that Claim 1 already has been satisfied, so those portions of Claim 24 are satisfied.

Then the four remaining limitations are the same except Claim 1 requiring mean iron compositions and relative mean iron compositions, this time, state mean aluminum compositions and relative mean aluminum compositions.

Q. So turning to slide 87, what are you showing here regarding claim element 24(c)?

A. 24(c) sets up a requirement for having a mean aluminum composition in the interdiffusion layer. 12.6 provides that mean composition. That is satisfied.

Q. Turning to slide 88, what are you showing here regarding element 24(d)?

A. Limitation 24(d) requires a second mean aluminum composition in the intermediate layer being different from the first mean aluminum composition.

So 53.0 is different from 12.6. That limitation is met.

Q. Turning to slide 89, what are you showing here regarding element 24(e)?

A. 24(e) requires an intermetallic layer having a third mean aluminum composition different from the first and second mean aluminum compositions.

So here you see layer 3 has an aluminum -- mean aluminum composition of 29.2, which is different from 53.0, and, again, different from 12.6. So 24(e) is satisfied.

Q. Turning to slide 90, what are you showing here regarding claim element 24(f)?

A. 24(f) specifies that a superficial layer, the outermost layer has a fourth mean aluminum composition different from the first, second, and third. Excuse me.

The second mean aluminum composition being greater than the third mean aluminum composition. So if you look at compositions, they are each different from another. 52.4 versus 29.2 versus 53 versus 12.6.

And the second mean aluminum composition, 53.0 is greater than the third, which is 29.2.

So limitation 24(f) is satisfied.

Q. In summary, what is your opinion?

A. Well, in summary, Claim 1 is met by the Passat. Claim 21 is met by the Passat, and Claim 24, the three

independent claims are all met by the Passat.

Q. What about the dependent claims?

A. Okay.

As we've gone through these, Claim 2, 3, 4, 7 and 8, are satisfied. Then Claims 9, 10, 18, 20, 22, and 26 are satisfied as well.

Q. Let's move on to the '227 patent. We now have Claim 1 of the '602 and '227 patent. What are you highlighting?

A. Well, I've highlighted -- color-coded a number of things.

One is Claim 1 has limitations associated with the interdiffusion, intermediate, intermetallic and superficial layers in terms of mean compositions, relative mean compositions.

Claim 1, limitations 1(e), 1(f), 1(g) and 1(h) only requires that those layers exist. Therefore since we have shown that the layers exist in Claim 1, those limitations in Claim 1 -- I'm sorry -- shown that those limitations have been satisfied in Claim 1 of the '602 patent, Claim 1 of the '227 patent are automatically satisfied.

Then we have a limitation 1(i) from Claim 1 of the '227 patent where layers, (a), (b), (c), and (d) each have a different mean composition from one another.

Q. What about the other limitations that you did not describe; how did they compare to each other?

A. The other limitations are the same, with a slight difference in language in the preamble.

Claim 1 dictates a pre-coated steel product. Claim 1, excuse me, of the '602 patent, describes a pre-coated steel product.

Claim 1 of the '227 describes a hot-stamped coated steel product, which I consider to be automatically met.

Q. Turning to slide 97, what does the preamble state?

A. Well, as I stated, Claim 1 of the '227 patent claims a hot-stamped coated steel product, which is satisfied by a hot-stamped Usibor 1500.

Then 1(i) requires that the composition of levels (a), (b), (c), and (d) each have different mean composition from one another, and if one looks at the mean iron composition, and the mean aluminum composition and the four layers from the 2006 Passat, you can see that they are different, and therefore -- one from the other, and therefore, each of the layers have a different mean composition from one another, and therefore, 1(i) is satisfied.

Q. Is the Passat a hot-stamped coated steel

product?

A. Yes. It includes the hot-stamped coated steel product.

Q. Turning to slide 98, what are you showing here regarding Claim 2?

A. Claim 2 of the '227 patent requires that the hot-stamped coated steel product, according to Claim 1, wherein said layer (a) has a thickness that is less than half the said thickness of the coating.

