

In the Matter Of:
SOLARIS V MASABA

DAVID SMITH
September 10, 2025

JD Legal Support
2901 W. Bluegrass Blvd., Ste. 200
Lehi, Utah 84043

1 IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2 BEFORE THE PATENT APPEAL BOARD

3

4 SOLARIS OILFIELD SITE SERVICES)

OPERATING, LLC and SOLARIS)

5 OILFIELD SITE SERVICES)

PERSONNEL, LLC,)

6)

Petitioners,)

7)

 v.) Case No. IPR2024-01179

8)

MASABA, INC.) Patent No. 11,780,689

9)

Patent Owner.)

10 _____)

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13 VIDEOCONFERENCE DEPOSITION OF DAVID SMITH

14 Wednesday, September 10, 2025

15

 * All Parties Appearing Via Zoom *

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25 Reported by: Daren S. Bloxham, RPR No. 000335

1 Deposition of David Smith, witness being located at
2 Baker Botts, 901 Louisiana Street, Houston, Texas, on
3 September 10, 2025, at 11:22 a.m. MT, before Daren S.
4 Bloxham, Certified Court Reporter, in and for the State of
5 Utah.

6

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1 P-R-O-C-E-E-D-I-N-G-S

2 --oOo--

3 DAVID SMITH,

4 a witness herein, having been administered.

5 an oath, was examined and testified as follows.

6 EXAMINATION

7 BY MR. NYDEGGER:

8 Q. Good afternoon, Mr. Smith. Could you
9 please state and spell your name for the record?

10 A. My name is David Smith. D-A-V-I-D,
11 S-M-I-T-H.

12 Q. Thank you. Could you also please provide
13 an address?

14 A. My home address --

15 Q. That's --

16 A. -- or an office address? My home address
17 is 4613 North Predo, P-R-E-D-O, Way, Meridian, Idaho
18 83646.

19 Q. Thank you. Mr. Smith, I understand that
20 you're fairly familiar with the deposition process.
21 Is that correct?

22 A. That's -- that's a fair statement.

23 Q. Okay. If at any time during the day you
24 need to take a break for whatever reason, let me
25 know, and I'll find a place for us to break. Okay?

1 A. Sounds good.

2 Q. And your counsel has let me know that you
3 have a clean paper copy of the declaration that
4 you've submitted in this matter.

5 If you refer to any other documents,
6 whether paper or electronic copy, during the
7 deposition, you need to let me know.

8 Do you understand that?

9 A. Sure.

10 Q. Okay. Thank you.

11 Mr. Smith, is there anything that might
12 prevent you from providing a full and complete
13 testimony today?

14 A. No, I don't think so.

15 Q. You're not sleep deprived or haven't taken
16 any medication or substance that would impair your
17 ability to provide a full and complete testimony
18 today?

19 A. No, sir.

20 Q. Okay. Thank you.

21 You've been retained by Solaris to testify
22 in this matter, correct?

23 A. I was retained by counsel for Solaris, yes.

24 Q. Have you been retained to represent Solaris
25 in any other matters?

1 A. Not that I can think of.

2 Q. Have you reviewed the reply expert report
3 of Dr. Durham?

4 A. I have not.

5 Q. Have you discussed with anyone Dr. Durham's
6 testimony that he offered last week?

7 A. I have not.

8 Q. So if I understand your testimony correct,
9 you have not seen Dr. Durham's reply declaration. Is
10 that correct?

11 A. That's correct.

12 Q. Okay. And so you're unaware of any
13 duplication between your expert declaration and
14 Dr. Durham's declaration. Is that fair to say?

15 A. I wouldn't have any knowledge of what's in
16 his declaration.

17 Q. Okay. Well, I'll represent to you that
18 approximately 40 percent of Dr. Durham's declaration
19 is more or less word for word verbatim the same as
20 yours.

21 Are you aware of how that occurred?

22 MS. FLANNERY: Object to form. Go ahead.

23 THE WITNESS: I'm not.

24 Q. (By Mr. Nydegger) Okay. If you could go
25 to paragraph 29 of your declaration.

1 A. Okay.

2 Q. Do you see the bullet points listed in
3 paragraph 29?

4 A. I don't see any bullet points in 29.

5 Q. You don't see any bullet points in
6 paragraph 29 of your declaration? The first bullet
7 point is on the bottom of page 13.

8 A. There is an indented section, but there are
9 no bullet points.

10 MR. NYDEGGER: Can we go off the record for
11 a minute?

12 (A discussion was had off the record.)

13 Q. (By Mr. Nydegger) Okay. Mr. Smith, do you
14 see the indented or bulleted paragraphs part of your
15 paragraph 29?

16 A. I do.

17 Q. Did you write that text?

18 A. I don't recall whether I wrote this or
19 whether this was written in conjunction with the
20 attorneys.

21 Q. Looking at paragraphs 30, 31, and 32, did
22 you write that text?

23 A. Well, I don't know who specifically typed
24 this out. It's certainly something we talked about.

25 Q. So you don't recall if you yourself wrote

1 that?

2 A. I don't recall who specifically typed it
3 down onto the paper.

4 Q. Okay. If you could jump to paragraph 42.

5 A. Okay.

6 Q. Do you recall if you wrote the text in
7 paragraph 42?

8 A. I know this is something that -- that I
9 brought up and that we discussed. Again, I don't
10 recall specifically who typed it. There were
11 portions of this report that I wrote, portions that
12 were provided, and portions that we worked on
13 together. So I don't have a crystal clear
14 recollection of which sections were done which way.

15 Q. If you go to page -- page 22 at the top,
16 there's a figure.

17 A. Okay.

18 Q. I understand that this is a figure that was
19 created in SolidWorks. Is that correct?

20 A. That's correct.

21 Q. Did you create this?

22 A. I had one of my engineers draw it for me
23 under my direction.

24 Q. Okay. And is that true with the figures on
25 page 23 as well?

1 A. Yes.

2 Q. Did you provide any of these figures to
3 Dr. Durham?

4 A. I personally didn't. I don't know what the
5 attorneys did.

6 Q. Do you know if anybody in your office
7 provided them to Dr. Durham?

8 A. No, nobody in my office provided them to
9 Dr. Durham.

10 Q. Okay. To your knowledge, when did
11 multi-silo configurations first come into use?

12 A. I'll be honest, I don't know exactly when
13 they came into use, but certainly before 2021.

14 Q. Before 2013?

15 A. I don't know. I haven't looked at that
16 specifically.

17 Q. And in your experience, you don't recall
18 seeing like, for example, a six-pack of silos before
19 2013?

20 A. I mean, I know I've seen multiple silos on
21 the same site in different areas, but whether or not
22 it was specifically a six-pack, I don't recall.

23 Q. How early do you recall seeing multiple
24 silos at the same site?

25 A. Can you clarify what you mean by "site"?

1 Are you talking specifically about an oil and gas
2 fracking site, staging site, or you just talking
3 about any silos, like on a farm?

4 Q. Any site, regardless of industry.

5 A. Yeah, I've seen multiple silos. I grew up
6 in Utah and live in Idaho, and there are farms all
7 over the place. And there are -- as long as I can
8 remember, there have been multiple silos on -- on
9 farms.

10 Q. Okay. For how long has chutes such as
11 those disclosed in -- discharge chutes such as those
12 disclosed in Waldner been used to fill silos with
13 aggregates, to your knowledge?

14 A. I don't know that I've looked for a first
15 instance when that occurred.

16 Q. Would it be fair to say more than 50 years?

17 MS. FLANNERY: Object to form.

18 THE WITNESS: It wouldn't surprise me, but
19 I don't have any evidence to base that on.

20 Q. (By Mr. Nydegger) More than -- more than
21 30 years?

22 MS. FLANNERY: Same objection.

23 THE WITNESS: Again, it's not something
24 that I've specifically looked at, so I don't have a
25 definitive answer.

1 Q. (By Mr. Nydegger) I'm just trying to --
2 I'm just asking according to your understanding, how
3 long have discharge chutes, such as those of Waldner,
4 been used to fill silos with aggregates?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: Again, I know it's been a
7 while, but I don't know. I don't have a specific
8 date when that started. Chutes -- chutes, in
9 general, have likely been used longer than I've been
10 alive.

11 Whether or not that's similar to the chute
12 of Waldner, I'm less certain on that. There's
13 certain interactions that Waldner discloses more than
14 just the chute.

15 It's a chute for a specific application.
16 It has telescoping sections. So exactly when that
17 was first introduced is not something that I've
18 looked at.

19 Q. (By Mr. Nydegger) To your knowledge, how
20 long have telescoping chutes been around?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: Again, that's not something
23 that I've looked at specifically for this case, at
24 least since Waldner, probably before that. But I
25 don't have a specific date when they were first

1 introduced.

2 Q. (By Mr. Nydegger) Can you just give me
3 whatever timeframe you would feel comfortable that
4 they've been in existence?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: I can -- I can say
7 comfortably since Waldner. I haven't looked at the
8 art before that, looking specifically for telescopic
9 chutes.

10 Q. (By Mr. Nydegger) Okay. To the best of
11 your knowledge, when did articulating conveyors first
12 come into being?

13 A. Again, I don't have a specific knowledge of
14 that. I wasn't looking for the first instance of any
15 of these things.

16 Q. Are you aware whether they were in
17 existence before Dynatek?

18 A. Again, that's something that I haven't
19 looked at.

20 Q. So you --

21 A. I would expect so, but -- I would expect
22 so, but I haven't looked at it.

23 Q. Okay. Do you know if they were in
24 existence at the time of Waldner?

25 A. Again, I would expect so, but that's not

1 something I've specifically looked at.

2 Q. So is the short answer you don't know?

3 A. Yeah. I haven't looked at it specifically

4 or when they were first introduced.

5 Q. So when you state you haven't looked at it,

6 does that mean that you don't know?

7 A. I don't have personal knowledge of it

8 because it's not something that I've looked into at

9 this point.

10 Q. Identify for me all the systems that you're

11 aware of that use an articulated conveyor to fill

12 silos?

13 A. That's a very specific question. I guess

14 without doing more research on that specific

15 question, I would say that the -- that Masaba and

16 Solaris both make articulated conveyors that are used

17 to fill a silo, but I haven't really looked at it

18 outside of the context of this litigation.

19 Q. So as an expert in this field, you're not

20 aware of any other systems that use an articulated

21 conveyor to fill silos besides the Solaris and Masaba

22 systems. Is that correct?

23 MS. FLANNERY: Object to form.

24 THE WITNESS: Yeah, for that specific

25 application, I'm not aware of any. It's not

1 something that I've really researched or looked into.

2 Q. (By Mr. Nydegger) Okay.

3 A. I have a lot of experience with conveyors

4 in general, and some in the oil and gas industry, but

5 more in other industries as well.

6 Q. How many articulated conveyor systems are

7 you aware of in any application?

8 A. I've seen them used in agriculture and -- I

9 don't have a specific example in the mining industry,

10 but I would expect that they are used there as well.

11 Q. I'm asking what you're personally aware of.

12 You say that you expect they're used in mining.

13 Do you have personal knowledge that they're

14 used in mining?

15 A. Trying to think whether -- whether I've

16 personally seen that or where I would have seen that.

17 Nothing's coming to mind right now.

18 Q. Okay. You mentioned agriculture, what were

19 the articulated conveyors used for in the agriculture

20 industry that you're aware of?

21 A. Yeah, so I've seen them used in grain

22 hoppers and, I believe, on hay baling equipment. And

23 there are probably other applications as well.

24 Q. Were any of those applications that you

25 personally are aware of applications in which the

1 articulating conveyor was more than 20 feet off the
2 ground?

3 A. No, I don't think so.

4 Q. Were they all close to the ground?

5 A. How would you define "close to the ground"?

6 Q. Accessible without a ladder.

7 A. I would say that some of them are higher
8 than would be accessible without a ladder.

9 Q. Okay. What's the highest that you're aware
10 of?

11 A. So oftentimes they're used for loading dump
12 trucks of different sorts, and so they would be 14,
13 15, 16 feet off the ground.

14 Q. And when you say that, is it correct that
15 one end would be 14, 15, 16 feet off the ground, and
16 the other end would be near ground level?

17 MS. FLANNERY: Object to form.

18 THE WITNESS: I expect that portions of the
19 conveyor system would be closer to ground level. But
20 typically there are multiple conveyor sections within
21 the conveyor assembly.

22 Q. (By Mr. Nydegger) Okay. How would a
23 person of skill in the art relevant to this case --
24 do you understand if I use the term "POSITA"?

25 A. I do.

1 Q. Okay. And if I refer to a POSITA, do you
2 understand that I'm referring to POSITA relevant to
3 the patent at issue in this case?

4 A. Sure.

5 Q. Okay. So how would a POSITA determine how
6 tall an articulated conveyor system for filling silos
7 would need to be?

8 A. Well, I think it would depend on a number
9 of factors. Typically there are different heights of
10 equipment, often within a family of different
11 equipment. And so you might make some that are for
12 one specific height that's maybe a lower range, maybe
13 a mid-range that's higher, and maybe a high range
14 that's taller.

