UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARROWS UP, LLC

Petitioner

v.

OREN TECHNOLOGIES LLC,

Patent Owner

Case No.: IPR2018-01230

Patent No.: 9,248,772

Videotaped Depositon of ROBERT SCHAAF

Chicago, Illinois

Friday, April 12, 2019 - 9:07 a.m.

Reported by:

Stephanie A. Battaglia

Job no: 25028

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARROWS UP, LLC

Petitioner

v.

OREN TECHNOLOGIES LLC,

Patent Owner

Case No.: IPR2018-01231

Patent No.: 9,617,066

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARROWS UP, LLC

Petitioner

v.

OREN TECHNOLOGIES LLC,

Patent Owner

Case No.: IPR2018-01232

Patent No.: 9,682,815

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARROWS UP, LLC

Petitioner

v.

OREN TECHNOLOGIES LLC,

Patent Owner

Case No.: IPR2018-01233

Patent No.: 9,914,602

The videotaped deposition of ROBERT SCHAAF, called by the Patent Owner for examination, taken before Stephanie A. Battaglia, CSR and Notary Public in and for the County of DuPage and State of Illinois, at 131 South Dearborn Street, 30th Floor, Chicago, Illinois, on April 12, 2019, at 9:07 a.m.

PRESENT:

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ALSO PRESENT:

Mr. Jean-Louis Ziesch, Videographer

Ms. Stephanie A. Battaglia, CSR, RMR, CRR

I N D E X

THE VIDEOGRAPHER: This is Tape No. 1 of the videotaped deposition of Robert Schaaf in the matter of Arrows Up, et al., versus Oren Technology, et al., in the U.S. Patent and Trademark Office, Case Nos. IPR2018-01230 to IPR2018-01233.

This deposition is being held at 131 South Dearborn in Chicago, Illinois, on April 12, 2019, at approximately 9:07 a.m.

My name is Jean-Louis Ziesch from the firm of TransPerfect, and I am the Certified Legal Video Specialist. The court reporter is Stephanie Battaglia, in association with TransPerfect.

Will counsel please introduce yourself.

MR. JEDLINSKI: For Petitioner, Steve Jedlinski of Holland & Knight, and with me is Will Sterling as well from Holland & Knight.

MR. KANTAREK: For Patent Owner, Kyle Kantarek for Kirkland & Ellis, and with me is Joel Merkin.

THE VIDEOGRAPHER: Will the court reporter please swear in the witness.

ROBERT SCHAAF,

called as a witness herein, having been first duly sworn was examined and testified as follows:

EXAMINATION

BY MR. KANTAREK:

Q. Good morning.

A. Good morning.

Q. Can you please state your name for the record, spelling your last name.

A. Robert Schaaf, S-c-h-a-a-f.

Q. Mr. Schaaf, where do you live?

A. Huntington Beach, California.

Q. Where do you work?

A. Well, I kind of work in a lot of places, so.

Q. What is the name of the current company you work for?

A. Well, I just work for myself for a number of different organizations, you know, or law firms and whatever.

Q. What is your company's name?

A. I don't really have a company name.

Q. You just work for yourself?

A. Yes.

Q. You have been deposed before, correct?

A. Yes.
Q. I realize this might be a little repetitive, but I will just go through a few ground rules, is that all right?
A. Yes.
Q. You understand you are here under oath, correct?
A. Yes.
Q. You understand you have to testify truthfully?
A. Yes.
Q. Is there any reason you can think of that you wouldn't be able to give truthful testimony today?
A. No.
Q. And as a remainder, we have a court reporter here, the court reporter has a tough time with nonverbal answers, uh-huh/uh-uh, if you can answer yes or no where possible that would be great.
A. Okay.
Q. Please also make sure to let me finish my question and I will let you finish your answer so there is no crosstalk, okay?
A. Okay.
Q. If you don't say otherwise, I am going to assume you heard and understood my question, is that

all right?

A. Yes.

Q. And as a reminder you can ask for a break whenever you want, just if there is a question pending I will just ask that you answer the question before taking the break, okay?

A. That would be fine.

Q. So we have premarked a few exhibits.

(Document marked Schaaf Exhibit 1 for identification.)

MR. KANTAREK: Exhibit 1 is your declaration in the 1230 proceeding. This is IPR2018-01230. That is for the '772 patent.

(Document marked Schaaf Exhibit 2 for identification.)

BY MR. KANTAREK:

Q. And then Exhibit 2 is U.S. Patent No. 9,248,772. Is that okay if we call that the '772 patent?

A. Yes.

(Document marked Schaaf Exhibit 3 for identification.)

MR. KANTAREK: And Exhibit No. 3 is your declaration in the 1231 proceeding, which is regarding the '066 patent.

(Document marked Schaaf Exhibit 4 for identification.)

MR. KANTAREK: And then Exhibit 4 is the '066 patent itself, which is U.S. Patent No. 9,617,066.

(Document marked Schaaf Exhibit 5 for identification.)

MR. KANTAREK: Exhibit 5 is your declaration in the 1323 petition regarding Patent No. 9,682,815.

(Document marked Schaaf Exhibit 6 for identification.)

MR. KANTAREK: And Exhibit 6 is U.S. Patent No. 9,682,815.

(Document marked Schaaf Exhibit 7 for identification.)

MR. KANTAREK: And then Exhibit 7 is your declaration in IPR2018-01233, which is regarding U.S. Patent No. 9,914,602.

(Document marked Schaaf Exhibit 8 for identification.)

MR. KANTAREK: And, finally, Exhibit 8 is U.S. Patent No. 9,914,602.

BY MR. KANTAREK:

Q. In these IPRs generally how do you decide

which claims to focus on?

A. Well, I mean, there was independent claims and the claims that are there, I just focused on, you know, making sure we covered them all.

Q. So you were trying to cover every claim in every patent?

A. Yes.

Q. Did counsel tell you which claims to focus on?

A. No.

Q. So let's start with the 1230 proceeding, so Exhibit -- turning to Exhibit 1 that is your declaration in that proceeding, correct?

A. Yes.

Q. And -- can we call that the 1230 declaration?

A. Easier for me if you called it like the '772.

Q. That is fine as well, we will call it the '772 declaration, so that is Exhibit 1.

Directing you to the '772 declaration at Page 35, you opine that Claims 1 through 2 and 6 through 10 are rendered obvious by Sheesley, is that correct?

A. Page?

Q. Page 35?

MR. JEDLINSKI: Maybe just for the record, are you saying -- there is two page numbers.

BY MR. KANTAREK:

Q. I am sorry, yes, Page 35 of the actual declaration, not Page 38 of 85. Page 35.

A. On Page 34 it starts the challenged claims, is that --

Q. On 35 right above Paragraph 63 it is header.

You opine --

A. Maybe I have the wrong one here.

Okay, so where are we at now?

Q. On Page 35 it states Section XII, Grounds for Invalidity, correct?

A. Yes.

Q. Ground 1: Claims 1-2, 6-10, Are Rendered obvious by Sheesley, is that correct?

A. That's correct.

Q. What is your understanding of obviousness?

A. Well, I have it defined here earlier in the declaration of what I mean by obvious, in Paragraph 55, starting on Page 32, it says, "I have also been informed that a patent claim can be found to

be unpatentable as obvious where the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the relevant field. I understand an obviousness analysis involves a consideration of the scope and content of the prior art; the differences between the claimed inventions and the prior art; the level of ordinary skill in the pertinent art; and secondary considerations of non-obviousness, sometimes also called objective indicia of nonobviousness.

"I understand that a reason to combine prior art references must be shown. This reason to combine can come from a variety of sources, not just the prior art itself or the specific problem the Patentee was trying to solve. I understand that the references themselves need not provide a specific hint or suggestion of the alteration needed to arrive at the claimed invention; the analysis may include recourse to logic, judgment, and commonsense available to a skilled person that does not necessarily require explanation in any reference. It is also my understanding that where there is a reason to modify or combine the prior art to achieve the claimed

invention, there must also be a reasonable expectation of success in so doing."

Q. What --

A. I can go on, but.

Q. Specifically you mentioned reason to combine prior art references.

Do you agree it would be obvious to combine two references if they are in the same field?

A. Could you repeat that?

Q. Sure.

You mentioned -- you talked about reasons to combine prior art references. And my question is do you agree it would be obvious to combine two references if they are in the same field?

A. I would say there is a likelihood that that would be correct and not -- I think that that would be a good reason for it, yes, but it is not necessarily true, but it could be true.

Q. Do you agree that the obviousness inquiry relies on whether a person of ordinary skill in the art could provide references to teach limitations in the patent?

A. Well, I would think that it -- you would have to look at the two different ones and make a judgment on that.

Q. So my question is a little more general.

Are you generally -- you agree you are generally looking to see whether a POSITA -- which is a person of ordinary skill in the art -- could combine two references, correct?

A. Yes.

Q. So turning to Paragraph 27 of Exhibit 1 -- which is the '772 declaration?

A. Paragraph 27?

Q. Paragraph 27, I am sorry, that is Page 11.

A. Okay.

Q. You state your belief as to the relevant timeframe for your analysis. What is that belief based on?

A. Well, it is based on, I think, the overview -- I give an overview of the previous work and also of the patent, Oren patents themselves.

Q. So what is the timeframe based on?

A. Well, I think I covered that pretty well in the declaration itself.

Q. I am just asking you what the relevant timeframe for analysis as 2012 is based on.

A. Well, that, again -- again, I can read my declaration because it goes into the details of why

that was the -- starting on Paragraph 29 there, that, "The '772 patent, entitled Method of delivering, transporting, and storing proppant for delivery and use at a well site is directed to exactly that. The '772 patent claims priority to PCT Application, U.S. Patent" -- and then it gives numbers there.

"The earliest priority application the '772 patent claims is the U.S. patent application '937 filed on December 21, 2011. But none of the Challenged Claims are entitled to the '937 Application's filing date because the '937 Application does not disclose at least claim limitations [1a(i), [1b], and [1c]. None of these limitations appear in the '937 Application, which is significantly different from the specification of the '772 patent. The '937 Application describes only a vessel for proppant storage and provides no details on the logistics of delivering, transporting, and storing proppant for delivery and use at a well site, as is claimed in the '772 patent. Specifically, the '937 Application lacks disclosure of at least: vertically stacking a plurality of empty proppant containers in close proximity to a rail spur, filling the plurality of empty proppant containers with proppant from one or more proppant transporting rail vehicles thereby to

produce a plurality of proppant filled containers, and transferring the plurality of proppant filled containers with a loader onto one or more support platforms associated with one or more proppant transporting road vehicles.

"To the extent that Patentee argues that disclosure of only a vessel for proppant storage provides written description for these claim limitations, numerous references would anticipate the claims of the '772 patent, as they disclose a vessel for proppant storage.

"Accordingly, the earliest priority date the Challenged Claims are even arguably entitled to is March 22, 2012, the filing date of U.S. patent application 13/427,140. Accordingly, the earliest priority date the Challenged Claims are even arguably entitled to is March 22, 2012, the filing date of U.S. patent application 13/427,140."