As we can see from the measurements done by Dr. Bradley, 9.4 is certainly less than half of 37.9. So Claim 2 is satisfied.

Q. Turning to slide 99, what are you showing here regarding Claims 4 and 5 of layer (a) thickness.

A. Claim 4 requires that said layer (a) has a thickness of 17 microns or less. Claim 5 requires that said layer (a) has a thickness of 15 microns or less, and 9.4 is less than both of those values, and therefore, Claim 4 and Claim 5 are satisfied.

Q. Turning to slide 100, what are you showing here regarding Claim 7?

A. Claim 7 of the '227 patent states that we have this hot-stamped coated steel product where the interdiffusion layer has a first mean iron composition. The intermediate layer has a second mean iron composition

less than the first, so 45.6 is less than 83.3.

When the intermetallic layer has a third mean iron composition, which is denoted as 61.5. The third mean iron composition less than the first mean iron composition, 61.5 being less than 83.3. And greater than the second mean iron composition, 61.5 being greater than 45.6, and lastly, the superficial layer has a fourth mean iron composition, the fourth mean iron composition being less than the third mean iron composition, and 45.0 is less than 61.5.

So Claim 7 is satisfied.

Q. Turning to slide 101, what are you showing here regarding Claims 8 and 11?

A. Claim 8 states that wherein layer (a) has a thickness that is greater than layer (b), and one can see that 9.5 is greater than 9.0, Claim 11 requires that layer (a) has a thickness that is greater than layer (b), that is greater than the thickness of layer (c), that is greater than the thickness of layer (d). 9.5 is greater than 9.0, and 6.7 and 9.2, so Claim 11 is satisfied as well.

Q. Turning to slide 102, what are you showing here regarding Claims 9, 10, and 13?

A. Claim 9 requires layer (a) have a thickness that is greater than the thickness of layer (c), so 9.4 is greater than 3.9.

Claim 10 requires layer (a) has a thickness that is greater than the thickness of layer (d), 9.4 greater than 9.3.

Claim 13 requires layer (a) have a thickness that is more than twice the thickness of layer (c).

So layer (c) is 3.9. We doubled that. That is 7.8.

So layer (a) has a thickness that is greater than twice the thickness of layer (c). So Claim 13 is satisfied.

Q. Turning to slide 103, what are you showing here regarding Claim 15.

A. Claim 15, so now we're leaving the coating, and we're going back to the base steel.

Claim 15 requires the hot-stamped coated steel product is fully martensitic. I'm providing an image of the microstructure of the underlying steel, which is characteristic of a martensitic microstructure.

So Claim 15 is satisfied.

Q. How do you know it is fully martensitic?

A. The microstructure is characteristic. Martensite has a special acicular. I think people have used that term before microstructure. We can see that in this microstructure.

Q. What are some of those characteristics?

A. I'm sorry. Can I hear that again?
Q. What are some of those characteristics of a fully martensitic structure?
A. Oh, it's this layered acicular, sort of needle-like features.
Q. Turning to slide 104, what are you showing regarding Claim 16 of the '227 patent?
A. Well, this is Claim 16, which provides compositional requirements for the base steel in terms of elemental ingredients. If you compare that with Claim 3 of the '602 patent, you can see that they're identical.
Since we've already demonstrated that the Passat satisfies Claim 3 of the '602, it also satisfies Claim 16 of the '227.
Q. Now, on slide 105, what are you showing here regarding Claim 17?
A. In a parallel way, to make this process more straightforward, I have color-coded the element in the compositional table from the Passat, and color-coded the compositional range in the -- in Claim 17, so one can just match the colors, and determine that the Passat satisfies the compositional ranges of Claim 17, which is included in Exhibit -- I'm sorry, RX-87.
Q. Turning to slide 106, what are you showing here about Claim 24?