15 I don't know how many sections you might
16 break it down into. But you would probably look at
17 what silos are available in the market, what silos
18 people are trying to fill, and use that data to
19 determine how high you would need to have the
20 dispensing portion of the conveyor.

21 Q. And what's the purpose of having different
22 categories, for lack of a better word, of articulated
23 conveyor systems more different heights of silos?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: Can you say that one more

1 time?

2 Q. (By Mr. Nydegger) Sure. I'm basically
3 trying to understand why not just make one system
4 that's tall enough to reach all silos?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: Sure. And that's a good
7 question. There are different ranges and -- that
8 are -- sorry. Let me back up.

9 For example, if you're trying to fill a
10 silo that's 10 feet tall versus a silo that's 50 feet
11 tall, there are a lot of things that you would want
12 to consider.

13 For example, it doesn't make a lot of sense
14 to lift whatever you're filling the silo with, up
15 50 feet than to just drop it back down another
16 40 feet to the top of the silo. That's a lot of
17 extra energy. That's a lot of extra material.

18 It's a much more difficult design process.
19 It's more difficult to build and maintain. And so
20 you try to balance the design with specific customer
21 needs.

22 I would also assume from projects that I've
23 worked on that a customer that needs to fill a
24 10-foot silo doesn't want to pay the price for
25 equipment that's designed to fill a 50-foot silo, for

1 example.

2 Q. (By Mr. Nydegger) Okay. Articulated
3 conveyor systems have a maximum discharge rate,
4 correct?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: I think any conveyor system
7 will have a maximum discharge rates, articulated
8 conveyors included. I don't think that there's one
9 specific rate for the entire industry that says no
10 articulated conveyor can ever dispense faster than
11 this. But for a specific articulated conveyor, it
12 will have a maximum discharge rate.

13 Q. (By Mr. Nydegger) Okay. And -- and any
14 particular articulated conveyor system will have a
15 maximum speed at which the belts can run, correct?

16 A. Sure. Yeah. I would agree with that.

17 Q. And what would happen if you put in a
18 faster motor and ran the belts faster than that
19 maximum speed?

20 MS. FLANNERY: Object to form.

21 THE WITNESS: So if we're changing the
22 design of the conveyor by switching out the motor,
23 then it would probably run faster.

24 Q. (By Mr. Nydegger) Would it be detrimental
25 to the other -- for example, the belt, the other

1 parts involved?

2 MS. FLANNERY: Object to form.

3 THE WITNESS: It depends.

4 Q. (By Mr. Nydegger) Well, if the belt is
5 already running at its maximum speed before the
6 change, would it be problematic to then run it faster
7 by just increasing the motor speed?

8 MS. FLANNERY: Object to form.

9 THE WITNESS: So there are belts that are
10 designed to be operated at different speeds. If you
11 were operating at the very maximum design
12 specification for that particular belt and then you
13 put in a motor that ran faster, that could have
14 negative consequences.

15 If you are operating it at half the maximum
16 speed for that belt and you put in a faster motor
17 that went a quarter faster, I don't think the belt
18 would have problems with that.

19 Q. (By Mr. Nydegger) So articulated conveyor
20 systems also have a maximum content weight that they
21 can handle. Is that fair?

22 MS. FLANNERY: Object to form.

23 THE WITNESS: So, again, a specific design
24 of a conveyor will have a maximum content weight,
25 yes.

1 Q. (By Mr. Nydegger) So let's assume that a
2 system is operating at -- an articulated conveyor
3 system is operating at its maximum discharge rate,
4 but the user wants to increase the maximum discharge
5 rate.

6 What would need to be altered to increase
7 the maximum discharge rate of that system?

8 MS. FLANNERY: Object to form.

9 THE WITNESS: Well, it really depends.

10 Q. (By Mr. Nydegger) Would -- would making
11 the conveyor belt system wider increase the maximum
12 discharge rate?

13 A. I suppose that's something that could
14 increase the maximum discharge rate. I'm not sure it
15 necessarily would.

16 Q. A person of skill in the art would
17 understand that if I have an articulated belt
18 conveyor system with a belt that's one foot wide but
19 I want to increase the maximum discharge rate, I
20 could redesign the system to have a belt that's 2
21 foot wide, and that would allow it to carry more
22 material. And so all else being equal, it would
23 increase the discharge rate, correct?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: So if all else is equal, then

1 the structure is probably only rated for a certain
2 weight. And by increasing the width, you're also
3 increasing the weight, which probably decreases the
4 amount of material that you can put on the conveyor
5 before reaching the maximum weight.

6 Q. (By Mr. Nydegger) Okay.

7 A. So there is a balance of -- of design
8 specifications that are always considered.

9 Q. So a person of skill in the art would know
10 that if I make this wider, I'm going to have to alter
11 other aspects to -- because it's going to be heavier,
12 so I'm going to have to -- I'm going to have to
13 design the system to accommodate that additional
14 weight, correct?

15 A. If -- certainly you would want to design it
16 in a way that it would function.

17 Q. Well, to that, it would have to -- I mean,
18 making -- making the conveyor wider would increase
19 the weight of it. Is that correct?

20 A. Generally speaking, I would say that's
21 correct.

22 Q. And it would increase the stress on the
23 system, correct?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: If it's heavier, then yes, it

1 would increase the stress on the system. That's not
2 entirely true. It would increase the forces on the
3 system. Depending on the design, it may or may not
4 increase the stress.

5 Q. (By Mr. Nydegger) Okay. And would the
6 structure of the -- of this wider belt likely need to
7 be taller?

8 MS. FLANNERY: Object to form.

9 THE WITNESS: I'm not sure I understand
10 your question.

11 Q. (By Mr. Nydegger) Well, let's take the
12 system, a combination of putting an articulated
13 conveyor system as the discharge mechanism in
14 Waldner.

15 Do you understand that?

16 A. So are you saying the conceptual design of
17 Dynatek to replace the chute of Waldner? Is that
18 what you're saying?

19 Q. Yes. That's correct.

20 A. Okay.

21 Q. And we want to increase the maximum
22 discharge rate of the system, and so we're going to
23 make the belt wider, the conveyor wider on the
24 articulated conveyor system.

25 Do you understand that?

1 A. Okay.

2 Q. By making that articulated conveyor belt or
3 conveyor system wider, would it also need to be
4 taller to be able to have the structural integrity to
5 handle the weight?

6 MS. FLANNERY: Object to form.

7 THE WITNESS: It depends.

8 Q. (By Mr. Nydegger) What does it depend on?

9 A. It depends on what the design originally
10 was, what the stresses in the original design were.
11 Depends on what materials you use. It depends on the
12 geometry of those materials.

13 Making it taller is one way of or one
14 technique that can be used to reduce stress in a
15 cantilevered conveyor, but it's not the only one.

16 Q. (By Mr. Nydegger) Are there practical
17 realities that limit the ability to reduce the height
18 of an articulated conveyor system that we're talking
19 about, given a certain discharge rate for the
20 aggregate?

21 A. I think with any conveyor system, there are
22 certain realities that would limit different design
23 considerations, including the height.

24 Q. Under this hypothetical where we're taking
25 the system and we're increasing the discharge rate by

1 making it wider, that may require redesigning the
2 width of the outlet of the bucket conveyor, correct?

3 A. It might.

4 Q. And it might require redesigning the
5 components that connect the articulated conveyor to
6 the bucket elevator, correct?

7 A. It might.

8 Q. It's your opinion that a POSITA would have
9 read Waldner and understood that it could not be used
10 to fill multiple silos without moving the base of the
11 system. Is that correct?

12 A. So my understanding is that a hypothetical
13 person that's POSITA is aware of all of the prior
14 art. In my reading of Waldner, it seems to be --
15 seems to only discuss filling one silo at a time. It
16 doesn't discuss filling multiple silos.

17 Q. Well, my question is what would a person of
18 skill in the art have understood reading Waldner?
19 Would that POSITA have understood that, oh, Waldner
20 can only be used to fill one silo for each location
21 on the ground?

22 MS. FLANNERY: Object to form.

23 THE WITNESS: I think if a person of
24 ordinary skill in the art was looking for that
25 particular thing, I think that they would recognize,

1 as I've discussed in my report, that there are
2 certain things in there that would suggest that
3 it's -- that Waldner had really only considered
4 filling one at a time.

5 It's not to say that it couldn't be used
6 for filling multiple if they're positioned correctly.
7 But I don't think there's anything that would
8 specifically say one way or the other. But there are
9 suggestions that would make it seem like it was only
10 intended for one.

11 Q. (By Mr. Nydegger) Mr. Smith, you're not
12 answering my question. My question isn't what does
13 Waldner suggest or what does Waldner say.

14 My question is -- you're the expert. My
15 question is what would a person of ordinary skill in
16 the art understand reading Waldner? Would a person
17 of ordinary skill in the art reading Waldner
18 understand that Waldner must be moved to fill each
19 silo, or would a person of skill in the art regarding
20 Waldner understand that Waldner could be used to fill
21 multiple silos from one location on the ground?

22 MS. FLANNERY: Object to form.

23 THE WITNESS: So, again, as I've explained,
24 Waldner doesn't specifically discuss filling multiple
25 silos. It -- there are things that it says that

1 would make you -- that would lead a person of
2 ordinary skill in the art to understand that it's
3 really only talking about one.

4 That being said, it does disclose that the
5 chute can move back and forth side to side. So if
6 there are multiple silos that are accessible within
7 that range of motion, I think a POSITA would
8 understand that it could be used to fill more than
9 one silo.

10 Q. (By Mr. Nydegger) In your opinion, would a
11 POSITA have modified Waldner in view of Solaris's
12 six-pack silo configuration?

13 A. I'm not sure I understand the question.
14 Would the six-pack silo configuration have been a
15 motivation for them to modify it? Is that what
16 you're asking?

17 Q. Well, I'm asking if it's your opinion
18 that -- that a six-pack silo configuration, such as
19 that of Solaris, would have caused a person of skill
20 in the art to modify Waldner?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: I'm not sure what you mean by
23 "caused them" to do it.

24 Q. (By Mr. Nydegger) Would it motivate them
25 to do it?

1 MS. FLANNERY: Object to form.

2 THE WITNESS: I think if a person of
3 ordinary skill in the art had Waldner and had the
4 six-pack from Solaris and said, "How can we use
5 Waldner to fill all six of these from one
6 deployment," I think that would be a motivation to
7 modify it, yes.

8 Q. (By Mr. Nydegger) And it's your opinion
9 that Waldner would have to be modified because it
10 couldn't fill the six-pack configuration as disclosed
11 in Waldner. Is that correct?

12 A. As I've discussed in my report, I don't see
13 how it could do that based on the requirements for a
14 telescopic chute with two sections.

15 Q. Okay. Can a telescoping chute have more
16 than two sections?

17 A. In theory, I suppose it could.

18 Q. Would a POSITA understand that -- that he
19 or she could design a telescoping chute with more
20 than two sections?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: I think that's one way that
23 Waldner could be modified. Multiple telescopic
24 chutes can become very difficult from a design
25 perspective based on space requirements, but it's

1 certainly possible.

2 Q. (By Mr. Nydegger) And that would have been
3 within the skill of a person of skill in the art,
4 correct?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: Yeah, I think so.

7 Q. (By Mr. Nydegger) And using more than two
8 telescoping sections would increase the range of the
9 chute, correct?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: It could.

12 Q. (By Mr. Nydegger) So if -- if you have --
13 take the telescoping chute that is 10 feet long and
14 it has two sections, and then you have a telescoping
15 chute that's 10 feet long and has three sections, the
16 telescoping chute with three sections will have a
17 wider range than -- of serviceability than the
18 telescoping scope with two sections. Is that
19 correct?

20 MS. FLANNERY: Object to form.

21 THE WITNESS: I think that would be the --
22 the desired outcome. If you can make it so that
23 everything fits and collapses so that you can
24 collapse three sections into a shorter area, then you
25 can collapse the two sections, then yes, I would

1 agree with that.

2 Q. (By Mr. Nydegger) You provide some
3 examples in about paragraphs 44 through 47 of your
4 report in which you compare telescoping conveyors,
5 telescoping chutes, and an articulated conveyor and
6 their ability to reach a silo six-pack. Is that
7 correct?

8 A. That's correct.

9 Q. In making that comparison, you assume that
10 the telescoping chute and the telescoping conveyor
11 would each only have two sections, correct?

12 A. That's correct. Yes.

13 Q. And if a person of skill in the art was
14 faced with this problem that you present in these
15 paragraphs of filling a silo six-pack, would a person
16 of skill in the art have known that it could use more
17 than two sections for the telescoping chute to be
18 able to reach the closest two silos?

19 MS. FLANNERY: Object to form.

20 THE WITNESS: Yes. So my -- my analysis
21 was based on Waldner, which only shows two telescopic
22 sections, and that's the basis for this comparison.