Q. So the relevant timeframe for your analysis is based on the priority dates of the patents, correct?

A. It is based on March 22, 2012.

Q. So -- and then Footnote 2 you say your opinions regarding claim interpretation -- sorry, this is back at Paragraph 27.

Footnote 2 says, "My opinions regarding claim interpretation as stated herein would not be affected if the relevant time frame was 2011 rather than 2012."

Why would there be no effect to your claim interpretation?

A. Because the prior art all predates that, that date.

Q. So your statement is not that claim interpretation hasn't changed over that year, it is that the relevant prior art hasn't changed over those two years?

MR. JEDLINSKI: Objection, form; objection to the extent it mischaracterizes his testimony.

THE WITNESS: Could we repeat that question?

BY MR. KANTAREK:

Q. Sure.

So your statement is not that claim interpretation hasn't changed over that year, it is that the relevant prior art hasn't changed over that year?

MR. JEDLINSKI: Same objection.

THE WITNESS: I think there is two

questions there.
BY MR. KANTAREK:
Q. Okay.
So my first -- go ahead.
A. Can you --
Q. So I am just trying to determine why you don't think your opinions would change if the relevant timeframe changed in a year.
So is your statement -- are you suggesting that the prior art hasn't changed from 2011 to 2012?
A. That's correct.
Q. What about the prior art between 2010 and 2011, is that different --
MR. JEDLINSKI: Objection, outside the scope.
THE WITNESS: It would be -- I would have to check exactly the timeframe since I focus my timeframe on that 2011/2012 time period.
BY MR. KANTAREK:
Q. So you are limiting your opinions on claim interpretation as the 2011 to 2012 timeframe?
A. Basically that two-year period, yes.
Q. And in the '772 declaration you don't offer any opinions as to claim construction, correct?

A. That's correct, yes.

Q. So your Footnote 2 just discusses your opinions regarding claim interpretation and how they wouldn't change from the timeframe changed.

What about your other opinions in this declaration, would they be different if the relevant timeframe was 2011 rather than 2012?

A. It would be the same.

Q. What about if the relevant timeframe was 2010 instead of 2011?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Again, I focused on that two-year time period.

BY MR. KANTAREK:

Q. So if the board determined there was an earlier priority date than 2011, would your opinions change?

A. I don't know. I would have to reexamine my opinions at that point.

Q. Turning to Appendix A of the '772 declaration, that is at -- this is Page 80 of 85. This is your CV, correct?

A. Yes.

Q. You describe yourself as a petroleum and drilling engineer expert, correct?

A. That's correct.
Q. You are not an expert in trucking, correct?
A. I have used a lot of trucks so I know what is involved in trucking.
Q. But you are not an expert in trucking, correct?
MR. JEDLINSKI: Objection to the extent it calls for a legal conclusion.
THE WITNESS: I am an expert in truck handling logistics.
BY MR. KANTAREK:
Q. So you are an expert in proppant logistics?
A. I am an expert in logistics having to deal with the oil industry.
Q. Turning to Exhibit 2, which is the '772 patent, you can keep the declaration with you as well. You provide an opinion that Claim 6 is unpatentable, correct?
A. Yes.
Q. Now, your opinions on Claim 6 are at Pages 47 through 48 of your declaration, which is Paragraphs 82 through 84, correct?
A. Yes.

Q. So just as an administrative matter, when I am using the pages at the bottom right of the exhibit I will say of the second number, and if I am using pages just in the exhibit itself I will use just the number, does that work for you?

A. It is okay.

It is going to be confusing I think the whole way through, so bear -- I think we can both accept that fact.

Q. At 47, page 47 of the '772 declaration, you set out Claim 3, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I think you said set out Claim 3.

BY MR. KANTAREK:

Q. I am sorry.

At Page 47 you discuss Claim 6 of the '772 patent, correct?

A. That's correct, yes.

Q. And turning to the patent itself, the claims are at the end, correct?

A. Yes.

Q. This is Exhibit 2. So directing you to Claim 6, which is Column 10, starts at Line 56, it reads, "The method of Claim 1, further comprising:

Moving the plurality of empty proppant containers from the storage location, to the one or more proppant transporting rail vehicles and then to the one or more support platforms located on the one or more proppant transporting road vehicles." Correct?

A. Correct, yes.

Q. Specifically Claim 6 requires moving empty containers from a storage location to the one or more proppant transporting rail vehicles, right?

A. That's correct, yes.

Q. And then Claim 6 of the '772 patent requires moving those same empty proppant containers to support platforms on the proppant transporting road vehicles, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Yes.

BY MR. KANTAREK:

Q. These plurality of empty proppant containers are claimed earlier in Claim 1, correct?

A. Yes.

Q. This is the same for the one or more proppant transporting rail vehicles, correct?

A. What --

Q. My question is about antecedent basis. I guess I am asking you whether the one or more proppant

transporting rail vehicles described in Claim 6 were originally introduced in Claim 1?

A. Let me check, but I believe that's correct.

Yes.

Q. And that is the same for the one or more support platforms, correct?

A. Yes.

Q. The same is true of the one or more proppant transporting road vehicles?

A. Yes.

Q. Claim 6 of the '772 patent is directed towards moving an empty proppant container, right?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It starts out as moving empty proppant containers, if that is --

BY MR. KANTAREK:

Q. And it doesn't ever discuss moving full proppant containers, correct?

A. Proppant it doesn't say that it has full proppant containers.

Q. In fact, it says empty proppant containers, correct?

A. Well, it says empty proppant containers in the beginning of it, which would -- what you would

expect is that you would have empty containers.

Q. But Claim 6 doesn't ever describe filling these empty proppant containers, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Well, it doesn't say that specifically, but it is kind of inherently known that if you are going to move them to the rail vehicle and then onward that you are going to be doing something with them.

BY MR. KANTAREK:

Q. So your position is that Claim 6 requires moving empty containers to the rail vehicle filling them and then moving them to support platforms located on one or more proppant transporting road vehicles?

MR. JEDLINSKI: Objection, form, and to the extent it mischaracterizes his testimony.

THE WITNESS: That would -- the assumption would be is if you are going to move them that you are going to be doing something with them.

BY MR. KANTAREK:

Q. But this claim doesn't claim filling them, correct?

A. Well, it doesn't specifically say that, but that is what the implication is.

Q. You could move containers from a storage

location to rail vehicles and then to support platforms located on transporting road vehicles without filling them, correct?

A. You could do that, but in regards to what it is discussing that wouldn't make a lot of sense.

Q. Regardless of whether it makes sense, that is what this is claiming, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Basically it could mean whatever you want it to mean in that sense.

BY MR. KANTAREK:

Q. So it says moving the plurality of empty proppant containers from a storage location, correct?

A. Correct.

Q. To the one or more proppant transporting rail vehicles, correct?

A. Correct.

Q. And this is still referring back to the plurality of empty proppant containers, correct?

A. Correct.

Q. And then it says moving these same plurality of empty proppant containers to one or more support platforms located on the one or more proppant transporting road vehicles, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: That is what it says, yes.
BY MR. KANTAREK:
Q. So Claim 6 of the '772 patent claims moving these "empty proppant containers" through each of these steps, right?
MR. JEDLINSKI: Objection, form.
THE WITNESS: You could do that, but you can also -- it doesn't say that -- it doesn't limit what you can do.
BY MR. KANTAREK:
Q. It specifies that these containers are empty proppant containers, correct?
MR. JEDLINSKI: Objection, form.
THE WITNESS: It specifies that in the beginning, that is how they start out, but it doesn't specify them in the end.
BY MR. KANTAREK:
Q. It says moving the plurality of empty proppant containers from the storage location, correct?
A. Right.
MR. JEDLINSKI: Objection, asked and answered.
BY MR. KANTAREK:
Q. And then it says moving those same empty

proppant containers to the one or more proppant transporting rail vehicles, right?

MR. JEDLINSKI: Objection, form.

THE WITNESS: No, I don't see anywhere it says empty beyond that first sentence there.

BY MR. KANTAREK:

Q. So what proppant -- what do you think to the one or more proppant transporting rail vehicles is referring to?

A. Exactly what it says, to one or more of the rail vehicles.

Q. So it is moving what to the one or more proppant transporting rail vehicles?

A. The containers.

Q. And where in Claim 6 do you see it say the containers?

A. In the first sentence, moving the containers.

Q. The first sentence says "moving the plurality of empty proppant containers," correct?

A. Well, whether they are empty or full they are still containers.

Q. You would agree that the claim language doesn't say whether empty or full, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It doesn't specifically say what it is, that's correct.

BY MR. KANTAREK:

Q. In fact, the only thing it specifies with regards to empty or full is at the beginning it says empty proppant containers, correct?

A. That is correct, at the beginning.

Q. So the '772 patent, which is Exhibit 2, includes three figures, correct?

A. Yes.

Q. And Figure 3 of the '772 patent is an illustration of the system of the invention, correct?

MR. JEDLINSKI: Objection, form, calls for a legal conclusion.

THE WITNESS: It is an illustration of different elements of what is discussed in the patent.

BY MR. KANTAREK:

Q. Directing you to Column 6, Line 19, the '772 patent says Figure 3 --

A. Could you slow down so I can catch that and read it? Column 6.

Q. Directing you to Column 6, Line 19, the '772 patent states, quote, "Figure 3 is an illustration of the system of the present invention," correct?

A. Of the system of the present invention, yes.

Q. So Figure 3 shows -- turning back to Figure 3, Figure 3 shows containers marked with a 70, 72, a 74, and a 76, correct?

A. Yes.

Q. It also shows Vessel 62 at the top?

A. Yes.

Q. And Vessel 62 is in the nature of hoppers associated with a bulk material train, correct?

A. It is a train car, yes.

Q. And the bulk material train itself is labeled 64, correct?

A. I will have to check on the details.

Q. Directing you to Column 7, Line 56 through 57.

A. Okay.

The bulk -- 64 is the bulk material train.

Q. And bulk material train 64 is driven by engine 66, correct?

A. That's correct, yes.

Q. And that is located on rail spur 68, correct?

A. Yes.

Q. These containers marked 70, 72, 74 and 76 are in close proximity to vessel 62 of the bulk material train 64, right?

A. That's correct, yes.

Q. And these containers marked 70, 72, 74, and 76 are adjacent to the bulk material train 64, correct?

A. They are nearby.

Q. Directing you to Column 7, Line 65 -- I am sorry, Line 66, the '772 patent states "containers" --

A. Pardon?

Q. Directing you to Column 7, Line 66, are you there?

A. Yes, but --

Q. It reads, "Containers 70, 72, 74 and 76 can be located in proximity to the vessel 62 and adjacent to the bulk material train 64," correct?

