UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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BAZOOKA-FARMSTAR, LLC,

Petitioner,

v.

NUHN INDUSTRIES LTD.,

Patent Owner.

_____

Case IPR2023-01161

U.S. Patent No. 11,358,425

_____

CONFIDENTIAL VIDEO-RECORDED REMOTE ZOOM VIDEOCONFERENCE DEPOSITION OF DOUGLAS PRAIRIE

Taken on Tuesday, June 25, 2024

Scheduled for 9:00 a.m. EDT

REPORTED BY: DANA S. ANDERSON-LINNELL

Job No.: MW 6753765

CONFIDENTIAL VIDEO-RECORDED REMOTE ZOOM VIDEOCONFERENCE DEPOSITION OF DOUGLAS PRAIRIE taken on Tuesday, June 25, 2024, commencing at 9:02 a.m. EDT, via a REMOTE COUNSEL ZOOM PROCEEDING, before Dana S. Anderson-Linnell, a Stenographic Shorthand Reporter and Notary Public of and for the State of Minnesota.

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APPEARANCES

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(Appearances continued on next page.)

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ALSO PRESENT: Kyle Peterson, videographer

NOTE: The original transcript will be filed with the Merchant and Gould Law Firm, pursuant to the applicable Rules of Civil Procedure.

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INSTRUCTIONS NOT TO ANSWER: (None.)

PRODUCTION REQUESTS: (None.)

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REPORTER'S NOTE: All quotations from exhibits are reflected in the manner in which they were read into the record and do not necessarily indicate an exact quote from the document.

THE COURT REPORTER: Do all counsel stipulate that I can swear in the witness remotely over the Zoom videoconference?

MR. LEACH: Yes.

MR. LUCHSINGER: Yes, we do.

THE VIDEOGRAPHER: Good morning. We are going on the record. The time is 9:02 a.m. Today's date is June 25th, 2024. Please note that this deposition is being conducted virtually. Quality of recording depends on the quality of camera and Internet connection of participants. What is seen from the witness and heard on screen is what will be recorded. Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit 1 of the video-recorded deposition of Douglas Prairie, taken by counsel for the petitioner in the matter of Bazooka-Farmstar, LLC versus Nuhn Industries Ltd., filed in the United States Patent and Trademark Office, Case Number IPR2023-01161. This deposition is being conducted remotely using virtual technology.

My name is Kyle Peterson,

representing Veritext Legal Solutions. I'm the videographer. The court reporter is Dana Anderson from the firm Veritext Legal Solutions. I am not authorized to administer an oath, I am not related to any party in this action, nor am I financially interested in the outcome.

If there are any objections to proceeding, please state them at the time of your appearance.

MR. LEACH: Tom Leach with Merchant and Gould for Petitioner Bazooka-Farmstar.

MR. LUCHSINGER: James Bradley Luchsinger. I'm an attorney with the Harness IP law firm, who represent Patent Owner Nuhn Industries Limited.

THE VIDEOGRAPHER: And would the reporter please swear in the witness.

And, Counsel, you may proceed.

DOUGLAS PRAIRIE,

called as a witness, being first duly sworn, was examined and testified as follows:

MR. LEACH: Great.

EXAMINATION

BY MR. LEACH:

Q. Thank you, Mr. Prairie. Can you please state your name, address and work address for the record, please?

A. My full name is Douglas Samuel Prairie. I live in Brookings, South Dakota. Residential street address is 532 Copper Mountain Circle, Brookings, South Dakota 57006. My primary employer is South Dakota State University. It resides in Brookings, South Dakota as well.

Q. And are you represented by counsel here today?

A. Yes. Brad is representing and work with relative to Harness IP.

Q. And so they're your lawyers in this proceeding?

A. I am consulting with them on this case, so they represent me. I guess they are the legal firm that I'm working through on this case.

Q. Is there any reason you can't give fair and accurate testimony today?

A. No, there's not.

Q. So I want to go over just a few deposition rules. First, have you ever been deposed before? I think I read in your report

or your CV that you have.
A. Yes, I have.
Q. How many times?
A. It was one case. There was multiple depositions in that case. I don't remember the number of times. It was more than one.
Q. Okay. Well, in this depo if I -- if you don't understand a question, please ask me to rephrase it or clarify, okay?
A. Okay.
Q. And if you answer a question, I'll assume you understood the question, is that fair?
A. Fair.
Q. And for the court reporter we need to give verbal responses. So an uh-huh or a shake of the head, that doesn't help. We need to have, like, yes, no or a verbal answer so the court reporter can get it down, okay?
A. Okay.
Q. And I won't talk over you, and I ask that you don't talk over me, and that way the court reporter can get down everything that's said, because it's hard for her to do that when we're talking over each other, okay?

A. Okay.
Q. And you understand that your testimony here today is under oath, and it has the same force and effect as if you were in a courtroom in front of a judge or jury, correct?
A. I do understand that.
Q. And you understand that your counsel may object from time to time, but unless he instructs you not to answer, you have to answer the question asked, correct?
A. I understand that.
Q. I want to go through some vocabulary really quick just so we're straight here on the record. So the patent owner in this matter is Nuhn Industries Ltd., correct?
A. Specifically which patent are you referring to?
Q. The '425 patent.
A. Yes. That's Nuhn's patent.
Q. And that's the patent at issue in this IPR, correct?
A. That is correct.
Q. Okay. And so sometimes I'll refer to Nuhn Industries as Nuhn, patent owner or Nuhn Industries, and you'll understand that I'm

referring to the patent owner in this matter, correct?

A. Yes. I will associate Nuhn with the patent owner.

Q. Okay. And the petitioner in this matter is Bazooka-Farmstar, LLC, and I will refer to them here sometimes as petitioner, Bazooka or possibly defendant, and you understand if I use those terms, that we're talking about the petitioner in this IPR, Bazooka-Farmstar, LLC, correct?

A. That's correct. If I need to, I will clarify.

Q. And the patent at issue in this IPR is U.S. Patent number 11,358,425, correct?

A. That is correct.

Q. And sometimes I'll refer to that patent as the '425 patent. Do you understand that?

A. Yes. If you refer to the '425 patent, I'll correlate the two there.

Q. And sometimes, as you saw in your report and in the papers, we talk about a person of ordinary skill in the art. And sometimes people refer to it as a POSITA, sometimes people refer to it as a POSA, or they generally

just say person of ordinary skill. Do you understand when I say in this proceeding a POSITA, a POSA, a person of ordinary skill in the art or a person of ordinary skill, I'm talking about a person of ordinary skill in the art at the time of the invention?

A. Yes. I understand those words are -- mean the same thing --

Q. Okay.

A. -- refer to the same topic.

THE COURT REPORTER: Gentlemen, can we go off the record for a moment, please?

MR. LEACH: Yes.

THE VIDEOGRAPHER: We are going off the record.

The time now is 9:10 a.m.

(Off the record 9:10 to 9:13.)

THE VIDEOGRAPHER: We are back on the record.

The time now is 9:13 a.m.

BY MR. LEACH:

Q. Mr. Prairie, we had a little bit of a discussion off the record. And you have some documents in front of you. Can you explain or tell me what documents you have in front of

you?
A. Yes, I can do that. I've got one, the '425 Nuhn patent that we discussed. I have the first declaration of mine for this case dated -- this one is dated -- it's Exhibit 2004. I have the latest declaration in this case, Exhibit 2029. And I have Dr. Winkel's expert declaration, Exhibit 1004.
Q. Thank you. If you can go on Exhibit Share, I've marked -- or introduced, I should say, Exhibit 2029. And that's your declaration. I think it was executed on April 2nd, 2024. Can you just briefly look through that and just confirm that that is, in fact, your declaration, and it's the same declaration, Exhibit 2029, that you have in front of you?
A. (Views document.) Just doing a couple spot-checks. Mr. Leach, that document appears to be the same as the hard copy that I have here with me.
Q. Okay. Mr. Prairie, from the perspective of a POSA around 2012, how was the structure of a fluid pump for pumping liquid manure different than a water pump?

A. Please state your question again.
Q. Sure. From the perspective of a POSA around 2012, how was the structure of a fluid pump for pumping liquid manure different than a water pump?
A. During that 2012 time period, a pump that would be able to pump liquid manure would have to have -- be able to handle a wide variety of solids, slurry, components that would be in existence in a -- from an animal waste facility in a liquid manure lagoon. During that time period, a water pump would be different in that, like, a water pump and a pump that is capable of handling liquid manure are not the same.
Q. Okay. I understand what you just provided me was kind of what their capabilities are, but I'm asking you a little bit different question. From the perspective of a POSA around 2012, how was the structure of a fluid pump for pumping liquid manure different than a water pump? I want to focus on the difference in structure.
MR. LUCHSINGER: Objection as to form, vague, asked and answered.

THE WITNESS: Yeah, you changed up your wording there, I believe, from your first question.

BY MR. LEACH:

Q. Well, I'll ask it again. From the perspective of a POSA around 2012, how was the structure of a fluid pump for pumping liquid manure different than a water pump?

MR. LUCHSINGER: Same objections.

THE WITNESS: Yeah, specifically I'm not -- the structure, I was talking about the capabilities of the pump itself, and the capabilities would be different.

BY MR. LEACH:

Q. Sure. But can you tell me what the differences are in terms of structure of a pump for pumping liquid manure compared to a pump for pumping water?

MR. LUCHSINGER: Same objections.

THE WITNESS: It has to do with capabilities.

BY MR. LEACH:

Q. I'm not asking about capabilities, though. I'm asking about what structural differences does a pump for pumping liquid

manure have versus a pump for pumping water. Can you name any?

MR. LUCHSINGER: Same objections.

THE WITNESS: Like I said, sir, it has to do with the capabilities. When pumping liquid manure, liquid manure is that from an animal waste facility, an animal -- from an animal livestock farm. It can contain a wide variety of materials. And it has to do with its ability to be tested in that environment and its capabilities in terms of pumping liquid manure.

BY MR. LEACH:

Q. Okay. I understand that it's your opinion that they have different capabilities. What I'm asking you, though, is a little bit different question. I'm asking: What are the differences in structure of a pump that can pump liquid manure versus a pump that pumps water?

MR. LUCHSINGER: Same objections.

BY MR. LEACH:

Q. What structural differences are there?

A. I've gaven [sic] you an -- I've given you the answer. It has to do with be able to

test its capabilities in that particular application.

Q. Can you name one structural difference between a pump for pumping liquid manure and a water pump?

A. Again, it has to do with its capabilities in that particular application. It needs to be tested in that particular environment.

Q. Can you name a difference between a pump that pumps liquid manure and a pump that pumps water in terms of the pump's structure?

A. The pump has to be capable of handling -- a liquid manure pump has to be capable of handling liquid, solids, a slurry mixture that comes from an animal livestock waste facility. That is what is from the capabilities of a liquid manure pump needs to be capable of doing.

Q. I understand what you keep saying. I understand what you're answering. What I'm asking you: From a physical perspective, the physical structure of a pump, what are the differences in terms of physical structure between a pump for pumping liquid manure and a

pump that pumps water? What physical differences, what structural differences are there between those two types of pumps?

MR. LUCHSINGER: Objection to the form, vague.

THE WITNESS: I can keep giving you the answer, Mr. Leach, that I've been giving if you like.

BY MR. LEACH:

Q. Well, you haven't given me any structural differences. Can you provide one structural difference between a pump that pumps liquid manure and a pump that can pump water?

A. Mr. Leach, I've told you its capabilities. It's the capabilities of the pump.

Q. How do you know if it has those capabilities without looking at the structure?

A. It has to be designed for -- designed and tested for the application of liquid manure.

Q. So is your opinion that a liquid manure pump -- to determine whether it's a -- in fact, a liquid manure pump, you have to find out what its intended design was for?

A. Yes. In any pump there are -- when it comes to pumps, there's a wide variety of pumps. And just saying pump is not a specific statement, specific enough detail. You need to know the application, the product that it's going to be pumping, and then you must design for that particular application, design and test for that.

Q. So can you look at a pump and determine whether it's a liquid manure pump or a pump capable of pumping liquid manure or simply a water pump?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: Like I said, the pump, would have to be known that it was designed for liquid manure applications or a particular application that was being -- and it'd have to be then tested and verified.

BY MR. LEACH:

Q. So the '425 patent, when it says a pump for pumping liquid manure, how is someone supposed to know whether they meet that limitation or not based on the pump?

MR. LUCHSINGER: Objection as to

form, vague.

THE WITNESS: If we reference the '425 patent, so Exhibit 1001, column 1, page 10 of 16, more specifically in the application of the technical field of the '425 patent, it talks about basically it's pumping liquid manure such as animal manure contained in a farm lagoon. And so particular to the '425 patent, you would have to know that that pump is capable, as I said, designed and particularly tested for an application of pumping liquid manure from an animal waste facility, animal -- an animal farm.

BY MR. LEACH:

Q. Okay. I want to go back, though. I'm trying to understand how someone skilled in the art would understand whether the pump they have is a pump for pumping liquid manure or a pump for pumping water. Tell me what you would look for to know the difference between those two pumps in terms of physical properties of the pump.

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: Within industry there

is a wide variety of pumps. The pumps are designed and marketed for -- design, marketed, tested for certain applications. And so if the pump is designed, tested and marketed as a manure -- a pump that is capable of handling liquid manure, then from -- based on that, you could know that it is indeed a pump that is capable of handling liquid manure.

BY MR. LEACH:

Q. I keep hearing your answer, but I just want to confirm. You can't name one physical structural property that a pump for pumping liquid manure has compared to a pump that pumps water, is that correct?

MR. LUCHSINGER: Objection as to form, argumentative.

THE WITNESS: I'm stating that within industry there are a wide variety of pumps. How I know that they would work for an application is that the designer or the company would design, test, and then ultimately market that pump for a particular application.

BY MR. LEACH:

Q. And when you say there's a wide variety of pumps, pumps aren't designed for any

specific fluid, right, they're designed for ranges of fluids, correct?

A. Well, there's hydraulic pumps, there's air pumps, there's water pumps, there's liquid manure pumps. There are a wide variety of -- within industry, as I stated, there is a wide variety of pumps, and they are designed for the particular product, products plural potentially, that they are being sold -- designed, marketed and sold into.

Q. I guess what I'm asking is: To your point, companies provide a range of pumps, and those pumps can handle a variety of different liquids or slurries, right?

A. Sometimes. Not always.

Q. And so --

A. There's a wide variety of liquids, gases that pumps pump.

Q. So I just want to get back and just be confident here. You don't have any opinion on what structure is needed to pump -- sorry. Strike that.

I just want to confirm. You don't have any opinion as to the structure of a fluid pump for pumping liquid manure and what's

required -- strike that again.

From the perspective of a POSA around 2012, you don't have any opinion as to what structure was required of a pump that can pump liquid manure?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I can give you a similar answer, Mr. Leach, again if you wish.

BY MR. LEACH:

Q. I'm asking, though, about structure, and you haven't given me anything on structure.

MR. LUCHSINGER: Objection as to form, argumentative.

THE WITNESS: I've given you information in regards to -- you've asked about a very specific application, and I've said is that for a pump that would pump liquid manure, I would seek out a component that was designed, tested and marketed for that particular application.

BY MR. LEACH:

Q. Sir, are you an expert in pump design?

A. I have worked with pumps in my career.

Q. That's not my question. Are you -- do

you consider yourself an expert in pump design?

MR. LUCHSINGER: Objection as to form to the extent it calls for a legal conclusion.

THE WITNESS: I have worked with pumps throughout my professional career, a wide variety of different style of pumps throughout my professional career.

BY MR. LEACH:

Q. Do you consider yourself an expert in pump design?

A. I have worked with a wide variety of pumps in various applications throughout my professional career.

Q. That's not my question. I'm asking if you consider yourself to be an expert in pump design?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: I have worked with a wide variety of pumps throughout my professional career and their applications.

BY MR. LEACH:

Q. Are you refusing to answer my question?

MR. LUCHSINGER: Objection to form.

He provided an answer, so obviously he's not refusing.

MR. LEACH: Hey, Brad?

MR. LUCHSINGER: Whether or not you think --

MR. LEACH: I'm not going to go through this like we did with Mr. Nuhn.

MR. LUCHSINGER: I don't --

MR. LEACH: You're going to have to keep your objections to proper objections or we're going to call the Board.

MR. LUCHSINGER: You're argumentative in your question. You're saying: This answer is not good enough for me, so I want you to change it. That's improper.

BY MR. LEACH:

Q. Okay. Mr. Prairie, yes or no, do you consider yourself to be an expert in pump design?

A. I have worked with a wide variety of pumps in different applications. There is a wide variety of pumps, so your statement is very broad. And so there are a wide variety of pumps. There are different people that design different style of pumps.

Q. Again, from a structural standpoint, can you name any difference between a pump that can pump liquid manure from a pump that pumps water? Can you name one structural difference?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: A water pump is designed, tested to pump -- and validated to pump water. A liquid manure pump is designed, tested and marketed in the application of liquid manure pumps. A hydraulic pump would be designed, tested and marketed to pump hydraulic fluid. An air pump would be designed, tested and validated to -- as a vacuum pump or some form for air. Again, there are many different fluids, many different pumps, many different applications. They are designed, tested and marketed for a specific application, a range of applications.

BY MR. LEACH:

Q. So is it your opinion that determine -- to determine whether a fluid pump can pump liquid manure you'd have to put it in the liquid manure to see if it can do it?

A. Liquid manure is a -- as contains from

an animal waste facility does not have an industry ANSI spec like water does. There is no institute that conforms to that. And so to validate that a pump is capable of handling liquid manure it would have to be designed and key tested in a liquid manure lagoon-type location to validate that it could be utilized in that particular application.

Q. Would you agree with me that manure lagoons come in -- or contain a wide variety of manure from solid to liquid?

A. Animal lagoons from animal livestock farms contain a variety of -- contain liquids, solids. They could contain crust. The layers could be stratified at times. It's not a cohesive material. Sometimes has to be agitated. So there is a -- within an animal livestock manure lagoon there are various forms of liquid and solids and slurries within that lagoon.

Q. And so if there's a wide variety of fluids in a manure lagoon, how do you know if the pump is able to handle that wide variety of fluids and solids?

A. Again, it has to be -- as I've stated,

Mr. Leach, it has to be tested for that application. It's designed and then tested to validate that it can be done.

Q. And so you would agree with me that each manure lagoon is different, correct?

A. Define by what you mean by "each," please.

Q. All the various manure lagoons in the country, in the different parts of the country, and depending on the animals, the manure lagoons are different in terms of what they contain.

A. Manure lagoons contain a wide variety of liquids, solids, slurries and solids, and they have some similarities, but the composition from one farm to the next can vary.

Q. And so if it varies and your point is the pump has to be designed for that specific fluid, wouldn't you have to design or test a pump under your definition at each specific lagoon to see if it will pump liquid manure?

A. In the testing of a product like this, Nuhn would not have gone to a single farm to test their system. They would have tested across a wide variety of different agricultural

facilities to validate that they were -- the machine was working. So to my point is they would test in a wide variety of different livestock facilities and different applications to validate that they could -- that they had effectively designed, and that they had effectively marketed a product that would work across different facilities.

Q. So would a POSA have to understand the intent of the designer of the pump and where it was tested to determine if it's a pump for pumping liquid manure?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I don't know if I understand your question, Mr. Leach.

BY MR. LEACH:

Q. So I'm trying to understand how you figure out whether a pump is a pump for pumping liquid manure. And from what I understood, you have to understand the intent of the designer, and it has to be tested for that application. And so my question to you is: To determine if a pump is a pump for pumping liquid manure, do you have to know what the designer's intent was

for that pump and where it was tested to know whether it is a pump for pumping liquid manure?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: As I've stated, the pump, if it was designed, tested and marketed for liquid manure, that would be what -- I guess that goes back to my original answer from before.

BY MR. LEACH:

Q. Would a -- a pump that was designed, tested for liquid manure, would that pump water?

A. Within liquid manure there can be water, within animal liquid manure from an animal waste facility.

Q. That's not my question, sir. Would a pump that was designed to pump liquid manure pump water?

A. There is water in liquid manure, and so a pump that is capable of handling liquid manure could pump water, can pump solids, it can pump solids embedded in that water, it can pump slurry because that's what exists in liquid manure from an animal waste facility.

Q. Okay. You understand that centrifugal pumps are used to pump manure and liquid manure, right?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: A centrifugal pump is a family or a category of pump. It isn't necessarily -- a centrifugal pump doesn't necessarily mean that it's a liquid manure pump.

BY MR. LEACH:

Q. Well, can a centrifugal pump pump liquid manure?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Simply telling me it's a centrifugal pump, based on only that description is not sufficient for me to tell you if it's capable of pumping liquid manure.

BY MR. LEACH:

Q. Sir, relevant to this case, what do you consider yourself to be an expert in?

A. I have an expert -- a background in -- I grew up in agricultural, around livestock, grain production facilities. I have an

undergraduate degree in agricultural and biosystems engineering. I have a master's degree in mechanical engineering. I have a multi-decade career of designing, testing and operating off-highway and construction equipment, including focused around agricultural and construction equipment of a wide variety of form. I presently teach at South Dakota State University for the ag and biosystems engineering department where we teach on all aspects of farm equipment, machinery design and operation, including the type of equipment that would be used in an animal waste -- an animal farm or a lagoon-type application like we're talking about. So I have -- my expertise is in agricultural equipment and off-highway equipment.

Q. Would you agree with me that within the class of centrifugal pumps some of those pumps are used to pump manure?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: Please state your question again, Mr. Leach.

MR. LEACH: Dana, could you please

read that back?

(Whereupon, the court reporter read back the previous question.)

THE WITNESS: What form of manure are we referring to, Mr. Leach?

BY MR. LEACH:

Q. Let's start with liquid manure.

MR. LUCHSINGER: Objection to form.

THE WITNESS: Please provide more context to your question, Mr. Leach.

BY MR. LEACH:

Q. Sir, you're the expert here. I asked a fairly straightforward question. I'll have the court reporter read it back.

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Same objection.

THE WITNESS: As I said, your question was manure, Mr. Leach. So which form of the question are you asking me to answer?

BY MR. LEACH:

Q. Sorry. Let me rephrase that. In the class of centrifugal pumps, are some of those pumps used to pump liquid manure?

MR. LUCHSINGER: Objection, vague.

THE WITNESS: You've giving still a broad statement there. I would need some more definition about the centrifugal pump that you're talking about in specific.

BY MR. LEACH:

Q. I'm just asking whether within the class of centrifugal pumps are some of those centrifugal pumps capable of pumping liquid manure?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: As I said, there's a wide variety of centrifugal pumps. There are some centrifugal pumps that are capable of pumping liquids and solids and slurries.

BY MR. LEACH:

Q. Okay. And so would those be capable of pumping liquid manure?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Just based on -- just stating a centrifugal pump that can handle trash or slurry does not necessarily mean it's capable of pumping liquid manure.

BY MR. LEACH:

Q. Why not?
A. I can go back to my original statement and reiterate that if you wish. The pump would have to be validated and tested for that particular application. Just stating a centrifugal pump is not sufficient to know if it's capable of pumping liquid manure from an animal waste -- from an animal farm lagoon.
Q. So let me ask you this: What structure makes a centrifugal pump capable of pumping liquid manure?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: Again, that centrifugal pump that you were talking about would have to be designed, tested and validated that it works in a liquid manure application to be effectively marketed and used for that application.
BY MR. LEACH:
Q. So if I have two pumps that are identical, and I market one of the pumps to pump water from lakes and streams to fight fires, and it's capable of pumping liquid manure as well, as long as I market it as a

pump for pumping water out of lakes and streams, you would not consider it a fluid pump for pumping liquid manure, is that correct?

MR. LUCHSINGER: Objection to form, vague, incomplete hypothetical.

THE WITNESS: Mr. Leach, did you -- or the company you're referring to, did they test that particular pump for both applications?

BY MR. LEACH:

Q. In this hypothetical it was not tested for manure, no.

A. Then I would have not have confidence that it would work in my application, sir. If it wasn't tested for it, how can you effectively market it and sell it for that application?

Q. I'm saying, though, assuming it pumps liquid manure just fine, but it wasn't tested or marketed for liquid manure, would you consider that a fluid pump for pumping liquid manure?

MR. LUCHSINGER: Objection as to form, vague, incomplete hypothetical.

THE WITNESS: Yeah, you're asking me

to buy a product that you've never tested for the application. I wouldn't do that for anything.

BY MR. LEACH:

Q. I'm not asking you to buy it.

A. Why -- go ahead.

Q. Go ahead. I'm not asking you whether you'd buy it. I'm asking: In your expert opinion, would you consider that, based on the conversation we've been having, to be a fluid pump for pumping liquid manure?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Well, you told me that you marketed it for, but you never tested for it. So if you didn't test for it, how do you know that it worked for that application?

BY MR. LEACH:

Q. I'm telling you -- I'm asking you to assume that it pumps liquid manure, right, but it's marketed and was tested to pump water from lakes and streams for firefighting, would you consider that pump a fluid pump for pumping liquid manure based on your answers here?

MR. LUCHSINGER: Objection to form,

vague, incomplete hypothetical.

THE WITNESS: Why would I assume that, sir? If you hadn't tested for it, why would I make that assumption?

BY MR. LEACH:

Q. I'm asking you to assume that, though. For the purpose of this question assume that this pump can pump liquid manure. It's a fluid pump, and it can pump liquid manure. But my question is: Assuming that, if this pump was designed for water and marketed to pump water from lakes and streams for firefighting, under your definition, would you consider it a fluid pump for pumping liquid manure?

MR. LUCHSINGER: Same objection.

THE WITNESS: I believe that's an incorrect assumption, so I wouldn't assume -- I cannot unilaterally assume that it will work for that application. Just because you say it does doesn't mean that it can.

BY MR. LEACH:

Q. Do you understand what -- I'm asking you to assume something. So can you just take that as true? The pump we're talking about, this hypothetical pump will pump liquid manure,

okay? It does that. That's a fact. I want you to assume that, okay? And now what I'm asking is: If that pump was designed for water, and it was marketed to pump water from lakes and streams for firefighting, would that pump meet your definition of a fluid pump for pumping liquid manure?

MR. LUCHSINGER: Objection to form, asked and answered, incomplete hypothetical.