23 If you're going to modify Waldner, there
24 are numerous ways that you could do it. Adding
25 additional telescopic section is one way. Replacing

1 it with an articulated conveyor is another way.

2 Q. (By Mr. Nydegger) Which of those
3 modifications is more complex from a design
4 perspective, modifying Waldner to have additional
5 sections in the telescoping chute or modifying
6 Waldner to include an articulated belt conveyor?

7 MS. FLANNERY: Object to form.

8 THE WITNESS: I would say that it depends
9 on a number of things.

10 Q. (By Mr. Nydegger) You're the expert. You
11 know what it depends on.

12 I'm just asking is it the telescoping chute
13 modification or is it the articulated conveyor
14 modification? Which is more complex from a design
15 perspective?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: I would say that they both
18 have their technical considerations.

19 Q. (By Mr. Nydegger) That's not my question.
20 My question is which is more --

21 A. Let me finish then. Let me finish.

22 MS. FLANNERY: Then we can --

23 Q. (By Mr. Nydegger) Mr. Smith, you're
24 pontificating about a lot of things that don't
25 actually answer the question. I just want you to

1 answer the question that I ask without --

2 MS. FLANNERY: Let him finish. Why don't
3 we let him finish his answer, and then if you think
4 he hasn't answered the question, you can ask it
5 again.

6 THE WITNESS: So to simply answer your
7 question, the answer is it depends. There are a lot
8 of design considerations that would go into a
9 three-section telescopic chute, and there are
10 multiple design considerations that would go into an
11 articulated conveyor. I don't think one would
12 necessarily be more difficult or -- than the other.

13 Q. (By Mr. Nydegger) In your opinion, was it
14 foolish for Waldner to use a telescoping chute in his
15 system instead of an articulated conveyor system?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: I would not say that it was
18 foolish, no.

19 Q. (By Mr. Nydegger) Was it the best choice?

20 MS. FLANNERY: Object to form.

21 THE WITNESS: I guess it depends on the
22 problem that he was trying to solve, the design
23 considerations he was trying to meet.

24 Q. (By Mr. Nydegger) Well, you've read it.
25 What's your opinion?

1 MS. FLANNERY: Object to form.

2 THE WITNESS: Based on my reading of it for
3 filling a single silo, I think it would work just
4 fine.

5 Q. (By Mr. Nydegger) So is it your opinion
6 that -- well, strike that.

7 If you go to paragraph 51 of your report,
8 if you could just read that paragraph and let me know
9 when you're done.

10 MS. FLANNERY: I just want to make sure
11 that the numbering isn't screwed up from what he's
12 looking at. It begins, "If the air slide could
13 operate"?

14 MR. NYDEGGER: That's correct.

15 MS. FLANNERY: I'm just double-checking,
16 just spot-checking our copies. Thank you.

17 THE WITNESS: Okay.

18 Q. (By Mr. Nydegger) In paragraph 51, here
19 you're using hindsight to guess at the motivations
20 behind Masaba's design process. Is that correct?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: So as I discuss in my report,
23 there are multiple options for conveying sand at the
24 top of a bucket elevator. You know, the options that
25 Masaba chose are very similar to the options that a

1 POSITA would choose just because of what is commonly
2 available.

3 And so I discuss those, and they do happen
4 to align with what Masaba did. But that's not the
5 only reason for discussing it.

6 Q. (By Mr. Nydegger) But you're looking
7 back -- using hindsight looking back at what Masaba
8 actually did to ascribe motivations for why they did
9 it, correct?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: So I looked at what they did,
12 and in the context of discussing the different
13 options that were available that a POSITA would be
14 aware of and just showed that Masaba walked through
15 the same iterative design process that a POSITA would
16 have to arrive at using an articulated conveyor for
17 meeting the specific design parameters that -- for
18 filling a six-pack.

19 Q. (By Mr. Nydegger) In paragraph 2, you
20 opine that the telescoping conveyor shown at the end
21 of that paragraph did not meet the requirement of
22 filling all six silos in one deploy.

23 Do you see that at the end of paragraph 52?

24 A. Yes, I do see that.

25 Q. What's the basis for your opinion that it

1 did not meet the requirement for filling six silos in
2 one deploy?

3 A. I'll be honest, I didn't cite that, and I
4 don't exactly remember where that came from.

5 Q. So that's not your opinion?

6 MS. FLANNERY: Object to form.

7 THE WITNESS: I just don't recall exactly
8 what I was basing that statement off of. I -- I do
9 recall reading somewhere that it had issues meeting
10 all of the design requirements, but I don't recall
11 exactly where that came from.

12 Q. (By Mr. Nydegger) In paragraph 53, you
13 state, "There would have been obvious advantages and
14 disadvantages that would have led a POSITA to choose
15 the articulated conveyor."

16 Do you see that?

17 A. I do.

18 Q. And are those obvious advantages that
19 you're referring to there, are those widely known in
20 the industry?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: So as we're comparing
23 different options, there are a lot of advantages to
24 this type of system that I think are known in the
25 industry, yes.

1 Q. (By Mr. Nydegger) Okay. How long have
2 those advantages been known in the industry?

3 MS. FLANNERY: Object to form.

4 THE WITNESS: I mean, I think the
5 advantages are as it's included in this system as a
6 whole. It's not just that the articulated conveyor
7 as a standalone system has all of these advantages,
8 but as incorporated into this larger system, there
9 are advantages.

10 And so I think a POSITA, when evaluating
11 the different options, would -- would not have a
12 difficult time recognizing the advantages of an
13 articulated conveyor being used with this system.

14 Q. (By Mr. Nydegger) Well, my question is --
15 I mean, are those advantages that just spring into
16 being recently, or have those advantages that you've
17 been referring to, have they been around for a long
18 time?

19 MS. FLANNERY: Object to form.

20 THE WITNESS: So the advantages are looking
21 at an overall system and weighing the pros and cons.
22 That's the general job of an engineer. There's
23 almost always more than one way to skin a cat or to
24 design something.

25 And the job of the engineer is to weigh the

1 benefits and the difficulties of the different ways
2 of accomplishing it. So I think an engineer or
3 person of skill in the art, looking at the different
4 options, would easily be able to identify the
5 different advantages and disadvantages of each.

6 Q. (By Mr. Nydegger) And would you say that
7 that's the process that engineers in this field go
8 through each time they design a conveying system for
9 aggregate?

10 A. I would hope so.

11 Q. If you go to paragraph 57, here you're
12 talking about comparison of the reach between a
13 telescoping chute, an articulated conveyor that are
14 of the same length.

15 Do you see that?

16 A. So paragraph 57 discusses -- let's see --
17 discusses two different ways of looking at or
18 comparing a telescopic chute to an articulated
19 conveyor.

20 Q. And your conclusion is that if they are --
21 if both the telescopic chute and the articulated
22 conveyor are the same length, the telescoping chute
23 would have 8.5 feet less reach than the articulating
24 belt conveyor of the same length, correct?

25 A. Assuming -- assuming that we're trying to

1 reach 50 feet, then yes, that's correct.

2 Q. Okay. Is there anything that would prevent
3 a POSITA from extending the telescoping chute to get
4 the additional 8.5 of reach it needed to reach the
5 further silos?

6 MS. FLANNERY: Object to form.

7 THE WITNESS: Yeah, again, this is where we
8 get into some of these tradeoffs, right? You could
9 make a longer chute, but because the chute is at an
10 angle of at least 34 degrees, to get a chute that
11 would reach further, you would have to make that
12 chute longer, which would mean that it would either
13 start -- the top of the chute would be higher or the
14 bottom of the chute would be lower if they started at
15 the same height.

16 Q. (By Mr. Nydegger) It has nothing to do --
17 sorry. I thought you were done.

18 A. If we're trying to fill a silo of a
19 specific height that's a specific distance away, when
20 you make the chute longer to achieve that distance,
21 you also have to increase the height of the bucket
22 elevator and the starting point of the chute.

23 Q. Go to paragraph 47. You see the last
24 sentence, you state that, "Changing the downward
25 angle of the chute would require a further increase

1 to the height of the tower."

2 Do you see that?

3 A. I do.

4 Q. Why would changing the downward angle of
5 the chute require a further increase of the height of
6 the tower to reach that closest silo?

7 A. As the conveyor rotates downward, it
8 follows the articulated conveyor of the circle that
9 it's pivoting around, and that's going to cause it to
10 go lower.

11 And the way that we've drawn this here
12 shows that even if you retract that telescoping
13 section all the way and drop that angle down to the
14 top of the tower, there would still be interference
15 or overlap there.

16 So you would have to raise that outlet up
17 higher so you can get it into the opening at the top
18 of the silo. Otherwise, you'll be dumping sand or
19 aggregate or whatever onto the side of the silo
20 rather than into the top of the opening.

21 Q. So is it correct that the reason the chute
22 would have -- the vertical portion would have to be
23 made higher is because the telescoping chute does not
24 sufficiently retract to clear the top of the nearest
25 silo? Is that what you're saying?

1 A. Yes, with the -- with the two section --
2 the -- wow, sorry.

3 As described in Waldner, the telescopic
4 chute has two sections. And going off of that,
5 that's correct. When the outer section is fully
6 telescoped in, it would be below the opening in the
7 silo when it's positioned at that location.

8 Q. Then what do you mean by the second phrase
9 of that sentence that says, "The additioning or
10 lengthening of a retractable drop chute so that the
11 aggregate is not lost between the end of the
12 telescoping chute and the silo port"?

13 A. Sure. Yeah, I can explain that. So if
14 we've made the tower taller so that when the angle
15 between the tower and the telescopic chute is small
16 so that we can reach the closest silo, assuming that
17 taller tower, if we then increase the angle between
18 the chute and the tower and extend the telescoping
19 section, then the distance between the bottom of the
20 telescoping section and the top of the furthest silo
21 is larger because we made the tower taller now.

22 So you have to have some sort of chute or
23 something to contain the aggregate from the outlet of
24 the chute into the silo. And that would be longer
25 than if we didn't increase the height of the tower.

1 Q. So the second phrase of the last sentence
2 in paragraph 47 pertains to reaching the outermost
3 silo, not the innermost silo. Is that correct?

4 A. Yes, that's correct.

5 Q. It's your opinion that a POSITA would have
6 considered various factors in deciding whether to
7 increase the height of the vertical portion and the
8 reach of a telescoping chute versus whether to swap
9 out the telescoping chute for an articulated
10 conveyor. Is that fair?

11 A. Yes. I think that's part of the design
12 process.

13 Q. And some of those factors include the
14 height of the system, correct?

15 MS. FLANNERY: Object to form.

16 THE WITNESS: Yes, I would say the height
17 of the system would be considered.

18 Q. (By Mr. Nydegger) And a POSITA would
19 consider the weight of the system, correct?

20 A. Sure.

21 Q. Would a POSITA consider the complexity of
22 the system?

23 A. I think so.

24 Q. Would a POSITA consider other factors?

25 A. Very likely.

1 Q. What other factors can you think of?

2 A. We're looking at the overall design. We
3 have to consider any factor and all of the factors
4 that relate to the customer needs and the product
5 specifications.

6 So in this instance, that might be the
7 ability to reach all of the silos from a single
8 deploy. It might be how that is controlled
9 electronically or hydraulically. There's a lot of
10 different considerations.

11 Q. Okay. In considering those factors, is it
12 correct that a POSITA would have compared the impact
13 the design change would have for each factor on each
14 system and then weigh each factor accordingly as a
15 pro or a con for each system?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: Sorry. Can you say that one
18 more time just to make sure I got it?

19 Q. (By Mr. Nydegger) No. There's no way I
20 can repeat that.

21 A. Maybe it's time for a break then.

22 MS. FLANNERY: We have been going about an
23 hour. I was going to say something. I'm fine to let
24 you finish your line of questioning, but we should
25 get to a break here, or if you want your break to

1 consider the question, also fine.

2 Q. (By Mr. Nydegger) Let's approach it
3 slightly differently.

4 Let's take the factor of the weight. So a
5 POSITA would look at -- when looking at whether to
6 increase the height and reach of the telescoping
7 system or move to an articulated conveyor system, a
8 POSITA would look at the weight implications each
9 design would have. Is that correct?

10 A. I would expect that to be true, yes.

11 Q. And if one system weighed more than the
12 other system, then the weight factor would be decided
13 to favor the lighter system, correct?

14 A. Within reason. I mean, if they're a few
15 pounds different, probably not. If they're a
16 thousand pounds different, probably.

17 Q. So it's the relative difference between the
18 systems that a POSITA would consider in deciding
19 whether that factor weighed for one system or the
20 other. Is that correct?

21 A. Yeah. I mean, you have to look at all of
22 the tradeoffs together, right? Oftentimes that's
23 done using what's called a decision matrix or a
24 weighted decision matrix, and you line up all the
25 specifications, all the tradeoffs, if you will, and

1 you can rank them.

2 If you're doing a weighted decision matrix,
3 you can assign more weight to one factor that you
4 consider to be more important than another. And then
5 you balance those all out, which one is better, which
6 one is worse with this specific consideration. And
7 then you can use that to inform your final decision.