A. Correct.

Q. So the containers marked 70, 72, 74 and 76 are adjacent to the bulk material train 64, correct?

A. They are nearby, yes.

Q. And you would say nearby and adjacent are synonyms, correct, in the context of the '772 patent?

A. In the context of this particular situation I would say correct.

Q. So Figure 3 also shows containers 90 and 92, correct?

A. Yes.

Q. And Figure 3 of the '772 patent shows truck 88 and tilting mechanisms 94 and 96, correct?

A. Yes.

Q. Figure 3 of the '772 patent shows containers 90 and 92 are removed from truck 88 and placed on tilting mechanisms 94 and 96, right?

A. Yes.

Q. These tilting mechanisms include a support platform pivotally connected to the frame?

A. Yes.

Q. The support platform allows the container to be tilted, right?

A. Yes.

Q. Figure 3 of the '772 patent shows containers on the support platforms?

A. Yes.

Q. And that is distinct from containers 70, 72, 74, and 76, which are in a different location?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Yes.

BY MR. KANTAREK:

Q. Container 70, 72, 74, and 76 are in close proximity to the support platforms?

A. I don't think that the thing shows that, but -- is there a question there?

Q. Would you say that containers 70, 72, 74, and 76 are in close proximity to the support platforms?

A. They could be, but I am not -- I won't draw any conclusion on that.

Q. In any event, containers 70, 72, 74 and 76 are not on the support platforms, correct?

A. That's correct, as drawn, yes.

Q. But you wouldn't want them too far away from the support platforms, right?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: I think it you would have to define what that means, be more precise in that answer.

BY MR. KANTAREK:

Q. So containers 70, 72, 74, and 76, if they are eventually meant to be placed on support platforms -- I am sorry, on tilting mechanisms 94 and 96, you wouldn't want them to be too far away, correct?

MR. JEDLINSKI: Objection, form;

objection, scope.

THE WITNESS: It would all depend, and I would have to say -- you would have to define what too far away is.

BY MR. KANTAREK:

Q. You would agree that containers 70 through 76 eventually -- strike that.

If you are trying to eventually put containers 70 through 76 on tilting platforms 94 and 96, you would want them to be close by, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: I would have to have a clear definition of what close by is and what the particular situation would be to be able to give any kind of good answer to that kind of question.

BY MR. KANTAREK:

Q. Right.

Let's say you want to put container 70 through 76 on platforms 94 through 96. It would be easier to put them on platform -- tilting mechanisms 94 and 96 the closer they are to it, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: It wouldn't really matter.

BY MR. KANTAREK:

Q. If you are carrying containers 70 through

76 on a transport vehicle from -- I am sorry, strike that.

If you are removing containers 70 through 76 from transport road vehicles using a container unloader of some kind, the shorter the trip between the trucks and the tilting mechanisms the easier it is to place them on there, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: Well, I think you would have to define the word easier. In my mind it wouldn't really matter how far away they are to determine if they are easier or not.

BY MR. KANTAREK:

Q. So if containers 70 through 76 were a mile away from tilting mechanisms 94 through 96, you don't know whether that would be easier to transport them -- strike that.

It is easier to transport a container ten feet than it is to transport it a mile, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: No, I wouldn't agree, that wouldn't make any difference.

BY MR. KANTAREK:

Q. You don't think there is any difference between transporting a container a mile than ten feet?

A. It depends on what sense we are talking about.

Q. If you are taking -- if you are picking up a container with a forklift, do you agree that driving it on that forklift a mile is more difficult than driving it ten feet on the forklift, correct?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Well, it wasn't what we were talking about previously.

BY MR. KANTAREK:

Q. It wasn't specifically a forklift, correct?

A. We were talking about it on the -- on a trailer, on a truck-trailer there.

Q. I am sorry if I wasn't clear.

So removing -- when transporting a container 70 through 76 from a truck to the tilting mechanism not using the truck it is easier to transport them if they are closer to the tilting mechanism, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Not necessarily.

BY MR. KANTAREK:

Q. All traffic conditions being equal, you would agree that it is faster to take a container ten

feet on a forklift than to take it a mile on a forklift, correct?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: So using a forklift it is going to be faster if the distance is shorter, it will be -- yes, it will be faster if the distance is shorter.

BY MR. KANTAREK:

Q. So we talked about how containers 90 and 92 are on top of tilting mechanisms -- the support platforms of tilting mechanisms 94 and 96, correct?

A. Yes.

Q. And then we talked about how containers 70 through 76 are in close proximity to the rail line at 68, correct?

A. Yes.

Q. So the '772 patent discloses a difference between on, on the one hand, and close proximity on the other, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Could you repeat that question again?

BY MR. KANTAREK:

Q. Sorry, yes.

The '772 patent discloses a difference

between close proximity on the one hand and on on the other hand, correct?

A. Well, you would have to show me the context of that.

Q. So the context being we talked about how containers 70 through 76 are in close proximity to rail line 68, correct?

A. Correct, yes.

Q. And that containers 90 and 92 are on tilting mechanisms 94 and 96, correct?

A. That's correct, yes.

Q. So there is a difference between close proximity on the one hand and on on the other hand, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: I guess -- so you are talking about these containers are on the tilting mechanism, is that how you are using the word "on"?

BY MR. KANTAREK:

Q. Correct.

So these containers -- right, so the patent discloses them as on the tilting mechanism and then on the other hand it discloses containers 70 through 76 as in close proximity to the rail line.

You would agree there is a difference

between close proximity and on, correct?

A. In this particular example on means that these are on the tilting mechanism and close proximity means that these trailers are in close proximity to the rail cars.

Q. And you would agree that on is different than in close proximity to, correct?

A. Well, it would depend on the context in which it is being used.

Q. In the context of Figure 3 containers on a tilting mechanism are different than containers in close proximity to a rail line, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: In this particular situation that would be correct, but there could be a different situation. I mean, it is just kind of in a general sense that is the way it is in this picture, but this is just kind of a pictorial representation of the situation.

BY MR. KANTAREK:

Q. So -- but in the context of Figure 3 you would agree that containers on a tilting mechanism are different than containers in close proximity to a rail line, correct?

A. But that -- they could be in close

proximity as well. It depends on the context and what you are trying to say and where they are physically located if it were real-life situation.

Q. Right.

But -- you wouldn't say containers 70, 72, 74, and 76 are on rail line 68, correct?

A. That's correct, yes.

Q. Turning your attention to Exhibit 3, this is your declaration in IPR2018 -- I am sorry, Exhibit 7, this is your declaration in IPR2018-01233.

A. The '602 patent?

Q. That's correct.

So we can call this the '602 declaration, correct?

A. Correct.

Q. In the '602 declaration you offer constructions of three terms or phrases from the '602 patent at Pages 15 through 17, correct?

A. Yes.

Q. What is your understanding of the exercise of claim construction?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Particular terms are important, you want to get a good meaning for them so everybody understands what it is we are talking about

when these terms are brought up.
BY MR. KANTAREK:
Q. So your understanding is you want to construe important terms during claim construction?
MR. JEDLINSKI: Objection to the extent it mischaracterizes his testimony.
THE WITNESS: Well, terms that need construction that may not be fully -- their plain and ordinary meaning may not be -- needs to be maybe enhanced so that there is a clear understanding.
BY MR. KANTAREK:
Q. What sort of evidence would you use to enhance that meaning?
MR. JEDLINSKI: Objection, form.
THE WITNESS: Well, from my end it would be what a POSITA -- a person of skill in the art -- would understand it to be.
BY MR. KANTAREK:
Q. Sorry, so my question is a little different.
What evidence would you use to determine the meaning of a term in claim construction?
A. Well --
MR. JEDLINSKI: Objection, foundation; objection, form.

THE WITNESS: Well, it would depend. You would get it from various sources, including dictionary sources, or it could be getting from, you know, how it is used in the industry, so from a variety of sources and one that would make sense to do.

BY MR. KANTAREK:

Q. What about -- sorry, strike that.

So your understanding of claim construction is you would use evidence from the industry and dictionary sources to construe the terms. What other evidence would you use?

A. Well, whatever would seem relevant to coming up with a meaning that you can support and that can be supported within the industry and what would make sense.

Q. So you would use evidence from the industry and dictionary sources and anything else relevant to determine the construction of the terms in the '602 patent, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I would use whatever would seem to make the most sense for that -- for the particular issue that is being discussed and also whatever is out there in printed format.

BY MR. KANTAREK:

Q. What did you use to construe the terms in the '602 patent?

A. Well, in Paragraph 40 for the desired location it says, "Thus, in my opinion that, under the broadest reasonable interpretation of the term in light of the specification and the knowledge of a POSITA, the term desired location can be any location, but is at least as broad as to include being adjacent to the rail line." So this would kind of clearly just state what was used for this particular term here.

Q. In your CV and in answer to my question, you stated you have been deposed before, correct?

A. That's correct, yes.

Q. In the context of another IPR?

A. That's correct.

Q. Right?

And on Page 95 of the -- 95 of -- 95 of 95 of the '602 declaration you show that you were deposed in Seadrill versus Transocean, which is IPR2015-01929, correct?

A. That's correct, yes.

(Document marked Schaaf Exhibit 9 for identification.)

BY MR. KANTAREK:

Q. Showing you what has been marked as Exhibit 9, this is a copy of that deposition transcript, right?

A. That's correct. I assume that's correct.

Q. Of you --

A. I haven't read it.

Q. You can see from the case header that is for IPR2015-01929, correct?

A. Yes.

Q. Turning to Page 22, starting at Line 17, you were asked about the meaning of a drill line, correct?

MR. JEDLINSKI: Objection, foundation, scope; also, object to the potential authenticity of this document.

THE WITNESS: Yes.

BY MR. KANTAREK:

Q. You state that there are sometimes multiple meanings for words in the oil and gas industry, right?

A. Where do you see that?

Q. So on Page 22, Lines 19 through 20 in response to the question, you state that there are sometimes multiple meanings for words in the oil and

gas industry, correct?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: That is what I said there, yes, in response to that particular question.

BY MR. KANTAREK:

Q. You also state that there is very few things in the oil industry that have precise meanings, correct?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: It said, "But doesn't it have a specific meaning in the drilling industry?" And "I'd have to check to get that particular -- that term, but I would doubt that, though, because there's -- there's very few things in the oil industry that have precise meanings. There are terms that are used quite a bit in different -- in different contexts. There is no like -- no official book that says, 'This is the absolute meaning of a word here.'"

BY MR. KANTAREK:

Q. So you stated that there is very few things in the oil industry that have precise meanings, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: I believe I said what I said there, so that --

BY MR. KANTAREK:

Q. And that was there is very few things in the oil industry that have precise meanings, correct?

MR. JEDLINSKI: Objection to the extent it mischaracterizes his prior testimony in an unrelated IPR proceeding.

THE WITNESS: That would --

MR. JEDLINSKI: Objection, scope.

THE WITNESS: That was part of the answer, yes.

BY MR. KANTAREK:

Q. You still believe that, right?

A. In general, yes.

Q. So this is a true statement, correct?

A. It is my opinion on -- and when we are talking about a lot of different terms that would probably come to pass on that, yes.