THE WITNESS: So you're asking me to make an assumption on something without any details, without knowing any facts, any test data, just make a unilateral assumption. No, I'm not going to make that assumption.

BY MR. LEACH:

Q. Sir, I'm just trying to test what you consider to be a liquid manure pump or a pump -- fluid pump for pumping liquid manure versus a pump for pumping water. I'm trying to understand where -- how you're defining this, okay? And so I'm asking you to assume that this pump, that this hypothetical pump pumps liquid manure just fine, but it was designed and marketed to pump water from lakes and streams for firefighting. Would you consider

that pump a pump for pumping liquid manure?

MR. LUCHSINGER: Same objections.

THE WITNESS: Well, you just told me it was designed, tested, sold and marketed for a firefighting application, correct?

BY MR. LEACH:

Q. Yep.

A. So now you want me to just unilaterally make an assumption it can pump any liquid or any slurry. No, I cannot make that assumption. Unless you have that pump that you just described has been validated that it works, I'm not gonna go just based off on assumption.

Q. So in your mind for a pump to be a fluid pump for pumping liquid manure, it has to be specifically designed for manure or liquid manure and validated for liquid manure, is that correct?

A. I wouldn't take -- a hydraulic pump that's designed to pump hydraulic fluid, tested, designed and marketed, I would not make an assumption that that would work on a liquid manure application. If I went through the same -- just because it's a water pump, I cannot make the assumption that it's gonna work

in a liquid manure application either. And so it has to be designed, tested for that particular application, as I've stated many times.

Q. So I just want to make sure I'm understanding you. For a fluid pump for pumping liquid manure, to meet that limitation, it would've had to have been specifically designed for liquid manure and tested and validated that it could actually pump liquid manure, is that your opinion?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Your first part of your question cut out, Mr. Leach. Can you restate that?

BY MR. LEACH:

Q. Sure.

MR. LEACH: Dana, could you please read that back for me?

THE COURT REPORTER: Sure.

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Same objection.

THE WITNESS: A pump that is being

used in the application of pumping liquid manure such that from an animal farm lagoon would have to be designed and tested to validate that it would work in that particular application.

BY MR. LEACH:

Q. And that's the only way it would meet the element fluid pump for pumping liquid manure?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: You would have to make sure that it would meet that -- design and test for that particular application, then you would be able to know that it would be able to work in that application. You could even state more specifically on water, water can be cold, water can be hot, a pump would have to be -- even a pump capable of pumping water would have to be designed and tested for a particular application of water. Is it super cold water? Is it super hot water, almost steam? Again, that alone, just by stating a pump can pump water isn't sufficient either. You have to know characteristics about the particular fluid

or product or slurry or mixture. Again, it has to be designed and tested and validated for a particular application of the products that you are pumping or moving.

BY MR. LEACH:

Q. What do you mean by "validated"? Is there a specific test? Is there an organization that validates a pump for pumping liquid manure? What do you mean by "validated"?

A. Validation is testing. So you can call it validation testing. It validates that it works for that particular application that it was designed for.

Q. So to meet the limitation a fluid pump for pumping liquid manure it has to be a pump that the designer intended to design it for liquid manure, and then it has to be validated by testing that it can, in fact, pump liquid manure, is that your opinion?

MR. LUCHSINGER: Objection to form.

THE WITNESS: If you're going to go in the business of selling pumps that pump a particular product, you would need to design, test, and then effectively through validation

testing show that it could work in those particular applications that you are marketing within. So you are asking about a liquid manure pump. So a liquid manure pump has to be capable of handling liquids, solids, slurry from an animal farm. So it would have to be -- before you could sell and market it as that you would need to effectively design, test, validation testing in that particular application or applications before it would be effectively sold.

BY MR. LEACH:

Q. And so only until that happens -- strike that.

Unless that happens, what you just testified to, it would not be considered a fluid pump for pumping liquid manure, is that correct?

A. I can put it in another context. We'll go back to hydraulic pumps. I wouldn't buy or recommend a pump to pump hydraulic fluid unless I knew that the pump came from a company that designed and tested and ran the validation testing, ran the hydraulic fluid power pump in the particular pressures, operating

temperatures, duty cycles, all those particular applications. And so you are giving very broad statements. And I'm telling you that a liquid manure lagoon contains a wide variety of components from liquid through solids that must be agitated. And I would, in order to work in that application, have to design and test it. Just like your water pump that you talk about for firefighting, it would need to be designed and tested in the application that a firefighting application would see.

Q. Can you generally describe what a centrifugal pump is, the components of a centrifugal pump?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Do you have a specific centrifugal pump in mind?

BY MR. LEACH:

Q. No. I just want you to generally describe -- you're the expert here. You tell me. What generally is a centrifugal pump? Can you describe one? What are the components?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: A centrifugal pump is a broad category. There are multiple subcategories of pumps within the centrifugal pump series of pumps.

BY MR. LEACH:

Q. What are those categories?

A. I don't remember all the different segments within there off the top of my head.

Q. Can you name one?

A. Well, they're usually potentially categorized based on the type of product that they're moving potentially.

Q. I'm not asking about their application. I'm talking about structure now. Can you just give me one example of what a centrifugal pump has in terms of structure?

A. So you don't want to worry about application at all? Because that's usually -- a pump just for the sake -- and without an application is -- you're gonna have to know the application before you would go ahead and select a pump or talk about it.

Q. Okay. For pumping water. Give me an example generally the structure of a centrifugal pump. I just want to understand

from you: What is a centrifugal pump? And if you need the application, water.

A. Describe some more features about the water.

Q. Lake water.

A. Is it clean lake water? Is it...

Q. Sir, I just want you to give me an example of what a centrifugal pump has generally in terms of structure. Can you do that?

MR. LUCHSINGER: Objection to form, argumentative.

THE WITNESS: If you would like to put a picture of a centrifugal pump up on the screen, I could identify components of that pump for you if you wish.

BY MR. LEACH:

Q. Can you just generally describe for me, though, a centrifugal pump? What are the components?

MR. LUCHSINGER: Objection as to form, vague, asked and answered.

THE WITNESS: If you wish to put on my screen a picture of what you refer to as a centrifugal pump, I could identify the

components for you.
BY MR. LEACH:
Q. I'm not here testifying. I'm asking you what a centrifugal pump is. If I provide you a picture and tell you it's a centrifugal pump, that's not what I'm asking for. I'm here to ask you questions and get your opinions, okay? And so yes or no, can you generally describe the components of a centrifugal pump?
A. If you wish to put up a brochure of a separate category of pumps, we can go through and talk pumps if you wish. But you're giving a very broad statement. And I'm telling you that I could identify components of a centrifugal pump if you put them on a screen. But, again, there's a variety of different types of centrifugal pumps.
Q. Okay. So you said there's a variety of them. Describe one of those in your variety of centrifugal pumps.
A. Well, I'm asking you. Do you define -- are the pumps that you -- the specific application that you would like to use, and I could maybe describe a pump that could be used for that. Particularly for water or something,

if you want to put some hard definitions and specs. You're asking me as an expert, I would have to know the type of fluid that you're pumping, its temperature ranges, level of solids, some different characteristics about that. Just to tell me it's a centrifugal pump, I would not go ahead and just spec. I would ask -- and if my students came to me and asked on that, I would ask pressure head, I would ask a lot of particular questions about that before I went ahead and spec. That's one of the things I teach. So for you to ask me that, please identify the specifications that you would potentially -- a more detailed application, the type of pump you like to choose, and maybe we can have a more detailed conversation, sir.

Q. Well, I'm just asking for an example, any example. You pick one. I don't care. I don't care the application. I don't care the fluid. I just want you to tell me: Generally, how does a -- or what is a -- what is the structure of a centrifugal pump?

MR. LUCHSINGER: Objection to form.

THE WITNESS: I'm simply asking you

back to show me a pump or an application, and then spec it out, and we can talk some specifics about that pump.

BY MR. LEACH:

Q. So are you refusing to answer my question? I'm asking you to provide me generally what the structure of a centrifugal pump is. Are you refusing to do that?

MR. LUCHSINGER: All right. So, Tom, he's not refusing if he's sitting there talking. He's providing an answer.

MR. LEACH: Brad, just object, and that's it, okay? Improper objections.

MR. LUCHSINGER: You're badgering the witness. You're badgering the witness.

MR. LEACH: I'm just trying to get answers to my questions.

THE WITNESS: Mr. Leach, if you want to give a specific application for a pump, we can talk about the specifics of that pump. If you want to put up a picture of a pump, we can go through and edify some definitions there if you would like.

BY MR. LEACH:

Q. So kind of closing the loop here, what

structure is required of a pump that is capable of pumping liquid with suspended solids?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: So you have a new question here. It's a different form than what you did before. So please restate it.

BY MR. LEACH:

Q. Yep. What structure is required of a pump that is capable of pumping liquid with suspended solids?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Simply stating suspended solids is insufficient to provide enough definition for your question.

BY MR. LEACH:

Q. Do you have any opinion on what structure is required of a pump that is capable of pumping liquid with suspended solids?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Please define -- put further definition to what the suspended solids are. Are they sand, rocks, liquid manure,

grass, straw? Just saying suspended solids is insufficient to answer your question.

BY MR. LEACH:

Q. I'm asking you: Yes or no, do you have an opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids?

MR. LUCHSINGER: Objection, vague.

THE WITNESS: As I've stated, just simply stating suspended solids is insufficient technical information to provide a yes-or-no answer to your question.

BY MR. LEACH:

Q. I'm asking if you have an opinion on that point, yes or no.

MR. LUCHSINGER: Objection to form, vague, asked and answered.

THE WITNESS: As a technical individual, I would ask you to further define some specifications about those suspended solids and their characteristics. Simply stating suspended solids is an insufficient technical specification.

BY MR. LEACH:

Q. So are you saying without further detail

you cannot provide an opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids, is that accurate?

A. What I'm asking you for is to further define the suspended -- the characteristics of the suspended solids, because the characteristics of the suspended solids will vary how -- what that fluid, slurry mixture may be, and therefore would play into how I answer my question. So you would -- I'm asking you to further define your question for me to give you a specific answer.

MR. LEACH: Dana, could you please read my question back?

THE COURT REPORTER: Yes.

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: What I'm stating is that my next question would be: What are some specifications of the suspended solids? That would allow me some further -- allow me to further provide -- allow me to provide you with

an answer to that question.
BY MR. LEACH:
Q. Without that definition, though, without that further specification, do you have an opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids?
MR. LUCHSINGER: Objection as to form, vague.
THE WITNESS: Again, are the suspended solids -- are they three-inch, four-inch boulders? It is -- is it a small microparticle? Suspended solids is insufficient, Mr. Leach, and so that's why I can't give you an answer.
BY MR. LEACH:
Q. Okay. I just want to ask this one more time. Without giving any further detail about what the suspended solids are, do you have any opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids?
MR. LUCHSINGER: Objection as to form, vague, asked and answered.
THE WITNESS: Again, a suspended

solid as simply a statement is not a spec. It could be a micro-solid. It could be a large solid. That is going to change how I would answer that question. There are characteristics of that solid that could affect how I would respond as well.

BY MR. LEACH:

Q. And so are you telling me without further detail you can't and you don't have an opinion -- sorry. Are you saying without further detail about what the suspended solids are, you do not have an opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids?

MR. LUCHSINGER: Objection as to form, vague, asked and answered.

THE WITNESS: Again, an opinion can be formed if I am provided with answers to the questions I have asked you. Keep answering it -- a technical expert would keep answering questions to get sufficient information to put in -- define context of the application you're asking about. You have yet to provide sufficient specifications for me to answer that question.

BY MR. LEACH:
Q. Okay. What structure is required of a pump that is capable of pumping liquid with suspended solids where those suspended solids are the components of liquid manure?
A. So now you're talking -- please state your question again. You switched over to liquid manure here now. So you said you weren't gonna give me specs and now you are. So please rephrase your question.
Q. Well, let's step back. Let's be clear here. You have not provided any opinion about what structure is required of a pump that is capable of pumping liquid with suspended solids, right? You need more information is what you're telling me, correct?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: I'm asking you to provide some further detail about those suspended solids.
BY MR. LEACH:
Q. And what I'm saying is: If I don't provide that detail, are you telling me you have no opinion as to what structure is

required of a pump that is capable of pumping liquid with suspended solids? Is that your answer?

MR. LUCHSINGER: Objection as to form, misstates prior testimony.

THE WITNESS: What I am stating is that I would need some additional technical specifications and characteristics of that product.

BY MR. LEACH:

Q. Okay. And so with respect to just the general suspended solids, you have no opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids, is that right?

MR. LUCHSINGER: Objection as to form, misstates prior testimony.

THE WITNESS: Again, you would have -- I can ask -- keep asking the same question of you, is that further define what those suspended solids are, the characteristics of them, size, characteristics. If you provide some further information, then we can have a more defined conversation here.

BY MR. LEACH:

Q. Okay. So for the record, you have not provided an answer or an opinion as to what structure is required of a pump that is capable of pumping liquid with suspended solids? And if you have an opinion on that, tell me. This is my opportunity to get it. So I'm asking you: Do you have an opinion on that?

MR. LUCHSINGER: Tom, are you talking about what has been --

MR. LEACH: Brad -- Brad --

MR. LUCHSINGER: -- the opinions in his --

MR. LEACH: -- either object or --

MR. LUCHSINGER: -- declaration or --

MR. LEACH: -- we're going to call the Board.

MR. LUCHSINGER: Look, are you asking about what's in his declaration, or are you asking for him to provide an opinion outside that context right now during the deposition for the first time?

MR. LEACH: Dana, could you please read my question back?

THE COURT REPORTER: Yes.

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Objection to form.

THE WITNESS: Mr. Leach, if you want to have -- are you assessing something that can handle sand and rocks? Are you assessing --

BY MR. LEACH:

Q. Sir, I'm going to cut you off. I've heard this before. Do you have an opinion on the question I just asked? Just tell me yes or no.

MR. LUCHSINGER: Objection to form.

THE WITNESS: Mr. Leach, I've simply asked you a question. You asked for a technical assessment. To give a technical assessment I'm asking you: It is a -- is it something that is sand and rocks? Is it an application of solids that is more like what you would see in a liquid manure application? Because they're not the same application.

BY MR. LEACH:

Q. I get that. But what I'm asking you is more specific to general suspended solids. I'm asking if you have opinion on that, and I haven't heard it yet, and I've given you the

opportunity to give me that opinion. So if you have one, now is your chance.

MR. LUCHSINGER: Objection as to form, argumentative, vague, asked and answered.

THE WITNESS: Again, is it a trash pump that's handled for construction job sites, sand, grit, boulders rocks and gravel? Would it be suspended solids like you would see in a hog lagoon, in a cattle facility, an animal waste lagoon? The answer will be different based on what you tell me. So I cannot give you a broad statement, because the application is different. Suspended solids -- sand, rock is not the same suspended solid as a piece of straw, as a piece of manure, as a piece of crust that has been in there. It is not the same thing. So I cannot give you a broad statement there, because you have yet to define the application. If you'll answer my question, I can help answer your question.

BY MR. LEACH:

Q. Okay. For the record, you have provided no opinion on my question: What structure is required of a pump that is capable of pumping liquid with suspended solids? Okay. I'm going

to move on, though. So you mentioned in there the suspended solids that would be --

MR. LUCHSINGER: Tom, if you're going -- if you're going to move on, let's --

MR. LEACH: Brad -- Brad, stop -- stop with the --

MR. LUCHSINGER: We're asking for a break. Relax. We've been going for over an hour. We need to take a bio break. Relax. Let's go off the record. There's no question on the table.

MR. LEACH: We're not -- yes, there is. We're going to finish this.

MR. LUCHSINGER: No, there isn't. You said you were going to move on. I'm asking for a break. Are you saying you're not going to allow us to take a break to go to the bathroom? Is that what you're saying?

MR. LEACH: I think there's a question pending. But if you want to take a break, go for it.

MR. LUCHSINGER: Let's go off the record.

THE VIDEOGRAPHER: We are going off the record.

The time now is 10:22 a.m.

(Off the record 10:22 to 10:32.)

THE VIDEOGRAPHER: We are back on the record. This marks the beginning of Media Number 2 in the deposition of Douglas Prairie.

The time now is 10:32 a.m.

BY MR. LEACH:

Q. Mr. Prairie, did you talk with Mr. Luchsinger about the substance of your testimony on the break we just took?

A. No, I did not.

Q. Did you talk with Mr. Luchsinger at all?

A. Just said hello, talked about the rain. It's kind of chilly in this room.

Q. Okay. Before we took a break, I wanted to move on and talk about your question of what types of suspended solids. So let's talk about the suspended solids that are typical of hog manure, okay? You mentioned that when we were talking as some detail you might need. So I'm going to ask you this question: What structure is required of a pump that is capable of pumping liquid with a suspended solid where those solids -- those suspended solids are from hog manure?

A. Could you define -- more define the hog -- define the facility or the hog facility that you're talking about? Again, there's -- I'm going to ask you questions -- if you're going to ask me questions, I'm going to ask you further-to-define questions. Within animal livestock facilities there are differences on how animals how -- how they street [ph.], what else comes within there, so...

Q. You mentioned is it hog manure, so I'm giving you what you -- one of the examples you provided, so use that example.

A. So if it's hog manure, does it have a lot of liquid? Does it almost -- is it almost a slurry? Is it -- has it been in the pond for a while? Does it have bedding with it? Has it been scraped with the alleys? How's the operation ran?

Q. Assume all of that.

A. Assume it's solid or -- I mean, I'm not -- I'm asking you the type of operation --

Q. These examples you --

A. -- hog operation that it's working within.

Q. The examples you just provided, assume

all of that or assume a typical hog farm, the suspended particles that would be typical of a hog farm operation in a manure lagoon.

A. Is it a European hog farm? Is it a confinement hog facility? Is it -- are the hogs out on a -- in a barn, in an apron? Again, there's a lot of different type of hog facilities, and the manure within those facilities is different.

Q. And so depending on the differences between those operations, it would be a different pump, your definition of pump would be different, or the structure of the pump would be different?

A. Well, now you asked me about the solids. And so the type of solids, the characteristics of those solids, what that farm lagoon looks like could be different based on the type of -- hog operation or a cattle operation are different, so it varies.

Q. Okay. Going back to the '425 patent, though, the -- claim 1, the element we're talking about here, says a fluid pump for pumping liquid manure. It doesn't provide any of that detail, does it? It assumes everything

within that category, correct?
A. The context of the '425 patent is animal manure contained in a farm lagoon.
Q. Yep. So let's use that as the level of detail we need here, okay? So, again -- and I want to -- I want to talk about a typical hog manure lagoon. What structure is required of a pump that is capable of pumping liquid with suspended solids where those suspended solids are from a typical hog lagoon here in the U.S. if that helps?
A. So you mentioned the context of the '425 patent. Would you like me to give you a description of what Nuhn's centrifugal pump looks like as used in the context of the '425?
Q. So I just want to ask this question: On break, did Mr. Luchsinger tell you to look at the patent or reference Nuhn's lagoon pump in its patent?
A. No, he did not. I just have it right here. And you said -- in the context of the '425, you asked about in that particular application describe that. So I'm asking you: Would you like me to describe Nuhn's centrifugal pump for you?

Q. Let's start with: Generally, what structure -- what structure is required of a pump that is capable of pumping liquid with suspended solids where those solids are from a typical hog manure lagoon? What is the structure of the pump required?

A. I can give you a description of what Nuhn's pump does, which has been tested -- designed, tested and validated to work in that particular application if you like.

Q. I think my question is: What structure? So this is your -- these are your opinions. It's your opportunity to tell me what structure. So I'm asking: What structure? And if you'll give me a structure, that'd be great. Because it's been an hour and a half, and you haven't named one structure or identified any structural pump. So have at it.

MR. LUCHSINGER: Objection to form.

THE WITNESS: So would you like a description of the Nuhn -- is that what you're stating, is that you would like a description of a pump that I know has been designed and tested to work in a liquid manure application? Would you like a description of Nuhn's for the

record?
BY MR. LEACH:
Q. I'm asking: What structure is required of a pump that is capable of pumping liquid with suspended solids where those suspended solids are from a typical hog lagoon? Because you needed more detail, so I'm giving you that detail. And now I'm asking: What is that structure?
MR. LUCHSINGER: Objection to form.
THE WITNESS: As I -- going back to previously this morning, I said the pump, what I would know, would have to be designed, tested and used in the application. I know the Nuhn pump has been designed, tested and validated tested and has industry experience of working in that particular application.
BY MR. LEACH:
Q. Can you answer my question?
A. So would you like me to describe that pump in more detail for you?
Q. I want you to answer my question, sir.
A. Would you like a verbal description of the Nuhn pump for the record?
Q. However you want to answer my question,

it's up to you. You're the one testifying, okay? So I ask a question, and I'd like it if you provide an answer. If my question is not clear, you can ask me to clarify, but I think my question has been clear. So if I could get an answer to my question, that would be great.

MR. LUCHSINGER: Objection to form.

THE WITNESS: So what I'm asking you now in more detail is the liquid manure -- where is it at? Is it coming right out of the pig? Is it on the floor? Has it been scraped? Is it in a lagoon?

BY MR. LEACH:

Q. It's in a lagoon.

A. You know, where is it at? It's in a lagoon? Has it been there for a while? Does it have a crust on the top? Is it settled out? Is it stratified?

Q. It's been there for a while, no crust.

A. Okay. Have you had -- do you have test results of what that might look like in terms of solids percent or anything?

Q. Sir, you're the expert here. All right? This is -- I'm asking you a question. Do you have an answer for the question I just asked?

I mean, you keep coming back and asking me questions. We're wasting a lot of time here.

MR. LEACH: And, Brad, for the record, if this keeps up, we're going to ask for more time from this witness.

MR. LUCHSINGER: You have seven hours of on-the-record time per the rules, and that's what we'll provide.

BY MR. LEACH:

Q. Mr. Prairie, can I get an answer to my question?

A. Well, the evidence that -- the references -- in the reference you've cited animal -- that's the one thing about animal manure, is that it has a wide variety of characteristics. The percent solids content can vary widely. And so I'm asking you is -- some more detail about that. Because even the data that we reference and we talk about in my declaration, in Winkel's declaration, the references cited, they talk about the huge variation of what -- the consistency of the product that is in a livestock waste lagoon.

Q. Have you ever designed a pumping system or a pump?

A. When I worked for Multiquip, I worked on a -- some trash pumps that were construction trash pumps.

Q. And can you describe what those trash pumps structurally looked like?

A. That particular pump by Multiquip was for construction applications, can handle high solids. It was a centrifugal pump-type application. It had -- it was driven off by a diesel engine, had a vacuum, had a prime system, had a shaft, had an impeller, had a housing. So that particular application, I can -- did some design work on that quite a bit. I can -- so that I can define for you. How much further detail would you like?

Q. Were you in charge of designing it, or was there a team?

A. It was a team of individuals, and I had some design component to it.

Q. Did you design the specific pump, or did you look at pump curves and select a pump that would work for the application?

A. That particular application was -- that we worked on was a custom pump design. We worked with a third party. The impeller was

already chosen. We made some modifications to it. We had a -- it had an open -- it had an impeller, a closed -- it was a centrifugal-type pump. It had a shaft. It had an impeller. It had a housing. It had an inlet. It had a discharge. It had a vacuum prime system that was associated with it to prime the centrifugal pump. Like I said, it had a shaft leading to it, had a coupler between that and the engine. There's bearings. There's flanges. I think there it was an either up to six-inch or eight-inch-style design. It had some pretty good size solids with it. I don't remember the exact top-end spec on it.

Q. Do liquid manure pumps sometimes clog?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: Clog in what kind of application? Please -- put further context to your question, please.

BY MR. LEACH:

Q. I'm just saying: Generally, do liquid manure pumps clog at times?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: I'm asking for further context of the situation that you're talking about.

BY MR. LEACH:

Q. I'm not going to provide you further context at this point. I'm asking: Can you answer my question? Yes or no, do liquid manure pumps at times clog?

A. Describe the situation and how it may have clogged and whatever your definition -- your situation is. Put further definition to the situation, please.

Q. I'm simply asking you a question. Can you answer it or not without further information?

A. So by "clog," are you talking the suction side, discharge side, screens? You know, I'm asking for more context.

Q. I'm just asking you: Do liquid manure pumps clog? Can you answer that question? It's fine if you want to say: I can't answer that. I don't know.

A. No. I can give you an answer, but I'm asking again, as we've gone through this before, put some more detail. Is there a

suction hose? Is there a screen? I mean, you're giving some very broad statements, and I'm asking you: Hey, give me a situation, some context to it, and maybe I can further answer your question for you.

Q. Does the type of animal manure affect whether a lagoon will have a crust or not -- strike that.

Let's go back. For my question, do liquid manure pumps sometimes clog, without further information, can you answer that?

A. I'm asking you: Clog where? Is there an inlet hose, a discharge --

Q. I'm saying: Without further information, can you answer my question?

A. Well, I'm -- I have a pretty good background in troubleshooting. Just because someone tells me that it's clogged, okay, that's a starting point, right?

Q. I'm not asking you to troubleshoot, sir. I said, "Do liquid manure pumps sometimes clog?" That's my question. Without further information or you questioning me on all these other metrics, can you just answer that question?

A. Well, I'm asking for some more context.
Q. I'm just asking: Can you answer that question without further context?
A. Hey, sir, I've had a background in troubleshooting design. Just because someone says it's clogged, a pump, hey, that's a starting point, right? So let's start -- let's go on down the troubleshooting tree. Where is it clogged? What's that situation that it's in?
Q. So from that answer --
A. It may not be the pump that's clogged.
Q. From your answer, I'm assuming that the answer is yes, liquid manure pumps sometimes clog, is that fair?
MR. LUCHSINGER: Objection to form.
THE WITNESS: No, I didn't state that. Are you stating that the hose clogged, or are you stating that the pump itself clogged? Are you stating the discharge hose clogged? Because customers will say: Hey, my pump clogged, and it's not the pump itself. It's the suction line. It's the discharge line. It's the screen on the suction line. So to say that the pump clogged is an incorrect

initial assessment. It may be -- is it the screen? Is it the discharge, the hose of the discharge, where a hose goes into? And so yes, I've been through this before, and that you have to ask these questions because it may -- it's quite likely not the pump. It's probably some system associated with the pump.