8 Q. Okay. So if I understand correctly, a
9 POSITA would look at each of these factors, height,
10 weight, complexity, the factors we've discussed, and
11 each factor would -- the impact for each factor for
12 the -- on the telescoping system compared to the
13 articulating conveyor system would be considered, and
14 each factor would be weighed during that
15 decision-making process accordingly.

16 Do I understand correctly?

17 A. I think as part of a good engineering
18 design process, yes, all of the factors would be
19 considered, and each of the concepts would be ranked.
20 And that information would be used to inform a final
21 decision.

22 Q. Okay. And I guess -- I guess the point
23 that I'm -- one of the points I'm trying to get at
24 here is that it's not the impact the design change
25 would have on the system in isolation to that system,

1 it's the impact that the design change would have for
2 each factor relative to the impact the design change
3 would have on the other system. Is that correct?

4 A. Sorry. I didn't follow that.

5 Q. Sure. Well, to go -- let's go to -- back
6 to the weight factor.

7 That the design change might increase the
8 weight of the telescoping system is not considered by
9 itself, rather it's the increase in weight to the
10 telescoping system compared to the increase in weight
11 of the articulated conveyor system that is weighed in
12 the decision-making process?

13 A. I think what you're saying is that we're
14 not comparing the change to the original, but we're
15 comparing the two new concepts that would both, in
16 theory, meet the design specifications?

17 Q. Yes.

18 A. Is that correct?

19 Q. Yes.

20 A. Yes, that's correct.

21 MR. NYDEGGER: Okay. That was a challenge.
22 Let's take a break.

23 (Recess taken at 12:39, resuming at 12:45.)

24 Q. (By Mr. Nydegger) Mr. Smith, if you look
25 at paragraph 63 of your report, please.

1 A. Okay.

2 Q. In this paragraph 63, you identify several
3 factors that, in your opinion, would weigh against
4 lengthening the chute of the -- the telescoping chute
5 of Waldner, correct?

6 A. That's reasonable, yes.

7 Q. Which weighs more, a taller bucket elevator
8 or -- strike that. Let me step back.

9 Which would weigh more, the modified
10 telescoping chute system with a taller bucket
11 elevator or an articulated conveyor system?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: I guess it depends. It's not
14 as clear cut that I could tell you definitively one
15 way or the other. The bucket conveyor structure, the
16 tower, if you're adding an extra 33 feet to it, and
17 if you're adding extra length to the chute, that's
18 going to be a considerable amount of weight, plus all
19 of the extra length for the belts of the elevator as
20 well.

21 So either way it would weigh more. But to
22 say which one is heavier, I couldn't tell you off the
23 top of my head.

24 Q. (By Mr. Nydegger) Okay. So you don't know
25 whether -- you don't know whether the weight factor

1 would fall in favor of the modified telescoping chute
2 system or the articulated conveyor system. Is that
3 fair to say?

4 A. I don't know one way or the other without
5 having done the analysis.

6 Q. Okay. In paragraphs 63, you mention,
7 "Further limitations to the locations and routes
8 taken during transport."

9 Do you see that, last two lines?

10 A. Yes. Both the additional weight and length
11 would put further limitations for the locations and
12 routes taken during transport, yes.

13 Q. What are the further limitations you're
14 referring to there?

15 A. So a longer trailer and a heavier trailer
16 that's being transported will, in many instances, put
17 more limitations on where you can take it. Can you
18 go around this corner with a trailer that's an extra
19 33 feet longer without hitting buildings or power
20 lines or power poles -- not lines, lines are up
21 above -- or other things that are on the road?

22 Q. You said longer and heavier. Longer and
23 heavier than what?

24 A. Than -- so this is comparing the modified
25 chute that has been made -- chute may be made longer

1 and the tower has been made taller to using an
2 articulated conveyor where the tower is approximately
3 the same height as it was before the modifications.
4 And so it would be taller than a comparable system
5 that used an articulated conveyor.

6 Q. What is the typical height of silos?

7 A. I would have to go back and look. I know
8 they come in a variety of different heights. Solaris
9 has a particular height for their six-pack, but I've
10 seen silos in all sorts of different heights.

11 Q. Well, in -- you mentioned that -- that
12 Masaba's suggesting that, "A POSITA would choose to
13 shorten the system in order to match the length and
14 weight of the articulating conveyor option and, thus,
15 derate the system to only fill silos that are 33 feet
16 shorter than what is typical."

17 I want to know what's typical. It's your
18 word, not mine.

19 MS. FLANNERY: Counsel, where are you
20 reading from? You lost me. I thought we were on
21 paragraph 63. Oh, okay.

22 THE WITNESS: Sure. I think, perhaps, a
23 better wording for that would be 33 feet shorter than
24 could be used with an articulated conveyor system or
25 could be filled with an articulated conveyor system.

1 Q. (By Mr. Nydegger) In paragraph 64, you
2 opine that all else being equal, increasing the
3 length of the Waldner discharge chute also would have
4 made it heavier and more difficult to manipulate both
5 while deploying it and while using it to fill silos.

6 Do you see that?

7 A. I do.

8 Q. Why would it be more difficult to
9 manipulate while deploying?

10 A. I guess you have to design it in a way that
11 it -- everything can accommodate the additional
12 weight, so you probably have to have stronger
13 actuators, yes.

14 You have to have bigger pins, yes. You
15 have to have bigger ears for the pivoting points.
16 There's more that goes into that.

17 Q. Wouldn't all those same issues be present
18 if you added weight to the system by replacing the
19 telescoping chute with an articulated conveyor?

20 A. Yeah, I think so. This is just saying that
21 if we're going to replace the chute of Waldner with a
22 larger chute, that there's a lot that goes into that.
23 It's not just, oh, we'll just put a bigger tube on
24 there or a longer tube. There's a lot more that goes
25 into it.

1 Q. And there's a lot more that goes into
2 adding -- replacing the chute with an articulated
3 belt conveyor than just swapping them out. Is that
4 fair to say?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: Yeah. I think that's fair to
7 say. That's both -- both within the skill of a
8 person of ordinary skill in the art, but there are
9 design considerations that need to be analyzed and
10 accounted for in both situations.

11 Q. (By Mr. Nydegger) Paragraph 64, you also
12 state that increasing the length of the chute could
13 potentially require retesting and requalifying.

14 Do you see that?

15 A. I do.

16 Q. Could it also potentially not require
17 retesting and requalifying?

18 MS. FLANNERY: Object to form.

19 THE WITNESS: I suppose it depends on -- on
20 whether or not the people designing it, selling it,
21 and using it care to ensure that it's safe and meets
22 all of the requirements, different standards and
23 safety.

24 Q. (By Mr. Nydegger) Well, you use the word
25 "potentially." Why did you say "potentially" instead

1 of "absolutely"?

2 A. Because there are a lot of companies that
3 don't. I laugh. But realistically they should. But
4 in practice, a lot of companies will make a change
5 and not go through the proper process of retesting
6 and qualifying and ensuring everything is safe.

7 Q. Well, are those retesting and requalifying
8 that you mention in your paragraph, are they
9 required?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: I would have to look into the
12 standards. I'm not 100 percent sure if they are --
13 when you say "required," if they're a legal
14 requirement under OSHA or under another oil and gas
15 standard. I'm not 100 percent sure, but certainly it
16 would be best practice.

17 Q. (By Mr. Nydegger) Well, why did you use
18 the word "required" in your declaration?

19 MS. FLANNERY: Object to form.

20 THE WITNESS: I said "potentially required"
21 because there is potential that there is a
22 requirement under OSHA or some other standard that
23 would require that. I just haven't done that
24 research at this point to determine whether or not it
25 actually is.

1 Q. (By Mr. Nydegger) If we assume, for the
2 sake of argument, that the testing and qualifications
3 are required, is it fair to say that changing the
4 telescoping chute for an articulated conveyor would
5 need to be tested and qualified?

6 A. Yes, I think that's fair.

7 Q. Is it fair to say that the design change
8 between increasing the length of the telescoping
9 chute versus replacing the telescoping chute with an
10 articulated conveyor is a more significant design
11 change to the system as a whole?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: I can't say that one way or
14 the other right now. They're both significant
15 changes.

16 Q. (By Mr. Nydegger) So it's your opinion
17 that if I lengthen the chute by 6 feet, that design
18 change is no more significant than replacing that
19 telescoping chute with an articulated belt conveyor?

20 MS. FLANNERY: Object to form.

21 THE WITNESS: If you want it to work and
22 have the same functionality, there's probably a range
23 of changes of telescoping chute that are simpler. If
24 it's a foot or 2 feet, it's probably simpler.

25 If it's we have to increase the height by

1 30 feet, have to make the chute 10 feet longer,
2 perhaps add a third telescoping section, then that
3 becomes, in my mind, very similarly complicated to
4 just replacing it with an articulated conveyor.

5 Q. (By Mr. Nydegger) Okay. Is the discharge
6 rate for an articulated conveyor system set at the
7 loading point?

8 MS. FLANNERY: Object to form.

9 THE WITNESS: So you can't unload more
10 material than you're loading. So in that sense, you
11 could say that the discharge rate is set by the
12 loading rate. But it's also possible that the
13 loading rate is somewhat lower than the maximum
14 capacity of the conveyor.

15 Q. (By Mr. Nydegger) Well, a POSITA would not
16 design a system where the loading rate exceeds the
17 discharge rate because if the loading rate exceeds
18 the discharge rate, you have a problematic buildup in
19 the system. Is that correct?

20 A. I would agree with that.

21 Q. In paragraph 67, you state that
22 Mr. Anderson in his report "assumes that every system
23 disclosed by Waldner or that might be built according
24 to Waldner's disclosure would already be designed to
25 accommodate the maximum possible discharge rate of

1 any truck that might be used to unload sand into it."

2 What about Mr. Anderson's report caused you
3 to believe that he made that assumption?

4 A. He talked about very similarly to the
5 questions you just asked that you're not going to
6 design a downstream conveyor to have less capacity
7 than a conveyor that's upstream of it, right?

8 But there's also the possibility of using
9 the conveyors at less than their maximum capacity.
10 That may be -- the input may be 50 percent of the
11 maximum input, and at that point you can set things
12 differently as far as the conveyors and what rates
13 they're operating at.

14 Q. Well, it's -- isn't that true for any
15 system, if you're only operating at half capacity,
16 then you're only operating at half capacity?

17 A. Sure. Yeah. So you may design it for, you
18 know, something that is more than you expect it to be
19 used for. And then -- so you're typically operating
20 under the maximum capacity. And then if something
21 changes and you can now load it faster or something
22 like that, then you can operate it at a higher speed.

23 Q. But that principle applies equally to both
24 telescoping chute systems and articulated conveyor
25 systems, correct?

1 A. I would say so.

2 Q. In paragraph 68, in the middle of the
3 paragraph, you opine, "A POSITA would have further
4 wanted to minimize the weight of the discharge chute
5 of Waldner and its contents, including the weight of
6 the sand being carried on the chute."

7 Do you see that?

8 A. I do.

9 Q. Which weighs more, a telescoping discharge
10 chute with its contents and an articulated conveyor
11 and its contents?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: I guess it depends.

14 Q. (By Mr. Nydegger) Well, until you know
15 which weighs more, you don't know whether this
16 statement would favor modifying Waldner with a longer
17 telescoping chute or modifying Waldner with an
18 articulated conveyor, correct?

19 A. So what I'm talking about here is that an
20 advantage to having a downstream conveyor, in this
21 case an articulated conveyor, running faster. And if
22 we look at the figure at the top of the next page, if
23 that conveyor is running slowly, given the same input
24 rate, if it's moving more slowly, you'll have more
25 buildup of material on that conveyor.

1 Whereas if it's moving more quickly, there
2 is less buildup of material on that conveyor, but you
3 still have the same input rate and the same discharge
4 rate.

5 Q. Okay. I don't believe that answered my
6 question.

7 MR. NYDEGGER: Daren, could you read my
8 question back, please.

9 (The following was read by the reporter:
10 "Well, until you know which weighs more,
11 you don't know whether this statement would
12 favor modifying Waldner with a longer
13 telescoping chute or modifying Waldner with
14 an articulated conveyor, correct?")

15 THE WITNESS: What I'm saying is that this
16 statement isn't comparing those two things. This
17 statement is talking about if you're using an
18 articulated conveyor, is there benefit to having that
19 conveyor run faster as opposed to slower? And the
20 answer is yes, there is a benefit for an articulated
21 conveyor to run faster.

22 That doesn't answer your particular
23 question because this statement doesn't have anything
24 to do with that comparison.

25 Q. (By Mr. Nydegger) Well, the statement

1 references discharge chute, not conveyor.

2 A. Right. So the idea here, if you read the
3 beginning of paragraph 68 or before this sentence,
4 Mr. Anderson asserts that a POSITA would not be
5 motivated to replace the discharge chute with
6 something faster, right?