Q. And as you read, you also stated that there are terms that are used quite a bit in different contexts, right?

MR. JEDLINSKI: Objection, foundation and form.

THE WITNESS: Where do you see that?

BY MR. KANTAREK:

Q. On Page 23, lines 1 through 3, you state,

"There are terms that are used quite a bit in different contexts," right?

A. Yes.

Q. You also still believe that, correct?

A. Yes.

Q. And you also state there is no -- there is no official book that says this is the absolute meaning of a word here, correct?

MR. JEDLINSKI: Objection, scope, foundation, form.

THE WITNESS: I said there is no official book, yes.

BY MR. KANTAREK:

Q. And you still believe that as well, right?

A. Yes.

Q. And those statements apply to the oil and gas industry, correct?

A. Yes.

MR. KANTAREK: Why don't we take a quick break.

MR. JEDLINSKI: Sure.

THE VIDEOGRAPHER: It is 10:01 a.m. we go off the record.

(Recess taken.)

THE VIDEOGRAPHER: It is the beginning of Tape No. 2 of the testimony of Robert Schaaf, it is 10:12 a.m., we are back on the record.

BY MR. KANTAREK:

Q. Welcome back, Mr. Schaaf.

A. Thank you.

Q. Did you discuss anything with counsel at the break?

A. We talked about roller coasters.

Q. Turning your attention to Exhibit 3, which is your declaration on the 1231 proceeding, just let me know when you have it in front of you.

A. That is the '066 patent?

Q. Yes, that is the declaration of that patent.

Is it okay if I call it the '066 declaration?

A. That would be good.

Q. Also, you can pull out Exhibit 4, which is the '066 patent itself. And that is U.S. Patent No. 9,617,066.

Is that okay with you if I call that the '066 patent?

A. Yes.

Q. Directing you to the '066 declaration at

Page 39, you opine that Claims 1 through 6 are rendered obvious by Sheesley, alone or in combination with Mintz, correct?

A. Yes.

Q. And specifically your opinions regarding Claim 3 are at Pages 61 through 65, correct?

A. Yes.

Q. You separate Claim 3 into two parts, 3(a) and 3(b), correct?

A. Yes.

Q. With respect to 3(a) you rely only on Sheesley.

A. Yes.

Q. With respect to Claim (b) you rely only on Mintz?

A. Yes.

(Document marked Schaaf Exhibit 10 for identification.)

BY MR. KANTAREK:

Q. Handing you what has been marked Exhibit 10, this is Publication No. 2013/0206415, correct?

A. Yes.

Q. This is Sheesley, correct?

A. Yes.

Q. Now looking at the '066 patent, Claim 3, Exhibit 4, 3(a) as set out in your declaration is the method of Claim 1 further comprising --

A. Excuse me.

Q. It should be Exhibit 4.

A. Okay.

Q. Looking at the '066 patent, Claim 3, portion 3(a) as set out in your declaration claims, "The method of Claim 1, further comprising: Conveying, on a conveyor, the proppant from one or more proppant transporting rail vehicles to a source from which to fill the plurality of empty proppant containers," correct?

A. Correct, yes.

Q. As I mentioned, you call this 3(a) in your declaration, right?

A. Let me check again.

Q. It is Page 61 of Exhibit 3, which is the '066 declaration.

A. Okay.

Q. So as I said, 3(a) is the first part of Claim 3 that you suggest Sheesley renders obvious, right?

A. That's correct, yes.

Q. So element 3(a) requires a conveyor, one

or more proppant transporting rail vehicles, a source, and empty proppant containers, correct?

A. Specifically -- you say 3(a) is we are talking about is --

Q. It might be easier if you look at your declaration where you set out 3(a) --

A. Okay.

Q. -- just so you have it divided.

And my question was 3(a) includes a conveyor, one or more proppant transporting rail vehicles, a source, and the plurality of empty proppant containers, right?

A. That's correct, yes.

MR. JEDLINSKI: Objection, form.

BY MR. KANTAREK:

Q. In Paragraph 117 of your declaration you quote Paragraph 78 of Sheesley, right?

A. Yes.

Q. And you also cite to Figure 2 of Sheesley?

A. Yes.

Q. Paragraph 78 discloses sand from a source loaded by conveyor 268 to a modified cargo container 270, right?

A. Okay.

Q. So sorry.

Paragraph 78 of Sheesley discloses sand from a source loaded by conveyor 268 to a modified cargo container 270.

A. From the sand quary or source.

Q. Specifically with respect to your Paragraph 117 quote it says sand from the source, right?

A. Right.

Q. You also -- sorry, strike that.

So you state that Sheesley's conveyor 268 is the conveyor required by the claims?

A. Yes.

Q. Sheesley's modified cargo container 270 is the empty proppant container required by the claim?

A. Yes.

Q. Sheesley's source is the source required by the claim?

A. Yes.

Q. So you do not identify proppant transporting rail vehicles in Paragraph 117, right?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Not specifically, but I talk about alternative modes of transportation.

BY MR. KANTAREK:

Q. So in Paragraph 117 you don't identify the claimed one or more proppant transporting rail vehicles, correct?

MR. JEDLINSKI: Objection, form; objection to the extent it mischaracterizes his opinion.

THE WITNESS: Sheesley shows multiple forms of transportation, which rail is one of them.

BY MR. KANTAREK:

Q. So my question is a little more specific.

In Paragraph 117 of your declaration you don't identify the claimed one or more proppant transporting rail vehicles, do you?

A. Not specifically.

MR. JEDLINSKI: Objection, form.

THE WITNESS: Not specifically, but I do talk about the alternative modes of transportation, which is also discussed in Sheesley and one of which is rail transport.

BY MR. KANTAREK:

Q. So you would say that in Paragraph 117 the claimed one or more proppant transporting rail vehicles is satisfied by each of these alternative modes of transportation?

A. I am saying that it is -- that that is one of the modes of transportation as discussed in Sheesley.

Q. Turning your attention to Figure 2.

A. Figure 2 Sheesley?

Q. I will just have a separate one so it is easier.

(Document marked Schaaf Exhibit 11 for identification.)

BY MR. KANTAREK:

Q. Exhibit 11 shows Figure 2 of Sheesley, just so you can have it while you look.

On Figure 2 you have identified Item 268 as the conveyor, correct?

A. That's correct, yes.

Q. And the source which is quary 30 as the source, right?

A. Yes.

Q. And the empty proppant containers are 270, correct?

A. That is one of them, yes.

Q. And then can you identify on Figure 2 where the one or more proppant transporting rail vehicles are?

A. Well, a POSITA would understand that

would be one of the options that -- there is like an infinite amount of potential possibilities of transport, and Sheesley was covering just to show that there is -- any of the alternatives are possible, but that his container can go from the very beginning, but can also be put in any part of the process as well.

Q. So on Figure 2 the item labeled 276 is rail, correct?

A. Yes.

Q. So is that the one or more proppant transporting rail vehicles that you are pointing to in Claim 3(a)?

MR. JEDLINSKI: Objection, form.

THE WITNESS: That is not specifically that.

Basically what Sheesley is showing is that you can put his container directly on the rail, but you can also unload it from a source that could be a rail car that is full of proppant and into his containers.

BY MR. KANTAREK:

Q. So with respect to Claim 3(a), I am just trying to figure out what you have identified as the one or more proppant transporting rail vehicles as claimed. So are you saying Item 276 in Figure 2 is

not the one or more proppant transporting rail vehicles as claimed?

MR. JEDLINSKI: Objection, form.

THE WITNESS: What was that again?

BY MR. KANTAREK:

Q. We agreed that Claim 3(a) requires a conveyor, one or more proppant transporting rail vehicles, a source and the plurality of empty proppant containers, right?

A. That's correct, yes.

Q. So we identified the conveyor as 268 in Figure 2, the source as 30 in Figure 2, and the empty proppant containers as 270 in Figure 2, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: What was the third one you just said?

BY MR. KANTAREK:

Q. The plurality of empty proppant containers I believe you identified as 270 in Figure 2.

A. That is right, yes.

Q. So my question is what is the one or more proppant transporting rail vehicles?

A. Well, that is why I go back to where you have the source is the source could be also one of the

rail vehicles, so that could be where you start to source, and that is the way it was written and Sheesley is -- that it could be the quary itself but it can also be another source which could be rail vehicles.

Q. So we can discuss that with respect to Paragraph 118. I am just trying to figure out.

So in Paragraph 117 you don't identify a proppant transporting rail vehicle from Figure 2?

A. Well --

MR. JEDLINSKI: Objection, form.

THE WITNESS: It is one of the alternative modes of transportation.

BY MR. KANTAREK:

Q. I understand that.

I am just asking if you -- if the claimed one or more proppant transporting rail vehicles is shown in Figure 2.

MR. JEDLINSKI: Objection, form, asked and answered.

THE WITNESS: It is shown as -- there is a source and the source could be just about any place.

BY MR. KANTAREK:

Q. So on Figure 2 the quary 30 is the source, correct?

A. In this particular -- for this visualization so that he can explain his patent, but that source doesn't have to be a quary, it could be a rail car.

Q. So Figure 2, what you are discussing, Figure 2 doesn't depict the one or more proppant transporting rail vehicles as claimed in 3(a), correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It is a pictorial to show that wherever the sand is coming from that then it could be put into the logistic system that exists there.

BY MR. KANTAREK:

Q. Why don't we also include 118 in this discussion, maybe that will help.

A. Include what?

Q. Paragraph 118, I am sorry.

A. Okay.

Q. In Paragraph 118 this is -- in Paragraph 118 you identify the rail vehicle as -- sorry, strike that.

In Paragraph 118 you identify that the source can include a rail vehicle, correct?

A. Yes.

Q. You identify the source in the claims as that same source, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: So I guess I don't fully understand what your question is there.

BY MR. KANTAREK:

Q. So we discussed how 3(a) has at least four requirements, a conveyor, one or more proppant transporting rail vehicles, a source, and the plurality of empty containers, right?

A. That's correct, yes.

Q. And so you -- in Figure 2 you identified 268 as the conveyor?

A. Yes.

Q. 270 as the plurality of empty proppant containers.

A. That's correct.

Q. 30 as the source?

A. I don't see where I identified 30 as the source in that.

Q. So earlier when we were talking about Paragraph 117 you identified quary 30 as the claim source.

You don't believe quary 30 is the claimed source?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It is a source. It is one of where a number of sources could be.

BY MR. KANTAREK:

Q. I understand.

In claim 3(a) though it claims a source, and I am just trying to figure out what you are pointing to as that source.

Earlier you said it was quary 30. Do you still think it is quary 30?

MR. JEDLINSKI: Objection, form, and to the extent it mischaracterizes his opinions.

THE WITNESS: My point was is that the quary is a source, but it is not necessarily the only source that sand can come from that there are a number of different places that the sand can come from to start this transportation mode.

BY MR. KANTAREK:

Q. I understand what you are saying.

What have you identified as the source in claim 3(a)?