BY MR. LEACH:

Q. Okay. I'll keep this limited to just the pump. Do manure pumps sometimes clog?

A. Is there a suction hose on the -- is it immersed? Is there a suction hose? Is there a discharge hose?

Q. Are you familiar with these side, tractor-mounted, shore-based centrifugal pumps that can agitate manure lagoons?

A. Do you have a picture of one just so I can make sure we're referring to the right whatever -- just want to make sure I understand -- I am -- I just want to make sure -- either you have to fully describe it, or I need to see a picture of what you're referring to.

Q. What are you familiar with? Can you tell me -- name one that you're familiar with.

A. Well, you're going down -- I just want to understand. Can you show me an image of what you're referring to?
Q. Can you -- I'm asking you: Are you aware of any? Have you seen any?
A. Yes, I have seen different types of manure agitation equipment. I'm asking -- you're asking me a question, so I want some more context as to the type of equipment to make sure I'm visualizing the same thing that you're visualizing.
Q. I'm not visualizing anything. I'm asking you: Are you aware of one? You said you are. Can you describe one that you're aware of?
A. So quite often they can be a wheel-type vehicle. They have an agitation-type system on there for pumping. They can be a three-point mounted. They come in various different forms.
Q. Are there a number of them that are centrifugal pumps?
MR. LUCHSINGER: Objection as to form, vague.
THE WITNESS: Some of them do use a centrifugal-style pump arrangement.

BY MR. LEACH:

Q. Okay. And do those pumps have a housing with an inlet at the bottom and an impeller in that housing?

MR. LUCHSINGER: Objection, as to form, vague.

THE WITNESS: Yeah, again -- I mean, could you be more specific on the one that you're talking -- that you want me to describe? I can tell -- if you show me a picture, I can tell you: Hey, does it have a housing? Does it have an inlet? Does it have a centrifugal impeller? But there are a variety of pieces of equipment and some equipment that I'm not even aware of. And so if you want me to -- if you have a picture of one, we can go through and talk through the components of it if you would like.

BY MR. LEACH:

Q. Sir, you're the one holding yourself out as an expert in this industry, and so I'm just asking you to describe one that you're aware of.

A. I mean, I'm aware of the components -- my declaration didn't go into detail into those

systems. We could pull one up on the web if you wanted to, and we could talk through its components if you'd like.

Q. Sitting here, though, you're unwilling to provide me with one that you're aware of and the details about it, is that what you're telling me?

A. No. I'm saying that if you want to pull up Nuhn's website, we could go through. They offer some various different products. You could do a Google search on one, and we could put an image up, and we could talk through the components of that system. And I can find one if you'd like, if you want me to do that here today.

Q. Well, you said you're aware of these style pumps, right, a three-point hitch, tractor-mounted manure agitation pump, right?

A. Yes, I'm aware of them. I've been around them. I've seen them. I've seen them in use.

Q. So describe one that you're aware of.

A. Are they -- again, is it for -- purely for agitation? Is it for pumping? Is it for pumping and agitation? What's the application

that you would like to do?
Q. I don't know, sir. That wasn't my question. My question is for you to describe one you're aware of. I don't know what you're aware of. I'm trying to understand that. And you keep trying to evade my questions. So tell me one you're aware of.
A. Like I said, my declaration didn't go into detail to that area. I've been around them. I've used them. But as to -- your asking me detailed construction of them, right? That's what you're asking, the detail of every component, the shaft, the housing, all these details, right? Is that what you're asking?
Q. I'm asking you to generally describe one that you're aware of.
A. Okay. Generally, they are -- they can be pull-behind, and they have -- the pump agitation-type system is at the end. It's immersed into the liquid manure lagoon. It agitates and/or pumps the liquid manure. There are three-point-style ones that can go to the edge. Depends on the style of manure lagoon, if it has an apron, how you can get access to the edge of that. So there's a couple

different styles that are quite common.
Q. And when you say there's a couple of different styles that are quite common, would those be centrifugal pumps?
A. They're often ran from a PTO shaft of a tractor. They have a central shaft that would turn an impeller-like feature with a housing that would be immersed into -- that impeller would be immersed into the liquid manure lagoon.
Q. And would you consider those centrifugal-type pumps?
A. The one that I am visualizing is a centrifugal-style arrangement, correct.
Q. Does the type of animal manure affect whether a lagoon will have a crust or not?
A. Within an animal livestock facility the type of animal, their diet, how the manure is scraped, the bedding type, all that plays into in terms of the composition that ends up in the livestock lagoon, manure lagoon. And then even how hot it is over the summer, I mean, wintertime, the time of year, temperature, there's a lot of variables that play into that.
Q. So when you go to agitate a manure

lagoon to pump it out, are there times when there's a crust and there's times when there's not a crust, would that be accurate?

A. Yes. It can depend on even the weather, how often -- you know, if it's -- some are agitated regularly, some may go maybe months without maintenance. Depends on the operation and the care and the maintenance and the operation of that particular farm, yes.

Q. Okay. And then with respect to hogs, is it -- do manure lagoons from hogs typically not have crusts on them?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Hog manure, the crusting can come from -- like I said, it's -- that's a very broad statement. Different animals have different -- like I said, depends on the livestock operation, what they're fed, their rations, whether they're range or they're purely corn fed, whether they're piglets, whether they're, you know, boars. There's different -- there's diets there that change that. But yes, the type of animal, that's -- the type of animal, the managing practices all play into that question.

BY MR. LEACH:
Q. Okay. And so is it less likely that there will be a crust from a hog -- manure in a hog manure lagoon than a, say, dairy cow manure lagoon?
A. Like I said, the different animals have different -- their rations, so it varies.
Q. Okay. I understand that there's --
A. All livestock facilities can have a crust in some form. So the consistency of that crust is going to vary on the bedding. So if you had a hog facility that uses straw bedding, quite likely that straw would work its way in, and that could create some -- a crust. So, again, it depends on management practices in that particular operation. So simply say hog is insufficient. You would have to know some more details about that farm, the bedding, you know. There's other characteristics other than just saying the type of livestock.
Q. Okay. But in terms of manure lagoons that need to be agitated, some may have a crust and some may not, is that correct?
A. So you're getting out of just hogs, you're saying all farm lagoons from all animals

in general, is that what your context is?
Q. Just general manure lagoons, some have a crust and some don't?
A. When it comes to animal waste farm lagoons, like I said, depends on how they're managed, how frequently they're agitated, they may or may not have a crust.
Q. Okay. And so prior to when a lagoon needs to be agitated -- or strike that.
When a lagoon needs to be agitated, sometimes when it's being agitated it has a crust, and sometimes it's being agitated and it doesn't have a crust, fair?
MR. LUCHSINGER: Objection as to form, vague.
THE WITNESS: Like I said, if it was agitated yesterday, it may or may not have a crust, you know. So time plays into that, bedding plays into that, if it was just agitated. So as I said, you've got -- I don't know the specifics on your time period that you're referring to.
BY MR. LEACH:
Q. Sure. But I guess what I'm asking is: At times you will agitate a manure lagoon that

doesn't have a crust to try to stir up the sediment that has settled to the bottom, correct, to pump it out?

A. Yes. It's typical practice to -- before removing the manure from a farm -- an animal livestock lagoon, that you will agitate that to create a homogenous-type material because purely for agronomic reasons you're gonna want that -- you don't want just solids. You want those nutrients to be consistent. And so some of that is quite often done for agronomic reasons to make sure you've got a homogenous product that's being applied to the field.

Q. So would you agree with me that when present the crust on a manure lagoon is not a liquid?

MR. LUCHSINGER: Objection to form.

THE WITNESS: I think I got your question, Mr. Leach. Can you please restate it?

MR. LEACH: Dana, could you please read it back?

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Same objection.

THE WITNESS: The crust can be kind of a slurry mixture. It can have plants growing on top. I mean, it can be a -- it has solids with it, but it could have some liquids within it too, meaning that it may not be a hundred percent crust. It may have crust, water, you know, patches like lily pads per se too, so...

BY MR. LEACH:

Q. Okay. Let's focus on the crust lily pads. Would you consider the crust to be liquid in that example?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: Yeah. I mean, there's -- within an animal waste lagoon there is solids, there's liquids. At times there can be crust formed on the top. There's not really a spec. A crust can be a thin layer of liquid. It can be -- with some solids it can be a thick layer. You know, it can be up to multiple feet thick. You know, it's a -- it varies widely. You know, just simply saying crust isn't even there, it can be thick, thin, stratified throughout the lagoon itself.

BY MR. LEACH:
Q. And so would you agree that in some cases, the crust can have a consistency of dried peat moss?
A. The crust to farm lagoons in some of the references was described as peat moss -- as dried peat moss, yes. Some of the prior art patents, I believe, describe the crust in that form.
Q. And so what is its -- a dry peat moss consistency crust, would that be considered a liquid?
A. You just said dry, right?
Q. I did.
A. Okay. So if it's a dry peat moss, then dried peat moss-like product would not have liquid with it.
Q. And in -- a POSA would understand that there are different forms of manure in terms of consistency, correct?
A. Yes. Within animal waste lagoons there would be a wide variety. There would be solids -- solids, liquids, muck, and all different -- stratified different layers too.
Q. So there would be solids. Would there

be slurry?
A. Yes. There could be solids, there could be slurry, there could be liquid. It could be all mixed already. It's -- there's -- it's a wide variety of consistency.
Q. And sludge at the bottom of the manure lagoon?
A. Sometimes material does settle out and create a sludge-like compound or muck-like compound at the base of a farm lagoon.
Q. And when you say "the base," that would be at the bottom of the farm lagoon?
A. Yes. I would say the bottom, correct. Gravity would settle some of that out.
Q. You've reviewed the Puck patent. I believe that was Exhibit -- let me give it to you here. I'm providing you Exhibit 1014, which is a patent to Puck, U.S. Publication Number US 2014/0112093.
A. The one dated April 24 --
Q. Do you see that, Mr. Prairie?
A. Yeah, I've got it pulled up here. The one dated April 24th, 2014? We're referencing the same one here?
Q. Yes. And it was filed December 12th,

2011.

Do you see that?

A. (Views document.) Yep. I've got it on my screen here.

Q. In your declaration you state that, "In the 2013-2014 time period, floating manure agitation 'boats' were barge-like structures that had to be launched and retrieved using a trailer and/or tractor." Do you agree with that?

A. Can you reference where in my declaration you're reading that from?

Q. Paragraph 24, sir.

A. Of Exhibit 2029?

Q. Yes.

A. Okay. So, Tom, I have that section in front of me. I have the reference. I don't remember if you had a question related to that paragraph.

Q. Yeah. So in the pre-August 2013 time period, what type of manure agitation boats were you aware of?

A. I am most aware of the style like that Puck has shown here, you only have -- or just general boats themselves that would have some

agitation equipment on them, pumping systems.
Q. Were you aware of any that had wheels?
MR. LUCHSINGER: Objection, vague.
THE WITNESS: I can't recall a product as you describe.
BY MR. LEACH:
Q. In paragraph 25 of your report, Exhibit 2029, you talk about viewing a Progressive Dairyman video, correct?
A. Yes. I'm reading -- I see the paragraph you're referring to. And yes, I watched that video.
Q. Do you know whether the Senwatec Amphi-King product was there?
MR. LUCHSINGER: Objection, vague.
THE WITNESS: You're referencing the YouTube video, right?
BY MR. LEACH:
Q. Yes.
A. All I know is what's in that video itself. So I can't answer any questions really beyond what I've posted in my declaration in regards to that video.
Q. You didn't see the Senwatec product there, did you, in that video?

A. In the particular video you described in my Exhibit 2029, yeah, this was on the -- trying to remember -- let's see. There's some context in my declaration more specifically about that, what I do discuss in regards to that. Let me see if I can find that for you.
Q. Sir, I'm just asking if you know -- in your review of that video and the screenshots that you provide, did you see whether the Senwatec product was shown there in that video?
A. I was just gonna reference a section on where I reference that video so I can tell you what I did pay -- focus on. Yeah, the video was more focused on -- let's see if I can find it here. I believe -- is that Exhibit 2008? That video is -- what that references? Yeah. So that video is Exhibit 2008. And it's titled Screenshots From Progressive Dairyman YouTube Channel. The 2014 manure lagoon agitation boat demonstration published on 7/9/14 by Progressive Dairy. Retrieved on 10/2/23. And there's a YouTube link there. On page 123 and 124 of 2029, I reference that video that we talked about, that you reference there showing the -- it is -- what figure number is that? I

just -- it's on page 124, the top image there. So the -- watching that video, it was -- what I can recall was around the operation of the boat itself. I'd have to watch it again to tell you all -- everything that was in there. But the -- Exhibit 2008 on page 124, I screen-captured a section from that video.

Q. Yep. So my question is: Do you recall seeing the Senwatec or Truxor products in that video?

A. I don't recall every scene in that video. I apologize. I don't recall -- I can't recall every scene, every image in that video.

Q. I'm going to show a video. It's Exhibit 1081. This is the complete copy of the UD Umwelt Amphi-King marketing video. And I'm going to share my screen. Mr. Prairie, I kind of want you to watch this if you could.

A. Yeah, I was making sure. I don't think I referenced that in my declaration, so...

Q. Let's see if I can make this work. Can you see the video?

A. Yeah, we've got -- it's coming up here.

Q. I'll hit play.

(Video played on the Zoom screen.)

BY MR. LEACH:
Q. I want to stop right there. Does that look like a typical crust that would be on a manure lagoon?
A. This is a municipal waste lagoon. So this is not a livestock manure lagoon from my understanding.
Q. Okay. But does that look like a typical crust that would be on a manure lagoon?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: Yeah, this is -- from my understanding from the video you've shown me so far, it appears to be a municipal waste lagoon from humans.
BY MR. LEACH:
Q. And you can tell that just from looking at it, or is that just from what you read about the Senwatec vehicle and the documents in this case?
A. Well, there's some background documents to this video. And from my understanding, this is a human municipal waste lagoon.
Q. Sure. I guess what I'm asking, though, is: Does this look like a typical manure

lagoon crust?

MR. LUCHSINGER: Objection to form, foundation, asked and answered.

THE WITNESS: Like I said, it's a human municipal waste lagoon, so it's a different application. It's not a livestock manure lagoon.

MR. LEACH: For the record, we stopped at the time stamp 1:45. And I'm going to start the video again.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop the video at 1:48.

BY MR. LEACH:

Q. Mr. Prairie, can you tell me what type of pump that looks like?

A. No. It's rather pixilated. It looks like a blob on the end of an arm. And I mean that. I just really can't tell enough detail here to tell you any more than that.

Q. Let me see if I make it a little smaller. Can you still see the video?

A. Yeah, I see the video.

Q. Does that help at all?

A. I can see a vehicle. I can see a blue

arm. I can see a work tool at the end of that arm. But as detail beyond that, no. I cannot see sufficient detail beyond that.

Q. Okay. And if I hit play again, does it look like there's an impeller spinning in the work tool?

(Video played on the Zoom screen.)

BY MR. LEACH:

Q. Were you able to see whether there was an impeller in there?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: No. I -- again, I -- there's a black kind of blob on a work tool. I didn't -- I can't see the detail of what you're referring to, Tom.

BY MR. LEACH:

Q. Okay.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop there again at time stamp 1:59.

BY MR. LEACH:

Q. Does that look like a thick crust on the top of this fluid in that portion of the video?

MR. LUCHSINGER: Objection to form,

vague, foundation.

THE WITNESS: It looks like some muck that those blue work tool is emersed in.

MR. LEACH: I'll keep playing.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop at 2:18.

BY MR. LEACH:

Q. Does it look like that work tool is pumping a fluid with suspended solids?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: Like I said, I -- it's dirty, liquid slurry mixture, can't really say for sure from the video, so...

BY MR. LEACH:

Q. Well, would you agree with me it's pumping a liquid slurry mixture?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I'm seeing something discharged. I don't know where -- from the video itself, I don't -- kind of a general work tool, but I don't exactly know the context of that device. So it appears to be discharging,

you know, some kind of dark product that's coming obviously from that municipal waste lagoon.

BY MR. LEACH:

Q. Okay. And so if it's a municipal waste lagoon, you would agree with me that that's probably some form of human feces?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: I don't know. It's a dirty water human -- if it's a human waste lagoon, from what the documents I've had around this video, you know, I don't know the contents of that, but human waste could be feces, urine.

BY MR. LEACH:

Q. And would the substance that it's pumping be a liquid with suspended solids?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I can't tell from the video, Tom, so...

MR. LEACH: Okay. We'll keep going.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop at 2:39 in terms of the time stamp on

Exhibit 1081.
BY MR. LEACH:
Q. And would you agree with me that -- it's not pumping water, is it?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: I don't know. Do you have the -- do you have specs for what that product is? I don't know. Like I said, I don't know the -- I can't tell from the video what the liquid is or solids. Or whatever you have that you're showing there, I don't know what it is.
BY MR. LEACH:
Q. I'm just asking you: Do you believe what it's pumping is water?
MR. LUCHSINGER: Same objections.
THE WITNESS: I don't know what it's -- what the product is.
BY MR. LEACH:
Q. Well, maybe we're -- I'm not being clear. Do you think what it's pumping is only water?
MR. LUCHSINGER: Same objections.
THE WITNESS: I don't know what the

products being agitated and moved is.
BY MR. LEACH:
Q. Would you agree with me that it's not only water, though?
MR. LUCHSINGER: Same objection.
THE WITNESS: I -- honestly, I -- it's a video. I don't know. You've given very little context as to what we're looking at. I mean, if you had a composition that it was water and slurry and human waste, then I guess we can maybe presume that. But just based on the video, I cannot make that assumption.
BY MR. LEACH:
Q. You can't assume that what it's pumping is not only water is what you're telling me from looking at this video?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: It's a video. I don't know. It could be just dirty water. It could be molasses. I don't know. I can't tell exclusively from looking at it.
MR. LEACH: Okay. We'll keep going.
(Video played on the Zoom screen.)
MR. LEACH: We're going to stop at

time stamp 3:09.
BY MR. LEACH:
Q. Does this look similar to the types of crust that may form on manure lagoons?
MR. LUCHSINGER: Objection as to form and foundation. Just, like, it's very badly pixilated on our end.
THE WITNESS: Like I said, if this isn't a livestock waste manure lagoon, that would look different than this. This is --
BY MR. LEACH:
Q. How would it look different?
A. I don't see any bedding in here, any bedding material.
Q. Do you see solids floating on the surface of the liquid here?
A. I don't know. It's kind of a slurry mixture. I don't know its -- I don't know exactly what I'm looking at.
(Video played on the Zoom screen.)
MR. LEACH: I'm going to stop at the time stamp 4:01. And we just watched the Senwatec Amphi-King drive into this lagoon.
BY MR. LEACH:
Q. Can you describe what you saw?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: You want to describe from where to where and what kind of detail are you looking for?

BY MR. LEACH:

Q. Just generally tell me what, you know, one of skill in the art would understand from what you just saw.

A. From what time stamp to present?

Q. From when it was driving to the lagoon and to when it entered the lagoon.

A. Okay. A vehicle drove to the lagoon, a vehicle entered the lagoon or a municipal waste -- or what I believe to be is a human municipal waste lagoon.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop at 4:35 as a time stamp.

BY MR. LEACH:

Q. Do you see the wheels spinning and agitating the slurry in the lagoon?

A. Yeah, I'm not an expert on this vehicle. But if you want to move it back to originally before it entered in, I could take a look at it

again. I don't recall what the -- vehicle before it entered in exactly what it looked like.

(Video played on the Zoom screen.)

MR. LEACH: For the record, I rewound the video or brought the video back to time stamp 3:36.

(Video played on the Zoom screen.)

THE WITNESS: I don't know. Are there six wheels on there? I can't really tell. Or four? I don't know. I can't really tell with all the shielding and the sign exactly the wheel structure on that vehicle. All I could see was the rear drive wheels or front, however you want to orientate the vehicle.

(Video played on the Zoom screen.)

BY MR. LEACH:

Q. Mr. Prairie, did you watch this video prior to providing your expert report -- or your expert declaration, Exhibit 2029?

A. 2029 was not listed in my declaration.

Q. Sorry. Your exhibit is -- or your declaration is 2029.

A. Okay.

Q. This is Exhibit 1081.
A. This is Exhibit 1081. Exhibit 1081 is not listed in my declaration.
Q. And so you didn't consider the teachings of Exhibit 1081 in your opinions, is that correct?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: I'm stating that this video as is shown, as is submitted as 1081 is not listed in my declaration. I don't remember timing on when it came around. I have seen this, but I can't remember timing of when I have watched this prior to today. But it was not listed in 1081. And I don't list 1081 in my declaration. And I don't believe it's referenced in my declaration.
BY MR. LEACH:
Q. So if it wasn't referenced in your declaration, is it fair to say you didn't consider it in the opinions provided in your declaration?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: The Senwatec vehicle

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was referenced in my declaration. This particular video was not listed. I didn't provide an opinion about this video in my declaration.

BY MR. LEACH:

Q. But in terms of your declaration, you listed the things you considered in providing your opinions contained in your declaration, Exhibit 2029, right?

A. Yes. I tried to list all of the videos, documents, pieces of information, particularly those ones that I cite. There are probably other material that I may have watched or filtered through through that process, but my declaration has everything listed that -- I tried to at least make sure that everything was cited. Anything that was cited, I have listed.

Q. Sir, can you look at the video? We're at time stamp 7:18. And do you know what this piece of equipment is?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: Can you back up? I was looking at my declaration when you stopped. So I need to --

(Video played on the Zoom screen.)
MR. LEACH: So I backed up to 7:05. I'll stop here at 8:03, which is the time stamp.
BY MR. LEACH:
Q. Does that look like weeds, straw in this lagoon?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: I -- Tom, I don't know what I'm looking at there.
(Video played on the Zoom screen.)
MR. LEACH: I'm going to stop at time stamp 8:44 of Exhibit 1081.
BY MR. LEACH:
Q. Does it look like a hose is attached to the pump there?
A. There's something that -- which component are you referring to?
Q. There's a blue hose attached to the nozzle of the pump on the end of the boom arm.
Do you see that?
A. I see a blue-like structure, yeah, or element.
Q. So does that help -- does that look like

a blue hose attached to the front of the pump?
A. It's blue. I don't -- I guess -- if you say it's a hose, I guess it could be a hose. I don't know.
(Video played on the Zoom screen.)
MR. LEACH: And I'll stop at, Exhibit 1081, time stamp 9:05.
BY MR. LEACH:
Q. Do you see the blue hose that's attached to this filtering device?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: I see -- where are you referring to at on the screen?
BY MR. LEACH:
Q. Upper left-hand corner. The hose in the upper left-hand corner, the blue hose.
A. It's blue. I cannot verify if it's a hose from the image here.
Q. Okay.
A. I can see it's blue. And I -- I don't know the full system, so --
Q. Back to this. Do you know what this device is, this spinning device that slurry is getting pumped into?

A. Looks like some kind of rotating -- I don't know if trommel is the right term. But it's a -- trommel screen, I think, might be the term that's used for that.

Q. Okay. What are these used for? Is it filtering out the certain size solids?

A. Yeah. I don't know the full system here, but it's a screen, and looks like it's a rotating-type screen, and it could be used to filter out solids.

(Video played on the Zoom screen.)

MR. LEACH: I'll stop there at time stamp 9:20.

BY MR. LEACH:

Q. Do you see the blue hose going from the pump on the Amphi-King machine to this filter system?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: I see a blue-like structure, like, guys were walking over. I don't know if that's a hose. Could be. I don't know.

BY MR. LEACH:

Q. And do you see the solids coming out of

the end of that rotating screen at time stamp about 9:37?

(Video played on the Zoom screen.)

BY MR. LEACH:

Q. Did you see that?

A. I saw some objects. As to solids, I don't know. There's some objects there in that -- in that video.

(Video played on the Zoom screen.)

MR. LEACH: I'm going to stop at time stamp 10:16 in Exhibit 1081, the video.

BY MR. LEACH:

Q. And can you just tell me generally, why would the contents of that lagoon be sprayed on a field?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: I don't know.

BY MR. LEACH:

Q. Would it be for fertilizer?

A. Is that a human waste lagoon that we were pumping from? I don't know. I don't know what the product is. It would have to have nutrients in it to be fertilizer. So to -- there was a --

Q. Would human waste --
A. Is it human waste?
Q. -- have -- sorry. I didn't mean to talk over you. Would human waste have nutrient value for fertilizer?
MR. LUCHSINGER: Objection to form, foundation.
THE WITNESS: My question is: Is that -- you're asking about the particular product. Was that human waste that is in that tank?
BY MR. LEACH:
Q. Well, in watching the video, what do you think this would teach a POSA as to what's happening here?
A. It's your video you showed me. I don't know what that product is that's in that tank for sure. So you're asking me -- you're asking me a professional opinion as to what that would be used for. I don't know. Because I don't know the contents of that tank. So if you could explain what the contents of that tank are, I could surmise you an opinion of what it could or could not be used for.
Q. Okay. Well, let me -- let's step back

from the video for a second. Do -- generally, do you agitate a manure lagoon to get it into a homogenous mixture, and then pump it to a tank or some form of transport so you can spread it on fields as fertilizer? Is that generally what happens with manure lagoons?

A. So are you talking now livestock, animal livestock manure lagoons? Is that what you're referring --

Q. Yes.

A. -- to now?

Q. Yes.

A. Okay. So if we're talking about livestock manure lagoons, yes, there is nutrient content within livestock waste -- waste lagoons that is agitated so that it can be a homogenous-type product such that then those nutrients, particularly N, P and K, nitrogen, potassium, phosphorus, plus sometimes other trace elements, can be spread over the field and ultimately used as nutrients for future plant growth.

Q. Okay.

MR. LEACH: We're just continuing with the video, Exhibit 1081.