7 And so I guess similarly to -- as we were
8 talking about with the conveyor, depending on the
9 rate at which the aggregate is sliding down the
10 chute, if that's a less steep angle, you'll have more
11 buildup.

12 If it's a more steep angle, you'll have
13 less buildup. You can't really control that with a
14 chute. The angle is what it needs to be to reach the
15 silo.

16 However, with a belt conveyor, you can run
17 that belt faster and have less buildup and,
18 therefore, less weight on that section of the
19 conveyor.

20 Q. Well, but isn't it correct that the
21 telescoping chute would be designed such that it can
22 handle the weight of the contents that it's
23 conveying, that it's -- that it's carrying?

24 A. I would expect so.

25 Q. And so if it's designed to be able to

1 handle the weight of its contents, why does it need
2 to move the aggregate faster?

3 A. Well, if you're designing it to hold more
4 weight, then it's probably going to weigh more
5 itself, right? So a very common fix to strengthening
6 things is to add more material, and that adds weight.

7 Q. I'm not designing it to add more weight,
8 I'm saying each system is designed to handle the
9 contents that it's going to be, you know, moving,
10 correct?

11 A. Correct. And with a belt system, you
12 can -- by increasing the speed, you can control
13 better the amount of weight of aggregate that's on
14 that conveyor system.

15 Q. Why do you need to control the weight --

16 MS. FLANNERY: Let's let him finish.

17 THE WITNESS: Whereas in a chute, you don't
18 really get to control that. The amount of aggregate
19 in the chute is more controlled by the angle of the
20 chute, which is controlled by the positioning so that
21 it can reach a silo.

22 Q. (By Mr. Nydegger) I apologize. You pause
23 and I think you're done, and you continue and you're
24 not. I apologize for speaking over you.

25 My question is why does a POSITA want to

1 control how much aggregate is in the chute?

2 A. So that's a very basic question. When
3 you're looking at the connections of the chute to the
4 tower and how strong the tower needs to be and how
5 strong those connections need to be, you have to look
6 at how much does the chute itself weigh and how much
7 does everything that's in the chute weigh? Because
8 that all adds to what needs to be supported.

9 Q. That's not my question. My question is why
10 does a POSITA want to control the weight of the
11 contents in the chute? Once it's there, it's already
12 been designed, it's designed to handle the aggregate
13 that it's conveying. We've already agreed to that.

14 Once it's there, why does it want to
15 control the weight of the aggregate in the chute?

16 MS. FLANNERY: Object to form. Go ahead.

17 THE WITNESS: Because if you can control
18 that, then you can design it for a specific weight of
19 aggregate, right? Oftentimes you assume a worst case
20 scenario when you're designing things like this.

21 And if you can control how much aggregate
22 is going to be on the articulated conveyor, you can
23 design it to a lower weight than if you had to assume
24 that it's always going to be loaded with much more
25 aggregate than if it's designed to have a small

1 amount of aggregate actually on the conveyor or in
2 the chute.

3 Q. (By Mr. Nydegger) Well, if you're putting
4 less aggregate on -- never mind.

5 How out of level can an articulated
6 conveyor be without encountering mistracking
7 problems?

8 A. I haven't seen anything that would put a
9 certain degree on that that says once you exceed this
10 degree of out of level, that you will automatically
11 experience mistracking. I've never seen anything
12 like that.

13 Q. Well, in paragraph 71, you talk about they
14 don't need to be perfectly level to avoid
15 mistracking.

16 A. That's correct.

17 Q. Do you see that?

18 A. "Similarly, conveyors that are not
19 perfectly level side to side are used regularly." Is
20 that what you're talking about?

21 Q. Yep. And so my question is -- there you
22 talk about being perfectly level.

23 And so my question is, well, how far from
24 perfectly level can a conveyor get before it starts
25 to encounter problems?

1 MS. FLANNERY: Object to form.

2 THE WITNESS: You know, I've seen conveyors
3 on hay bailers that are operating on side slopes that
4 are significant. I don't know that I've ever put a
5 level on it, but I'd imagine it's somewhere 5,
6 10 degrees at least.

7 Q. (By Mr. Nydegger) And --

8 A. That doesn't cause them to mistrack.

9 Q. And how far out of level, approximately,
10 could the articulated conveyor system that's being
11 discussed in this case be before it would start to
12 encounter mistracking problems?

13 A. Again, I haven't ever seen anything that
14 would say that if your X degrees out of level, then
15 you're going to experience mistracking. So I don't
16 know how to answer that question. I've seen
17 conveyors used on various side slopes without any
18 issue regularly.

19 Q. So if we were to look at your paragraph 71,
20 is that the reason you talk about perfectly level
21 because you know they don't have to be perfectly
22 level, but you don't know how far out of level they
23 can be?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: Well, reading Mr. Anderson's

1 report, he seems to think that, you know, if -- if
2 we're even a very small degree out of level, then
3 you're going to always, in every situation, have
4 massive problems is the way his report reads. And
5 that's just not been my experience.

6 Q. (By Mr. Nydegger) He said that in his
7 report?

8 A. I don't think those are his exact words,
9 but he talks a lot about it being out of level, the
10 wind blowing it off level and it causing mistracking
11 or the tower not being perfectly upright and it
12 causing mistracking.

13 The reality is in my experience, you try to
14 get it level, but they're used all the times in
15 out-of-level situations without problem.

16 Q. How out of level can the enclosed discharge
17 chute of Waldner be before encountering problems?

18 MS. FLANNERY: Object to form.

19 THE WITNESS: So the discharge chute of
20 Waldner requires a certain degree of slope to
21 operate, but I'm not sure if that's the question
22 you're asking.

23 Q. (By Mr. Nydegger) No, I'm asking -- so a
24 belt conveyor that gets out of level at some point
25 will incur mistracking problems, correct?

1 MS. FLANNERY: Object to form.

2 THE WITNESS: It's possible that it could

3 encounter -- it's possible that you could encounter

4 mistracking on a belt conveyor if it's out of level.

5 It's also possible that you can encounter mistracking

6 if it's perfectly level.

7 There's not, that I've seen or that I'm

8 aware of, any guideline that says if this conveyor is

9 out of level this degree, then it's going to

10 experience mistracking. I've seen conveyor belts

11 that are essentially vertical, and they seem to

12 operate just fine.

13 Q. (By Mr. Nydegger) But you agree that if a

14 conveyor is out of level, that can cause

15 mistracking -- that can cause a mistracking problem,

16 correct?

17 MS. FLANNERY: Object to form.

18 THE WITNESS: Yeah, that is one of things

19 that has been shown can lead to mistrack. It doesn't

20 always lead to mistracking, but it can lead to

21 mistracking.

22 Q. (By Mr. Nydegger) Are any problems known

23 to arise if a chute is out of level?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: I'm not sure I follow.

1 Q. (By Mr. Nydegger) Well, it's the exact
2 same thing that we just talked about with regard to
3 belt conveyors, only we're now talking about the
4 discharge chute of Waldner. So if the discharge
5 chute of Waldner --

6 A. We're talking about --

7 Q. -- is out of level --

8 MS. FLANNERY: Wait for the question.

9 Let's let him ask his question. Same fair rules
10 apply.

11 Q. (By Mr. Nydegger) If the discharge chute
12 is out of level, are there any problems that may
13 arise due to it being out of level?

14 MS. FLANNERY: Object to form. Go ahead.

15 THE WITNESS: A discharge chute is
16 typically round. And so you don't have those -- if
17 there is a problem with it being out of level, you
18 wouldn't expect to see that in a round tube.

19 Q. (By Mr. Nydegger) Okay. The fact that
20 it's a round chute means that there is no out of
21 level because if it tilts side to side, it's still
22 round, it has -- you don't run into problems from it
23 being out of level. Is that fair to say?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: As far as the material

1 flowing down the tube, I think that's probably fair.
2 Now, if you're having experiences where you're
3 hitting something with the tube and causing it to be
4 out of level or there's significant wind, that could
5 cause problems at the pivot points and making those
6 not work as well. But the material is going to flow
7 down the tube if it's at a proper angle.

8 Q. (By Mr. Nydegger) Okay.

9 A. Regardless of the side-to-side orientation
10 of the tube.

11 Q. What aspects of Waldner's discharge chute
12 would need to be regularly inspected for proper
13 maintenance?

14 A. You would need to inspect the pins. You
15 would need to inspect the hydraulics that control the
16 motion. You would need to inspect the telescopic
17 components, however that's done.

18 You need to look for buildup. You need to
19 look for material deformations. You need to look for
20 leaks in the hydraulics or rust or other corrosion
21 issues. Those are all things that I would expect to
22 be looked at regularly.

23 Q. Approximately how long would that take?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: I don't know. I've never --

1 I haven't considered that for this case yet.

2 Q. (By Mr. Nydegger) How often would that
3 type of inspection need to be performed?

4 A. Say at a minimum with every installation,
5 every time you're setting it up, if it's going to be
6 set up somewhere for extended periods of time,
7 probably expect something like that at least weekly,
8 if not more often.

9 Q. And so turning now to the articulated belt
10 conveyor, what aspects of that articulated belt
11 conveyor would need to be inspected for proper
12 maintenance?

13 A. You'd look at the belt, and you'd look at
14 the structure. You'd look at the systems that cause
15 the articulation. You'd look at the pulleys. You'd
16 look at the motors.

17 Q. Would you look at the rollers?

18 A. Yes.

19 Q. The snubber rollers?

20 A. Yes.

21 Q. Belt tension?

22 A. Yes. That would be part of the belts, I
23 would assume.

24 Q. If the belt loading is centered?

25 A. Sure.

1 Q. Anything else you can think of?

2 A. Off the top of my head, that seems like a
3 good list.

4 Q. How often would those inspections need to
5 occur?

6 A. Again, I would say with every installation,
7 maybe even on a weekly or daily basis.

8 Q. Would the overall maintenance needs to
9 maintain a telescoping chute like that of Waldner,
10 would you expect to be more or less than the
11 maintenance needs for an articulated belt conveyor?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: If you're looking at just
14 that section of the system, I would probably expect
15 the telescopic chute to require less maintenance.

16 Q. (By Mr. Nydegger) In paragraph 77 of your
17 report, you opine that the additional weight of an
18 articulated conveyor system would tend to make the
19 conveyor belts -- make it less susceptible to be
20 blown into unlevel positions by the wind.

21 Do you see that?

22 A. I do.

23 Q. Would the flat side surfaces of the
24 articulated belt conveyor make it more susceptible to
25 being blown into unlevel positions by the wind?

1 A. So when you're looking at wind forces,
2 you're looking at the profile that the wind is going
3 to hit. So if we are looking at a tube, you'll look
4 at the diameter of the tube and the length of the
5 tube. Those are usually solid. So that's what you
6 would look at.

7 For an articulated conveyor, you would look
8 at the side profile. You'd look at whether that is a
9 solid or whether that's a truss structure or how it's
10 done, how much surface area perpendicular to the wind
11 is there for the winds to blow on. And you would
12 compare that way.

13 So I can't just, sitting here, say that one
14 is worse than the other, particularly if a chute is
15 longer. Assuming a similar height, the longer chute
16 would be more susceptible to forces from the wind.

17 Q. So if the chute's 6 inches longer, it's now
18 going to be more susceptible to forces of the wind
19 than the articulated conveyor. Is that what you're
20 saying?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: So if -- if the area of the
23 articulated conveyor and the area of the chute were
24 the same and you make the area of the chute -- you
25 make the chute 6 inches longer, then yes, now it

1 has -- it's more susceptible to forces from the wind.

2 Q. (By Mr. Nydegger) So you put a lot of
3 "ifs" in there.

4 Is it fair to say that without the specific
5 configuration of two systems, you really don't know
6 which one is going to be more susceptible to wind?

7 MS. FLANNERY: Object to form.

8 THE WITNESS: When you're doing a wind
9 calculation or comparing them, you would want to at
10 least have a good estimate of the surface area that
11 is going to be within the path of the wind.

12 Q. (By Mr. Nydegger) And so if we take an
13 articulated belt conveyor system and we take a
14 telescoping discharge chute system that have
15 comparable discharge rates for material, which is
16 going to be more susceptible to being blown into
17 unlevel positions by the wind?

18 MS. FLANNERY: Object to form.

19 THE WITNESS: As we talked about earlier,
20 if these are comparable systems and can discharge
21 into silos that are an equal distance away from the
22 tower, the chute is going to be significantly longer
23 to accommodate that because it has to be at an angle.

24 And I think that the height difference
25 between a conveyor and a chute are probably not that

1 great or not that different. So I would say that if
2 I was to assume which one had -- or to guess which
3 one had more -- was more susceptible to wind, I would
4 probably say the chute because of its additional
5 length.

6 Q. (By Mr. Nydegger) And despite the
7 perpendicular flat surface of the -- of the
8 articulated belt conveyor, that's your opinion,
9 correct?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: As I said, there's a lot of
12 assumptions here. But assuming they're about the
13 same height, then yeah, I would -- I would think the
14 additional length would have a pretty significant
15 effect.