A. Well, claim 3(a) talks about rail vehicles, and so in that particular claim that would be what it would identify as the source.

Q. So Sheesley identifies that proppant --

Sheesley discloses that proppant from the source which can include a rail vehicle passes to the container, correct?

A. Yes.

Q. So you are saying that the one or more proppant transporting trail vehicles claimed in 3(a) is the source, is Sheesley's source, which can include one or more -- which can include a rail vehicle, right?

A. Wherever -- the source is just where the sand originates from.

Q. So in the context of claim 3(a) the sand originates from the one or more proppant transporting rail vehicles, right?

A. In that particular claim, yes.

Q. And separately 3(a) claims a source, correct?

A. So -- I guess -- I don't really understand what your question is there, what specifically --

Q. You have identified the one or more proppant transporting rail vehicles claimed in 3(a) is Sheesley's source, which can include a rail vehicle, right?

A. That is where -- the sand -- the source

of sand can come from a rail vehicle, it could come from other places, too, but it could come from a rail vehicle.

Q. So in the context of Claim 3, when Claim 3 talks about one or more proppant transporting rail vehicles, you are saying that Sheesley discloses that at the source which can include a rail vehicle, correct?

A. The source of sand could be a rail vehicle, yes.

Q. So -- but you would agree that Claim 3(a) also separately claims a source, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It says a source, that is all I can tell you it says.

And I know what it is trying to convey -- what information it is trying to say.

BY MR. KANTAREK:

Q. You would agree that -- I am sorry.

A. From the patents itself and the figures you can see what is going on there, clearly what the intent is.

Q. You would agree though that here we are determining the patentability of the claims, right, not the figures in the patent?

A. But we have to understand what it actually is that they mean and what they are referring to.

Q. Right.

And so looking at 3(a) it claims -- we talked about it has at least four requirements, a conveyor, one or more proppant transporting rail vehicles, a source, and a plurality of empty proppant containers, right?

A. That is what it says.

And what we know is it means we are trying to take the sand from the rail cars and put them into the containers.

Q. So -- right.

I am just asking you to identify for me -- I guess -- strike that.

You are saying that the one or more proppant transporting rail vehicles and the source of Claim 3(a) can be the same?

A. I am just taking --

MR. JEDLINSKI: Objection, form.

THE WITNESS: I am taking the thing as a whole and describing what it is that it means.

BY MR. KANTAREK:

Q. My -- I would like you to identify

specific elements of the claim as disclosed in Sheesley.

So you said -- we talked about what the conveyor was, we don't have to go over that again, we talked about what the empty proppant containers were. You state that the one or more proppant transporting rail vehicles is Sheesley's source, which can be a rail vehicle, correct?

A. Well, the rail vehicle is what is bringing the sand.

Q. So you would identify that in Sheesley as the source of Sheesley.

A. I identified that as where the sand could be coming from as a rail vehicle.

Q. So separate from that the claim requires a source, right?

A. The source is moving that sand from the rail car to the proppant or however we want to describe it.

Q. Sir, the source is moving the sand from the rail car to the container?

A. Well, I guess that is where -- I understand what the whole -- what they are trying to do is move the sand and they have to have a way to move the sand.

Q. That is the conveyor, right?
A. Well, that is part of it, yes, one potential way of doing it, yes.
Q. So you are saying that the conveyor and the source are the same thing?
MR. JEDLINSKI: Objection, form, to the extent it mischaracterizes his opinion.
THE WITNESS: What I am saying is is that what is being described there is that they are moving the sand from the rail cars to the containers.
BY MR. KANTAREK:
Q. Via conveyor?
A. Well, via any system that would do that.
Q. And Sheesley discloses conveyor 268, right, that is what you pointed to as the conveyor?
MR. JEDLINSKI: Objection, form.
THE WITNESS: And Sheesley also conveys an auger 302.
BY MR. KANTAREK:
Q. So auger 302 is also a conveyor, right?
A. Well, it is similar -- it does the same function.
Q. So it is a conveyor, right?
A. Well, it moves the sand.
Q. How would you define a conveyor as -- a

conveyor moves the sand, correct?

A. That's correct, yes.

Q. So just to understand your position, your position is that conveyor 268 or auger 302 satisfies both the conveyor limitation and the source limitation of Claim 3(a)?

MR. JEDLINSKI: Objection, form.

THE WITNESS: What the claim is talking about is moving the sand from a rail car to a container, and that is what Sheesley satisfies there.

BY MR. KANTAREK:

Q. That is not all the claim says though, right, it says conveying on a conveyor the proppant from one or more proppant transporting rail vehicles to a source from which to fill the plurality of empty proppant containers, right?

A. That is what it says.

I am explaining what that means, is that you are moving the proppant from the rail vehicles to containers.

Q. Via the conveyor, right?

A. Via some system.

Q. Which is the conveyor and the source?

A. Well --

MR. JEDLINSKI: Objection, form.

THE WITNESS: Well, it is some system to transport or move that sand from the rail line to the container.

BY MR. KANTAREK:

Q. So your position is a source is a system to transport or move sand from the rail line to the container?

A. No, I didn't say that.

Q. So I said -- what is the source, what is the claimed source in Sheesley?

A. It passes to a source namely -- in Paragraph 118, can include -- let's see, let me start, Sheesley further discusses that the proppant from the source passes to a source, namely an auger 302, before filling the empty modified cargo container.

Q. So your position is that the claimed source is auger 302?

A. I am claiming Paragraph 118 says, that, "Sheesley further discloses that the proppant from the source passes to a source, namely auger 302, before filling the empty modified cargo container." And then it goes on that, "the cargo container 302 receives sand 306 from auger 303 through upper hatch 305."

Q. So your position is element 302 in Sheesley satisfies the claimed source in Claim 3(a)?

MR. JEDLINSKI: Objection, form.
THE WITNESS: I am conveying that the claim of 3(a) is satisfied by Sheesley as described in my declaration.
BY MR. KANTAREK:
Q. So you are not able to identify what the source is?
A. I think I just did.
MR. JEDLINSKI: Objection, form, argumentative.
BY MR. KANTAREK:
Q. Identify for me what in Sheesley is the claimed source.
MR. JEDLINSKI: Objection, asked and answered, form.
THE WITNESS: "Sheesley further discloses that the proppant from the source passes to a source, namely an auger 302, before filling the empty modified cargo container."
BY MR. KANTAREK:
Q. So a source is auger 302 is what you are saying, right?
MR. JEDLINSKI: Objection, form, and to the extent it mischaracterizes his prior testimony.
THE WITNESS: I can review the answer

again if you would like, that, "Sheesley further discloses that the proppant from the source passes to a source namely auger 302 before filling the empty modified cargo container."

BY MR. KANTAREK:

Q. So turning to -- looking back at Exhibit 11, can you identify by number what the claimed source is as distinct from the one or more proppant transporting rail vehicles?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Again, on Exhibit 11 this is giving a visual representation of the flexibility of the Sheesley containers and includes many of the possibilities that -- there is endless possibilities, so I can't possibly show everything.

BY MR. KANTAREK:

Q. So you can't identify by number what the claimed source is on Figure 2?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It is shown in this description of how far as where it is as, again, where the proppant source passes to a source, namely an auger 302, before filling the empty modified cargo container.

BY MR. KANTAREK:

Q. My question is different.

You can't identify by number what the claimed source is on Figure 2, correct?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: I think I have answered that question as far as what is meant by the Claim 3(a) is discussing and what is entailed in it.

BY MR. KANTAREK:

Q. What number is the claimed source on Figure 2?

MR. JEDLINSKI: Objection, scope, asked and answered, argumentative.

THE WITNESS: Sheesley has all the elements of that claim 3(a) and what it is meant to do.

BY MR. KANTAREK:

Q. But you can't identify specifically what the source is in Figure 2, correct?

A. Well, I have again -- "Sheesley further discloses the proppant from the source passes to a source, namely an auger 302, before filling the empty modified cargo container."

Q. And when you say that you cite Sheesley Paragraph 84 and Sheesley Figure 5, correct?

A. Yes.

Q. You don't cite Sheesley Figure 2, correct?

A. Correct.

Q. So you don't identify a source in Figure 2, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Again, Figure 2 is a representation of the different modes of transport of the container and how it could be many of the modes, but not inclusive of all of them.

BY MR. KANTAREK:

Q. It is a very simple question.

Can you identify by number the source in Figure 2?

MR. JEDLINSKI: Objection, argumentative, asked and answered.

THE WITNESS: Paragraph 118 discusses the source and where -- what the answer -- what is and fulfills that claim that "Sheesley further discloses that the proppant from the source passes to a source namely an auger 302 before filling the empty modified cargo container."

BY MR. KANTAREK:

Q. And Paragraph 118, as we discussed,

doesn't cite Figure 2 at all, right, it only cites Figure 5 and Paragraph 84?

A. That's correct, yes.

Q. So looking at Figure 5 on Page 62, which you reproduce as part of Paragraph 118, can you identify for me the source as shown in Figure 5?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: In Figure 5 the auger is 303.

BY MR. KANTAREK:

Q. So the auger of 303 is the source in Figure 5?

A. Well, again, as I have mentioned, that discusses -- discloses that the proppant from the source passes through a source, namely an auger, before filling the empty modified cargo container.

Q. So you are not willing to identify what number in Figure 5 is the source?

A. I said that 303 is the auger.

Q. And 303 is the source, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I can reread the paragraph again that Sheesley further discloses that the proppant from the source passes to a source, namely an auger, and then on the Figure 5 the auger is

identified by 303.
BY MR. KANTAREK:
Q. So the source is auger 303, correct?
MR. JEDLINSKI: Objection, form.
THE WITNESS: Again, Sheesley further discusses the proppant from the source passes through a source namely an auger and the auger in Figure 5 is identified as 303.
BY MR. KANTAREK:
Q. In Figure 5 can you identify for me what the claimed conveyor is?
MR. JEDLINSKI: Objection, scope.
THE WITNESS: A conveyor is something that moves sand or anything else from one spot to another.
BY MR. KANTAREK:
Q. So in Figure 5, can you identify for me what the claimed conveyor is?
MR. JEDLINSKI: Objection, scope.
THE WITNESS: Well, in this particular instance the auger is conveying the sand from whatever the sand is coming from to the container.
BY MR. KANTAREK:
Q. So the auger is the conveyor then, right?
A. It is conveying the source, yes, it is

acting --

Q. It is conveying the sand?

A. It is conveying the sand, yes.

Q. And a conveyor conveys, correct?

A. Yes.

Q. So auger 303 is the claimed conveyor, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It fulfills that need, yes.

BY MR. KANTAREK:

Q. Why don't we turn to Exhibit 5.

MR. JEDLINSKI: Just so we can clean this up, can we put this set of exhibits away?

MR. KANTAREK: Yes.

Just take out Exhibits 5 and 6, which are the '815 declaration and the '815 patent.