(Video played on the Zoom screen.)
MR. LEACH: I'm going to stop. That's the end of the video.
THE WITNESS: Can we take a bio break? Can we -- are we finished up with -- once we're finished up --
MR. LEACH: Sure.
THE WITNESS: -- with the video, can we take a bio break?
MR. LEACH: Yes.
THE WITNESS: Okay.
MR. LEACH: Go on break.
THE VIDEOGRAPHER: We are going off the record.
The time now is 11:49 a.m.
(Off the record 11:49 to 12:06.)
THE VIDEOGRAPHER: We are back on the record. This marks the beginning of Media Number 3 in the deposition of Douglas Prairie.
The time now is 12:06 p.m.
BY MR. LEACH:
Q. Mr. Prairie, we just got done with a break due to some technical difficulties. I marked an exhibit -- or I provided an exhibit in the Marked Exhibits folder. And that's

Exhibit 1082. And Exhibit 1082 is a certified translation of what was shown in Exhibit 1081, the video of the UD Umwelt, the Senwatec machine. Can you pull that up, please?

A. I have -- 2029, 2030 and 2031 is all I have in that --

Q. If you hit refresh --

A. -- Marked Exhibits folder.

Q. Maybe refresh. It should --

A. Yeah, I did. I go back to the upper folder and back down, which refreshes it.

MR. LUCHSINGER: Also, so don't pay attention to the first exhibit number. It's the second exhibit number.

THE WITNESS: Oh, okay. Maybe -- so what was the number again? I apologize. Is it 1014, you said? No.

MR. LUCHSINGER: 1082.

THE WITNESS: 1082, which is Exhibit 2031. Okay. That's -- I missed that part. Okay.

MR. LEACH: Am I doing that again? When I introduce the exhibit, Dana, I'm not typing in what it should be?

THE COURT REPORTER: I don't know.

I didn't pull it up.

MR. LEACH: Yeah. Sorry.

MR. LUCHSINGER: Tom, the way it shows up for us is we've got, like, the -- it kind of -- it started with 2029, then we have 2030 and 2031, but the only -- only the first exhibit is the right -- you know, corresponds with the right exhibit number.

MR. LEACH: Yep.

MR. LUCHSINGER: So it says Exhibit 1029, and then EX2029.

MR. LEACH: I forgot to write in the exhibit number in the system, so I'll try to remember to do that, but we'll correct these as well in the -- how they're listed.

MR. LUCHSINGER: Yeah.

BY MR. LEACH:

Q. But if you pull up 1082, it should be the certified translation of the video. And I just want to walk through this really quick. On page 2 of Exhibit 1082, on the screenshot, the name of the company literally translates to Environmental Services.

Do you see that?

A. (Views document.) Page 2, yes, I see

that.

Q. Then if you go down, it says, "Efficient lagoon removal with amphibian removal technology."

A. Okay.

Q. Do you see that?

A. Yes, I see the line you just read.

Q. Sir, would you agree with me that the video shown in Exhibit 1082 is describing to a POSA how to efficiently remove material from a lagoon with an amphibious vehicle?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I mean, there's a lot of words in there. Break down efficient, relative to what? You know, there's a lot of equipment involved in there, so I don't know if that's efficient or not. Amphibian, I guess I don't quite understand the question that you're talking about. I mean, I see the words, but I don't know, you know, exactly what you're asking.

BY MR. LEACH:

Q. I'm just saying this is a translation of the words that were up in German on the video,

and the translation is, "Efficient lagoon removal with amphibian removal technology."

Do you see that?

A. Like I said, I see the words in the line that you read and the translation. I mean, that I under -- that -- I see the words and understand it's a translation of the video title.

Q. Okay. And below that it says, "Agricultural utilization with quality and safety."

Do you see that? What does agricultural mean to you?

MR. LUCHSINGER: Are you asking generally or --

MR. LEACH: Generally, yes.

MR. LUCHSINGER: -- with reference to this exhibit?

MR. LEACH: Hey, Brad, can you keep your objections to no speaking objections and just object so you're not continuously interrupting the depo?

MR. LUCHSINGER: Sorry. Objection to form.

MR. LEACH: Thanks.

THE WITNESS: Okay. You want a definition of agricultural, just like a dictionary definition, or what specifically are you looking for?

BY MR. LEACH:

Q. When a POSA reads this quote, and I'll read the whole quote, "Efficient lagoon removal with amphibian removal technology. Agricultural utilization with high [sic] quality and safety," what does that mean to a POSA?

A. There is no "high" in there. You misquoted that. It just says "with quality and safety," not high quality.

Q. My apologies.

A. I think it's a slide --

MR. LUCHSINGER: Objection to -- if that was a question, objection to form, foundation.

THE WITNESS: I mean, it's a slide title. I mean, I guess, you know, they're talking -- things -- is it like a full sentence? I mean, it's not like a -- it's like a book like you're reading. It's a title to a slide. So -- and a translation of a title.

And so, you know, I guess if it's agricultural utilization, it's used for agricultural purposes.

BY MR. LEACH:

Q. And if you go down to page 6 of 13 where it has -- the top picture is a picture of the material in the lagoon, and it says, "Liquefaction even of thick slurry."

Do you see that?

A. I see the translation as you've just stated.

Q. Okay. And would you agree with me that a thick slurry is a liquid with suspended solids?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: A slurry is a -- you know, it's a term. It's typically a state between liquid and solid.

MR. LEACH: We'll mark another exhibit quick.

THE WITNESS: Do you want me to pull out of this one and go back to that one or...

MR. LEACH: I'll -- I'm going to introduce this.

(Exhibit Number 1130 marked for identification.)

BY MR. LEACH:

Q. I've just introduced an exhibit. It's the -- Exhibit 1130. And it's the New Oxford American Dictionary. That should show up pretty quick.

A. Yep, I've got the reference up here.

Q. And if you go to the definition of slurry, can you read that for me?

MR. LUCHSINGER: Object to the form.

THE WITNESS: So you're talking page 4, it's the definition for slurry, you want me to read that -- the slurry definition as highlighted? Is that what you would like, Tom?

BY MR. LEACH:

Q. Yes, please.

A. "Slurry, (plural, slurries) a semiliquid mixture, typically of fine particles of manure, cement, or coal suspended in water. Origin, late Middle English: Related to dialect slur 'thin mud,' of unknown origin."

Q. Do you agree that's an accurate definition of slurry?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: It's a definition of slurry.

(Exhibit Number 1132 marked for identification.)

BY MR. LEACH:

Q. Okay. I just introduced another exhibit, Exhibit 1132. And this is a definition of slurry from around 2012 off Merriam-Webster's online dictionary.

Can you see that?

A. (Views document.) Yeah. I'm just looking it over here.

Q. And this defines slurry --

A. Okay.

Q. -- as, "A watery mixture of insoluble matter (as mud, lime, or plaster of Paris)."

Do you see that?

A. Yeah, I see the definition as stated.

Q. And would you agree that's also a definition of slurry?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I would agree it's the

Merriam-Webster version's definition of slurry.
BY MR. LEACH:
Q. Okay. If you'd go back to Exhibit 1082, the translation of the text in the video, UD Umwelt video, which was Exhibit 1081. And if you would, go to page 6 of 13, please, in Exhibit 1082.
A. I'm on page 6.
Q. Would you agree with me where the video states, "Liquefaction even of thick slurry," that that pump would be able to pump a liquid with suspended solids?
MR. LUCHSINGER: Objection as to form and foundation.
THE WITNESS: It's showing a translation and showing a picture. Just based on that alone, I can't -- I guess I can't answer your question based on just the image alone and translation.
BY MR. LEACH:
Q. Well, you understand this is a picture from the video in Exhibit 1082 -- or 1081, correct? That's what this is a translation of?
A. Yeah, the next image down I see a tractor next to it too, so I don't know what

piece of equipment they're referring to that did that. So it could be another piece of equipment or operation that wasn't shown. All I can know is that I see a picture, I see a translation of the German language. Or German -- is that what it is, German?

Q. Yep. Okay. Go to the next page, sir, page 7 of Exhibit 1082, which is the translation of the video of Exhibit 1081. And the top picture has that big box-type structure that had that yellow screen tube that came out of it for filtering. And if you look at the translation there of that header, it says, "Technology for slurry free of impurities."

Do you see that?

A. I see the translation and the picture that you referred to.

Q. And so would you agree with me that the -- that box and the tubular yellow screen that came out that had fluid going into it and was -- that it was filtering out impurities?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: I guess just to confirm, it's a box that looks blue, and

there's a -- and there's an English translation of a title shown below that box. That's what I can confirm.

BY MR. LEACH:

Q. Okay. So go down to the bottom picture of Exhibit 1082, which is the translation of Exhibit 1081, the UD Umwelt video. And there the heading on that screenshot says, "High-performance pump technology."

Do you see that?

A. On page 7? Is that what you're referring to, the bottom of page 7?

Q. Yes.

A. Okay. Yes, I see the image and the translation.

Q. And so that's the image that was -- of the tool that was on the boom arm of the Amphi-King product, right?

A. Yeah, it's a work tool at the end. And there's a translation of the title again.

Q. And the translation says, "High-performance technology," right?

A. Yes, that is the translation as listed in this document.

Q. Okay. And so the video, Exhibit 1081,

shows an amphibious vehicle with a high-performance pump that's able to pump slurries, correct?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: It says it's a high-performance pump. That's what I know from the translation.

BY MR. LEACH:

Q. Okay. But from the video, Exhibit 1082, that tool shown in Exhibit 1082 was used to pump the slurry, correct?

MR. LUCHSINGER: Objection to form --

BY MR. LEACH:

Q. That's what the video showed, right?

MR. LUCHSINGER: Objection to form and foundation.

THE WITNESS: The video shows a work tool. According to translation, it says it's a high-performance pump technology. Doesn't say slurry pump. It says high-performance pump.

BY MR. LEACH:

Q. If you go down to Exhibit 1082 and page 9, the bottom picture, the translation of

what's shown in the video or what's written in the video, it says, "Utilization quality: Determination of the TS-content."

Do you see that?

A. Yeah, I see the translation on the bottom of page 9. We're on page 9? Yeah, page 9.

Q. Would one of skill in the art understand that they're determining the total solid content of the liquid?

A. TS could be an acronym for total solids in this application. I don't know. It doesn't say that. It just says TS. Like I said, it's -- TS is -- I see in the German too. So TS, I don't know what -- it's not -- there's no German language that says total solids. Apparently it's just a TS. So I don't know for sure.

Q. And then if you go to the last page of Exhibit 1082, which is the translation of the video of Exhibit 1081, at the very bottom there it says, "The lagoon professionals."

Do you see that?

A. Yes, I see that translation at the bottom of page 13.

Q. And so in looking at the video and -- which was in Exhibit 1081, and the translations of the video in Exhibit 1082, would you understand that the vehicle shown in the video is an amphibious vehicle that can pump liquid slurries?

MR. LUCHSINGER: Objection as to form, vague, foundation.

THE WITNESS: Just because it says "lagoon professionals"? I'm not understanding your jump in assumptions there.

BY MR. LEACH:

Q. No, I'm not saying based on "lagoon professionals." I'm saying in total. One of skill in the art reviewing the video, looking at the translations of what's said in the video, would you understand that the amphibious vehicle in that video is able to pump slurries?

MR. LUCHSINGER: Objection to form, vague and foundation.

THE WITNESS: I mean, there's some translations. No, I wouldn't go all the way to that conclusion. I mean, it's -- there's lagoons. We don't -- there's a lot of details. It's in Europe. It's not a North American

operation. I don't see any livestock lagoons in here. It's not next to a livestock facility. Just because there's agricultural -- an agricultural word used in there does not mean it's livestock.

BY MR. LEACH:

Q. Well, regardless of what it is, if you go to page 6 of Exhibit 1082, the translation of the video, it says, "Liquefaction even of thick slurry," right?

A. There's a translation of some German words in that picture, yes.

Q. And that translation says, "Liquefaction even of thick slurry," correct?

A. Page 6 of that Exhibit 1082, the top slide, the translation on the title on that slide says, "Liquefaction even of thick slurry."

Q. And it does it using a high-performance pump, correct?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: Well, if you're talking about liquefaction, I see a tractor. Maybe they have a separate piece of equipment

that does that they didn't show in the video. I don't know. Like I said, there's a tractor in the imagine right below. Maybe they had a separate piece of equipment that did that.

BY MR. LEACH:

Q. Well, sir, you watched the video, right, and you saw the pump on the front of the boom arm pumping the liquid material, right?

A. No, I couldn't tell if it was a pump or not. I saw it as a work tool. Like I said, I see on page 6 there's a tractor right in here in this picture. They very well could have used that tractor with another implement they didn't show in the video. Videos are notorious for only focusing on what you want particularly to see, so we don't know the full context of what happened on-site there.

Q. Well, would you at least agree with me that you saw the working tool pumping the liquid and shooting it out of a nozzle?

A. Is there a translation of that's what was happening?

Q. I'm not asking about words. I'm asking about what you saw in the video of Exhibit 1081.

A. It's a 12-minute video. We watched it for quite a bit and you back and forth. So what particular shot are you referring to?
Q. Well, sir, you watched the video, right?
A. Yeah, you're asking me a -- you're asking me a very specific question about a very specific scene of a 12-minute video. I want to make sure I'm referring to the same scene that you're referring to.
Q. I'm just asking: In the video, did you see the tool that's shown in Exhibit 1082 on page 7 at the bottom picture, that tool pumping the slurry?
A. It was a 12-minute --
MR. LUCHSINGER: Objection as to form and foundation.
THE WITNESS: It's a 12-minute video. If you want to show me what you're referring to as you think it's pumping, we can discuss that. It's all in German. I couldn't read the title. So we're going to have to go back. I don't see any translation here that says pump -- pumping slurry directly on the video of anything coming out.
BY MR. LEACH:

Q. And so given your background and your expertise and your experience, you watched this video and you just can't tell one way or the other if that's a pump despite the video itself saying it's a pump technology, and you can't tell what it's doing, if it's pumping the slurry, is that what you're telling me?

A. No. I'm saying I've not done a detailed analysis of that. Apparently you have, and so I'm asking you to pull that reference back up if you will. And if you want to show me where you're referring to that you think is pumping, we can discuss that. I don't have that full video memorized.

Q. Sure. We can pull it up again.

A. Okay.

Q. I'll just try to get to a few spots where it shows it.

Do you see that? Would you agree with me that it's pumping a slurry there?

A. I'm not -- you're not hitting screen share or something.

Q. Sorry. Now are you seeing it?

(Video played on the Zoom screen.)

THE WITNESS: The video is up.

BY MR. LEACH:
Q. I'll just try to get to a point. Okay.
(Video played on the Zoom screen.)
BY MR. LEACH:
Q. Would you agree with me that that's showing it pumping a slurry?
MR. LUCHSINGER: Objection as to form, foundation.
THE WITNESS: I see something coming out of a spigot of a -- something coming out of a pipe or spigot or something.
BY MR. LEACH:
Q. I'm just wondering: Would you agree with me that the pump on the boom arm is pumping a slurry? That's what it discloses to one of skill in the art. Would you agree with that?
MR. LUCHSINGER: Objection to form and foundation.
THE WITNESS: Well, your last definition of slurry didn't have anything about -- describing what I'm seeing here. So -- and it had almost like a mud or something like that maybe. I don't know.
BY MR. LEACH:

Q. I'm going to direct you to Exhibit 2030.
A. Which is 1014 as well?
Q. No. Exhibit 2030.
THE COURT REPORTER: So this is a new exhibit, Tom?
MR. LEACH: No. It's one that's been previously marked.
THE WITNESS: Okay. There's two 2030s, I guess. There's a 2030 exhibit -- okay. It's truly Exhibit 2030. Makes it a little confusing.
BY MR. LEACH:
Q. And I'd like to direct your attention to page 6.
A. Just to make sure, this is, "Natural crusting of slurry storage as an abatement measure..." that pdf, is that the one you're referring to?
Q. Yep.
A. Okay. And what page?
Q. Page 6 of 8. And when I'm talking about page numbers, I'm providing the page number that's stamped on the bottom right-hand corner under the IPR number.
A. Okay. I have page 6 of 8 up here.

Q. So if you go to the upper left-hand corner, the first paragraph there or partial paragraph, and on the first line in three words it says, "Crusts do not occur on pig slurry stores, the solids normally settling rapidly and forming a dense sludge layer towards the base of stores."

Do you see that?

A. Yes, I see the line that you just read.

Q. Okay. And do you agree with me that on -- at least for pig slurries, that crusts typically don't form?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: If you read the next line, though, it goes, "However, the addition of finely chopped straw has been effective in establishing a crust on stored pig slurry in Denmark."

BY MR. LEACH:

Q. Okay. So if you want to have a crust, you could add finely chopped straw to establish a crust, is that what that's saying?

MR. LUCHSINGER: Objection to form, foundation.

THE WITNESS: What actually goes back to what I said earlier, is that depends on how the animals are cared for and maintained. If you had a hog facility that used straw for bedding, then you wouldn't have to add finely chopped straw, and therefore this just validates that a hog facility that used straw for bedding could have a crust form on the top, which is what I was saying before.

BY MR. LEACH:

Q. Okay. Let me mark -- I think you have it in front of you already, but I'm going to provide the patent, '425 patent --

THE COURT REPORTER: So when you say "mark..."

MR. LEACH: I mean just introduce. I'm sorry.

THE WITNESS: You're referring to Nuhn's '425 patent, is that what you would like to refer to next?

BY MR. LEACH:

Q. I am.

A. Okay.

Q. So do you have that document in front of you? And when I say "document," I mean

Exhibit 1001, which is the '425 patent.
A. Yes, I have Exhibit 1001, Nuhn's '425 patent in front of me.
Q. Can you just confirm for me that the title of the '425 patent is Amphibious Pumping Vehicle, is that correct?
A. On the front title page of page 1 the title is Amphibious Pumping Vehicle.
Q. And then the Technical Field states, "The invention relates to pumps and vehicles equipped for pumping. In particular, the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon."
Do you see that?
A. Yes, I see what you just read in the Technical Field of the '425 patent.
Q. Okay. And then the Background talks about as lagoons became bigger, it was harder to agitate the center of the lagoon, correct, that's one of the problems it discusses, correct?
A. Which line are you reading, Tom?
Q. I'm just generally talking about the

background.

A. There's some context in the background that talks about farm or livestock lagoons becoming increasing in size for animal husbandry operations.

Q. So about midway in the background of the '425 patent, which is Exhibit 1001, it says, "Pumps for use in recirculating manure from smaller pits are known; however, these pumps are typically suitable for accessing the pit or lagoon from its edge and are connected to a tractor or similar land vehicle for operational power. They are therefore limited in their ability to recirculate manure to the middle of large lagoons which are becoming increasing [sic] common as the size of animal husbandry operations increase."

Do you see that?

A. Yes, I see the lines that you just read.

Q. Okay. And in the background it also talks about crust, right, that a crust can develop on the surface of a pit or lagoon that must be disrupted, correct?

A. Where are you reading that from now?

Q. If you go to about line 36 in column 1,

the background.
A. Okay. Yep, I see the line that you're referring to.
Q. So it also talks about a crust can develop, right?
A. Yes, in an animal farm lagoon livestock lagoon, a crust can form, as stated here in the patent.
Q. Okay. But as we talked about earlier, there's not always a crust that forms, correct?
A. During storage a crust can develop, as we said, that there's -- depends on time, weather. Other variables can play into that.
Q. Okay. And so in the background, though, on the last paragraph in the background of Exhibit 1001, the '425 patent, after talking about the issues or providing the background, it says, "Accordingly, there is a need for improved pumps and vehicles equipped for pumping, particularly pumps and vehicles suitable for use with large manure lagoons."
Do you see that?
A. Yes, I see the paragraph that you just read.
Q. Okay. And so isn't a large part of what

the '425 patent is focusing on is how to agitate large lagoons, and in particular to access the center of these large lagoons to agitate that area as well, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Well, it specifically states the technical field relates to pumps and vehicles equipped for pumping, in particular the invention relates to -- I'll just read back again to what it's used for, column 1, starting at line 25, we'll just read the whole technical field again, "In particular, the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure, such as animal manure contained in a farm lagoon." So that's a technical field of the invention. The background is giving you background of the application of what's being done today when the patent was written.

BY MR. LEACH:

Q. Sure. And so when you go down to the last paragraph in the background, it's talking about the problem the invention is seeking to solve, correct?

MR. LUCHSINGER: Objection as to form.

BY MR. LEACH:

Q. And it's saying, "Accordingly, there is a need for improved pumps and vehicles equipped for pumping, particularly pumps and vehicles suitable for use with large manure lagoons," right?

A. It's stating a need at the time that the patent was written about livestock lagoon management.

Q. Okay. And when it talks about "for use with large manure lagoons," it was because the shore bank or tractor-mounted pumps couldn't reach the center of these large lagoons, and you would get sediment that would settle on the bottom of these large lagoons, and the shore-based agitators couldn't mix the center of the lagoon properly, correct?

A. At the stated time, yes, there was agitators that were at the edge. But as the lagoons got bigger, their range of expectivity [sic] was limited. And as the lagoons got larger, their effectiveness was limited at the center of the lagoon, the range

of motion or range of effectiveness was limited.

Q. And that's the problem this invention sought to solve, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It's stating the background of the current state of the art at the time, said it was meant to be more effective at agitating and pumping large liquid lagoons. So it was a whole system. It's a system of components.

BY MR. LEACH:

Q. But I guess what I'm asking is: Is that the problem the invention was designed to solve?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The intent of the vehicle is to be more effective at agitating farm lagoons, as described in the technical field and the background.

BY MR. LEACH:

Q. But particularly large farm lagoons, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It was stating that large lagoons had problems. It does not say that this technical -- anywhere, I believe, that it is limited to just large lagoons. This piece of equipment can be used in small lagoons, middle-sized lagoons or large lagoons.

BY MR. LEACH:

Q. Sure. I get that. But reading the technical field and the background, what it's saying is the problem it was solving was how to get to and agitate the center of these large lagoons where shore-based systems weren't effective, correct?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: The background, as you've stated, as I can -- we can read again, is stating the state of the art at that point in time. That point of time was pumps predominantly tractor mounted at the edge. And Nuhn's invention, the '425, was an alternative to that. And the intent was to be more effective at that present state of the art.

BY MR. LEACH:

Q. Anything else that Nuhn's invention was designed to improve upon --

MR. LUCHSINGER: Objection as to form.

BY MR. LEACH:

Q. -- in your opinion?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Please restate the question.

BY MR. LEACH:

Q. Is there anything else that Nuhn's invention was designed to -- strike that.

Is there anything else that Nuhn's invention was designed to improve upon, as described in the '425 patent?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The '425 patent is predominantly used to -- its focus is to be more effective at the pumping and agitation of livestock manure lagoons. That's what it's used for.

BY MR. LEACH:

Q. And I guess what I'm wondering is when it says in the background at the last paragraph, "Accordingly, there is a need for improved pumps and vehicles equipped for pumping, particularly pumps and vehicles suitable for use with large manure lagoons," that focus is -- I'm sorry. Strike that.

Given that, the focus of the '425 patent is to agitate large lagoons and specifically to be able to agitate the center of these large lagoons where shore-based pumps couldn't reach, right?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It's meant and it has shown that it does very effective at small, medium, large-sized lagoons, lagoons with crust, agitating them, able to remove the sediment from the bottom and agitate it up. So there are some very small lagoons that are very challenged for this kind of traditional equipment, and Nuhn's invention improves that as well.

BY MR. LEACH:

Q. All right. I agree that it works in any

size lagoon, or that's your opinion. But I guess what I'm asking is: When I read the -- I'm sorry. When one of skill in the art reads the '425 patent and the last paragraph of the background, it's talking about the need for a vehicle that can agitate large manure lagoons that have sediment in the center that shore-based applications couldn't reach, is that correct?

A. I'll restate again. As the background is stating the present state of the art, challenged the present state of the art, but the vehicle itself is focused around all sizes of farm lagoons, not just large, as you're trying to state.

Q. Can you show me where in the background it talks about the problem with small lagoons and that the invention was trying to solve the problem with small lagoons? Can you point in the background or anywhere in the patent for that matter where it's talking about that?

A. Specifically you read a line, talks about -- so column 1, "During..." background around item 35, "During storage, a crust can develop on the surface of the pit or lagoon

that must be disrupted prior to or during removal of the manure." Nowhere in that statement does it say that that crust is on a small or large lagoon. And this particular equipment, because of how it works and even some of the unintended cons -- results of the invention, it's very effective at disrupting the crust even on small lagoons. So that line is not limited to small or large, and that issue occurs on small ponds that even present-day equipment was challenged with. And so the background is talking about crust, and this equipment is designed to help disrupt that crust and agitate all of those layers together.

Q. Okay. In the Summary of the Invention does it mention agitating crust or breaking up the crust anywhere?

A. Let me read through that section to give you some specific lines. Specifically if you're just talking on the Summary of Invention, is that the only section that you were asking the question in regards to?

Q. Yeah.

A. The Summary of the Invention talks about the components of the invention itself. The

Technical Field and Background will combine with the Summary to talk about the crust.

Q. Crust isn't mentioned anywhere in the Summary of the Invention, correct?

MR. LUCHSINGER: Objection as to form.

BY MR. LEACH:

Q. Mr. Prairie, it looks like you're typing on a computer. Do you have a pdf version, a searchable version of the '425 patent up?

A. Yeah, I do have a pdf version of it up as well, the same one that you submitted.

Q. Would you agree with me that crust is not referenced anywhere in the Summary of the Invention of the '425 patent?

A. Is on column 8, which is in more the -- talks about the detailed description of the invention.

Q. That's not my question. My question was: Is crust mentioned anywhere in The Summary of the Invention on the '425 patent?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: In particular, the section the Summary of the Invention, the

Summary of the Invention talks about the physical components of the invention itself. It doesn't necessarily describe the application per se that it goes into. It describes the invention itself. The other context of the '425 patent describes more the application that it's working in, and that is where it talks about the crust and the characteristics of a livestock farm lagoon.

BY MR. LEACH:

Q. Okay. But you would agree with me that crust is nowhere mentioned in the Summary of the Invention, correct?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Crust is definitely discussed within the context of the '425 patent. Specifically the Summary of the Invention of the patent talks about the physical components of the invention itself. The Technical Field, Background and Detailed Description sections go into more detail on how that particular invention works and particularly how it breaks up those crust.

BY MR. LEACH:

Q. I introduced Exhibit 1029, which is the

patent application that's incorporated by reference into the '425 patent. So let's stick on the '425 patent really quick and go to page -- actually, it's column 7, line 42.