16 Q. (By Mr. Nydegger) In that same paragraph,
17 you say, "Finally, to the extent the belt conveyor of
18 Dynatek has less surface area than the chute of
19 Waldner, it may be less susceptible to the effects of
20 wind."

21 Do you see that?

22 A. I do.

23 Q. To what extent does the belt conveyor of
24 Dynatek have less surface area than the chute of
25 Waldner?

1 A. Well, as I said, we haven't done those
2 calculations. But if we look at Dynatek, there is a
3 truss structure. So you don't have a flat solid
4 surface, you have a truss that the wind can blow
5 through. And so there's less surface area for that
6 wind to act on.

7 So if that surface area is less than the
8 surface area of the chute, then you would expect the
9 wind to have a stronger effect on the chute.

10 Q. Okay. So, in your opinion, the articulated
11 conveyor belt of Dynatek that's relevant here has an
12 open truss structure so the wind can blow through it
13 and blow the silica off of the belt out of the
14 material.

15 That's your opinion, that --

16 MS. FLANNERY: Object to form.

17 Q. (By Mr. Nydegger) -- that the conveyor of
18 Dynatek is an open conveyor susceptible to aggregate
19 being blown off it by the wind?

20 MS. FLANNERY: Object to form. Sorry.
21 Object to form. Got the same issue that you do.

22 THE WITNESS: So as I said in this
23 paragraph, I said, "To the extent that the belt
24 conveyor of Dynatek." Because if you look at the
25 actual piece of prior art, there is a truss

1 structure. And to the extent that that exact

2 structure is used in this new system, then this

3 statement would be true.

4 If a solid surface is used to prevent sand

5 from blowing off the conveyor, then you would analyze

6 it based on that solid surface.

7 Q. (By Mr. Nydegger) Well, what would a

8 POSITA use in this application?

9 A. I think the POSITA would look at the

10 proposed designs and get some good estimates and look

11 at it that way.

12 Q. No, my question is in this application,

13 would a POSITA use an open articulating conveyor belt

14 system or an enclosed one?

15 A. I think would take measures to ensure that

16 the sand isn't being blown all over the place. But

17 would the whole thing have to be contained? I don't

18 know. Depends on the design.

19 Could there be some truss structure in

20 addition to a closed-off section? That's reasonable.

21 The fact is we don't know, and that's why we would

22 look at it with the proposed designs.

23 Q. Okay. So you rendered this opinion not

24 knowing?

25 MS. FLANNERY: Object to form.

1 THE WITNESS: That's why it's written the
2 way it is. It says, "To the extent that the belt
3 conveyor of Dynatek has less surface area than the
4 chute of Waldner, it would be less susceptible to the
5 effects of the wind."

6 Q. (By Mr. Nydegger) And the opposite is
7 true, to the extent Waldner is less than Dynatek, the
8 opposite would be true, right? To the extent.

9 A. That's true. Yep.

10 Q. So the statement's meaningless because you
11 have no knowledge about whether it's one or the
12 other. Is that correct?

13 MS. FLANNERY: Object to form.

14 THE WITNESS: Yeah, I think that what it
15 means here is that you have to look at the actual
16 designs. You can't just -- it's very difficult to
17 just estimate and approximate because there are a lot
18 of things that go into it. So to just conclude that
19 one is better or worse than the other seems like a
20 misstep to me.

21 Q. (By Mr. Nydegger) If you look at
22 paragraph 79 of your report, here you find fault in
23 Mr. Anderson's calculations of -- that he ran using
24 the figures in Waldner.

25 Do you see that?

1 A. Which paragraph did you say?

2 Q. 79.

3 A. Okay. Yes.

4 Q. Do you have any better information to
5 perform those calculations?

6 A. Yeah. I went through it in my report in
7 paragraphs 79 through about 85.

8 Q. Well, you made the same assumptions in that
9 analysis, didn't you? You made the same assumptions
10 regarding -- working off the figures in -- in Waldner
11 that are -- don't have dimensions on them, correct?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: Sure. All I was doing in
14 this section was pointing out the error in
15 Mr. Anderson's assumptions. For example --

16 Q. (By Mr. Nydegger) You don't have any --

17 MS. FLANNERY: Wait. He said "for
18 example."

19 THE WITNESS: He assumes that the ramps are
20 square. If you look at them, they are definitely not
21 square. So I point that out. And that changes his
22 calculations based on the information that he is
23 using.

24 Q. (By Mr. Nydegger) Okay. Do you know the
25 height of the outlet port 60 in Figure 5 of Waldner?

1 A. So the answer is no, that's not labeled in
2 the analysis that I did. I simply compared what
3 Mr. Anderson assumed that it was to something that is
4 a little more reasonable. I assume the same height
5 of that output port 60, as Mr. Anderson did.

6 Q. Do you know the dimensions of the -- of the
7 outport 60 at all?

8 MS. FLANNERY: Object to form.

9 THE WITNESS: No, I don't think so. All of
10 my calculations are just based on what Mr. Anderson
11 did.

12 Q. (By Mr. Nydegger) If you look at paragraph
13 81, just above paragraph 81, there's a reproduction
14 of Figure 5 of Waldner with blue and yellow
15 annotations on it by you.

16 Do you see that?

17 A. I do.

18 Q. And those blue and yellow annotations, they
19 represent an articulated belt conveyor, correct?

20 A. That's correct.

21 Q. And how did you determine what the
22 dimensions of that articulated belt conveyor should
23 be?

24 A. So Mr. Anderson describes that based on his
25 measurements of the pictures in the Dynatek

1 reference, that the height of the conveyors are 2 1/2
2 to 3 feet, if I remember correctly. And so I
3 estimated based on that.

4 Q. And so is it correct then that those
5 annotations in blue and yellow are drawn to the scale
6 of 2 1/2 feet relative to the other calculations that
7 you made concerning that figure?

8 A. They're just approximations. The
9 calculations, I think, were based off of his
10 assumptions that he made. The blue and yellow
11 pictures are just representations of how that might
12 fit within that system.

13 Q. Well, my -- I guess I'm trying to
14 understand how you determine that the -- the height
15 of the system would not extend above the outlet port
16 60?

17 A. Yeah. So just looking at the figures,
18 there is a significant amount of space between the
19 bucket conveyor system and the outlet port, such that
20 at least one section of the conveyor should be able
21 to fit there.

22 Q. How do you know what that -- what the
23 dimension of that space is? Did you calculate that
24 off of something?

25 A. I didn't do that specifically. It's just

1 an estimate based on the figures that are in the
2 drawings.

3 Q. So you did no calculation with regard to
4 that distance between the bucket conveyor and the
5 outlet port 60?

6 MS. FLANNERY: Object to form.

7 THE WITNESS: No, I didn't do any specific
8 calculations. But if you look, for example, on
9 Figure 6, which is shown on page 50 of my report, we
10 did measure the ramps, assuming that they're 10 feet
11 wide, which is what Dr. Anderson proposed or
12 suggested or assumed.

13 And if you look at -- on the left side of
14 that box, you can see the outlet port and the top of
15 the bucket conveyor system, the bucket conveyor
16 system is about a quarter of the way down, which
17 would be -- for something that's 8 feet tall, that
18 would be about 2 feet.

19 So a conveyor system that's approximately
20 two, 2 1/2 feet should reasonably fit in that area.

21 Q. (By Mr. Nydegger) You just did that
22 analysis sitting here right now, correct?

23 A. Well, I think I did that -- I didn't do
24 that specifically, but I think that's the problem
25 that I went through in my mind as I was putting this

1 together.

2 Q. So if you look at the figure on the bottom
3 of page 49 under paragraph 83, you state that that
4 figure represents Mr. Anderson's arrangement,
5 correct?

6 A. That's correct. In his report, he -- he
7 adds the height of the ramp, plus the height of the
8 stacked conveyors, plus an additional height for the
9 wheels and adds those all together.

10 And so graphically, this is what that would
11 look like. You have the height starting at the
12 bottom, you have the height for the wheels, and then
13 you have the height for the ramp, and then you have
14 the height for the conveyors all stacked on top of
15 each other and added up. And he doesn't leave any
16 room for overlap in his calculations.

17 Q. And -- but he doesn't say that it would be
18 sticking out parallel to the road though, correct?

19 A. Not necessarily. But, you know, it
20 wouldn't change the overall height, whether it was
21 angled down from the very highest point or whether
22 the whole thing is at the very highest point. You
23 still have the very highest point that you're
24 concerned about.

25 Q. Did you do any research or calculation to

1 determine how tall the articulated belt conveyors of
2 Dynatek are?

3 A. I went through Mr. Anderson's report and
4 the calculations that he went through to arrive at
5 his height. I know the Dynatek reference says that
6 they can custom engineer any solution. But I just
7 used the numbers that Mr. Anderson used.

8 Q. Well, I mean, Dynatek says they can custom
9 engineer to fit particular solutions, but there are
10 practical limits on what they can engineer, correct?

11 A. Sure. And that's why I used the --

12 Q. I can --

13 A. -- numbers that Mr. Anderson used.

14 MS. FLANNERY: Let him finish. I just
15 wanted to make sure we got the full answer.

16 THE WITNESS: I said that's why I used the
17 numbers that Mr. Anderson used.

18 Q. (By Mr. Nydegger) So if I called up
19 Dynatek and said, "I want a 30-foot articulating
20 conveyor that's only an inch and a half tall," are
21 they going to be able to customize an articulated
22 conveyor that meets my needs?

23 MS. FLANNERY: Object to form.

24 THE WITNESS: Not likely.

25 Q. (By Mr. Nydegger) Not likely. Okay.

1 So the articulated conveyor system in
2 Dynatek, how long is that conveyor that they show?

3 A. I have to go back and look. I don't recall
4 exactly.

5 Q. Let me -- I assume that you don't have that
6 readily available. Is that correct? I'm sorry. My
7 audio didn't come through at all.

8 A. No, I don't have that in front of me.

9 Q. Okay. I've dropped that in the chat for
10 you. This is Exhibit 1005. Just for the record,
11 your report has been designated as Exhibit --

12 MR. NYDEGGER: I just lost that exhibit
13 number.

14 MS. FLANNERY: I'll help you. I'll
15 stipulate that it's 1111.

16 MR. NYDEGGER: 1111. Thank you, Liz.

17 Q. (By Mr. Nydegger) Do you have Exhibit 1005
18 pulled up?

19 A. I do.

20 Q. And do you see on page 2 of the exhibit
21 where it talks about the loader reach?

22 A. I do.

23 Q. And it talks about 22 feet from inlet CL to
24 discharge CL for truck loading.

25 Do you understand what that means?

1 A. That it's 22 feet from the inlet to the
2 discharge.

3 Q. Then after that it says, "27 feet from
4 inlet CL to discharge CL for rail car loading"?

5 A. That's correct.

6 Q. Do you see that?

7 A. I do.

8 Q. So from that, do you understand that what
9 is shown here in the brochure is somewhere between 22
10 and 27 feet long?

11 MS. FLANNERY: Object to form.

12 THE WITNESS: I think that's a reasonable
13 assumption.

14 Q. (By Mr. Nydegger) Is that what --

15 A. It also says --

16 MS. FLANNERY: He's not finished.

17 THE WITNESS: It also says that longer
18 lengths are also available. If this is talking about
19 a specific system, I think that's a reasonable
20 assumption.

21 Q. (By Mr. Nydegger) Is that what a POSITA
22 would understand reviewing Dynatek?

23 A. I think that a POSITA would probably call
24 and verify if they were really looking into it. But
25 Mr. Anderson made those assumptions. And I think

1 that's reasonable for the purposes of evaluating
2 this.

3 Q. Well, a POSITA is a hypothetical person, so
4 they don't get to make phone calls, right?

5 A. That's true.

6 Q. So reading the information that a POSITA
7 would have, would a POSITA understand that the
8 depicted -- that the depicted system is between 22
9 and 27 feet long?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: I think that's reasonable.

12 Q. (By Mr. Nydegger) And how long would the
13 reach need to be for Solaris's six-pack system?

14 A. If I remember right, it's about 50 feet.

15 Q. So approximately double what is shown in
16 Dynatek itself, correct?

17 MS. FLANNERY: Object to form.

18 THE WITNESS: Approximately. Maybe a
19 little more, maybe a little less, but yeah.

20 Q. (By Mr. Nydegger) And to approximately
21 double the length of that articulating conveyor
22 system, would the height of the system increase?

23 A. Possibly, but not necessarily. There's a
24 lot of different ways to accommodate additional
25 length.

1 Q. Looking at how Dynatek has accommodated the
2 length that it has, do you have reason to believe
3 that they were slothful and did so without taking
4 measures to minimize the height of material used?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: I don't know what their
7 design requirements they were trying to meet with
8 this particular installation that's depicted here
9 was. I don't know if height was a specific
10 consideration for them or not.

11 Q. (By Mr. Nydegger) Would a POSITA think it
12 would be likely that the height would need to be
13 increased to double the length?