BY MR. KANTAREK:

Q. Exhibit 5 is your declaration in IPR2018-01232, correct?

A. That's correct, yes.

Q. And that is -- we can call that the '815 declaration?

A. That would be great.

Q. And then Exhibit 6 is U.S. Patent No. 9,682,815, which we can call the '815 patent,

correct?

A. Yes.

Q. Directing you to the '815 declaration at Page 36, you opine that Claims 1 through 3 -- I am sorry, 1, 3, 5, 8 -- strike that.

On Page 36 the '815 declaration you opine that claims of the '815 patent are rendered obvious by Mintz alone or in combination with the ISO standards, correct?

A. Yes.

Q. Specifically with respect to Claim 1 you separate Claim 1 into subparts, right?

A. Yes.

Q. One of those subparts is labeled 1a(ii)?

A. Yes.

Q. You state that Mintz discloses subpart 1a(ii) of Claim 1 of the '815 patent at Pages 40 through 41, correct?

A. I have lost where you are at in that one.

Q. So you state that Mintz discloses Section 1a(ii) of Claim 1 of the '815 patent at Pages 40 through 42, which is Paragraph 73 and 74, correct?

A. Yes.

(Document marked Schaaf Exhibit 12 for identification.)

BY MR. KANTAREK:

Q. Handing you what has been marked as Exhibit 12, this is U.S. Patent No. 8,915,691 to Mintz, correct?

A. Yes.

Q. We can call this Mintz?

A. Yes.

Q. And turning to Exhibit 5, which is the '815 patent?

MR. JEDLINSKI: Exhibit 6?

MR. KANTAREK: I am sorry, you are right, Exhibit 6, which is the '815 patent.

BY MR. KANTAREK:

Q. Claim 1, specifically on Column 11, Line 66, states, "The structural integrity of the plurality of containers being enhanced by a plurality of structural uprights positioned to extend from the bottom to the top of each of the plurality of conveyors and thereby increase the weight carrying capacity of each of the plurality of containers when fracking proppant is positioned therein"?

A. Yes.

Q. That is what you labeled as element

1a(ii) in your declaration, the '815 declaration, correct?

A. Yes.

Q. In Paragraph 73 of the '815 declaration you state that Mintz's end supports and saddle supports are the structural uprights positioned to extend from the bottom to the top of each of the plurality of containers, right?

A. Yes.

Q. And you annotate Figures 1 and 2 of Mintz below that paragraph to show these supports?

MR. JEDLINSKI: Just for the record I believe this is -- this exhibit is in black and white when the exhibit submitted is in color, right? I don't think we need to necessarily replace it, I want to for the record.

MR. KANTAREK: Yes.

(Document marked Schaaf Exhibit 13 for identification.)

BY MR. KANTAREK:

Q. Exhibit 13 is just a reproduction of Page 41 of your declaration in color, right?

A. Yes.

Q. In Paragraph 73 you annotate Figures 1 and 2 of Mintz to show the supports, correct?

A. Yes.
Q. Directing you to Figure 2 as annotated by you in Paragraph 73 of the '815 declaration, what is the top of the container?
A. How would you like me to describe that?
Q. If you can --
A. It is the top as it appears, the top is the top.
Q. In Figure 2 if you can describe in words or by numbers what is the top of the container.
A. I believe it is No. 8, but it is the -- basically it is the top as anybody would -- an ordinary person would look at it, it would be the top.
Q. So you identify Item 8 as the top of the container of Mintz?
A. That -- where 8 is kind of pointing to that element of it would be the top.
Q. Can you mark on Exhibit 13 with a red pen of Figure 2 where the top of the container is?
MR. JEDLINSKI: Objection, relevance; objection to scope.
THE WITNESS: Okay.
BY MR. KANTAREK:
Q. You marked it with a red X?
A. Yes.

Q. Now, turning to Figure 1, where on Figure 1 would you say the top of the container is?

MR. JEDLINSKI: Objection, relevance; objection, scope.

THE WITNESS: In the same location.

BY MR. KANTAREK:

Q. So you would identify it as Item 8 again?

A. Well, I would identify it as in the same area there.

Q. So handing you a red pen on Exhibit 13, can you please identify the top of the container with a red X again?

MR. JEDLINSKI: Objection, scope; objection, relevance.

BY MR. KANTAREK:

Q. Now, the red X you placed on Figure 1 is in a different spot than the red X you placed on Figure 2, correct?

A. No.

Q. You are saying that the red X in Figure 1 is in the same spot as the red X in Figure 2?

A. For the containers, yes.

Q. So Figure 2 you would agree doesn't show the ISO container shell of Mintz, correct?

A. You asked me to put where the top of it

was, that is all I did.

Q. Sorry. I asked that you would label the top of the container of Mintz.

Are you saying that Figure 2 doesn't show the top of the container of Mintz?

A. I just -- well, my understanding of your question was you just wanted me to label what was the top of this figure --

Q. Okay.

A. -- the container there. That is all I did.

Q. So do you believe that Figure 2 shows the container of Mintz?

A. It shows the inner structure of what is inside there, that is what the intent of it was.

Q. So does Figure 2 show the top of Mintz's container?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I don't know exactly what you mean by Mintz's container.

When Mintz talks about container he is talking about a standard shipping container.

BY MR. KANTAREK:

Q. So you don't know what the container described in Mintz is?

MR. JEDLINSKI: Objection, argumentative.

THE WITNESS: Just said exactly what it was, it is a shipping container.

BY MR. KANTAREK:

Q. And it is just a standard ISO shipping container?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: It is a shipping container, yes.

BY MR. KANTAREK:

Q. Are there any modifications to the shipping container of Mintz?

A. When you say modifications, you will have to be more specific. I mean, that is what the whole intent of the patent was is to make it so it would handle sand.

Q. So what are the differences between a standard ISO container and Mintz's container?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Well, the difference is that Mintz has this internal structure in it that is meant to have and convey sand and proppant for fracking jobs and other type of -- jobs that can be used in large quantities of sand.

BY MR. KANTAREK:

Q. And Figure 2 shows that internal structure, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It is trying to show the structure of the -- his invention, that is what it is showing.

BY MR. KANTAREK:

Q. So you -- and you said his invention is an internal structure to put ISO containers meant to contain sand and proppant for jobs that can be used in large quantities of sand, that is what you said?

A. What I said was that this is a container that is made so it can transport sand.

Q. In order to make the container able to transport sand Mintz discloses an insert into an ISO container, correct?

MR. JEDLINSKI: Objection, scope, form.

THE WITNESS: He shows a plan to modify -- put something inside of a container or modify it so it can convey sand.

BY MR. KANTAREK:

Q. What would you call that something?

A. Well, I don't know if I would have to a specific word for it because that is what his whole

patent describes, is exactly what it is.

Q. Can we call it a hopper module?

A. Well, I think that -- kind of describes it, but I don't think it fully describes it.

Q. What would fully describe it?

A. Well, you would have to --

MR. JEDLINSKI: Objection, scope.

THE WITNESS: You would have to read the whole patent and the specifications of that.

BY MR. KANTAREK:

Q. You have read the whole patent and the specifications, right?

A. Yes.

Q. What would you describe it as?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: I would describe it as I described is a container that has been modified so it can convey sand.

BY MR. KANTAREK:

Q. So we can describe the modifications as just modifications?

MR. JEDLINSKI: Objection, form.

BY MR. KANTAREK:

Q. I just need to be able to use a word to describe the modifications, I would just like you to

give me a word so we can talk about it.

MR. JEDLINSKI: Objection, form, scope.

Can you point to --

MR. KANTAREK: Can I finish my question?

MR. JEDLINSKI: Can you point to where in his declaration that you are trying to get information about? Otherwise we are starting to get far afield of the scope of what his opinions are. If you want to point to something, let's do that.

MR. KANTAREK: His understanding of the hopper module in Mintz is directly relevant to his declaration, right?

MR. JEDLINSKI: Understand, but in terms of a word he is using.

If you want to point to a number, if you want to point to something in the declaration, go for it.

BY MR. KANTAREK:

Q. What does Figure 2 depict?

A. It is a depiction of the Mintz patent and what the structure is.

Q. So can we call it the Figure 2 structure?

A. If you would like you can call it anything you want to call it as far as I care.

Q. So the Figure 2 structure is inserted

into a standard ISO container, correct?

A. It is built into the -- it is a modification of it and that shows what that part looks like.

Q. So Figure 2 shows the modification of an ISO standard container, right?

A. No. It just shows the part of it that -- so that he can describe what it is he is doing to the container to make it so it can convey sand.

Q. So it shows the modifications to an ISO?

A. It shows what he is doing to the container.

Q. And what he is doing is adding what is shown in Figure 2, correct?

A. That is -- it shows -- it has a good representation for what it is trying to describe.

Q. So Figure 2 is what Mintz has added to an ISO container, correct?

A. I don't think that is what I said.

Q. So Figure 2 is a good representation for what Mintz is trying to describe as his additions to an ISO container?

A. Figure 2 was put together to help describe his patent.

Q. I understand that, how figures are used

in patents.

My question for you, you described Figure 2 as a representation for what Mintz is trying to describe as his modifications to an ISO container, correct?

A. He is using -- Mintz is using Figure 2 to help describe his patent.

Q. That is not my question.

My question is you described Figure 2 as a representation for what Mintz is trying to describe as his modifications to an ISO container, correct?

A. As I said, Figure 2 is what Mintz is using to describe his patent.

Q. Directing you to Column 3, Line 43 of Mintz.

A. Which line?

Q. Line 43.

Figure 1 depicts an embodiment of the present invention, correct?

A. Correct.

Q. And Figure 2 depicts a side view of the embodiment depicted in Figure 1, correct?

A. Correct.

Q. So what would you say the difference is between Figure 1 and Figure 2?

A. Well, Figure 1 depicts a frontal view and Figure 2 depicts a side view.

Q. Figure 1 includes the ISO container shell of Mintz's container, right?

A. It shows additional things to help -- so people can understand the invention.

Q. And what are those additional things?

A. Well, it shows the -- outside of the -- what the outside of the container would look like or how people would visualize, say, from the top of what the outside of the container looks like.

Q. So Figure 2 doesn't show the outside of the container, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: That wasn't the intent of Figure 2, they wanted to show -- to help show the embodiment of the patent.

BY MR. KANTAREK:

Q. Right.

So you said the difference between Figure 1 and Figure 2 is Figure 1 shows the outside of the container and Figure 2 does not, correct?

A. No. I said that one shows a frontal view, one shows a side view.

Q. You said that Figure 2 -- Figure 1

includes additional things to help people understand the invention, and those additional things are the outside of the -- what the outside of the container would look like or how people would visualize, say, from the top of what the outside of the container looks like, correct?

A. That was one of the things that it shows to help people visualize what his invention is.

Q. So the difference between Figure 1 and Figure 2 is Figure 2 shows the outside of the container, correct?

A. That is one of the things that it shows.

Q. So in Figure 2 you marked with a red X the top of the inside of the container, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: On Figure 2 I marked -- you asked me what was the top and I marked what the top was.