A. You've cited two references here, Tom. Which one are you speaking on now?

Q. I'm on the '425 patent.

A. Okay. So '425 patent now. Okay.

Q. Column 7, line 42.

A. Okay.

Q. It says, "An example of a pump 9 suitable for use with the vehicle is disclosed in co-pending U.S. patent application Serial Number 13/038,189 filed March 1, 2011, entitled Pump for Immersion Within a Fluid Reservoir, which is incorporated herein by reference."

Do you see that?

A. I see that section in the '425 patent that you just read.

Q. And so if you could go to the exhibits and pull up Exhibit 1029.

A. Yep.

Q. And confirm for me that Exhibit 1029, if you look on the first page where it says Application Number 13/038,189 -- do you see

that?
A. It's patent number 8,944,758?
Q. Correct. And the application number, which was referred to in the '425 patent that we just looked at, is Application Number 13/038,189.
Do you see that?
A. I'm just looking for the application. There it is. Okay. Yeah, I see the application number on here.
Q. Okay. And if you just turn to column 4 of the '758 patent, which is Exhibit 1029, at line 3 to about 9, it says --
A. Page 15? Sorry. Just getting there. So page 15 of that document?
Q. Yes, column 4.
A. Column 4. And what line?
Q. Three to about 9.
A. Okay.
Q. It says, "Although described herein with reference to pumping..." I'm sorry. I'll start over. It says, "Although described herein with reference to the pumping of liquid manure, the pump according to the present invention can be employed in any fluid pumping situation,

particularly where reservoirs with variable height are encountered, such as when pumping fluid from rivers, ponds, lakes, rain water storage reservoirs, et cetera."

Do you see that?

A. I see the lines that you're reading.

Q. Okay. Would you agree with me that the pump disclosed in Exhibit 1029 is a multipurpose pump?

MR. LUCHSINGER: Objection, foundation.

THE WITNESS: Please define what you mean by "multipurpose."

BY MR. LEACH:

Q. Well, it pumps manure, water, water from lakes and streams, correct?

A. The pump itself is primarily dedicated -- or its primary purpose is liquid manure applications, but, as the patent states, it could be capable of pumping other liquids.

Q. Going back to the '425 patent, would you agree with me that a POSA would understand that the invention is not limited to just breaking up crusts but is used to agitate sediment off the bottom of manure lagoons?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Would you please reread that question?

BY MR. LEACH:

Q. Sure. Looking back at the '425 patent, a POSA would understand that the invention is not limited to breaking up a crusts but is used to agitate sediment off the bottom of manure lagoons, correct?

MR. LUCHSINGER: Objection to form.

THE WITNESS: The '425 patent is designed to pump and agitate the contents of an agricultural or a livestock liquid manure lagoon. And that can mean solids at the top, a stratified layer in the middle and potentially solids at the bottom as well. So they agitate all of those and stir those up.

BY MR. LEACH:

Q. Going back to the claims of the '425 patent, crust is not mentioned in any of the claims, right?

A. The claims talk about the specs and the combination of features of the vehicle itself.

Q. None of the claims mention crust,

though, right?

A. I don't believe crust is specifically listed in the claims themselves.

Q. Okay. But the specification does provide the intended purpose for the fluid pump, right? If you look at claim 1 around line 41 it says, "A fluid pump for pumping liquid manure," correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The '425 patent, the invention claimed it talks about, on line 41 or so as quoted, "A pump for pumping liquid manure." And a liquid manure as related to the technical field and context of this patent, liquid manure is all of the manure that is in a farmed lagoon. So that can be the solids, the crust, the sediment layer that's within there. So in the context of this patent, liquid manure is any of the material that's in the lagoon itself.

BY MR. LEACH:

Q. Well, we talked about earlier a farm lagoon contains manure, correct?

A. An agricultural farm lagoon used for

livestock, yes, it contains manure in various states.

Q. And the various states that -- of manure that it contains are solids, liquids, slurries and sludge, right?

MR. LUCHSINGER: Objection to form.

THE WITNESS: A farm lagoon for livestock, used for livestock, animal husbandry can contain solids. It can contain even on top of those solids plant-like matter. It can have a liquid layer. It can have a solids layer, a slurry layer, sludge at the bottom. And that, again, is the point of the purpose of the '425 patent, is to work with all of those materials, agitate them to make a homogenous material that can then be utilized for agricultural fields.

BY MR. LEACH:

Q. Sure. But the pump pumps the liquid in the lagoon and sprays that liquid if there is a crust on the crust to break the crust up into a slurry, right, and that's what's pumped, the liquid?

MR. LUCHSINGER: Objection --

BY MR. LEACH:

Q. The pump doesn't just pump a solid,

correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The vehicle itself agitates all of those layers and creates a homogenous mixture.

BY MR. LEACH:

Q. Sure. But what the pump does is the pump pumps a liquid, right, the liquid form of manure, not the solid form of manure, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The pump is part -- within this component is part of the agitation process. It takes in liquid sludge and solids and helps agitate them together to create homogenous product. It's part of the overall system.

BY MR. LEACH:

Q. Okay. But before it's agitated, the manure lagoon includes or may include manure in different forms like we talked about, right, sludge, slurry, a liquid manure or solid manure, correct?

MR. LUCHSINGER: Objection as to

form.

THE WITNESS: A livestock manure lagoon can contain manure in all forms from liquid, slurry, solids, thick crust, plant-like straw matter, plant-like matter on top of that crust that must be agitated sometimes through the pump itself to agitate that together to create the homogenous mixture.

BY MR. LEACH:

Q. And you would agree with me that a solid manure is different than a liquid manure, correct?

A. Solid manure has different characteristics than liquid manure.

Q. And what are some of those characteristics?

A. Solid manure is just typically -- still has lots of straw, debris in it. It has a -- can still have moisture in it, but it's a reduced amount of moisture. It acts more like a solid, a solid-like structure would act like.

Q. So what percent solid -- I'm sorry. What percent moisture would solid manure have? Where would that cutoff be in your mind?

A. There is no defined hard cutoff as

percentages you try to define and Dr. Winkel defined. It can vary based on the manure, the livestock type. There's not a hard-and-fast percentage.

Q. Well, generally, what would you say a POSA would understand the range of water content in solid manure?

A. Solid manure has less water in it. Liquid manure has more water in it. I mean, there's a range. There is a large range there. There is no hard-and-fast number per se that is used. There's some basically characteristics of it. A solid manure would sit and not move and not act like a liquid. So it's not necessarily a percent solid, just more characteristic how it acts. And so a solid-like manure would be more prone to using earth-moving equipment like a payloader, whereas a liquid manure will be more prone to be using liquid equipment. There isn't a hard-and-fast line there. It's more characteristics. And even the evidence cited shows that different animals, different farming practices, those percentages vary widely in how that -- what that characteristic is.

Q. So as part of your opinions provided in Exhibit 1029, your declaration, you opined on anticipation and obviousness, right?

MR. LUCHSINGER: Tom, I don't know if this is a good stopping point for lunch.

THE WITNESS: Yeah, there's some --

MR. LEACH: Yeah. Let's take a break for lunch if that's good with everyone.

MR. LUCHSINGER: Yep.

THE VIDEOGRAPHER: We are going off the record.

The time now is 1:16 p.m.

(Off the record 1:16 to 1:48.)

THE VIDEOGRAPHER: We are back on the record. This marks the beginning of Media Number 4 in the deposition of Douglas Prairie.

The time now is 1:48 p.m.

BY MR. LEACH:

Q. Good afternoon, Mr. Prairie. We just took our lunch break. During your lunch break did you and counsel discuss your testimony here today at all?

A. We did not. We just talked about the weather and summer events.

Q. Okay. So before we took a break I think

there was possibly a question pending. I'll have the reporter read that back just so we know where we left off.

MR. LEACH: Dana, could you please read that back?

(Whereupon, the court reporter read back the previous question.)

THE WITNESS: Yeah, let's frame me back up again to where we were a little bit better than that. Tom, what were we referencing? My declaration? I don't exactly know the context where we were there.

BY MR. LEACH:

Q. In this matter you provide opinions on whether the claims in the '425 patent were anticipated or obvious in view of the prior art, correct?

A. In my declaration we talk about a wide variety of topics related to the '425 patent, namely some of the -- particularly focused around -- I'm referencing the -- my Exhibit 2029, the greatest focus was on the various grounds of obviousness and of the prior art that's claimed.

Q. Okay. Do you believe that the prior art

anticipates any claim of the '425 patent?
A. No, I do not.
Q. Do you believe that the prior art grounds render obvious any of the claims of the '425 patent?
A. No, I do not.
Q. Can you tell me the standard you used in making your determination on anticipation?
A. Yes. There's a section in here of my declaration I'm going to recite for a reference. So please state your question again, Tom.
MR. LEACH: Dana, can you please read it back quick?
(Whereupon, the court reporter read back the previous two questions.)
THE WITNESS: So in reference to -- we'll see if this answers your question, but so page 10, section 3 of my declaration, Exhibit 2029, I will cite some of the material considered in summary of my opinions there. So paragraph 13, "The opinions contained in this declaration are based on the documents I reviewed, my personal judgment as well as my education, experience and knowledge regarding

agriculture equipment, farming operations and manure lagoons." Paragraph 14, still quote, "In reaching the opinions and conclusions discussed herein, I reviewed and considered and relied upon the following materials." And so in my declaration starting on page 4 there is a whole list of exhibits that I referenced through page 10, continuing on with paragraph 15, "My opinions have also been guided by my appreciation of how a person of ordinary skill in the art as defined below would have considered, understood the claims and the specifications of the '425 patent at the time of the alleged inventions."

BY MR. LEACH:

Q. Sir, in making your determination on anticipation and obvious, did you apply the definition of a POSA that you provide in your declaration?

A. Tom, you cut out there for a bit. Please restate that question.

Q. Yep. In making your determinations on obviousness and anticipation, did you apply your definition of a POSITA --

MR. LUCHSINGER: Objection as to

form.
BY MR. LEACH:
Q. -- versus the definition provided by -- well, strike that.
In making your obviousness and anticipation analysis and opinions, did you apply your definition of a POSITA?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: The term is a person of ordinary skill in the art. There are some differences between the petitioner's POSITA along with the one that I used. So I predominantly used -- I used my context in my evaluation of the -- in writing my declaration.
BY MR. LEACH:
Q. In performing your analysis contained in your declaration, Exhibit 2029, did you apply your definition of a POSITA?
MR. LUCHSINGER: Objection as to form, asked and answered.
THE WITNESS: Well, cite my POSITA declaration or definition on page -- it's actually page 33 of 302, paragraph 63, "Based on this intrinsic evidence..." that I've

stated -- so, "Based on this intrinsic evidence, it is my opinion that a POSITA is 'a livestock farmer or commercial manure applicator familiar with manure agitation equipment or an engineer with at least 2 years of experience designing agricultural equipment and knowledge of manure agitation equipment.'"

BY MR. LEACH:

Q. Is that the definition of a -- I'm sorry.

A. Sorry. I was going to read one more paragraph.

Paragraph 64, "All my opinions in this declaration are from the perspective of a POSITA, as I have defined it in the preceding paragraph, during the relevant time frame of August 2013."

Q. Okay. So that's the standard, what you just read, paragraph 63 of Exhibit 2029, that you applied in performing your analysis for your opinions on obviousness and anticipation, correct?

A. That is a definition of a POSITA as of August 2013 that I used in -- in creation of my declaration.

Q. Okay. Can you tell me the standard that you used for anticipation?

A. Page 30 of my declaration, paragraph 50 has a title of the Anticipation on top of that, "I understand that a claim of a patent is invalid if the claimed invention is not new. I understand that the scope of prior art is limited in inter partes reviews. It is my understanding that a claimed invention is not new if all the limitations of the claim are described in a single prior art reference, and as arranged in the claim." Paragraph 51, "I understand that the prior art reference does not have to use the same words as those used in the claim, but that all the limitations must be present, either expressly or inherently, so that a person having ordinary skill in the art viewing the reference would have everything necessary to make and use the invention as claimed. I understand that something is inherent in a prior art reference if it does not [sic] necessarily exist in the prior art reference." Continuing on to paragraph 52, "Therefore, it is my understanding that a single prior art reference that discloses each

requirement of a claim, either expressly or inherently, invalidates the claim by anticipation."

Q. And that's the standard you used in determining your opinions on anticipation?

A. Yeah. That section is titled Applicable Legal Standards and Principles and clarifies the guiding legal standards that I've worked under.

Q. Would you agree with me that the dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art teaching that every claim element was disclosed in that single reference?

MR. LUCHSINGER: Object to form to the extent it calls for a legal conclusion.

THE WITNESS: There was a word you used that I didn't catch or recognize on the first part of your question.

BY MR. LEACH:

Q. Okay. I'll ask it again. Would you agree with me that the dispositive questions regarding anticipation --

A. That's the word. I don't understand

that word in its context, "the dispositive." I don't understand that word.

Q. What dispositive means?

A. Yeah.

Q. It means the controlling question or the question that is the authority or basically the question that controls, so the controlling question or the dispositive question. So would you agree with me that the dispositive questions regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art teaching that every claim element was disclosed in that single reference?

MR. LUCHSINGER: Same objections.

THE WITNESS: Like I said, I'm not an attorney. That seems like a legal question to me. I read off the legal standards that I was guided under to utilize. Appears your question is more of a legal question versus an expert question, but that's just my opinion.

BY MR. LEACH:

Q. Well, does that question that I -- or that phrase that I just read or that question that I just read, does that seem to comport

with what you did in terms of your anticipation analysis?

A. I read off the guidelines that I used. I guess you can make a legal determination if what you stated is the same as what I stated in my declaration.

Q. Okay. And then for obviousness, if I ask you: What is the process that you undertook to determine whether the prior art rendered the claims obvious, are you just going to just read me what is in your declaration on paragraph 53 through 56?

A. Yes. Because that's the guiding -- the guidelines that I use. So if that's what you -- the question would ask, that's what I would tell you.

Q. Just give me a second. I'm going to try to mark an exhibit. Mr. Prairie, do you recall reviewing a decision, a court decision that's commonly referred to as KSR or the KSR factors in performing your obviousness analysis?

A. Possibly. I don't know particularly the document or the specific set of stuff that you're talking about.

Q. In conducting your analysis did you

compare the prior art to Nuhn's commercial embodiments or the claims of the patent or neither?

MR. LUCHSINGER: Objection to form.

THE WITNESS: The focus was on the claims of the patent itself.

BY MR. LEACH:

Q. Getting to your opinion on -- or your definition of a person of ordinary skill in the art, do you believe that just because a person uses a piece of machinery, that they are skilled in the art of designing such a piece of machinery?

A. Yes, I am. Within the agriculture industry, which is where my area of expertise lies, my father did not go to engineering school for design, however, he designed multiple pieces of machinery. And it is quite common in the agriculture field for those that -- it's quite common within the agriculture industry for operators, owner-operators, farmers, particularly in this particular case to make modifications to design their own equipment for improvement. So there's literally a whole magazine called Farm

Show Magazine. It's dedicated to that particular field. And most of those individuals are not trained specifically in design, but they know how to run welders, fabricate. They service, maintain and design, enhance, improve equipment that they can't purchase elsewhere. So, yes, it's quite common within my field of expertise for that to take place.

Q. So is that highly dependent, though, on who that person is?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: You could put the same context as any engineer, anyone trained, any lawyer. I mean, it's -- you could apply that to any area. So no, I don't think it's a relevant statement.

BY MR. LEACH:

Q. Okay. And so would someone that uses a car, for example, be capable of designing one?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Yes. Someone that is capable of operating, maintaining -- one thing

about agriculture, farmers, is that they not only operate the equipment, they service it, they maintain it, they tear it apart, they work with it. Many car owners, if your frame of question, don't service their own vehicles anymore. So it's not -- wouldn't necessarily be the same context. Within the agricultural field, it's quite common because of the remote nature of agriculture that the owner, the operator of the machinery has a major farm shop, they service it. That's what makes it somewhat of the unique fields, is that they own, operate, service, maintain and enhance that machinery to fit their needs.

BY MR. LEACH:

Q. And so would you agree that, you know, in -- someone -- a POSA around 2012 that owns a combine and uses it would be capable of designing a combine or a harvester?

A. In fact, if you want we could do some searching [unintelligible] it exists. So there's a guy in Kansas that did that.

Q. Okay. And you think that's the person of ordinary skill in the art as of that time?

A. Yeah. He was a farmer owner-operator.

He wanted to develop a piece of combine that didn't exist, and so he set out to develop his own combine. John Deere ended up acquiring it. It's called a bi-rotor combine if you don't -- if you wanna look it up.

Q. And would you say that that person would be one of ordinary skill in the art?

A. For combines, yes.

Q. Okay.

A. But we're not talking about combines today, I don't think.

Q. So when you talk about a commercial manure applicator familiar with manure agitation equipment as part of your definition of a POSA, who specifically do you mean here?

A. By who again?

Q. Like what type of person? Can you provide some more detail?

A. For the POSITA or...

MR. LUCHSINGER: Object to form of the last question.

BY MR. LEACH:

Q. Yeah.

A. I don't understand your question, Tom.

Q. So as part of your definition of a

POSITA you say a commercial manure applicator familiar with manure agitation equipment. That's included within your definition of a POSITA. Do you agree with me?

A. Yes. That was part of my declaration for a POSITA.

Q. Okay. And so I'm asking what type of skill would that person have having -- being a commercial manure applicator that would make him a person of ordinary skill in the art?

A. In some states -- in agricultural states it's quite common to have actually a certification to be a commercial manure applicator. There is training. It's not a federal guideline, but it's a -- state by state has guidelines in that area. They have to go through training and certification to be considered in that state. Some states have that, some don't. But within there it's someone that's familiar with equipment, the safety standards of working with commercial manure application. They're familiar with the equipment, the regulations of a state and the county that they're working in in terms of animal waste and animal husbandry. Some states

have guidelines as to what time of year manure -- or agricultural liquid manure can be pumped and put on. There's state and county codes around that. A commercial manure applicator would be up to speed on those rules and guidelines on the equipment and the knowledge of how to do that.

Q. And as part of your definition of a POSA that you say "...an engineer with at least 2 years of experience designing agricultural equipment and knowledge of manure agitation equipment," what type of engineering degrees would you include in that -- your definition of just an engineer?

A. An engineer I guess I would look at as someone having a strong technical skill set and strong thinking skills, not so much as a certain field of engineer. An engineer -- my background is teaching engineering, engineering program. I have worked with a wide variety of engineers across my professional career, include education. And that category of individual has a general strong technical aptitude. When you combine that, an engineer, someone of engineering training along with two

years of experience working or designing agricultural equipment and combined with knowledge of manure agitation equipment, that's where that POSITA comes from. It's not just any engineer. It's not just an engineer. It's an engineer with knowledge of those specific areas of agricultural equipment and manure agitation equipment.

Q. Is there any specific type of agricultural equipment that would be particularly relevant, or do you think generally agricultural equipment or experience with agricultural equipment is sufficient?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I'll give a background on my -- my degree is in ag and biosystems engineering. ASABE has a dedicated organization around that, ASABE, American Society of Agricultural and Biological Engineers, it's a global organization, and they help create standards for -- engineering standards for agricultural equipment and for engineering in that area. Now, one thing about agriculture equipment is that it typically

deals with biomaterials, meaning soil, residue, manure, all those applications. And so many of those you can't go to a textbook to and get hard specifications. So someone that is skilled in the area, have an engineering background and has some skill in designing agriculture equipment would recognize that they would have to get supplemental information, things that you just don't go to a textbook to look up. So that's where combining that with knowledge of manure agitation equipment and seeking out expertise, such as farmers and commercial manure applicators, they would be qualified to be able to work together with those individuals. In all organizations things are designed as a team, a team effort. That individual working in a team environment could design that equipment.

BY MR. LEACH:

Q. So you're speaking of a team environment. Do you understand that the named inventor of the '425 patent claims to have designed and built the Lagoon Crawler in about ten days? Are you aware of that?

MR. LUCHSINGER: Objection as to

form and foundation to the extent it misstates prior testimony by the inventor or misrepresents his testimony.

THE WITNESS: I am not fully versed of the language that the inventor was deposed under or stated in the declaration. I did not do an assessment of his declaration.

BY MR. LEACH:

Q. Well, do you think it's credible or do you think -- do you think it is -- let me ask it a different way.

How difficult do you think it would be to start from scratch and design and build the Lagoon Crawler in ten to 12 days?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: I wouldn't say it's impossible for someone that knows what they're doing. I wouldn't -- I mean, I doubt it was just him that built it. I mean, I'm sure he had -- Nuhn's a company, an organized organization. I doubt he tightened every bolt, cut every piece of steel, cut every hose, so AKA, more than an individual. He had a team environment that he worked within. He may have

designed it, but he still had a team environment to help him.

BY MR. LEACH:

Q. In coming to your conclusions, what is the definition you used of liquid manure?

A. I utilized the Technical Field of the '425 patent to provide definition to that. I can read that whole technical field section off again if you wish.

Q. I'm just asking for the definition of liquid manure that you used.

A. In particular, basically -- this is quoted from the '425 patent, column 1, I'll just read off the whole Technical Field starting with line 25, "The invention relates to pumps and vehicles equipped for pumping. In particular the invention relates to manure pumps and amphibious vehicles equipped for pumping liquid manure such as manure contained in a farm lagoon." So liquid manure is more focused around the product that is confined within farm lagoons, livestock farm lagoons or animal manure farm lagoons as quoted in that section.

Q. So is your definition of liquid manure

anything contained in a farm lagoon or animal manure contained in a farm lagoon?

A. Liquid manure as defined in the context of the '425 patent is any of the material that is contained within the livestock manure, farm manure lagoon.

Q. If there was a bottle cap in the manure lagoon would you consider that liquid manure?

A. It would all get agitated, spit up and transferred out of that system. So anything in there, plants, anything in the debris in the top, the crust, anything that's composed within there would be defined as liquid manure in the context of the '425 patent.

Q. So your answer is yes, a bottle cap would be considered liquid manure under your definition?

A. It's part of -- again, mixed into that farm lagoon, it's part of the farm lagoon --

Q. Well, let's talk about --

A. -- in the context of a farm lagoon.

Q. Oh, my apologies. Go ahead.

A. I'm finished.

Q. Let's talk about before it's agitated, right? We talked about a manure lagoon has

manure in it in different states, right? You have solid manure, liquid manure, slurry, sludge, right?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: An agricultural farm lagoon contains solids, contains liquid, contains sludge, contains a crust on the top. That crust can have plants growing on it. So within that lagoon is all of those components in various states.

BY MR. LEACH:

Q. My question, though, is: Before it's agitated there is different forms of manure in the lagoon, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: A farm lagoon even can contain all of those, a crust, so that is why you have to agitate to mix all those together to get a homogenous product.

BY MR. LEACH:

Q. I understand that you mix it to get a homogenous product. Would you agree with me that once it's mixed and you have this

homogenous product, that would be considered or may be considered liquid manure?

A. Yes. Once it's mixed up as well, that would be considered liquid manure as well.

Q. And so would the dried portion of the crust, before it's agitated or mixed, in your definition be considered liquid manure?

A. Liquid manure as its in -- it's, like I said, a stratified contains the crust as well. So the crust is part of all of that that is confined within a farm lagoon that is then, as we stated, agitated and mixed to make a homogenous product.

Q. So I just want to be clear. Before it's mixed, a hard, dry, crusty surface on or in a manure lagoon under your definition would equal liquid manure, is that correct?

A. Liquid manure such as animal manure contained in a farm lagoon is the crust -- as I stated, the crust, the middle layer, the dry crust on top, the plants, the grass, all that is within -- contained within a farm lagoon. And Nuhn's '425 patent refers to how to -- equipment to work in that area in those conditions and combine that to create a

homogenous product.
Q. Okay. I don't think you quite answered my question, though. Prior to agitation, is a dry crust floating on the top in a manure lagoon, is that liquid manure?
A. Liquid manure as in the context of the '425 patent contains the dry material that you discussed along with the liquid, the sludge and all those compounds. So yes, I did answer that, it's part of all of that together.
Q. But I'm trying to understand, is that after it's agitated or before it's agitated?
A. Both. It's part of the whole lagoon.
Q. Is it your opinion that a person of ordinary skill in the art, a POSA would understand the dried crust on top in a liquid manure lagoon -- I'm sorry, in a manure lagoon to be considered liquid manure?
MR. LUCHSINGER: Objection as to form, asked and answered.
THE WITNESS: Would you like me to state the same answer again, Tom?
BY MR. LEACH:
Q. Yeah. I'd like you to answer the question, please.

A. I'll answer it the way I've been answering. You don't seem to like that answer, so I'll keep answering that way if you like. The material contained in a farm lagoon contains the dry solids, the grasses, the crust layer, the liquids that stratify the middle, the solids, the muck at the bottom. That is all part of the liquid manure that's contained in a farm lagoon.

Q. I get what you're saying, but what I'm trying to understand is when it's all mixed up -- I get that, the water, the manure, the crust, all that gets mixed up and pulverized into a liquid, and that's considered liquid manure. What I'm asking you is: Prior to that agitation process when the crust is floating there, would you consider that crust -- that dried piece of crust in a manure lagoon, would you consider that liquid manure?

MR. LUCHSINGER: Objection to form, asked and answered.

THE WITNESS: I'll give the same answer again, Tom. If you keep asking the same question, I'll give you the same answer. The crust is all part of that. Yes, it's --

there's a before state and after state, and it's all part of liquid manure in that farm lagoon. The pump works with all that material. The pump, the equipment, the vehicle all agitates that together.

BY MR. LEACH:

Q. So why does the literature talk about solid manure, semisolid manure, slurry and liquid manure. Why does the literature seem to universally distinguish between different forms of manure?

MR. LUCHSINGER: Objection to form and foundation.

THE WITNESS: Which particular literature are you referring to? Because the different literature recites it differently. That's why I'm asking.

BY MR. LEACH:

Q. Okay.

A. If words are used in multiple literature but they put them under different context, because there is not a universal standard on those terms, and so each document references them slightly different.