A. Claim 24 just sets a minimum mechanical strength for the hot-stamped coated steel product, to be better -- I'm sorry, greater than 1000 megapascals.

Dr. Bradley had a sample from the material that he was sent tested, and the strength was measured to be 1,434.11 megapascals, which is substantially greater than a thousand, and therefore Claim 24 is satisfied.

Q. In summary, what is your opinion?

A. It's my opinion that Claim 1 the '227 patent is satisfied by the Passat.

Then the subsequent Claims 2, 4, 5, 7, 8, 9, and 10 are satisfied as well. Then, moving on if you look at Claims 11, 13, 15, 16, 17, and 24, those are also satisfied.

Q. Do Complainants challenge any of the claim limitations are met by the Passat?

A. It's my understanding they have not.

Q. Let's move on to your next reference.

MS. PARK: Your Honor, we are about to move on to a different ground. Would you like to break for the day?

JUDGE BHATTACHARYYA: I think that's a good idea. It's two minutes early. We'll go an extra two minutes tomorrow. How is that? Thank you.

Thanks, everybody. We're adjourned for the day.

(Whereupon, recess was taken at 5:14 p.m., to resume the following day at 9:30 a.m.)

C O N T E N T S

WITNESS	DIRECT	CROSS	REDIRECT	RECROSS
James Fekete PhD	588	607		
Nguyen Thi Lan Anh	731	737		
John Phillip Bradley PhD	740	764	797	801
Stuart Brown, PhD	803			

AFTERNOON SESSION: 730

CONFIDENTIAL SESSIONS: 588-606; 676-682; 707-714; 762-763;

E X H I B I T S

EXHIBIT NO:	RECEIVED
JOINT The Parties' Joint List Of Admitted Exhibits, Day 2	730

E X H I B I T S

EXHIBIT LISTS SUBMITTED FOR ADMISSION:

The Joint List of Admitted Exhibits (Day 2)

CX-0031C

CX-0034C

CX-0035C

CX-0090

CX-0092C

CX-0093C

CX-0094C

CX-0095C

CX-0096C

CX-0097C

CX-0098C

CX-0099C

CX-0100C

CX-0101C

CX-0103C

CX-0104C

CX-0105C

CX-0106C

CX-0108C

CX-0109C

CX-0111C

CX-0113

CX-0114C
CX-0118C
CX-0121C
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CPX-0053

CERTIFICATE OF REPORTER

TITLE: CERTAIN HIGH-STRENGTH ALUMINUM OR ALUMINUM-ALLOY COATED STEEL, AND AUTOMOTIVE PRODUCTS AND AUTOMOBILES CONTAINING SAME

INVESTIGATION NO: 337-TA-1402

HEARING DATE: Wednesday, March 5, 2025

LOCATION: Courtroom A

NATURE OF HEARING: Evidentiary Hearing

I hereby certify that the foregoing/attached transcript is a true, correct and complete record of the above-referenced proceedings of the U.S. International Trade Commission.

Date: March 5, 2025

SIGNED: _____

Signature of the Contractor of the Authorized Contractor's Representative
1150 Connecticut Avenue, N.W., Suite 305
Washington, D.C. 20036

I hereby certify that I am not the Court Reporter and that I have proofread the above-referenced transcript of the proceedings of the U.S. International Trade Commission, against the aforementioned Court Reporter's notes and recordings, for accuracy in transcription in the spelling, hyphenation, punctuation and speaker identification and did not make any changes of a substantive nature. The foregoing/attached transcript is a true, correct and complete transcription of the proceedings.

SIGNED: _____

Natalie Bourlier, Proofreader

I hereby certify that I reported the above-referenced proceedings of the U.S. International Trade Commission and caused to be prepared from my tapes and notes of the proceedings a true, correct and complete verbatim recording of the proceedings.

SIGNED: _____

Marjorie Peters, FAPR, RMR, CRR Court Reporter