BY MR. KANTAREK:

Q. So I guess there is a confusion.

In Figure 2 can you mark the top of the Mintz container with a red X?

A. Now --

MR. JEDLINSKI: Objection, scope.

THE WITNESS: I would have to know what

you meant by the Mintz container, what your definition of the Mintz container is.

BY MR. KANTAREK:

Q. What is your definition of the Mintz container?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: I don't have one.

BY MR. KANTAREK:

Q. You don't have a definition of the Mintz container?

A. I have a definition -- the Mintz invention is described in his patent.

Q. I understand that.

So you don't have a definition of the Mintz container?

MR. JEDLINSKI: Objection, form and scope.

THE WITNESS: I don't have a specific -- I don't -- when you say Mintz container, Mintz container is what or if you like would be the definition or what his patent is.

BY MR. KANTAREK:

Q. So you don't have a definition of the Mintz container?

MR. JEDLINSKI: Objection, asked and

answered, argumentative, form, scope.

THE WITNESS: The Mintz invention is described in his patent.

BY MR. KANTAREK:

Q. You can't describe the Mintz container?

A. Well, I don't know what your definition is of a Mintz container so -- unless you can put out a full definition for me, I can't answer the question.

Q. Right.

I am asking you what your definition of the Mintz container is.

MR. JEDLINSKI: Objection, scope.

Where does he say the Mintz container? Point to that, this might facilitate the deposition.

BY MR. KANTAREK:

Q. At Paragraph 71, which is on Page 48, the end of Paragraph 71, you state, "Mintz discloses a container that is modified from the standard ISO container," correct?

A. Where are we at?

Q. On Page 40, this is the end of Paragraph 71.

A. Okay.

Q. You state, "Mintz discloses a container that is modified from the standard ISO container,"

correct?

A. That's correct.

Q. So that is your -- what is the definition -- what is your definition of the Mintz container?

A. I don't have a definition of Mintz container.

Q. Do you have an understanding of what kind of container Mintz discloses?

A. Like -- what I said there, "Mintz discloses a container that is modified from a standard ISO container," and ISO 1496 standard discloses that ISO containers are stackable.

Q. I understand you can -- you are reading that.

But you are opining that Mintz discloses a container modified from a standard ISO container?

A. Yes.

Q. That is -- an embodiment of that container is shown in Figure 1, correct?

A. Well, that is -- that gives a picture or a drawing of what it generally looks like or what it would look like.

Q. So Figure 1 is an embodiment of that container, correct?

A. In that sense, yes.

Q. And the difference between Figure 1 and Figure 2 is Figure 1 shows the outside of the container, correct?

MR. JEDLINSKI: Objection, form, scope.

THE WITNESS: Figure 2 is showing more what is -- what his modifications are, and Figure 1 gives a full frontal view so you can get a better picture of what it is that his invention is.

BY MR. KANTAREK:

Q. So my question is on Figure 2 can you point out the top of Mintz's container?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I don't -- you would have to define what exactly you would mean by what Mintz container is.

BY MR. KANTAREK:

Q. Does Figure 2 show the top of Figure 1's embodiment of Mintz's container?

A. Can you repeat that, please?

Q. Does Figure 2 show the top of Figure 1's embodiment of Mintz's container?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Figure 1 shows the top of the container or what we would -- what I would consider the top of the container.

BY MR. KANTAREK:

Q. So my question is does Figure 2 show the top of Figure 1's embodiment of Mintz's container?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Figure 2 does not show the top of the container.

And by top I mean --

BY MR. KANTAREK:

Q. No --

MR. JEDLINSKI: Objection, let the witness finish his testimony.

You can finish whatever you were saying.

THE WITNESS: By the top I mean the top of the ISO container that Mintz's invention is dealing with.

BY MR. KANTAREK:

Q. Directing you to Page 68 the '815 declaration. You have opined that Claims 1 through 5 and 7 through 18 are rendered obvious by Sheesley alone or in combination with ISO standards, correct?

A. Yes.

Q. And this is the same Sheesley we looked at before, right?

A. Yes.

Q. Exhibit 9, correct?

MR. JEDLINSKI: Sheesley is 10.

MR. KANTAREK: Exhibit 10.

BY MR. KANTAREK:

Q. Turning to Page 70, starting at Paragraph 141, you opine that Sheesley discloses limitation 1a(iii), correct?

A. Yes.

Q. And we can agree that this is supposed to say 1a(ii) and is the same limitation we were just discussing, correct?

A. I assume so.

Q. The other limitation is on Page 40 of your declaration, if you want to compare the language I will represent to you it is the same.

A. Okay.

It looks like it does, yes.

Q. So you state that hopper module walls 160 and 162 of Sheesley are the claimed structural uprights, correct?

A. Yes.

Q. And you also state, and this is in Paragraph 142, that these hopper module walls, 160 and 162 of Sheesley, have a number of supports designed to hold the front and rear module walls, correct?

A. Yes.

Q. You annotate Figure 15 of Sheesley to show these walls in Paragraph 142 of the declaration, correct?

A. Correct, yes.

Q. You also state that Sheesley's corner posts are the claimed structural uprights in Paragraph 142 of your declaration, correct?

A. Yes.

Q. You annotate Figure 9, this is on Page 27, to show these corner posts in Paragraph 142 of the '815 declaration, correct?

A. Yes.

Q. Your annotation state that these corner posts are at the corners of Sheesley, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Yes.

BY MR. KANTAREK:

Q. You are familiar with ISO containers, correct?

A. Yes.

Q. And this depicts an ISO container -- the exterior of an ISO container, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: It looks like an ISO container, yes.

BY MR. KANTAREK:

Q. You know how ISO containers are constructed, correct?

A. Yes --

MR. JEDLINSKI: Objection, foundation, form.

THE WITNESS: Well, I guess what you mean, you will have to be a little more specific on your question, but in general, yes, but --

BY MR. KANTAREK:

Q. So in general you are familiar with the construction of ISO containers?

A. In general, yes.

Q. And Sheesley is a modified ISO container, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Yes.

BY MR. KANTAREK:

Q. Sheesley doesn't modify these corner posts though, correct?

A. That's correct, yes.

Q. These are standard ISO corner posts, correct?

A. They could be if no -- nothing that prohibits them from being whatever they want to be,

but that is -- because there is a number of different corner posts that you can have.

Q. The corner posts in Sheesley appear to be standard ISO corner posts to you, correct?

A. Yes.

MR. JEDLINSKI: Objection, foundation, form.

BY MR. KANTAREK:

Q. In constructing an ISO container the corrugated metal walls are welded to corner posts, right?

MR. JEDLINSKI: Objection, foundation, form, scope.

THE WITNESS: I think typically that would be.

BY MR. KANTAREK:

Q. They are welded to the inside of the corner posts, right?

MR. JEDLINSKI: Objection, foundation, form, scope.

THE WITNESS: I don't know.

BY MR. KANTAREK:

Q. Do you know if they are welded to the outside of the corner posts?

MR. JEDLINSKI: Objection, form,

foundation, scope.

THE WITNESS: I would have to look at it to give the full answer on that.

BY MR. KANTAREK:

Q. So sitting here you can't tell me whether the corrugated metal walls are welded to the inside or outside of corner posts on a standard ISO container?

A. I can't tell you exactly where the welds were put on those.

MR. JEDLINSKI: Counsel, we have been going a little over an hour and ten minutes now, if you have a few more questions we can do that otherwise maybe take a break.

MR. KANTAREK: Why don't you give me one minute.

MR. JEDLINSKI: Sure.

BY MR. KANTAREK:

Q. Figure 9 of Sheesley in Paragraph 142 of your declaration, it doesn't appear to show corrugated walls weld the to the outside of those corner posts, does it?

A. Where --

MR. JEDLINSKI: Objection, scope.

BY MR. KANTAREK:

Q. You have it.

A. So the question is the corrugated wall --

Q. Figure 9 of Sheesley in Paragraph 142 of your declaration doesn't appear to show corrugated walls welded to the outside of those corner posts, correct?

MR. JEDLINSKI: Objection, foundation, form, and scope.

THE WITNESS: It doesn't get into the details of welding.

BY MR. KANTAREK:

Q. So you can't tell whether those walls are welded to the inside or outside of the corner posts?

A. It is not -- it is not -- it wasn't part of what was relevant in the Sheesley patent so it wasn't -- it wasn't described in any figures, that kind of detail.

Q. So you can't tell from the figure whether it was welded to the inside or outside, whether the walls were welded to the inside or outside of the corner posts, right?

A. I would have to look at the container itself to tell you where the welds were at.

Q. So you can't tell from Figure 9, correct?

A. Just a figure, it is not a picture, it is not anything more than that.

Q. Right.
So you --
A. It is just a drawing.
Q. So you can't tell?
A. Well, drawings don't have welds in them.
Q. Correct.
A. I have never seen.
Q. So you can't tell from the figure, right?
A. That's correct.
MR. KANTAREK: We can take a break.
THE VIDEOGRAPHER: It is 11:23 a.m., we go off the record.
(Recess taken.)
THE VIDEOGRAPHER: It is the beginning of Tape No. 3 of the testimony of Robert Schaaf, it is 11:38 a.m., we are back on the record.
BY MR. KANTAREK:
Q. Welcome back, Mr. Schaaf.
A. Thank you.
Q. Did you discuss anything with your counsel over the break?
A. We talked about the art museum that is across the street and some other sites in Chicago that are nearby.
Q. Did you discuss your testimony at all?

A. No.

Q. Turning to Exhibit 5, this is the '815 declaration we were just looking at?

A. If I got the right thing, okay.

Q. Directing your attention to Page 81. You can let me know when you are there.

A. Okay.

Q. As with other claims you divide Claim 11 up into subparts, correct?

A. Yes.

Q. And specifically subpart 11e, which is on Page 87 of your declaration, just let me know when you are there.

A. Okay.

Q. This states, "Positioning prongs of a forklift in one or more slots positioned adjacent the bottom of each of the plurality of containers in a defined region to thereby enhance lifting and positioning of the containers for stacking and moving the plurality of containers," correct?

A. Yes.

Q. And, again, you labeled this as element 11e, correct?

A. Yes.

Q. So you state in paragraph -- in

Paragraph 184 that, "forklift pockets may be provided as optional features," correct?

A. Yes.

Q. You state a POSITA, this is in Paragraph 84 -- 86, sorry?

A. 186?

Q. Yes, directing to you 186, the second half of 186 which is on page 189, you state that, "a POSITA would be motivated to add these forklift pockets in order to facilitate transferring the container," right?

A. I miss where you start again, Paragraph 186?

Q. Yes.

It is the third line down, you talk about how a POSITA would be motivated to add these forklift pockets in order to, quote, "facilitate transferring the container," correct?