Q. I understand there's not -- maybe not a

universal standard in your opinion. But there are some general categories, right? We talked about that. We have solid manure, you have slurry manure, and you have liquid manure, right? Those are not all the same thing, correct?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Example would be -- I guess, if you're not -- out of the context of farm lagoons is certain livestock is bedded. In that case, that is solid manure. It still has water with it, but you will use a tractor loader, a skid steer or earth-moving-type equipment to move that kind of -- and that is typically not in lagoons there. That's bedded-type applications. And that's typically classified as solid manure.

BY MR. LEACH:

Q. Okay. So let's stick with that. If you take a tractor with a bucket and you scoop that solid manure up and you dump it into a manure lagoon, under your definition that would magically become liquid manure, right?

A. Yes, because all those -- within a -- in farm lagoon has all those layers together, and

they get mixed up, and so you're adding water with it then.

Q. Would you agree with me that one of skill in the art would understand that liquid manure can be defined by the amount of total solid content it has?

MR. LUCHSINGER: Objection to form.

THE WITNESS: No, you can't specifically -- I mean, the percent solids is one term that's utilized to try to genericize [sic] it, but it's not a hard-and-fast guideline.

BY MR. LEACH:

Q. Would your definition of liquid manure include a manure mixture with a total solid content of about less than five percent?

A. As I stated, liquid manure does not have a hard-and-fast percent total solid guidelines.

Q. I get that. What I'm asking, though, and you're not answering, but I want you to answer this question: Would your definition of liquid manure include a manure mixture with a total solid content of about less than five percent?

A. Liquid manure can have -- can include

low solids content. Liquid manure can include high solids content.

Q. Okay. So would you agree with me that your definition of liquid manure would include manure with a -- would include a manure mixture with a total solid content of about less than five percent?

MR. LUCHSINGER: Objection to form, asked and answered.

THE WITNESS: Liquid manure can have low solids content. It can have high solids content.

BY MR. LEACH:

Q. Okay. I get that. But I'm asking you a little bit different question. Would your definition of liquid manure include manure with a total solid content of about less than five percent?

MR. LUCHSINGER: Objection to form, asked and answered.

THE WITNESS: Liquid manure can have a wide variety of a percent solids content. It can be low percentages, it be a medium percent, it can be a high percent based on the application and the environment it's in. So

there's not a hard-and-fast rule.
BY MR. LEACH:
Q. I get that your opinion is there's not a hard-and-fast rule. But I just want to understand. Under your definition would a water and manure mixture that is about four percent total solid be considered liquid manure?
A. You changed the question up. You were talking five percent now you're talking four percent.
Q. Yeah, I changed the -- I'm asking a different question now.
A. I'll give you the same answer. Liquid manure can have low solids content, it can have medium solids content, it can have high solids content.
Q. Okay. Would low solid content include four percent total solid?
A. Low can be all the way to zero. It would be none. And high -- there is no high in a high threshold. So I can give you a low-end threshold. I can't really give you a high-end threshold.
Q. Why can't you give me a high-end

threshold? What would a POSA -- what would a person of ordinary skill in the art understand to be the high-end total solid content of liquid manure?

A. Again, as I stated, there is no hard-and-fast guidelines there. It depends on the livestock and its characteristics and how it handles. It's not a hard-and-fast name. Slurry is kind of a generic name in the manure area. There's general categories, descriptions that may be used. But as we stated, a liquid in any farm lagoon contains and has a description, the context of the '425 patent contains water, liquid, low solids content, medium solids content, high solids content manure that's all mixed together. The '425 patent does not state a certain percentage.

Q. Well, sir, it says liquid manure, right?

A. You're referring to the '425 patent?

Q. The '425 patent references liquid manure, right?

A. Says liquid manure such as manure contained in a farm lagoon.

Q. I'm introducing previously marked Exhibit 1066, which is Chapter 12 from Waste

Management Equipment. I'm sorry. It's the Agricultural Waste Management Field Handbook.

Do you see that?

A. Give me a second to let the reference pull up. Yes, I have that document in front of me.

Q. So would you agree with me that a POSA reading the '425 patent would understand what liquid manure is?

A. A POSA reading the '425 patent would reference the Technical Field to understand how in the context of the '425 patent that they were defining liquid manure in regards to that piece of machinery.

Q. Is it your opinion that the '425 patent, that the inventor acted as his own lexicographer and specifically defined liquid manure differently than what those of skill in the art would understand it to be?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Across various references the percent of solids of liquid manure across different livestock varies. He stated in the technical field such that animal manure contained in a farm lagoon because they

wanted that piece of machinery to show that it worked with all of the manure that is within a farm lagoon, various forms of percent solids. So in the context of the '425 they provide their definition to the context of what that piece of machinery can handle.

BY MR. LEACH:

Q. But, again, if you have a farm lagoon and it's completely dry, right, the pump -- even the pump disclosed in the '425 patent couldn't pump that material, correct?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: Why would you need to agitate it then?

BY MR. LEACH:

Q. I'm just asking if the pump could pump it.

MR. LUCHSINGER: Same objection.

THE WITNESS: Why would you agitate it if it's all solid?

BY MR. LEACH:

Q. Sir, I'm asking a different question. Can you please listen to my question and provide an answer to my question? In this

process I have -- this is my opportunity to try to understand your opinions. All right? So it would be really helpful if you would listen to the question that I ask and try to answer my question. Can you do that for me, please?

MR. LUCHSINGER: Tom, you're becoming argumentative and disrespectful.

MR. LEACH: Brad, I'm not being disrespectful. I'm simply asking the witness to listen to my question and answer the question asked, not just --

MR. LUCHSINGER: It's great that the person who is being respectful has the opinion that he's not being disrespectful. I'm just cautioning you don't become argumentative. Let's move on.

MR. LEACH: Dana, could you please read the question back and -- for the witness?

(Whereupon, the court reporter read back the previous question.)

MR. LUCHSINGER: Objection to form, vague.

BY MR. LEACH:

Q. Let me start over. If you have manure in a manure lagoon and it's dry, there's no

moisture in there, would you still consider that to be liquid manure?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Why would you use an amphibious pumping vehicle to go into that area again?

BY MR. LEACH:

Q. Sir, again, can you just listen to my question and answer it?

A. Well, I'm trying to understand why you would use that -- the vehicle in the '425 patent to go into that particular application, because that's not -- you would not agitate that then. Agitation -- agitation, the point of the amphibious pumping vehicle is to agitate the different stratification of layers, which includes solids. If there are no layers, then there is no need to use an amphibious pumping vehicle to agitate those layers, so you're giving a hypothetical that doesn't really -- it's not a viable hypothetical.

Q. Okay. Let's -- getting back to your opinion about what liquid manure means, and specifically paragraph 94. I think what I'm understanding is your opinion is that --

A. Paragraph 94 of what reference are you referring to?
Q. Paragraph 94 of your declaration, Exhibit 2029. You're saying that in the technical field the patent defines --
A. Can you please pause --
Q. -- liquid manure --
A. Can you please pause and let me get to that?
Q. Sure.
A. So your Exhibit 2029 and paragraph 94, you said, on page 48?
Q. It's on page 41.
A. 48 -- there is the page on the bottom of the overall exhibit, so I guess that's why --
Q. Sorry. Page 48 of the exhibit. I see.
A. That's why I just wanted to make sure I knew which one you were referring to.
Q. Let's use the page numbers. That's correct.
A. Okay.
Q. So paragraph 94. It's your opinion that in the Technical Field the inventor defined liquid manure to mean animal manure contained in a farm lagoon, is that your opinion?

A. Yes. That is my opinion, as stated in that paragraph.

Q. Okay. And so it's your opinion that a person of ordinary skill in the art, despite all the literature out there about liquid, solid, semisolid, slurry, manure forms, would understand when reading the '425 patent that the inventor specifically defined liquid manure as animal manure contained in a farm lagoon based solely on the Technical Field, is that your opinion?

MR. LUCHSINGER: Objection to form.

THE WITNESS: That's what's in the patent, Tom. So I can't tell you what was in the head of the individual at that time, but that's what's stated in the legal document that we're referencing today.

BY MR. LEACH:

Q. Is the sole basis for your opinion that liquid manure is defined as animal manure contained in a farm lagoon based on the Technical Field in the '425 patent?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: The context of the

'425 patent, which we are discussing today for the term of what does liquid manure mean in the context of the '425 patent, we are utilizing the Technical Field to define a definition of that content, to -- a definition of what liquid manure means. Because liquid manure, you can't go to a dictionary definition and read it. The references, liquid manure have a wide variety. The one you have up on the screen has one opinion. The inventions have a different opinion. We can find other documents I cite that have different percentages. And so to be consistent, the inventor stated that the liquid manure is what's contained in a farm lagoon, which includes the crust, the solid crust that form on top.

BY MR. LEACH:

Q. Well, could you be reading it wrong? Couldn't it mean that -- when it says "...for pumping liquid manure, such as animal manure contained in a farm lagoon," couldn't he just be saying that when you're talking about pumping, the "such as" there means: For example, animal manure contained in a farm lagoon, the liquid forms of that animal manure

contained in a farm lagoon? I mean, couldn't the "such as" be read as just "for example"?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It doesn't state that, though. That's your words.

BY MR. LEACH:

Q. Okay. Let's look at some literature. So can you pull up Exhibit 1066, please?

A. I have 1066 up here.

Q. And can you go to page 89 based on the pages in the lower right-hand corner. And I'm looking specifically at Figure 12-92 on page 89 of Exhibit 1066.

Do you see that figure?

A. I'm still getting there. I'm getting close. Okay. I'm on page 89. Which figure are you referring to? I guess the only one on that page. Figure 12-92, is that the one you referenced?

Q. Yes. So would you agree with me that at least your definition -- let's apply -- let's use your definition of liquid manure. Would the yellow where it says Liquid and the total solid, the Percent Total Solids that's under

five percent, would that all be considered, under your definition, liquid manure?

MR. LUCHSINGER: Objection as to the form of the question.

THE WITNESS: Liquid manure as stated in my definition under the context of the '425 patent would be -- you would have liquid, slurry, semisolids, solids all within a farm lagoon. And in the context of the '425 patent, those are all in different stratifications of layers. And the piece of equipment that we're talking about would be able to handle all of those. So there isn't a -- this document is just a suggestive statement to create a -- to try -- to attempt to create a definition of what a liquid, slurry, semisolid and solid is when it comes to liquid manure. It's not a hard-and-fast, industry-accepted guideline.

BY MR. LEACH:

Q. Well, at least this document, which is the USDA Agricultural Waste Management Field Handbook has delineated based on percent total solids different forms of liquid manure, right, swine, poultry, beef and dairy cows, right?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: For the context of their document and their discussion, they have provided their own definition.

BY MR. LEACH:

Q. Okay. And if you look at the definition provided in the USDA field handbook, it classifies liquid manure from swine, poultry, beef and dairy cows as having a total solid content of about less than five percent, is that correct?

A. I'm just studying the graph. So state your question again, please, Tom.

MR. LEACH: Dana, could you please read it back?

THE COURT REPORTER: "And if you look at the definition provided in the USDA field handbook, it clarifies [sic] liquid manure from swine, poultry, beef and dairy cows as having a total solid content of about less than five percent, is that correct?"

THE WITNESS: Again, this chart attempts to provide some definition. Even within the context of this document itself, it

says that those percentages vary widely, and so they even contradict themselves in their own document as to what the five percent means. So yes, I know you keep citing this one figure, but if you look in the context of this 124-page document, there are other sections even within the waste management handbook that talk about that that's a subjective statement purely for discussion purposes is why they do that. It makes it easier from an academic standpoint to write about. But from a realistic standpoint, those in industry understand that that is not a hard-and-fast guideline. That is why it varies widely. These own documents talk about how they vary widely. There are other documents that talk on that. You keep citing this one figure, but that figure is simply for academic discussion purposes.

BY MR. LEACH:

Q. Would you agree with me that irrigation pumps could pump liquids -- so let's talk about farm irrigation pumps. Could they pump a liquid with suspended solids?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: Irrigation equipment is predominantly used to pump water. Water is a liquid. Now, as to if you want to do suspended solids, then you're broaching outside of normal irrigation equipment, and you would have to go to further detail about the specs in that pump.

BY MR. LEACH:

Q. I'm going to introduce Exhibit 1040, and I have to do it in two portions because of the size of the file. And Exhibit 1040 is Liquid Manure Application Systems Design Manual. It might take a second to refresh. If you can go to Exhibit 1040, and I think it's the first volume, at page 16.

A. Okay. I'm on page 16 of the part 1 of 1040.

Q. If you go down to the -- be the one, two, three, fourth paragraph where it starts with, "Because solid content..." and go down to the middle there, it says, "Liquid manures with solid contents up to 4 percent may be irrigated with conventional pumps and large sprinklers."

Do you see that?

A. Yes, I see the line you're referring to.

Q. Do you dispute that?
A. This is one reference manual stating that typical practices with [unintelligible]. And a lot of these is that they're all stating that this is already all agitated manure as well. They don't specifically state that, but in all these references this is all manure that's been agitated already too.
Q. Would you agree with me that --
A. The one thing that --
Q. Would you agree with me --
A. The one thing --
Q. Go ahead.
A. If it's a general guideline, it could be suggested that it could be used. The one thing I want to clarify is that percent solids does not necessarily all encompassing of a spec either. Is -- percent solids can be small particles. Percent solids can be large particles. So if all I said was I had four percent but four percent of it was one big boulder while a pump, a conventional pump could not do that either. So percent solids on its own is a suggestive statement purely in an academic-type statement, but it's not fully

inclusive either. I could not -- if I had one big boulder and that was the four percent of my solids, I guarantee you a conventional water pump, an irrigation pump would not be working for that application. They -- when they make these statements, they assume certain things.

Q. Well, would you agree that a manure with a total solid content of about four percent or less could be pumped with conventional irrigation pumps?

MR. LUCHSINGER: Objection to form, asked and answered.

THE WITNESS: Again, you cannot -- you're taking one sentence out of context of a whole 180-page document. And in this document and other documents that are around this field, they make the assumption that a position -- a person of ordinary skill in the art knows that these are not boulders and rocks. However, your spec, you're just saying simply on percent solids only. Again, I'm telling you that is not on its own sufficient information. This percent solids assumes it's all small particles. It does not assume it's large particles. And so to simply state that percent

solids by -- by only percent solids only as a hard-and-fast statement is not sufficient. This context here, you're ripping one out, assumes some certain things as well. It has some assumptions around what that solid looks like.

BY MR. LEACH:

Q. Would one of skill in the art reading that understand those assumptions, understand that it's not a boulder but it's small particles that make up the total solid content?

A. Maybe, but that's not what your question is stating. Your question is going to take out of context that four percent only is it. You're ripping out one little statement, and you are gonna try to correlate that. What I'm telling you in the context is that you have to take that line and add on some other things to it to have -- to fully understand what that four percent means.

Q. Well, would you agree with me at least in some context a manure with a total solid content of, say, two percent of fine particles would be pumpable by a conventional water pump?

MR. LUCHSINGER: Objection as to

form, vague.

THE WITNESS: Again, I don't -- even just stating it's a water pump does not tell me if it's sufficient to pump any solids. Sometimes even small solids can destroy seals of pumps. And so just because a pump can pump water does not mean it can pump water with solids in it.

MR. LUCHSINGER: Now a good time to take a short break?

MR. LEACH: Sure.

THE VIDEOGRAPHER: We are going off the record.

The time now is 2:00 p.m.

(Off the record 2:00 to 2:10.)

THE VIDEOGRAPHER: We are back on the record. This marks the beginning of Media Number 5 in the deposition of Douglas Prairie.

The time now is 2:10 p.m.

BY MR. LEACH:

Q. Mr. Prairie, we just got back from a break. I have provided Exhibit 1014, which is the publication to Puck, U.S. 2014/0112093. Do you see that?

A. Yeah. It's just pulling up now here.

All right. It's up here.
Q. I must have introduced this before. It's been introduced twice, but that's fine. It's still Exhibit 1014. Can you go to the Background of the Puck reference Exhibit 1014, please?
A. All right. I've got that background section on my screen.
Q. If you look at paragraph 2 towards the middle, it says, "During the times it is being produced and not yet needed, it must be stored." And I think the "it," it's talking about manure, right?
A. I don't know. I would have to read the context to define what "it" means.
Q. Okay. Can you review that, please?
A. I guess in the context of that paragraph, "it" would mean manure.
Q. Okay. And if you go down to paragraph 3 of Exhibit 1014, it says, "Manure from a livestock operations is pumped into a lagoon where anaerobic bacteria digest, liquefy, and convert a portion of the manure to carbon dioxide, methane, ammonia and hydrogen sulfide."

Do you see that?
A. Yes, I see the sentence you just read.
Q. When manure is stored in a manure lagoon, does bacteria digest and liquefy the manure?
A. Mother Nature comes into play. These are naturally occurring things that happen, and, yes, the manure is broken down by Mother Nature.
Q. By bacteria?
A. Bacteria, flies, bugs. I mean, it's -- there's multitude of things that Mother Nature utilize to breakdown manure.
Q. Okay. And then if you jump to paragraph 4, it says, "To prevent an undesirable buildup of sludge at the bottom of the lagoon, it is known in the art to place an agitator within the lagoon to create a slurry by moving solids in sludge into suspension with the supernatant."
Do you see that?
A. Yes, I see the sentence you just read.
Q. Can you tell me what a supernatant is?
A. I would have to look it up and define the full term in regards to the context of this

sentence. It's not a word I use on a day-to-day basis.

Q. Well, if you pull up Exhibit 1130, the New Oxford American Dictionary I gave you, I provided that definition there. It's on the last page.

A. Which exhibit was that?

Q. Exhibit 1130.

A. Okay. I've got the -- that section up here.

Q. And the definition of a supernatant is "Denoting the liquid line above a solid residue after crystallization, precipitation, centrifugation or other processes."

Do you see that?

A. Yeah, I see the definition as you've provided.

Q. Okay. And then if you pull up exhibit -- let's see, 1014 again, the Puck reference, can you just confirm for me -- I want to go through the picture or Figure 4 of the Puck reference Exhibit 1014.

A. Okay. That's the one on page 5?

Q. Yes, I believe so. And Figure 4 of Puck shows a manure lagoon, correct?

A. I don't know. It is -- where is the -- where does it talk about the context of Figure 4 in the patent? What page is that? So on -- the 1014 reference states, "Figure 4 illustrates a side elevation of the floating manure agitator of Figure 1 on a manure lagoon." Okay.

Q. Okay. And reference number 126 it shows a crust, is that correct?

A. I see 126 in the figure. Let me go read. It looks like crust is 126.

Q. And 128 is the supernatant, correct?

A. Looks like supernatant is 128.

Q. Okay. And that's kind of the middle layer of liquid, correct?

A. I'll have to go back to the figure. I'm just reading the text right now.

Q. You can rotate the document if you need.

A. Yeah, but I've got to go down to text, and then I've got to rotate it back. So I would just as soon rotate my head my right, I guess. So it's 126. And the supernatant is what number?

Q. 128.

A. 128. Where is that depicted?

Q. The right-hand side about midway.
A. Okay. It's the middle layer that they're referring to as.
Q. Yep. And then there is a sludge layer 130.
Do you see that on the bottom?
A. Okay. Yeah.
Q. And then the bottom is 138, reference number 138 in 1014, Figure 4, right?
A. That looks correct.
Q. Would you agree with me that in Figure 4, the manure lagoon shown there, that the middle layer, the supernatant, 128, would have the lowest total solid content as depicted of the various types of manure in that lagoon?
MR. LUCHSINGER: Objection to form.
THE WITNESS: I don't know. I'm not -- that's -- I guess from the figure description that we read so far, I couldn't make that 100 percent committed decision.
BY MR. LEACH:
Q. Well, the middle layer is the supernatant, correct, 128?
A. Yeah. I don't know. Doesn't fully define. Is that everything above -- is that

everything above 130 and below the crust, 126?
Q. Well, I'm asking you. You're presented here as an expert. I'm wondering what does this teach a person of ordinary skill in the art, a POSA?
A. Well, there's 128, but it doesn't really have, like, a dimension line as to layer to layer. So 128's at a general zone and even within that region there's going to be differences of percent solids. That's depicted as quite a wide range from top to bottom.
Q. Sure. Would you agree with me --
A. And so.
Q. Sorry. Would you agree with me that the supernatant, 128, would have a lower total solid content than the crust?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: This is a generalization. It's a relative nature of showing stratification of layers. I can't say for sure based on the context that's provided.
BY MR. LEACH:
Q. Would you agree with me that the supernatant layer, 128, would have a lower

total solid content than the sludge layer, 130?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Again, it's -- without empirical evidence, it's hard to know. It's just a generalization statement. I mean it's layers showing -- it's showing a relative cross-section of a manure lagoon. And you could take this same cross-section across multiple different manure lagoons and get different percent solids. So you're asking me a hard yes-or-no question, and I'm telling you that this is a generalization. So it's hard to give a hard yes-or-no answer across a generalized depicted diagram.

BY MR. LEACH:

Q. Okay. So -- but I'm asking you a specific question. In terms of what Figure 4 of Exhibit 1014 shows, would a person of ordinary skill in the art understand that layer 128, the supernatant, would have a lower total solid content than the sludge layer at the bottom, reference number 130?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Again, you're trying

to give a generalization. It could be very thick. It could be light. I really don't know. I mean, I understand your question. I just can't give you an answer based off a general figure like this.

BY MR. LEACH:

Q. Okay. So based on your expertise and based on your analysis of all the documents and your analysis of the prior art, your testimony is reading Exhibit 1014 and looking at Figure 4, you simply can't tell whether a POSA would understand that the supernatant, 128, would have a lower total solid content than the sludge layer, 130, is that your testimony?

A. I'm stating -- you're asking to make a general broad standing generalization based on one figure. And without extra data, I don't know the percent solids of that supernatant. You know, it could be in transition. It's stirred up. I mean, you see it in these jets here that are stirred up, that's why I can't give you an answer because 128 is directly above a jet that's spewing up solids, so maybe they're the same. I don't know. It's not a stable environment. I mean, look at all the

turbulence that's in there. So you're asking me that the supernatant, what is the percent solids of an agitated mixture of a supernatant? I can't tell you that. But yet you're asking me, and I simply can't tell you. There's jets, there's current, there's turbulence in there. I do not know.

Q. Sir, how could you make any decisions or provide any opinions in this case if looking at a document like Exhibit 1014 you certainly just don't have enough information in your mind to make any -- to provide any opinions? How did you come to any conclusions?

MR. LUCHSINGER: Objection as to form, argumentative.

THE WITNESS: I can tell you there's probably most likely solids in there. You're asking me a hard line is it more or less than a certain other layer. I do not know. You can have a high solids content within a turbulated [ph.] area, and so 128 could very well have a lot of slurry, a lot of turbulated percent solids in there. So you're asking is percent solids higher or lower. I'm telling you that I do not know based on this diagram.

Is there solids in there? Yes, I would agree there's probably solids in that layer. But as to what percent, I cannot tell you.

BY MR. LEACH:

Q. In your declaration you come to the conclusion that a POSITA would not have looked to general amphibious vehicles when designing or attacking the problem of agitating manure lagoons, is that correct?

A. Yes, that is a correct statement.

Q. I'm going to show you another exhibit that was previously marked. Exhibit 1074. And this is from September October 2014 Manure Manager Magazine. Might take a second to load. It's a long document. Just let me know when you have it up. And if you could go to page 32. That would be great. And here it's page 32 of the actual document.

A. Okay. It's up. What page?

Q. 32.

A. So 32 of 44, not 32 on the page number of the --

Q. It's page 32 of Exhibit 1074, and it's Bates number NUHN 15000007718.

A. Okay. I think it's up here now.

Q. The title of the article is Efficiency on Wheels by Margaret Land.

Do you see that?

A. Yep.

Q. And would you agree that at least some of Nuhn's customers under your definition would be a POSITA?

A. I think I understood your question, but please state it again.

Q. Would you agree that some of Nuhn's customers related to manure equipment would be a POSA under your definition of a POSITA?

A. Yes, I would say that is true under my definition.

Q. Okay. If you look at the right-hand column, and I'm going to read a portion of it for you. It says, "The brainchild of Ian Nuhn, a prototype of the amphibious lagoon agitator was designed and constructed by Nuhn Industries in ten days so it could be displayed at the 2013 expo. The company worked from August 2013 to January 2014 perfecting the prototype before shipping the first unit in February 2014." And then it says, "'The idea came from our customers,' explained Nuhn. 'We talked to our

customers and dealers about what they needed, what they were looking for. They said it needed to have wheels to get in and out of the pit.'"

Do you see that?

A. Yeah, I see the paragraphs that you just read.

Q. So would you agree with me that Ian Nuhn admitted that the ideas to add wheels on these lagoon boats came from their customers?

MR. LUCHSINGER: Objection as to form, misleading.

THE WITNESS: This is the first time reading this document, so give me a little bit just to go through the article itself just so I understand the context of the whole article.

MR. LUCHSINGER: I'll also object to foundation.

THE WITNESS: Okay. Please state your question again, please, Tom.

BY MR. LEACH:

Q. Sure. You understand that -- strike that.

Reading that section what does that tell you?

MR. LUCHSINGER: Objection to form.

THE WITNESS: I don't know. It tells me he developed a machine that industry liked and that he listens to his customers. That's -- every company, every product that exists that I know of in my days of inventions of developing a product management is -- listening to customers is the number one thing you do. So you're saying is that he listened to his customers and their needs and he invented and designed a machine to meet those needs.

Q. Okay. But it says specifically, "'The idea came from our customers,' explained Nuhn. 'We talked to our customers and dealers about what they needed, what they were looking for. They said it needed to have wheels to get in and out of the pit.'" So doesn't that suggest to you that a person of ordinary skill in the art, customers of manure agitation equipment would have looked to amphibious vehicles to solve the problems with the vehicles such as the Puck boat?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: No. It's simply that he's listening to customer needs.

BY MR. LEACH:

Q. Well, what did the customers tell them it needed?

MR. LUCHSINGER: Objection to form and foundation.

THE WITNESS: I guess I don't understand your question. I mean, it's -- he listened to customers and what their needs were, and he invented and designed a machine as claimed in the '425 patent that met the needs as evident by the success of it.