14 A. Not necessarily, no.

15 MS. FLANNERY: Chad, we've been going about
16 a little over an hour. If you're at a stopping
17 point, maybe another five-minute break?

18 MR. NYDEGGER: Sure. Should we come back
19 at 5 to the hour?

20 (Recess taken at 1:50, resuming at 1:55.)

21 Q. (By Mr. Nydegger) In paragraph 86, you
22 state that, "A POSITA would have understood how to
23 make basic adjustments to the dimensions of the
24 Dynatek system to meet any limitations on the
25 transport height of the system."

1 Do you see that?

2 A. Yes.

3 Q. And then you follow that sentence to opine
4 that, "Those changes would not necessarily require
5 substantial redesigning the components to make the
6 system just a few feet shorter."

7 Do you see that?

8 A. Yes.

9 Q. Well, the Dynatek system, as it is, is
10 approximately two to 3 feet tall, correct?

11 MS. FLANNERY: Object to form.

12 THE WITNESS: I think Mr. Anderson opined
13 that each section is approximately 2 to 3 feet tall.

14 Q. (By Mr. Nydegger) Okay. So to take a few
15 feet off of that, you're looking at reducing it
16 anywhere from 50 to 30 percent in height, correct?

17 MS. FLANNERY: Object to form.

18 THE WITNESS: No, I think what I'm talking
19 about here is the overall system, you know. So if
20 we're going from I think -- Dr. Anderson said from 16
21 to 17 feet down to 13 1/2 feet, if we can make some
22 basic adjustments so that one of those conveyor
23 systems is nested within or next to the upright
24 conveyor, then those sort of things are pretty
25 simple.

1 Q. (By Mr. Nydegger) That's not what you say
2 in paragraph 86. In paragraph 86, you talk about
3 making basic adjustments to the dimensions of the
4 Dynatek system, right?

5 MS. FLANNERY: Object to form. Go ahead.

6 THE WITNESS: Right. Making basic
7 adjustments so that it can fit within the overall
8 system, which is what we've been talking about up to
9 this point in this section.

10 Q. (By Mr. Nydegger) And so it would need to
11 reduce in height from Dr. -- from Mr. Anderson's
12 calculations by approximately 4 feet, correct?

13 A. So if we're going from -- I think his
14 maximum was 17 feet down to 13 1/2, that's 3 1/2 feet
15 if we're going from 16 feet down to 13 1/2 or 14.
16 That's 2 to 2 1/2 feet.

17 Q. Okay. And in this application that we've
18 been talking about, we've looked at the Dynatek
19 system, and it would need to be approximately double
20 in length, correct?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: From what was shown in the
23 picture, yes, I would agree that it's approximately
24 that.

25 Q. (By Mr. Nydegger) And what was shown in

1 the picture is what was used to come up with these
2 calculations, correct?

3 A. That's my understanding of how Dr. Anderson
4 did it.

5 Q. And so whether we get down to speaking
6 practically, the system would need to double in
7 length while simultaneously reducing the height by
8 anywhere from 50 to 30 percent. Is that correct?

9 A. So the articulated conveyor section would
10 need to be approximately double what's shown in the
11 reference. And then you have to position that on the
12 overall system in the transport configuration in a
13 way that would reduce the height from what
14 Mr. Anderson calculated by 2 1/2 to 3 feet, which, as
15 I showed in my report, is really simple to do based
16 on the errors in his calculations or the assumptions
17 that he made in his calculations.

18 Q. I don't think you answered my question.

19 My question was when we get down to the
20 practical application, the length of the articulated
21 belt would need to be approximately doubled while the
22 height is reduced. You'd have to accomplish those
23 two things simultaneously, correct?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: Not necessarily, no. The

1 length does need to be increased, but the height of
2 the articulated conveyor system, you don't have to
3 necessarily reduce that based on Mr. Anderson's
4 calculations of including that system on Waldner.

5 Q. (By Mr. Nydegger) Okay. Your statement
6 that a POSITA would know how to make basic
7 adjustments to the dimensions of Dynatek to meet any
8 limitation on transport height, that's -- that's not
9 really an accurate statement, is it?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: In what way?

12 Q. (By Mr. Nydegger) Well, I think we've
13 already talked about there are practical
14 limitations -- there are practical constraints that
15 limit how much the height of the Dynatek system could
16 be reduced?

17 A. Sure.

18 Q. So it can't meet any limitation on
19 transport height. Is that correct?

20 A. I would agree with that as an overall
21 statement. But if we look at it in context of this
22 combination with Waldner, which is what we're looking
23 at here, I think the overall height that we were
24 looking at is about 12 1/2 feet, as shown in
25 paragraph 85.

1 So even if we have to add a whole foot of
2 height, you're still under the 13 1/2-foot limit
3 based on Mr. Anderson's calculations.

4 Q. Go to paragraph 90. At the bottom of the
5 paragraph, last sentence, you state, "The fact that
6 the design of the slider bed-style conveyor belt is
7 not a part of the claims of the '689 patent, it is
8 also evidence that the choice to use a slider bed
9 type of conveyor is not novel, but well within the
10 ordinary skill of the art."

11 What is the basis for that statement?

12 A. So in my experience, when an inventor or
13 designer comes up with something that's really neat
14 or new or has never been done before and they're
15 applying for a patent, that they would include that.

16 And as that has not been included as the
17 claims -- in the claims, that supports the idea,
18 which I've talked about prior to this sentence, that
19 both slider bed-style conveyors and roller conveyors
20 were well known in the art prior to the priority
21 date.

22 Q. In your experience, do -- do applicants,
23 patent applicants, file continuation applications to
24 claim different novel aspects of the invention?

25 MS. FLANNERY: Object to form.

1 THE WITNESS: They can.

2 Q. (By Mr. Nydegger) Do they do that in your
3 experience?

4 A. Sometimes they do, sometimes they don't.

5 Q. Are you aware of whether Masaba has done
6 that?

7 A. I'm not aware one way or the other.

8 Q. And if I represent to you that Masaba has
9 done that, does that change your opinion?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: I don't think so. I don't
12 know why they wouldn't have included that in the
13 original patent. I don't think it's -- we're already
14 talking about the articulated conveyors, so I don't
15 think so.

16 Q. (By Mr. Nydegger) Does the law require all
17 novel aspects of an invention to be claimed?

18 MS. FLANNERY: Object to form.

19 THE WITNESS: I'm not an attorney, but I
20 don't think so.

21 Q. (By Mr. Nydegger) Well, you're not an
22 attorney, but you're making, you know, legal
23 statements, so I get to ask about them.

24 On what authority do you base your opinion
25 that a feature disclosed in the specification but not

1 claimed is, therefore, not novel?

2 MS. FLANNERY: Object to form.

3 THE WITNESS: I'm just saying that from my
4 experience, if there was something that was truly new
5 and novel, that that usually finds its way into the
6 claims; and that because it didn't here, that
7 supports all the other evidence that I've shown that
8 says that both slider beds and roller conveyors were
9 well known prior to this.

10 Q. (By Mr. Nydegger) How many patents have
11 you gone through and identified novel features in the
12 specification that are not included in the claims?

13 A. I don't think that's an exercise that I've
14 done.

15 Q. You've never done that?

16 A. I'm not going to say never, but I don't
17 recall doing it.

18 Q. So what experience are you referring to
19 that, in your experience, novel aspects of an
20 invention are always claimed? If you haven't
21 performed that analysis, how do you know whether
22 there are novel -- whether there have been novel
23 aspects of an invention that weren't included in the
24 claims without performing that analysis?

25 MS. FLANNERY: Object to form. Go ahead.

1 THE WITNESS: Sure. So my experience is
2 based on years of experience designing new products
3 and working with inventors. Within our company, our
4 engineers have over 100 different patents. And as
5 we've gone through that process and worked with our
6 attorneys, the questions that they always ask --

7 MS. FLANNERY: Wait. I'm going to -- I
8 don't want to reveal any privileged communications
9 between you and attorneys.

10 THE WITNESS: Sure.

11 MS. FLANNERY: If you can answer that
12 question without revealing privileged communications,
13 if you can speak to things at a high level, but don't
14 reveal anything that might be privileged with your
15 attorneys.

16 THE WITNESS: Sure. Sure.

17 So in the process of applying for a patent,
18 working with the attorneys to do that, one of the
19 questions that they ask is -- or that they've asked
20 us is, "What sort of things are new? What was hard
21 to do? What -- what was something that you really
22 came up with that's never been done before?" And
23 those are the types of things that usually end up in
24 the claims.

25 Q. (By Mr. Nydegger) Yeah, that's not my

1 question.

2 My question is without performing an
3 analysis to identify novel elements that are in the
4 specification that did not make it into the claims,
5 how do you have a basis to say that failure to do so
6 means it's not novel?

7 MS. FLANNERY: Object to form.

8 THE WITNESS: So I have just explained to
9 you my experience in working with attorneys and
10 filing for patent applications that would show that
11 that is something that is usually asked about so that
12 it can be put into the claims.

13 Q. (By Mr. Nydegger) But you've never
14 performed the analysis, so you don't know if the
15 novel aspects that have been shared all made it into
16 the claims or not because you've already testified
17 you haven't performed the analysis. Isn't that
18 correct?

19 MS. FLANNERY: Object to form.

20 THE WITNESS: I mean, so on patents that
21 I've applied for, I've gone through that process and
22 evaluated the claims and made sure that they included
23 the things that we thought should be included and
24 that we had relayed to the attorneys.

25 Q. (By Mr. Nydegger) But never done that for

1 a patent that wasn't yours, correct?

2 A. I don't think that's something I've ever
3 been asked to do.

4 Q. I'm not asking if you've been asked to do
5 it, I'm asking if you've done it?

6 A. From -- on a patent that's not mine, I
7 don't recall ever going through and seeing if there
8 was a novel aspect that didn't make it into the
9 claims.

10 I'm only basing that on the patents that --
11 that I've applied for and that we've helped our
12 clients apply for in my own personal experience.

13 Q. Turning to the '689 patent at issue in this
14 case, what is the conveyor support frame as that term
15 is used in the patent -- sorry.

16 MS. FLANNERY: Object to the form.

17 Q. (By Mr. Nydegger) Sorry. What is the
18 conveyor support frame as a POSITA would understand
19 that term as used in the '689 patent?

20 MS. FLANNERY: Object to form.

21 THE WITNESS: Do you have a copy of the
22 '689 patent that I could look at?

23 Q. (By Mr. Nydegger) I can certainly provide
24 that to you. It should be in the chat now. This is
25 Exhibit 1001.

1 A. The specification identifies item 154 as a
2 conveyor support frame.

3 Q. And if you look at page 58 of your report,
4 are you there? Do you see what you've colored purple
5 labeled the "conveyor truss frame"?

6 A. I do.

7 Q. Would a person of skill in the art
8 understand that the conveyor support frame is -- is
9 that purple part of the conveyor truss frame that
10 you've identified there?

11 MS. FLANNERY: Object to form.

12 THE WITNESS: I think that that's a
13 reasonable interpretation of a conveyor support frame
14 or a frame that supports a conveyor.

15 Q. (By Mr. Nydegger) Well, I'm asking what a
16 POSITA would understand.

17 Would a POSITA understand that what you've
18 colored there in Figure 8C of the '689 patent is a
19 conveyor support frame as that term is used in the
20 patent?

21 A. Well, the specification points to something
22 very particular. But as I understand it, the claims
23 can be interpreted somewhat broader. So I think a
24 person of ordinary skill when looking at a conveyor
25 support frame would consider this portion that's

1 colored purple to be a frame that supports a conveyor
2 or a conveyor support frame.

3 Q. That's despite the fact that on that same
4 figure, the patent identifies what is expressly the
5 conveyor support frame as part 154, correct?

6 A. Sure. Yes.

7 MS. FLANNERY: Object to form. Sorry.

8 Q. (By Mr. Nydegger) Does the --

9 A. Part -- part --

10 MS. FLANNERY: Wait. I objected to form,
11 and he needs to answer your question.

12 THE WITNESS: Part 154 is also a frame that
13 supports the conveyor. I think both of them could
14 reasonably read on those specific words.

15 Q. (By Mr. Nydegger) I'm not asking what you
16 think, I'm asking what a POSITA would understand
17 reading the '689 patent.

18 A. Sure. I think that a POSITA reading the
19 '689 patent would think there are multiple things
20 that could be considered a conveyor support frame.

21 Q. Does the '689 patent use different
22 terminology to -- to refer to the truss frame that
23 you have colored purple?

24 MS. FLANNERY: Object to form.

25 THE WITNESS: I think the '689 patent calls

1 it a truss frame.

2 Q. (By Mr. Nydegger) I'll help you out. Look
3 at the bottom of column 10 around line 62.

4 A. Right. As I just said, it calls it a truss
5 frame.

6 Q. Truss frame 146, correct?

7 A. Yep. It talks about how there are -- each
8 of those segments may include a conveyor belt
9 supported by rollers, so it's a truss frame that
10 supports those conveyor elements.