A. Yes, that is -- yes.

Q. And also to help with effectuating the container movement described in Sheesley, correct?

A. Yes.

Q. So this is the same Sheesley we looked at before, correct, Exhibit 10?

A. Yes.

Q. You recognize that Sheesley's system doesn't use a forklift, right?

A. I don't know how I recognize that, I mean.

Q. Sheesley specifically discloses using a rough terrain container handler, right?

A. Well, that is one thing that could be used. But, you know, it is like whatever way that you can move containers around, there are multiple ways to move containers around, and it talks about one way, but Sheesley would know that forklifts is a common way of moving containers.

Q. So Sheesley discloses system -- use of -- strike that.

Can we call a rough terrain container handler an RTCH?

A. It mentions that as, you know, in an example of something that can move a container around.

Q. I am just asking if we can use the acronym RTCH to describe a rough container, I am just asking -- strike that.

I am just asking if we can use the acronym RTCH to describe a rough terrain container handler in our discussion, is that okay with you?

A. Tell me which paragraph you are referring

to.

Q. Sure.

So Paragraph 83 of Sheesley specifically states -- you can let me know when you are there -- "Since well sites have a tendency to be rough the rough terrain container handler (RTCH), as made by Kalmar from Cibolo, Texas, may be used to pick up and stack the modified cargo containers as illustrated in Figure 3," correct?

A. Yes.

Q. So can we call the rough terrain container handler the RTCH?

A. Yes, that would be fine.

Q. So looking at Figure 3 of Sheesley, which is, again, Exhibit 10, this figure shows the RTCH on the right, correct?

A. Let me see if that corresponds to the number. Yes.

Q. So Figure 3 of Sheesley shows the RTCH stacking containers, correct?

A. Yes.

Q. Specifically Figure 3 of Sheesley shows three stacks of containers, right?

A. Yes.

Q. Each three containers high for a total of

nine containers?

A. That's correct.

Q. And the RTCH is attached to the top container of the rightmost stack, right?

A. Well, that is what it looks like.

Q. The container -- strike that.

You wouldn't consider Figure 3 of Sheesley to be one stack of six containers next to a stack of three containers, right?

MR. JEDLINSKI: Objection, form and scope.

THE WITNESS: I suppose you could look at any way you want to look at it, but there is nine containers there.

BY MR. KANTAREK:

Q. So you would consider it as a stack of -- strike that. You could describe this as a stack of six containers next to a stack of three containers?

MR. JEDLINSKI: Objection, scope.

BY MR. KANTAREK:

Q. Is that your position?

MR. JEDLINSKI: Form.

THE WITNESS: I mean, you can -- you know, it describe it any way you like to describe it. That doesn't really matter to me.

BY MR. KANTAREK:

Q. Looking at this using the term stack, how many stacks would you say are depicted here?

A. Well, there is -- it depends on how you want to define a stack. I mean, you can call it one stack, you can call it three stacks, whichever -- however you want to define it.

Q. So you would describe this -- I am asking what you would do. You would describe this as either one or three stacks?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Well, it could be described as two stacks, you know, depending on how you want to describe a stack and what your specific definition is for what project or whatever you are working on would be.

BY MR. KANTAREK:

Q. I am just trying to understand your understanding of stacks.

So how many stacks would you say is depicted here?

A. Again, it would depend on what the situation is and what kind of work you would be trying to do with it and since that isn't defined here I don't -- it could be any definition or any --

whatever, one, two, or three, depending on how you want to define it.

Q. Your definition of the word stack depends on what situation you are in and what kind of work you are trying to do?

A. Or whatever the context is, yes.

Q. So you don't have any specific opinion on how many stacks are disclosed in Figure 3?

A. Not a specific.

You know, it could be whatever -- it could be defined anyway you want. It is what it is.

Q. So you believe that a stack could be any number of containers near each other, not necessarily stacked on top of each other?

MR. JEDLINSKI: Objection, form.

THE WITNESS: I don't know exactly what you meant by that, but if you would show me a picture or you describe something.

BY MR. KANTAREK:

Q. So looking at Figure 3 you said there could be two stacks here, correct?

A. Depending on how -- depending on whomever is describing it it could be one, two, or three stacks.

Q. So in the event that it is two stacks,

how many containers is in each stack?

MR. JEDLINSKI: Objection, scope.

THE WITNESS: Well, if it were two stacks there would be probably six in one stack and three in the other.

BY MR. KANTAREK:

Q. So you believe that a stack can include containers next to each other, not necessarily on top or underneath each other?

MR. JEDLINSKI: Objection, scope.

BY MR. KANTAREK:

Q. Sorry, I don't think she heard an answer.

A. It could be whatever you want to define it as, the person wants to define it as.

Q. So in a situation where you said there are two stacks here you said there could be a stack of six and a stack of three, with respect to the stack of six that includes containers that are next to each other, not necessarily on top of or underneath each other, correct?

MR. JEDLINSKI: Objection, form.

THE WITNESS: Well, typically when you stack something you put one thing on top of another.

BY MR. KANTAREK:

Q. You stated that optional forklift pockets

come from ISO 496, right?

A. 1496, I believe.

Q. That's correct, 1496.

(Document marked Exhibit 14 for identification.)

BY MR. KANTAREK:

Q. Exhibit 14 is ISO 1496, correct?

A. Yes.

Q. If the forklift pockets were added to the Sheesley container you would add them to the sidewalls, correct?

MR. JEDLINSKI: Objection, foundation, form.

THE WITNESS: Not necessarily.

BY MR. KANTAREK:

Q. Sorry, it might have been -- you would add them to the sides of the container, correct?

A. When you say sides of the container, what do you mean by the sides?

Q. So the ends of the container are the ones that are the door on one side and the sides are the longer sides, so if you added forklift pockets to Sheesley's container you would add them to the sides, correct?

A. You could, but you could also add them to

the doors or the sides, the ends with the doors on them.

Q. So specifically with respect to Exhibit 14, turning your attention to Page 13, which is Page 18 of 30, this depicts forklift pockets, correct?

A. Yes.

Q. And where it states side elevations it shows forklift pockets on the sides of an ISO container, correct?

A. That is what it appears to show, you know, it is --

Q. And the end elevations there is no image, right?

A. Not in this one I don't see it there on that page.

Q. Do you see forklift pockets anywhere on the ends of the container in Exhibit 14?

A. No.

Q. I would like to talk to you a little bit about your retention in this action. You can put that away if you don't need it anymore.

Mr. Schaaf, when were you retained in this action?

A. About a year ago, I think it was like

May. I don't know an exact date, but somewhere about a year ago.

Q. May of 2018 about?

A. Somewhere in that timeframe.

Q. And who contacted you?

A. You mean from the law firm?

Q. I meant anyone, but so the law firm contacted you?

A. At one point, yes.

Q. Who first contacted you?

A. A group called IMS.

Q. Was that like a legal expert search firm?

A. Yes.

Q. Did you have any discussion -- when were you actually retained by Arrows Up?

A. Around the same time.

Q. And did you have any discussions with Arrows Up or counsel for Arrows Up before you were retained?

A. Yes.

Q. And what did you talk about?

A. Just the basic background of the patents involved and my expertise and whether or not my expertise would help with the particular technical aspects of the case.

Q. Did you talk about any of the patents at issue here, the '772, '066, '815, or '602 patents?

A. I don't think so. It has been at least a year, so, or around a year, so I don't recall exactly, but I doubt it.

Q. And I said retained by Arrows Up.

Were you retained by Arrows Up or were you retained by OmniTRAX?

A. I don't know because I don't do the billing.

Q. That is through the search firm?

A. Yes.

Q. Outside of your work in this action have you done any work for Arrows Up before?

A. No.

Q. Have you done any work for OmniTRAX before?

A. No.

Q. Have you had any opinions excluded or rejected by a court?

A. No.

Q. And how long did you -- how did you prepare for your deposition today?

A. Well, about -- when I found out for sure that we were doing it about a week ago I started

reviewing the materials, my declarations, the patents involved.

Q. And about how long did you spend preparing for it?

A. In total it is going to be about I think 30 hours, 30, 40 hours.

Q. Including the deposition today?

A. Yes.

Q. Did you meet with anyone in preparation for your deposition?

A. Yes. I met with the attorneys yesterday.

Q. And which attorneys did you meet?

A. Well, with Will, Steve, and then Rob and Allison were in remotely.

Q. And how long did you talk with them yesterday for?

A. We went from I think 10:00 o'clock to 3:00 o'clock and we had about a half hour or so for lunch.

Q. What did you discuss?

A. Just the background of the patents and the declarations and just getting me -- since it was about a year ago that I put the declarations together trying to get me back up to speed with it since I hadn't looked at that for about a year.

MR. KANTAREK: Why don't we take a break, I think we are almost done.

THE VIDEOGRAPHER: It is 11:55 a.m., we go off the record.

(Recess taken.)

THE VIDEOGRAPHER: It is 11:59 a.m., we are back on the record.

MR. KANTAREK: I pass the witness.

MR. JEDLINSKI: We have no questions on redirect, but we will reserve the right to review and sign.

THE VIDEOGRAPHER: It is the end of the testimony of Robert Schaaf, it is 11:58 a.m., we go off the record.

MS. REPORTER: Do you need a rough draft?

MR. JEDLINSKI: No.

MS. REPORTER: I have it as three-day.

MR. KANTAREK: Five-day.

MS. REPORTER: Do you need five-day delivery as well?

MR. JEDLINSKI: Whatever is standard. We don't need a rush.

(WHICH WERE ALL OF THE PROCEEDINGS HAD OR TAKEN PLACE IN THE ABOVE-ENTITLED MATTER.)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARROWS UP, LLC
Petitioner
v.
OREN TECHNOLOGIES LLC,
Patent Owner

Case No.: IPR2018-01230
Patent No.: 9,248,772

Case No.: IPR2018-01231
Patent No.: 9,617,066

Case No.: IPR2018-01232
Patent No.: 9,682,815

Case No.: IPR2018-01233
Patent No.: 9,914,602

I, ROBERT SCHAAF, being first duly sworn, on oath say that I am the deponent in the aforesaid deposition taken on April 12, 2019; that I have read the foregoing transcript of my deposition, consisting of pages No. 1 through No. 117, inclusive, and affix my signature to same.

_____

Subscribed and sworn to
before me this day of
, 2019

Notary Public

STATE OF ILLINOIS)
) SS.
COUNTY OF DUPAGE)

I, STEPHANIE A. BATTAGLIA, CSR and Notary Public in and for the County of DuPage and State of Illinois, do hereby certify that on April 12, 2019, at 9:07 a.m., at 131 South Dearborn Street, 30th Floor, Chicago, Illinois, the deponent ROBERT SCHAAF personally appeared before me.

I further certify that the said ROBERT SCHAAF was by me first duly sworn to testify and that the foregoing is a true record of the testimony given by the witness.

I further certify that the deposition was terminated at 11:58 a.m.

I further certify that I am not counsel for nor related to any of the parties herein, nor am I interested in the outcome hereof.

In witness whereof, I have hereunto set my hand and seal of office this _____ of April, 2019.

_____

Notary Public

CSR No. 084-003337 - Expiration Date: May 31, 2019.