BY MR. LEACH:

Q. Well, do you read this document, Exhibit 1074, this article as Nuhn, Ian Nuhn admitting that the idea to put wheels on a boat came from its customers?

MR. LUCHSINGER: Objection to form, lack of foundation.

THE WITNESS: It's -- the idea of how to get in and out was packaged in Nuhn and Nuhn's organization developed it, so I guess I don't -- the customers didn't invent it. The customers didn't invent the machine.

BY MR. LEACH:

Q. But doesn't it admit that the idea to put wheels on a boat came from their customers?

MR. LUCHSINGER: Objection as to form and lack of foundation.

THE WITNESS: It's -- the invention itself fit the needs of what the customers were looking for. It doesn't say here the customers invented the machine. I don't see anywhere here that says the customer invented the machine and he went and copied it and invented that. No, it doesn't say that. He said he's listening to customers. The idea came from our customers, so he listened to them. That's what a good company does. Good company, product manager, engineer, they listen to their customers. That's where the best ideas come from is listening to their customers and their needs. If you go down that logic, you can rip pretty much every patent that existed out.

BY MR. LEACH:

Q. I guess what I'm asking, though, is in paragraph 144 it was your opinion that no POSITA would ever looked to an amphibious vehicle, including Truxor or Senwatec, for use

in agitating, recirculating liquid manure in a liquid manure lagoon. And my point is: Didn't POSITA, as you admit they are, state you have to put wheels on it to get in and out of the pit, make it amphibious?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I don't agree with your line of thinking, but I guess that's my position, I can do so. If that's how you feel, that's your opinion. My opinion is no, it's -- he have simply listened. I read this as he simply listened to his customers and some features that -- characteristics that they would like on them.

BY MR. LEACH:

Q. And one of the features was they said it needed to have wheels to get in and out of the pit, correct?

MR. LUCHSINGER: Objection as to form, foundation.

THE WITNESS: You have your opinion, I have mine.

BY MR. LEACH:

Q. I'm asking you a question.

A. I don't see --
Q. That was a question, sir.
A. Yeah, but I'm telling -- yeah, I don't agree with your line of thinking. So I see what you're reading, but I don't agree with the assessment, so that's my right to do so, my opinion.
Q. Did you look at the Lyseng reference? It's Exhibit 1019.
A. If you can pull it up here, I can reference it in mine if you want. Do you have a particular question about that?
Q. Yeah. Have you reviewed it?
A. I'll read -- it's ground six. I can read the section -- the assessment that was done on my level. It's on page 163 of Exhibit 2029, it's paragraph 399 of that document. I'm just going to quote, "Lyseng Exhibit 1019 appears to be in August 29, 2013, article describing a patent owner's own commercial embodiment of the patented vehicle. Lyseng does not appear to be prior art to the '425 patent because it is dated August 29th, 2013, which is ten days after the patent owner filed its provisional patent application on

August 19th, 2013. I understand that, in its institution decision, the Board also determined that Lyseng Exhibit 1019 is also not prior art to the '425 patent. Because this threshold issue has not been satisfied, I have not been asked to provide any opinions or analysis on Lyseng at this time but may at a later date should the need arise." So I did look at it with legal advice. That is the position that I didn't do a thorough review of it because of the reasons stated in that article of what I just quoted.

Q. So would you agree with me that the product disclosed in Lyseng reference Exhibit 1019 is an embodiment of the claims of the '425 patent?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: It is my understanding that the Lyseng article, which is, again, dated after the provisional patent application. It contains -- I don't remember the full details, but I believe it had an article about the prototype that was being developed.

BY MR. LEACH:

Q. That wasn't my question. My question was: Is the vehicle, the Nuhn vehicle disclosed in Lyseng, in your opinion covered by the claims of the '425 patent?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I have not done -- as I stated, was not asked to do a full analysis of the prototype, so I can't form an opinion on that because I was not asked to. I do not know the full context of that machine. That was an article. My context of what I do know about that Lyseng and ground six is what I stated in my declaration, and that is the information I have provided so far. Upon further request I could do a further analysis on that particular machine and the claims of the '425 patent, but I have not done a full analysis at this point.

BY MR. LEACH:

Q. Would you agree with me that Lyseng Exhibit 1019 discloses an amphibious vehicle?

A. Again, I don't -- I -- I'm not fully versed on that article other than what I read, so I do not know the full details of what was shown in that article or described. High level

general I do, but, again, I was not asked to make a full assessment of that particular article.

Q. Would you agree with me that Lyseng discloses an amphibious vehicle?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: You're asking me questions I haven't done an analysis on as stated specifically in my declaration, so that -- you can confirm that.

BY MR. LEACH:

Q. So you have no opinion as to whether the vehicle disclosed in Lyseng is covered by any of the claims of the '425 patent?

A. I have not done a detailed analysis. I was not asked to create an opinion around that because as I stated, the board already said it's an irrelevant piece in terms of the ground, so therefore I don't have an assessment. I was not asked to do an opinion on that.

Q. Did Exhibit 1019 get uploaded?

Do you see that?

A. Yeah, it's uploaded.

Q. My window crashed, so I wasn't sure if it got in there, so it might be in there twice. You provide an opinion on fluid mover, correct?
A. Yes, I did.
Q. And you're defining the term "fluid mover," correct?
A. Just a second. Let me get -- it's in my declaration. I just want to refresh my memory as to the terminology and words that I used in regards to that. Yes, within my declaration I provide some further context on what the term "fluid mover" means.
Q. And not just context. You provided a definition for it, right?
A. Yes. I provided further definition of what those words mean in the context of the '425 patent.
Q. Okay. And that was -- and what was your definition of fluid mover?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: I can read that whole section, so if it's on page 58, so Exhibit 2029, page 58 of 302, section C is in reference to the fluid mover. And I stated the

opinion that fluid mover by itself does not annotate any particular structure. And so just looking at which section I maybe should quote here directly, so...

BY MR. LEACH:

Q. Mr. Prairie, are you just going to read from your declaration?

A. Yeah. I'm trying to read some of it, yeah, because you asked for what a definition was, and I wanted to make sure that my definition wasn't just off memory, it was what I provided in my legal document. So I can read the whole section, but I was trying to attempt to just get down to a certain section to make sure for the record. I don't know if there is a certain section that would give a nice concise summary. So why don't you restate your question, I'll see if I can do a summary or I may need to read the whole thing.

Q. I just want to know what your construction of the phrase "fluid mover" was --

MR. LUCHSINGER: Objection to form.

BY MR. LEACH:

Q. -- in the context of your declaration, Exhibit 2029.

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I'm going to read paragraph 115, "With respect to point (1), the term 'fluid mover' by itself does not connote any particular structure. Standing alone, a 'fluid mover' is any component or system capable of moving fluid, which may be a wide variety of different structures."

Paragraph 116 continues, "As a result, it is my opinion that a POSITA would not appreciate any discernable difference between the claim term 'wherein at least one of speed and direction of a vehicle when the vehicle is floating is controlled by a 'fluid mover' and the term 'wherein at least one of speed and direction of the vehicle when the vehicle is floating is controlled by a means for moving fluid.' In other words, both phrases would mean the same thing to a POSITA." Paragraph 117 continues, "With respect to point (2), it is my opinion that a POSITA would consider the 'valve(s) and fluid nozzle(s)' as the corresponding structure for performing the claimed function of moving fluid into at least one of the speed and

direction of the vehicle when the vehicle is floating. In particular, '425 Patent describes that 'cooperation between the valves 15 and the plurality of fluid nozzles is used to provide directional control and motive power for the vehicle while floating.'"

BY MR. LEACH:

Q. Sir, I'm just going to cut you off. If you're just going to read that, that's fine. We can -- we can assume that you're going to read through, what, paragraph 118, is that what you were gonna do?

A. Well, you asked me for the definition, and so I'm giving you the background, the definition that I provided.

Q. Okay. I get that. Do you have anything to add to what's in those paragraphs?

MR. LUCHSINGER: Objection to form.

THE WITNESS: I guess you asked my definition, here's the definition. You seem unhappy with that definition. I don't know. But this is the definition that I provided for you.

BY MR. LEACH:

Q. I just don't need you to read it to me.

I can read it. I can see it. If what you're telling me is your definition or your opinion is provided there, we just don't need to spend the time to read it.

A. Okay. Then this is my opinion. That's what's stated in here.

Q. And so for the claims that included the term "fluid mover," did you apply this definition when you were looking at the prior art and performing your analysis?

A. You asked me because I stated fluid mover on its own wasn't enough context or enough definition, so we needed to provide some further definition as to what the term "fluid mover" meant in regards to the '425 patent.

Q. Sure. And so if looking at the claims that required fluid mover, if the prior art reference, for example, didn't disclose a valve, you would consider that element not met, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I'm saying in regards to the '425 patent and what fluid mover means in regards to that particular vehicle, it's its

valves and fluid nozzles together.
BY MR. LEACH:
Q. Okay. Sure. Okay. So when you were doing your analysis for the claims that require a fluid mover, your analysis required that the prior art showed valves and fluid nozzles, correct, or you would...
MR. LUCHSINGER: Objection as to form, vague.
THE WITNESS: It's a term that needed further definition, so I provided further definition to -- in terms of the context of the '425. Just fluid mover on its own would be difficult. It means fluid moving, so we had to in the context of the '425 identify a means plus function type term potentially that could serve as a further guidance to that term itself.
BY MR. LEACH:
Q. I get that. What I'm asking you is: Did you use that definition when you were conducting your analysis for the terms -- for the claims that use the term "fluid mover"?
MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: I've utilized the "fluid mover" term in the creation of my declaration. The term that I described for you I used in my declaration and the assessments that I provided.

BY MR. LEACH:

Q. Okay. I think we're getting close. I'm just trying to understand: Is that the term you used when you were doing your -- sorry. Is that the definition of fluid mover that you used when conducting your invalidity analysis?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: I utilized the "fluid mover" term in the creation of my declaration, so it needed further definition. So that is the definition as I provided in the creation of Exhibit 2029.

BY MR. LEACH:

Q. Sure. I understand that's your definition of fluid mover. You provided the definition of fluid mover. I get it. I'm asking you: Did you use that definition when you were doing your obviousness and anticipation analysis with respect to the

claims of the '425 patent that used the term "fluid mover"?

MR. LUCHSINGER: Objection as to form, vague, asked and answered many times.

THE WITNESS: Again, I mean, I did provide an -- I provided an analysis and assessment in my declaration, Exhibit 2029, utilizing the fluid mover definition that I have given you.

BY MR. LEACH:

Q. Okay. I think that answers my question. Thank you. And so can you tell me what in that definition, the corresponding structure that you provide, valves and fluid nozzles, which one of those, if any, actually moved fluid?

A. The valves and fluid nozzles together control the direction and flow of the fluid.

Q. But which one of those can actually move fluid?

A. Well, a valve will open up and close and control the amount of fluid, and a fluid nozzle will direct it.

Q. Which one of those can actually move fluid?

A. It's the terms about -- its fluid mover.

And so a fluid mover would be in regards to -- it's the valves and fluid nozzles as to move the vehicle. And ultimately the valves and fluid nozzles help create propulsion and direction and move the vehicle.

Q. Wouldn't they have to include a pump to actually move fluid?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I guess that is why -- you asked how I construed it. I construed it using valves and fluid nozzle. That is under the opinion that I provided. And so with respect to -- it is my opinion that a POSITA would consider the valves and fluid nozzles for the -- performing the claimed function of moving fluid to control at least one in the speed and direction of the vehicle. I mean, if you wish to construct your own opinion, you are welcome to do so, but I have provided mine.

BY MR. LEACH:

Q. Let me break this up. Does a valve by itself move fluid?

A. Again, we are talking about a fluid mover because fluid mover by itself is a

somewhat generic term in the context of the '425 patent. So as I've stated, we have to provide further definition. In analyzing the '425, it was determined that the valves and the fluid nozzles are the corresponding structure performing the claimed function of moving fluid to control at least one, so it's the two combined together.

Q. That move the fluid. Who came up with that opinion?

A. It was ultimately my opinion. It was worked on with legal consultation in developing that term.

Q. Is that true for your entire report, that you worked with counsel to develop your opinions?

A. This is a legal document. I am not a lawyer, so yes, I have to consult with legal advice on understanding terms and legal context, so everything that -- most everything I worked on in here is regards to looking at it from a legal context, and so working together with my legal team we developed this document.

Q. But in developing that document, did you see your task as working with Nuhn's legal team

to support its position that the claims of the '425 patent are valid?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: I was asked to make my personal assessments in regards to the various grounds that were filed, and so I provided my personal viewpoint with legal consultation, legal advice as to how to best go about that, create that -- to develop this document.

BY MR. LEACH:

Q. Okay. In developing this document and your opinions, what did you believe your object was?

MR. LUCHSINGER: Objection as to form, vague.

BY MR. LEACH:

Q. What were you tasked with doing?

A. On which day of the week? I mean, there's different tasks. There's sub tasks and general tasks.

Q. Sorry. That's not what I'm getting at. I'm just wondering: What did you understand your role to be? Was your role to support Nuhn's position and come up with arguments as

to why the claims are valid over the prior art?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It's in response to -- it's basically in response to the grounds and as providing my personal opinion using legal consultation to help develop that opinion, so understanding the different legal situations. So there are multiple tasks within there. You know, it's a 302-page document, so there are different tasks, and so different sections have different tasks and different assessments. So to summarize that into one statement is pretty tough over a 302-page document.

BY MR. LEACH:

Q. I get that. I'm just trying to understand: What were you hired to do? Were you hired to help Nuhn support its arguments that the claims of the '425 patent are valid over the prior art? Is that what you believed you were hired to do?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: I was hired to provide a POSITA's view from a technical assessment of

the '425 patent in regards to Bazooka's claims or grounds against it. So assessing Bazooka's situation, assessing Nuhn's situation and using my legal team, developed an opinion that is put together in Exhibit 2029.

BY MR. LEACH:

Q. If you go to Exhibit 1012. It should be in your -- actually, let's start with Exhibit 1005 first. I might have to put that in there.

A. Yeah. I'm not seeing it here right now.

Q. Okay. Exhibit 1005 is the Carrier reference, which is publication number U.S. 2012/0185129.

Do you see that?

A. It's pulling up here now. Okay. It's pulled up.

Q. Do you have Carrier in front of you?

A. I have Exhibit 1005 in front of me.

Q. Okay. And that's the Carrier reference. If you could go to paragraph 49, please, of Exhibit 1005.

A. 49, you said?

Q. Yep.

A. Okay.

Q. Can you read to yourself paragraph 49 of Carrier?

A. (Views document.) Okay. I read paragraph 49.

Q. Okay. In paragraph 49 it talks about various things that can be operatively connected to the chassis 102 or chassis 104, correct?

A. Yeah, it's talking about different systems on that vehicle.

Q. And one of those systems is a propulsion pump or propulsion pumps, correct?

A. Yes. I see it says propulsion pumps.

Q. Okay. What does that teach one of skill in the art?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: It just simply says propulsion pumps. This vehicle is -- I believe is a hydraulic or fluid powered vehicle and that requires pumps. So in my regards is that would be -- the pumps would be the hydraulic pumps that would power, propel the vehicle. Figure 7 on page 7 states variable displacement pump shows the full hydraulic circuit, i.e.,

going through a hydrostatic drive, different valves, hydraulic motors out to the wheels. The wheels provide propulsion. So a pump pumps to provide propulsion of the ground driven hydrostatic drive system on that vehicle. Figure 6 is very similar to that. Figure 5 has pump on it. Figure 4 has pump on it.

BY MR. LEACH:

Q. If you look at paragraph 51.

A. Tom, when we get to a point to break, I would like to have a break here whenever you're done with a certain line of questioning here.

Q. Sure. Do you want to just take a break now?

A. We can wait until this reference is done. I don't know where you're going. So if you've got a couple more questions with regard to this exhibit we can finish up with this one. If you have lengthy on this one then we can pause now.

MR. LEACH: Let's just take a break now.

THE VIDEOGRAPHER: We are going off the record.

The time now is 4:13.

(Off the record 4:13 to 4:20.)

THE VIDEOGRAPHER: We are back on the record. This marks the beginning of Media Number 6 in the deposition of Douglas Prairie.

The time now is 4:20 p.m.

BY MR. LEACH:

Q. Mr. Prairie, we just took a break, and we were looking at before the break Exhibit 1005, which is the Carrier reference. Can you turn to paragraph 59, please?

A. Okay. I'm at paragraph 59 of the Carrier reference.

Q. And if you look down about halfway in paragraph 59, it says, "The water cannon is well capable to shoot streams of water (straight streams, fog, wide streams) of just water, foam, dry chemical or decon solution in any combination and can be remotely controlled either wirelessly or wired in man, unmanned..."

Do you see that?

A. I see the sentences that you just read.

Q. Does that teach a POSITA that the water cannon can shoot a combination of decon solution and dry chemical and water?

A. A POSITA in what category?

Q. A person of ordinary skill in the art, what you've used to provide your opinions.
A. No. In what category? I mean, this is not talking about -- I don't see anything in here about liquid manure or animal husbandry, any type applications. I believe this is a firefighting type application. So I guess a POSITA in the area of firefighting equipment, is that what you're referring to?
Q. No. I'm asking about POSITA in this context. When they read the Carrier reference, what would they understand from it?
A. Well, as you've stated, that there's different kind of POSITAs, right? Again, there is nothing in here. This is not a liquid manure application, it's not an agricultural application. Maybe a POSITA that was expert in firefighting equipment would understand that.
Q. Sir, are you saying a POSITA -- your definition of a POSITA would not understand what's disclosed in Carrier?
A. I'm personally not familiar with what dried chemical or decon solutions are, so in regards to -- I don't have a strength background in firefighting equipment, so I

don't know the kind of structure that it would take for dried chemical or decon solutions to work effectively or even what their characteristics are like.

Q. Well, let me ask you this, sir: As Nuhn's expert in this case, if you have water and dry chemicals in solution, would that be considered a slurry?

A. Again, I tried to tell you, I'm not a dry chemical expert. I don't know how dry chemicals respond into -- I was not asked an opinion on how dry chemicals respond into this application. So you're asking me to give you a technical opinion on something that I have not been asked to do on the spot, and I'm not an expert in dry chemicals. This is firefighting application. I would expect an expert in firefighting equipment to understand how fire -- dry chemicals would interact with a water-type system.

Q. Sir, are you telling me you're not qualified in this matter to review the disclosure of Carrier and understand what a person of ordinary skill in the art would understand from Carrier?

MR. LUCHSINGER: Objection as to form, misstates testimony.

THE WITNESS: No, I'm not stating that. You're asking me what happens when water, dried chemical or decon solutions are combined. I do not have an answer for you. I do not know. I was not asked to form an opinion on that until you just did. I'm not off the cuff familiar with how dried chemical or decon solutions react with water or foam and what that solution would create. Now, if I was asked to do an assessment, I would do some research on it and form an opinion on that, but that's not what I was asked to do. So I do not know what the context, if a dried chemical with just water would create a slurry.

BY MR. LEACH:

Q. So you don't have any opinion one way or the other whether the Carrier reference discloses a pump that can pump a slurry, is that true? Because you haven't done the analysis, right?

MR. LUCHSINGER: Objection as to form, misstates testimony.

THE WITNESS: No, that's not what I

stated. I state that -- you asked me what happens with dry chemical and water. That's what you asked me, correct?

BY MR. LEACH:

Q. Yeah. I asked you: Is that a slurry?

A. I said I don't know if that's a slurry or not.

Q. If a combination of dry chemical and water is being shot out of a water cannon, would you agree with me then that the pump is pumping the dry chemical and water solution or a slurry?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Well, dry products can be fully soluble into water and so therefore a fully soluble type product does not create a slurry, so I don't know how -- so I am telling you that I don't know how and there's multiple dry chemicals. I do not know how these particular dry chemicals absorb, if they are fully absorbed into the water, or if they create a foam or whatever it might be.

BY MR. LEACH:

Q. Well, it talks about foam. Is foam a slurry?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Foam is foam. Foam is not slurry. Foam is foam. It's a separate category from liquid.

BY MR. LEACH:

Q. Well, let me ask you this: In paragraph 146 of your report on page 73, you say, "This optional pump in Carrier is described as 'capable of pumping water from lakes or streams [sic].'"

Do you see that?

A. I'm getting there. What page are you on?

Q. Page 73, the page number on the bottom right-hand corner of Exhibit 2029.

A. Okay. I'm on page 73. What area of that page are you referring to?

Q. Just below the top quote. The first sentence says, "This optional pump in Carrier is described as 'capable of pumping water from lakes and streams.'"

A. I see the line that you're referring to.

Q. Right. But the pump in Carrier, one of skill in the art would understand that it can

pump more than water from lakes and streams, right? It can pump foam, dry chemical, water, decon solutions, or a combination of those things, correct?

A. Again, as I said, dry chemicals are sometimes fully soluble and do not create a slurry, so it acts just like water then.

Q. Well, is a foam a slurry?

A. Foam is foam. Foam is not slurry.

Q. In any event, it's capable more than just pumping water, right?

A. It's not capable of pumping liquid manure. I don't see anything in here about pumping liquid manure. What I do see is that -- and I don't know -- it says decon solutions. A solution typically is diluted, so -- right? A decon solution would be immersed into the water. Again, it's going to act just like water. It's not a solid particle. It's fully a solution mixes and it's fully soluble into the product, so therefore it acts just like water.

Q. Okay. And so, again, though, the pump in Carrier can pump more than just water, correct?

A. It can pump water with components inside the -- embedded --

Q. Oh, know, sir, that's not actually right. That's not actually right. You look at paragraph 59, it says it can pump dry chemicals.

A. Dry chemical or decon solutions in any combination, just like an agricultural sprayer. Let's put it in my world. In an agricultural sprayer, there are water pumps that are used. We put dry chemicals, we put other things in there, and that solution acts just like water, therefore it can be. It's not a foam. It's not a slurry. I would guess that dried chemicals in this particular condition act very much like that. They're dried chemicals, but they're mixed. It says solutions. Solution means it's mixed. It's mixed and it acts just like water. It's not a slurry. I don't see slurry in that sentence you just said there. You're assuming that it makes slurry.

Q. You agree with me that Carrier discloses that the pump for the water cannon can pump water from lakes and streams, correct?

A. Yes. That states in its context that

it's capable of pumping water from lakes or streams.

Q. Would you agree with me that lake water has algae in it?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Lake water can have algae, but doesn't necessarily have to have algae. It depends on where you're at, the time of year --

BY MR. LEACH:

Q. Would you agree with me that --

A. -- [unintelligible] circuits.

Q. Would you agree with me that lake water could have suspended muck, silt and biological matter in it?

A. Lake water could have small particles in it.

Q. Fecal matter from fish?

A. I guess if you're surrounding a lake, they're pretty small fish, I can't imagine -- that fecal matter is probably diluted. I don't -- I've never swam in a lake. I saw fish turds floating on the rivers, so...

Q. What about animal fecal matter?

A. You better turn -- I wouldn't swim in that lake or pump water out of that lake if you see that. That's a toxic hazard.
Q. What about decomposed leaves, grass or weeds, is that contained in lake water?
A. Often settles down from what I understand.
Q. So would you agree with me, though, that if the pump in Carrier is designed to pump water from lakes, it could pump a liquid with suspended solids, correct?
MR. LUCHSINGER: Objection to form.
THE WITNESS: No, I wouldn't consider -- lake water is predominantly water.
BY MR. LEACH:
Q. Would you agree with me there's some suspended solids in it?
MR. LUCHSINGER: Objection to form.
THE WITNESS: Like I said, you're making a very broad sweeping statement. Lake water is predominantly water. I mean, it's what cities tap into, right? So cities tap into it for their drinking and municipal purposes. I doubt they are going to tap into those lake water for -- if it has lots of

solids and stuff in it all the fish turds and all the fecal matter you just talked about. So lake or stream water is predominantly water.

BY MR. LEACH:

Q. Okay. I understand you're saying predominantly. But in that answer you agree with me that it would have some suspended solids in it, correct?

MR. LUCHSINGER: Objection to form.

THE WITNESS: It's predominantly water. Very high, high percent water.

BY MR. LEACH:

Q. Okay. But it would have suspended solids, correct?

MR. LUCHSINGER: Objection to form, asked and answered.

THE WITNESS: Again, it's a lake or stream. It could be stationary water, it could be 100 percent water. Most likely it's probably much closer to 100 percent water than being a solid. So lake -- a stream itself is flowing water, and so it's predominantly going to be water.

BY MR. LEACH:

Q. Well, if's it's flowing water, sir --

let's talk about that. If it's flowing water, then there's a chance it's mixing up sediment from the bottom, correct, and it has suspended solids in it if it's moving, correct?

A. It's predominantly water. You're trying to ask me a theoretical question about a percentage, and my answer is it's predominantly water.

Q. Okay. And so by predominantly water, you mean that it may be -- not may; if it's predominantly water, it necessarily has suspended solids in it, correct?

A. It's predominantly water, sir.

Q. Okay. And you would agree with me that the pump in Carrier was designed to pump water from lakes and streams, and that's what it totes as being capable of doing to one of skill in the art, right?

A. So a water pump is designed -- I mean, it's a system that's -- it's designed to do -- again, we talk about application. That pump would be chosen to work in an application that would be lake or stream water. So if I was to design a pump or select a pump for this application, I would look at what are the

characteristics of lake or stream water, and I would select a pump that was capable of working in this particular application. That does not mean --

Q. Would that include a pump that's capable of pumping liquid with suspended solids?

A. I haven't done a full assessment of what lake or stream water construes and what that would mean in terms of a pump. You're asking me now to select a pump for an application. I would have to do a further review on what the extreme of solids, variation of lake and stream water, making sure I selected a pump that had those specifications.

Q. I introduced or I marked or provided an Exhibit 2031. Can you take a look at that, please, sir?

A. 2031. That's 1028? Is that the one we're looking at?

Q. Should be Exhibit 2031. Should be a Bazooka-Farmstar printout.

A. 2031. 2031. There is double 2031.

Q. I'm putting the -- exhibit number is being repeated because I'm putting that in so it doesn't have different numbers.

A. Yeah, I see -- I think I got -- you're talking about Bazooka-Farmstar or the Wolverine body page? Is that what you're referring to?

Q. Go down to page 9, please. So in Nuhn's response to the petition, it states a number of times, and it cites this document. It states, and I quote, "Indeed, petitioner would agree such a pump would not pump liquid manure when itself commits that most pumps cannot operate in liquid manure." Okay? Nuhn makes that --

A. Where did you -- what did you just quote from? What reference is that?

Q. Nuhn's patent owner response. They cite this a number of times. They say, "Indeed, petitioner would agree such a pump would not pump liquid manure when itself admits that most pumps cannot operate in liquid manure." And they cite Exhibit 2031 for that at page 9. And what they're citing is -- the middle paragraph, if you look at that, it says, "The propellers create 4,000 pounds of thrust for agitation and maneuvering functions directly below the boat establishing a solid center of gravity for stability. That means this well balanced machine can move in any direction, even in the

thickest sludge where most pumps cannot operate."

Do you see that?

A. I see the paragraph you just read.

Q. To cite that paragraph and argue that Nuhn -- I'm sorry, that Bazooka admits that most pumps can't operate in liquid manure is false, correct?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: I don't understand your question, Tom. Can you restate or state it in a different form?

BY MR. LEACH:

Q. The paragraph that I just quoted there, the middle paragraph on page 9 of Exhibit 2031 does not say that most pumps cannot operate in liquid manure, correct?

A. Says "...where most pumps cannot operate." Doesn't say all pumps. It says "...most pumps cannot operate."

Q. It says "...even in the thickest sludge where most pumps cannot operate," right? That is not saying that most pumps cannot operate in liquid manure, correct?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Let me read. I haven't really analyzed this document, Tom. So you're asking me for a certain line. I need to kind of refresh myself on the whole document here.

BY MR. LEACH:

Q. Sure. Go ahead.

A. (Views document.)

Q. Sir, would you agree with me that the thickest sludge is not equal to liquid manure?

A. No, I wouldn't.

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Sludge is -- again, back to our reference. We can go back to my statement again if you want me to restate all that again. We can do everything from sludge, solids, slurry, liquid -- liquid manure in the '425. I can recite that again if you would like me to. A thick sludge, slurry is definitely part of our definition of liquid manure.

BY MR. LEACH:

Q. Okay. Can you go to Exhibit 1012.
A. That's the Senwatec brochure?
Q. Yeah. Before we get there, though, you have some opinions on remote control, correct, throughout your opinions with respect to the different documents?
A. Yes, there is some opinions I created about the topic of remote control.
Q. Sure. Is it your opinion that Carrier does not provide enough detail to a person of ordinary skill in the art on how to make and use a remote control amphibious vehicle?
A. Let me pull this up. You were asking me to look at the Senwatec reference, and then you talk about Carrier.
Q. I'm switching gears. I'm talking about Carrier. I want to go back to Carrier quick. It's Exhibit 1005.
A. Okay. That's what -- I just wanted to make sure. You said you were -- so we're back to Exhibit 1005?
Q. Yes. And I'm just generally talking about your opinions. Is it your opinion that Carrier does not provide enough detail to a POSITA on how to make and use a remote control

amphibious vehicle?

MR. LUCHSINGER: Objection as to form.

THE WITNESS: Carrier talks about -- let me just check. So it discusses remote control of its particular machine and how it works. So, yes, Carrier talks about remote control of its particular machine. Just because it's that machine does not mean it's all machines.

BY MR. LEACH:

Q. I guess what I'm trying to understand is would you agree with me that Carrier does not disclose how to make and use a remote control steering on land and water? Is that your -- I'm wondering: Is that your opinion?

A. Well, what I'm stating is Carrier talks about remote control of how it would do it on its machine. It doesn't talk about teach remote control for all amphibious vehicles or all machines.

Q. I get that.

A. It's talking about remote control of its machine.

Q. Sure. When you -- let's go to

paragraph 202 of Exhibit 2029, your declaration. And you're talking about --

A. Okay. Pause there, please, or slow down. Where -- you're switching -- you're references again now. So -- okay. Exhibit 2029. Where are you going to?

Q. Paragraph 202. So part of the obviousness analysis is looking at whether the prior art teaches one of skill in the art to arrive at the combination. And part of your argument is that Carrier does not teach one of skill in the art how to employ remote control, right?

A. It teaches remote control on its machine, on how to do its vehicle and its unique characteristics, not on all vehicles.

Q. Sure. I get that. And you say in paragraph 202 of Exhibit 2029, "The fact that Truxor has not yet to this day added remote control option to its vehicle provides evidence that this would not be a simple feat that could be accomplished by routine experimentation." Right?

A. Yeah. You correctly restated what I wrote down, what I wrote in my declaration.

Q. Okay. And so what I'm trying to understand is your opinion here. Is your opinion that the disclosure in Carrier is insufficient to teach someone how to employ remote control, say, for example, on Truxor?

A. Yeah. Because just because I can run an RC car does not mean I can remote control any piece of equipment. Just because I can have RC airplane does not mean that: Oh, I can just take that remote and have RC control of an advanced machine with a boom or different controls. And so RC control has been around a long time. So just to say that there's wireless remote control does not mean that I can remote control any piece of machine, any combination that I view: Oh, yep, it's already been done, it's easy to do. That's not -- so [unintelligible] what I'm stating is that there are major challenges in that each vehicle and how it's operated has its unique hurdles and that, again, just because I can RC remote control a little toy car: Hey, yeah, I can do that. But I cannot necessarily do that on a complex machine with multiple levers and things that may have to see in person, get tactile

feedback on.
Q. But, sir, in Carrier, it discloses remote control, right, remote control of the vehicle, correct?
A. It discloses remote control of its vehicle --
Q. Okay.
A. -- on how they did it on their particular vehicle.
Q. I get that. But couldn't you apply that teaching to Truxor?
A. No. Again, to me it's the same analogy that just because I can RC remote control car does not mean I can RC remote control a Truxor vehicle.
Q. And so what I'm trying to understand is: Is it your opinion that the disclosure in Carrier is insufficient to teach one of skill in the art how to remotely control a vehicle, for example, to control the speed and direction when floating or control the speed and direction when on land?
MR. LUCHSINGER: Objection to form.
THE WITNESS: Again, the Carrier -- and I'm going to keep going back to that,

because that's a unique vehicle. Vehicles are off -- off highway segment, they have different applications. So what you're stating is that just because I can remote control one vehicle, I'm instantly an expert and can control any vehicle anyone can conceive. What I'm saying is that's not true. I'm saying that, yes, Carrier successfully remote controlled their vehicle and how it operates. That is not the same as other vehicles. So no, I would say that there are unique learnings that have to be developed to control other vehicles.

BY MR. LEACH:

Q. Okay.

THE VIDEOGRAPHER: And, Counsel, just a heads up I've got 30 minutes left.

MR. LEACH: Okay.

BY MR. LEACH:

Q. And so part of what I'm asking you is: Is your opinion the disclosure in Carrier about how it employs remote control to its vehicle is insufficient to teach one of skill in the art to employ -- to actually accomplish providing remote control to the vehicle? Does it provide enough detail as to how to employ remote

control?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: Again, it's evident that they have remote control of their vehicle, but it doesn't have the code. It doesn't have -- because you're asking very detailed stuff here. I mean, there's more -- there's no code document in there. So remote control doesn't exist without code. It doesn't document all the code that's needed, all the -- all the sensors, all that kind of stuff. Again, that's partial information. What kind of tactile feedback do they need? Do they have giros in there? They don't document all that stuff. And so just because they say they can do remote control, I would probably validate that they were marketing it and successfully doing it to be able to do it. Again, kudos to them. They can do it on their vehicle. But just because it's done on one vehicle -- just because the military can have a drone that flies does not mean that I can remote control a large boom with large complex things that I would have to get tactile feedback on.

BY MR. LEACH:

Q. If Carrier doesn't provide the code and what specific functions and how they fit together and work to employ the remote control, do you believe that one of skill in the art would have to go through undue experimentation when reading Carrier to employ remote control on an amphibious vehicle?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: Again, I've been part of projects that have offered autonomous and remote control. Remote control has been around a long time. So I keep telling you that just because someone tells me it's remote control: Good for you. However, what I'm saying is that every vehicle is unique. You can take learnings from past, but that doesn't mean that you're gonna guarantee success on applying it to a different vehicle that operates differently in different environments. And so Carrier most likely -- I have not validated on their website, but Carrier offered their -- what they did on their vehicle. So a vehicle just like theirs that serves their exact

function, they have -- they can talk about in their patent what they did there. However, that is not the same as other vehicles.

BY MR. LEACH:

Q. Let's stick to just what's disclosed in the Carrier reference, Exhibit 1005, just what's disclosed in there. Is it your opinion that what's disclosed about remote control in the Carrier reference does not provide enough detail to one of skill in the art to actually make that remote control work?

A. All right. Let's go do some reading.

Q. Sir, do you believe a POSA reading Carrier would be able to employ the remote control functionality without undue experimentation?

A. I think any vehicle you do automated control of requires experimentation. You have to fine-tune the code and the control algorithms. So just because you physically document the structure does not guarantee that you're gonna get the control algorithms and the fine tuning done right, if that's what your question is.

Q. Well, I guess my question is a little

bit different. Do you think reading Carrier and the disclosure provided in Carrier about remote control and the complex functions that it has, that one of skill in the art couldn't simply read Carrier and employ remote control on such a vehicle without undue experimentation?

MR. LUCHSINGER: Objection as to form and foundation.

THE WITNESS: Oh, I think even given this there would still have to be experimentation to polish it to get it to a commercial state. Like I said, this is not a production set of documents. A patent does not -- patents are not meant to be a production state of documents to get it to a fully versed functional sellable state. That's not the intent of documents. If that's what you're asking me. You're asking me could I bring this to a production environment and make this a sellable product? There are very few patents out there of any kind that that's gonna work in. And so they tell you the concept and the features that they have and they patent them, but you're asking: Can I deliver a functional

working vehicle that's remote control by what's delivered here? There aren't production drawings, there's not production set of code. There's not specs on the ECU, the sensors, all that stuff. If that's what you asked me is can I deliver a product, there are -- I don't know of any patents that you could do that and make that statement true.

BY MR. LEACH:

Q. Well, given what's disclosed in Carrier, is it your opinion that it would take undue experimentation to get the remote control functionality to work?

MR. LUCHSINGER: Objection as to form, asked and answered.

THE WITNESS: I'm telling you it takes some experimentation. I don't know. I'd have to put a further project schedule together and go through if you want. If you want to hire me as an engineering consultant to go through and try to reverse engineer this vehicle from the patent and do that, we can set up a contract to do that, but that's not what we have time for here. You're asking me, yes, I agree that there's remote control, they talk

about the sensors. It's very evident that they put a lot of time into that, into the details and that this vehicle is remote controlled. And they can remote control their specific features.

BY MR. LEACH:

Q. So let me go back to your paragraph 202, because this is what I'm trying to understand. In paragraph 202 you state that -- the fact that the structure has not to this day added remote control option to its vehicle provides evidence that this would not be a simple feat that could be accomplished by routine experimentation. And so when you say it couldn't be done by routine experimentation when looking at Carrier, is it your opinion that the disclosure in Carrier doesn't provide enough detail to teach one of skill in the art to employ it on Truxor?

MR. LUCHSINGER: Objection to form.

THE WITNESS: Why would I read Carrier to know how to do remote control on a Truxor. The Truxor has a remote control arm, it's got all these levers and controllers, and it's not the same. It's a different

application, different machine. Why would I reference Carrier? Why would I reference Carrier to put remote control on Truxor. Truxor -- part of also what I stated, which you're leaving out, is that I also talk on the difficulties of running an excavator arm that requires tactile feedback remotely. There's evidence that we've submitted that shows how difficult that is.

BY MR. LEACH:

Q. Okay. Let's move on to Senwatec. Can you go to Exhibit 1012, please.

A. 1012, you said?

Q. Yes.

A. I have it up.

Q. Would you agree with me that Senwatec is an amphibious vehicle?

A. Yes, even in the literature they say it's a light amphibious boat/vehicle.

Q. Right. And it has tracks or wheels, correct?

A. They offer a configuration with wheels. They also offer a configuration with tracks.

Q. Well, let's stick to just what Exhibit 1012 shows. Okay? I want to talk

about what does Exhibit 1012 disclose to a person of ordinary skill in the art. So it discloses an amphibious vehicle. It discloses a vehicle with tracks and wheels, correct?

A. Yeah. It's an amphibious vehicle, it has a configuration with tracks. It has a configuration with wheels and pontoons.

Q. And it has a powerful centrifugal pump, an eight-inch suction and six-inch discharge ports, correct? It's kind of in the middle of the first page of Exhibit 1012 underneath the left-hand drawing.

A. Yes. One of its accessory options is a pump, and they're saying here as eight-inch suction and six-inch discharge ports.

Q. And would you agree with me that a powerful centrifugal pump with an eight-inch suction would be capable of pumping liquids with suspended solids?

MR. LUCHSINGER: Objection to form, vague.

THE WITNESS: The description "powerful" does not inherently mean that it can handle solids.

BY MR. LEACH:

Q. Well, if you go down to the second page, page 2 of Exhibit 1012 and the picture on the right-hand corner at the bottom, would you agree with me that what the Senwatec vehicle there is pumping is a liquid with suspended solids, even a crust of algae on it?

MR. LUCHSINGER: Objection to form.

THE WITNESS: I don't know what work tool they have on there, so I don't know.

You can see some algae, but looks like they have another style of work tool or a cutter head or something like that on there. I don't know.

BY MR. LEACH:

Q. Well, do you see the tube coming off to the back, doesn't it look like it's pumping a high volume of water there?

A. I don't know how it's configured, so you're asking me to make speculation on something based on a picture that I can't see the details of what's in that -- what's in the lake or body of water there.

Q. Okay. Would you agree with me that it has a power source that's connected to a hydraulic pump?

A. It specs it has an engine, a diesel engine that it uses. It says it uses hydraulics, so somehow they're providing hydraulic power.

Q. If you go down to page 2 under the figure to the left it says, "Powerful wheel/track drives for banks and slopes up to 30 degrees."

Do you see that?

A. Okay. Yep.

Q. So when you were doing your analysis did you consider the teaching of Senwatec and the remote control teachings of Carrier in considering your obviousness analysis? I'm trying to understand: What was your process of looking at Senwatec and looking at Carrier? What did you do when you're trying to arrive at your opinion on obviousness with respect to the Senwatec ground?

MR. LUCHSINGER: Objection as to form to the extent it requires a narrative.

THE WITNESS: This analysis has been going on for quite some time. I don't remember every step I took.

BY MR. LEACH:

Q. Let's move on to secondary considerations of nonobviousness. Paragraph 401 of your report lists the secondary considerations of nonobviousness, correct?

A. Give me some time to get there. Where are you going?

Q. Let's go to paragraph 403.

A. Okay. On page 164?

Q. Yep.

A. Okay.

Q. It says, "I have been asked to address some of these secondary considerations."

Do you see that?

A. Yeah. I'm with you on paragraph 403.

Q. Which ones did you consider? And the list is in paragraph 401 of your report.

A. I'll read paragraph 401 since it's a listing of stuff [unintelligible] --

Q. Sir, I don't need you to read paragraph 401.

A. You asked me for the things that I included. Well, isn't that -- that's pretty much what that paragraph states. So I don't know how to state your answer without

re-reading that paragraph.

Q. Yeah. But you -- in paragraph 403 you said you addressed some of these secondary considerations. So let's just talk about this. Did you provide an opinion on commercial -- the secondary consideration of commercial success?

MR. LUCHSINGER: Objection as to form, vague.

BY MR. LEACH:

Q. You know what? Let's do this: Are all of your opinions on secondary considerations of commercial success contained in your report?

A. Yes. The ones that I have created so far or done the analysis on are documented in my declaration, Exhibit 2029.

Q. But you haven't provided any other opinions than what's provided in Exhibit 2029 on secondary considerations of commercial success, right?

A. No. The analysis that I was asked to deliver on is documented in Exhibit 2029.

Q. Okay. Did you look at Ian Nuhn's declaration in performing your analysis and opinions contained in Exhibit 2029, and specifically his declaration on secondary

considerations of nonobviousness?
A. I don't remember exact timing, but I believe that was submitted the same time that this document was.
Q. And so you didn't review it and take it into consideration when you provided your opinions?
MR. LUCHSINGER: Objection as to form.
THE WITNESS: I have since read it. I can't remember, you know, timing on when. I may have read a draft, but they -- if I recall if those were submitted on the exact same dates. So I may have read a draft of it in forming these opinions. I don't remember particularly. I don't believe it's cited. I don't believe its cited in his document.
BY MR. LEACH:
Q. Let's turn to your opinions on the motion to amend. I think that starts at around paragraph 533.
A. Okay. I'm at paragraph 533.
Q. Did you review -- did you review the prior art that was cited in the 708 patent IPR petition?

A. I don't remember. Can we pull that reference up?
Q. Let me just ask you: You're aware that Bazooka Farmstar filed a petition for IPR in the '708 patent, right, Nuhn's '708 patent?
A. Yeah. I haven't -- my recent focus on -- has been on the '425, so I don't remember all the details in the '708 off the top of my head.
Q. I guess what I'm asking is: Did you review the prior art in the '708 patent IPR?
A. Well, that's just -- like I said, I've been focused the last recent weeks in the '425. There's a lot of information here. So I'm asking just to refresh my memory, since you're going to a different IPR, to pull that up to so I can give you an appropriate answer. That's all I'm asking for, Tom, to give me an exhibit number that you were talking about and -- just to refresh my memory.
Q. Okay. We'll move on. I'm showing you what's been marked as Exhibit 1088. You should have that shortly. If you go to, I believe page 27. See if that's it?
A. What was the exhibit, Tom?

Q. 1088.
A. Okay.
Q. In the bottom it has an advertisement for Nuhn's G-Force Vertical Pit Bump.
Do you see that?
A. What page are you on?
Q. Page 27 of Exhibit 1088?
A. All right. I'm on page 27.
Q. Would you agree that the Nuhn pump disclosed in Exhibit 1088 at page 27 is a liquid manure pump?
A. Let me -- it's a vertical pit pump.
Q. Do you agree that the Nuhn pump discloses a liquid manure pump?
A. I don't know. I'm not fully versed on -- you're asking me to make an opinion on a legal record. I'm not -- I'm just looking at a piece of marketing literature. I don't know this product particularly that you're looking at in full depth, so --
Q. Does it --
A. [Unintelligible] give me more information.
Q. Does it show it agitating manure?
A. It's Nuhn's product. I don't know when

this is dated. If you have some more information, then I could look at it. It's just a piece of marketing literature. All I can go off of is what's listed here. It doesn't say it's manure. Maybe you could assume it is. I don't know. It says a G-force vertical pit pump. It's in a manure magazine, so maybe you can assume it's manure. I don't know. Is that manure -- do you know, Tom, is that manure there in the picture?

Q. This is my opportunity to ask you questions. All right, sir? Do you agree that the Nuhn --

A. I don't know. That's why I don't know if that's manure or not.

Q. I get that. Do you agree --

A. Okay.

Q. -- than Nuhn pump discloses a housing for the liquid manure pump shown in Exhibit 1088 at page 27?

A. It's a piece of marketing literature. I can't tell you full details, Tom. I mean, it's a piece of marketing literature. They're always vague. You're asking me to make a technical assessment off of a vague marketing

publication. I never like doing that.
Q. Sir, from a perspective of a POSA, and you're Nuhn's expert in this case, do you agree that the Nuhn pump disclosed in Exhibit 1088 at page 27 shows a housing for a liquid manure pump?
A. Again, do you have a parts catalog for this? We could do a more detailed breakdown of it if you'd like.
Q. I don't?
A. This is definitely a starting point. Okay. Then, Tom, I'm telling -- hey, you're asking for a technical opinion. To do that, what I would do is that: Okay. Yep, this looks like a pump. Let's dive in deeper. I would ask for additional supplemental information. If you have a supplemental information, feel free to put it up on here, we'll take a look at the catalog, we'll take a look at the parts breakdown, and we can answer some of your questions. If you have those, let's put them up here and let's talk about it. If not, this is a piece of marketing literature.
Q. Sir, do you agree that this document,

Exhibit 1088 at page 27, shows the Nuhn pump, and it discloses an impeller in the pump housing? Can you see that, sir?

A. What I see is Exhibit 1088. It's obviously from Nuhn. It's obviously -- it says the G-Force Vertical Pit Pump. Beyond that, it is hard -- everything is red. I can't tell you exactly the detail in that, sir. However, if you could provide a parts breakdown, exploded view or something of that product that coincides with this, then we could do a more detailed assessment. If you would like to submit that and for a reference, we could go ahead and do that assessment live. I'm not -- provide that assessment in my declaration. You're asking me to do that live. This is the information I would need to do that.

Q. When a centrifugal pump is operating and pumping liquid, is it surrounded by the liquid?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: What?

BY MR. LEACH:

Q. I'm asking: When a centrifugal pump is pumping liquid, does the liquids come into the

housing and surround the impeller?

MR. LUCHSINGER: Objection as to form, vague.

THE WITNESS: Do you have a particular pump you're looking at?

BY MR. LEACH:

Q. I'm talking about in general a centrifugal pump.

A. Exactly. You're talking on a black box centrifugal pump.

Q. Okay.

A. Do you have a specific centrifugal pump that you would like to talk about?

Q. You've -- let's move on. Let's move on. You opine in your report about the Proposed Amended Claim 22, right?

A. All right. Let's slow down here. Where are you talking about now? We're jumping around here.

Q. Go to paragraph 534.

MR. LUCHSINGER: Kyle, what's our record time?

THE VIDEOGRAPHER: We are just over right now.

MR. LUCHSINGER: You said we're just

over seven hours?

THE VIDEOGRAPHER: Sorry. We're at seven hours right now.

MR. LUCHSINGER: Yeah. That's what I thought. All right.

MR. LEACH: Few more minutes, Mr. Luchsinger. I think given the record we're entitled to that.

MR. LUCHSINGER: I disagree. I mean, you knew how much time you had and you used it -- you chose what questions to ask, you know, based on knowing the time limits, so...

MR. LEACH: I've got a few more questions.

BY MR. LEACH:

Q. Sir, in paragraph 534, the claim has an element that says "...positioned along the underside of the vehicle." What does that mean to you?

MR. LUCHSINGER: Tom, we're over the time limit. You're now asking questions on a different topic entirely from what you've asked before. I mean, the deposition is concluded from my perspective.

MR. LEACH: All right. I'm asking

for a little more time here with this witness given -- given how evasive he was --

MR. LUCHSINGER: I don't think it's --

MR. LEACH: -- quite frankly.

MR. LUCHSINGER: I don't think it's justified, and I totally disagree with your characterization of the witness being evasive. You know --

MR. LEACH: We can sit here and argue about it, or you could just let me finish with a few questions.

MR. LUCHSINGER: What I'm saying is the deposition is over. We're over our limit. You knew what those time limits were. We've been keeping track. I mean, you knew what it was at 2:00 Eastern Time, 3:00 Eastern Time 4:20 Eastern Time.

MR. LEACH: Yeah. Brad, I'm asking -- I'm asking if we can get a little more time.

MR. LUCHSINGER: I know. And I'm saying no.

MR. LEACH: Okay. Mr. Prairie, thanks for your time.

THE WITNESS: Thank you, Tom.

THE VIDEOGRAPHER: We are off the record at 5:22 p.m. This concludes today's deposition of Douglas Prairie. The total number of media used was six and will be retained by Veritext Legal Solutions.

MR. LUCHSINGER: Thank you. The witness will review the transcript and sign.

(Deposition concluded at 5:22 p.m.)

****

REPORTER'S CERTIFICATE

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

I hereby certify that I reported the remote deposition of Douglas Prairie on Tuesday, June 25, 2024, from Maple Grove, Minnesota, and that the witness was by me first duly sworn to tell the whole truth;

That the testimony was transcribed by me and is a true record of the testimony of the witness;

That the cost of the original has been charged to the party who noticed the deposition, and that all parties who ordered copies have been charged at the same rate for such copies;

That I am not a relative or employee or attorney or counsel of any of the parties, or a relative or employee of such attorney or counsel;

That I am not financially interested in the action and have no contract with the parties, attorneys, or persons with an interest in the action that affects or has a substantial tendency to affect my impartiality;

That the right to read and sign the deposition transcript by the witness was reserved.

WITNESS MY HAND AND SEAL THIS 10th day of July, 2024.



Dana S. Anderson-Linnell
Notary Public, Hennepin County, MN
My commission expires 1/31/2025

Exhibit 1095
Bazooka v. Nuhn - IPR2024-00098
Page 283 of 364

Veritext Legal Solutions
1100 Superior Ave
Suite 1820
Cleveland, Ohio 44114
Phone: 216-523-1313

July 11, 2024

To: James B. Luchsinger

Case Name: Bazooka-Farmstar, LLC v. Nuhn Industries, Ltd.

Veritext Reference Number: 6753765

Witness: Douglas Prairie Deposition Date: 6/25/2024

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown above, or email to production-midwest@veritext.com.

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,
Production Department

NO NOTARY REQUIRED IN CA

Exhibit 1095
Bazooka v. Nuhn - IPR2024-00098
Page 284 of 364

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 6753765
CASE NAME: Bazooka-Farmstar, LLC v. Nuhn Industries, Ltd.
DATE OF DEPOSITION: 6/25/2024
WITNESS' NAME: Douglas Prairie

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have made no changes to the testimony as transcribed by the court reporter.

_____ _____

Date Douglas Prairie

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

_____
Notary Public

_____
Commission Expiration Date

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 6753765
CASE NAME: Bazooka-Farmstar, LLC v. Nuhn Industries, Ltd.
DATE OF DEPOSITION: 6/25/2024
WITNESS' NAME: Douglas Prairie

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

_____ _____
Date Douglas Prairie

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They have listed all of their corrections in the appended Errata Sheet;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal this _____ day of_____, 20____.

_____
Notary Public

_____
Commission Expiration Date

ERRATA SHEET

VERITEXT LEGAL SOLUTIONS MIDWEST

ASSIGNMENT NO: 6753765

PAGE/LINE(S) / CHANGE /REASON

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Date Douglas Prairie

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____

DAY OF _____, 20_____ .

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Notary Public

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Commission Expiration Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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