11 Q. Right. So the specification of the '689
12 patent specifically identifies conveyor support frame
13 154, and then it specifically identifies the truss
14 frame 146 using different terminology and different
15 numbers to identify both those parts.

16 Despite that teaching in the specification,
17 it's your opinion that a person of skill in the art
18 would understand that truss frame 146 is actually a
19 conveyor support frame as that term is used in the
20 '689 patent, correct?

21 MS. FLANNERY: Object to form.

22 THE WITNESS: Yeah, as I said earlier, I
23 think that reading the patent, reading the
24 specification, either of those could be considered
25 conveyor support frames, frames that support

1 conveyors.

2 Q. (By Mr. Nydegger) It's also your
3 understanding that in construing the claim terms such
4 as conveyor support frame, that one looks primarily
5 to the intrinsic patent evidence, including the words
6 of the claims themselves, the remainder of the
7 patent, and the patent's prosecution history,
8 correct?

9 MS. FLANNERY: Object to form.

10 THE WITNESS: That's my understanding.

11 Q. (By Mr. Nydegger) And you also understand
12 that the patent and the prosecution history are of
13 paramount importance when determining how a person of
14 skill in the art would understand the claim language,
15 correct?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: My understanding is that the
18 intrinsic evidence is weighed more favorably than
19 extrinsic evidence.

20 Q. (By Mr. Nydegger) Not just more favorably,
21 it's of paramount importance, correct?

22 MS. FLANNERY: Object to form.

23 THE WITNESS: I'm not sure that I've ever
24 seen that.

25 Q. (By Mr. Nydegger) Well, if you look at the

1 paragraph 18 -- if you look at paragraph 18, those
2 are your words and your opinion?

3 A. Right.

4 MS. FLANNERY: Object to form. Go ahead.

5 THE WITNESS: I think what I'm referring to
6 there is that it's of more importance than the
7 extrinsic evidence.

8 Q. (By Mr. Nydegger) But "paramount
9 importance," those are the words that you chose to
10 use for your opinion, correct, to reflect your
11 understanding?

12 MS. FLANNERY: Object to form.

13 THE WITNESS: Right. Yeah. They are more
14 important than the extrinsic evidence.

15 Q. (By Mr. Nydegger) And what evidence do you
16 have that conveyor support system actually means the
17 truss 146? What evidence do you rely on to come to
18 that conclusion?

19 MS. FLANNERY: Object to form.

20 THE WITNESS: So as we noted at the bottom
21 of Figure 10, it says that each segment includes a
22 truss frame, so a frame, and those segments also
23 include conveyors and rollers, which are the conveyor
24 components. So it's a frame that is supporting
25 conveyors. So it's a conveyor support frame.

1 Q. (By Mr. Nydegger) You can't point to me
2 anywhere in the '689 patent where the patent refers
3 to the truss frame as a conveyor support frame,
4 correct?

5 MS. FLANNERY: Object to form.

6 THE WITNESS: So the specification
7 identifies something else as the conveyor support
8 frame, but I think if we're reading the claims.

9 Q. (By Mr. Nydegger) Do you think paramount
10 importance --

11 MS. FLANNERY: Wait a minute. Counsel,
12 you've got to let him finish.

13 THE WITNESS: Right. If we're looking at
14 the specification, there's the conveyor support frame
15 that is identified as 154, and then there's also a
16 conveyor support frame 146 that's identified as a
17 frame that supports conveyors.

18 THE WITNESS: So I think that a POSITA
19 would reasonably understand that either of those
20 could fit the claimed meaning of a conveyor support
21 frame.

22 Q. (By Mr. Nydegger) Going to -- well, let's
23 look at paragraph 105.

24 A. Okay.

25 Q. Does the use of a king pin result in more

1 even distribution on the bed of the transport vehicle
2 than use of a gooseneck?

3 A. Yes.

4 Q. I'm trying to get you another exhibit. My
5 computer is being slow. I apologize. We'll move on
6 for a moment.

7 So looking at paragraph 111, is it your
8 opinion that putting a king pin on the deployable
9 frame is rendered obvious by Sleeman in combination
10 with Waldner?

11 MS. FLANNERY: Object to form.

12 THE WITNESS: I think in paragraph 111,
13 we're talking about Auld and Waldner.

14 Q. (By Mr. Nydegger) I've got my paragraphs
15 mixed up. We'll come back.

16 If you look in the chat, you'll see that
17 there's a new exhibit there.

18 Do you see that?

19 A. I do.

20 Q. It's Exhibit 1110. Could you pull that up,
21 please.

22 A. Okay.

23 Q. If you scroll down to page 42, this is the
24 supplemental declaration of Dr. Durham. Let me know
25 when you're on page 42.

1 A. Okay.

2 Q. Do you see the picture there at the top?

3 A. I do.

4 Q. Can you describe for me what in that
5 picture you understand to be the bed of the transport
6 vehicle?

7 MS. FLANNERY: Object to form.

8 THE WITNESS: So here, this is connected to
9 the chassis, which is essentially the bed -- where
10 the bed would be for the transport vehicle.

11 Q. (By Mr. Nydegger) So you used the word
12 "this." Can you be a little bit more particular so
13 that the record reflects what you're describing?

14 A. Sure. I can try.

15 Looking at this picture, this is the first
16 time I've seen it. It appears to be a picture of a
17 chassis of a vehicle with two longitudinal rails
18 spaced between two sets of tires. And there is a
19 plate mounted connecting the two rails and a ball
20 connected to that plate.

21 Q. And so in that figure, what would be
22 considered the bed of that -- assuming that is a
23 transport vehicle, what would be the bed of that
24 transport vehicle?

25 MS. FLANNERY: Object to form.

1 THE WITNESS: Yeah, I would essentially say
2 the chassis rails between the tires are essentially
3 the bed of the transport vehicle.

4 Q. (By Mr. Nydegger) Okay. And then
5 attaching a trailer to the ball shown in that
6 picture, that weight would be distributed to the
7 chassis rails or the bed of the transport vehicle by
8 the cross-member to which the ball is attached,
9 correct?

10 MS. FLANNERY: Object to form.

11 THE WITNESS: Yes, I think that is correct.
12 It would go through the ball into the plate and then
13 into the chassis.

14 Q. (By Mr. Nydegger) Okay. And then if you
15 scroll down to the next page, there's another picture
16 of the back of a semi truck with a fifth wheel.

17 Do you see that?

18 A. I do.

19 Q. And is it your opinion that the bed of the
20 transport vehicle in this picture would be the
21 chassis, which because we're at a different angle are
22 the vertical rails in that picture?

23 A. Sure, we'll call them longitudinal rails.

24 Q. Longitudinal rails. And the fifth wheel is
25 attached to the longitudinal rails with a cross

1 plate, correct?

2 MS. FLANNERY: Object to form.

3 THE WITNESS: So it looks like there is an
4 angle on the outside of the longitudinal rails and a
5 plate that's approximately the same width as the
6 fifth wheel coupler.

7 And there are bolts that attach the plate
8 and the fifth wheel coupler to the longitudinal rails
9 and the angles that are attached to the longitudinal
10 rails.

11 Q. (By Mr. Nydegger) And so the distribution
12 of the weight of the attachment is going to be
13 transmitted through the -- through the fifth plate to
14 the cross rail to the bed of the transport vehicle,
15 correct?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: So here the width of the
18 fifth is wheel is wider than the span of the
19 longitudinal rails. And so the weight is essentially
20 going to go straight down through the fifth wheel
21 into the longitudinal rails. And it's being held in
22 place by those bolts. Downward force essentially
23 goes straight into those rails.

24 Q. (By Mr. Nydegger) So the weight is going
25 to be transferred to the two -- the two places where

1 the fifth wheel is above the -- either side of the
2 chassis, correct?

3 A. I'm not sure I understood your question.

4 Q. The weight of the -- the weight of the
5 attachment is going to transfer to the bed of the
6 transport vehicle or the chassis by transferring
7 through the two spots, one on either side, that are
8 below the fifth wheel, correct?

9 MS. FLANNERY: Object to form.

10 THE WITNESS: So when you put -- connect
11 the trailer to this fifth wheel coupler, the weight
12 of the trailer is essentially going to go down,
13 straight down, into the rails of the chassis.

14 Q. (By Mr. Nydegger) Okay. If you look at
15 paragraphs 112 through 118 of your report, here you
16 provide a number of examples of different systems
17 attached to a transport vehicle, correct?

18 A. So here what I'm showing is that there are
19 lots of examples of conveyor systems that attach a
20 king pin to a conveyor, that is then attached to a
21 transport vehicle to move it from place to place.

22 Q. And you provide these different examples to
23 support your opinion that these examples make it
24 obvious for the claim of the '689 patent to attach a
25 king pin directly to the conveyor system, correct?

1 A. So essentially what I'm showing here is
2 that the ability to attach -- have a king pin
3 attached to a conveyor and have that attached to a
4 tow vehicle is well known in the art.

5 And that provides some background for what
6 a person of skill in the art would know and be able
7 to do in making the specific combination of Waldner
8 and Auld.

9 Q. Why would a POSITA want to shorten the
10 length of the trailer?

11 A. There are a lot of advantages to a shorter
12 trailer. Most people would consider a shorter
13 trailer easier to tow. It's easier to go around
14 corners. It's easier to back up. It's easier to
15 store when it's not being towed. Those are some of
16 the reasons, some of the benefits of a shorter
17 trailer as compared to a longer one.

18 Q. It's your opinion that it's easier to back
19 up a shorter trailer than a longer one?

20 A. I mean, there's probably some limits on
21 that. A very short trailer can be difficult to back
22 up, but generally speaking, a shorter trailer is
23 easier to back up than a longer one.

24 Q. Having pulled many short trailers, I would
25 beg to differ, nevertheless.

1 You opine that -- you opine that a POSITA
2 would increase the frame of Waldner so that the frame
3 extends into the center of the trailer, correct?

4 A. Point me to what you're looking at.

5 Q. I believe it's paragraph 111. In the
6 middle, "A POSITA could reposition or resize, widen
7 the frame surrounding the bucket elevator such that
8 the frame would be centered on the trailer frame."

9 A. Yes, I think that's reasonable and well
10 within the skill of a POSITA.

11 Q. And widening the bucket elevator frame
12 would increase its weight, correct?

13 A. Possibly.

14 Q. And it would require more powerful lift
15 structures to deploy it, correct?

16 A. If it weighed more, I would expect so.

17 Q. Well, if you're increasing the size of it,
18 it's going to weigh more, right?

19 A. Possibly, but not necessarily. We also
20 have the option of just moving it over.

21 Q. Well, if you move it over, then you
22 wouldn't have space on the side to store the -- the
23 articulated conveyor the way that you have shown in
24 your blue and yellow annotations, correct?

25 MS. FLANNERY: Object to form?

1 THE WITNESS: I think there's space for
2 both of those.

3 Q. (By Mr. Nydegger) You've calculated that
4 out?

5 A. No, not specifically. But just looking at
6 it with the rough estimate, I think that is a
7 reasonable assumption.

8 Q. So going back to my original question,
9 increasing the size of the frame would increase the
10 weight, correct?

11 MS. FLANNERY: Object to form.

12 THE WITNESS: It's possible. It's not
13 necessarily true, but it's possible.

14 Q. (By Mr. Nydegger) You haven't -- you
15 haven't opined that you would do anything else to the
16 frame other than increase its size. So how would
17 that not increase the weight?

18 MS. FLANNERY: Object to form.

19 THE WITNESS: So if you're making
20 modifications to the frame, it might -- with the
21 additional width, it might not require as many or --
22 a particular spacing of cross-members. And there's a
23 lot that goes into it. It might increase the weight,
24 but it also might not.

25 Q. (By Mr. Nydegger) You haven't

1 identified -- the only modification you include in
2 your opinion is to resize or widen the frame
3 surrounding the bucket elevator such that the frame
4 would be centered on the trailer.

5 That's the only modification to the frame
6 you identify, correct?

7 MS. FLANNERY: Object to form.

8 THE WITNESS: I think in this paragraph,
9 that's what we're talking about. If we look at the
10 preceding paragraph, we talk about repositioning it
11 so that it's centered.

12 Q. (By Mr. Nydegger) Yes. That's one
13 scenario. I'm talking about the other scenario in
14 your opinion where the only modification you state is
15 to resize or widen the frame. Is that correct?

16 MS. FLANNERY: Object to form.

17 THE WITNESS: Sure. In this particular
18 paragraph, we're talking about resizing or widening
19 the frame.

20 Q. (By Mr. Nydegger) And if we do that
21 modification, as you've stated, that would increase
22 the weight, correct?

23 A. You're resizing it. You're going through
24 the calculations again. It might increase the
25 weight; it might not.

1 Q. Okay.

2 MS. FLANNERY: Chad, we're about 10 minutes
3 past our stopping point. If you have a couple more
4 questions, I don't want to create an issue by
5 stopping you if you just have one or two questions,
6 but --

7 MR. NYDEGGER: Actually, I don't.

8 MS. FLANNERY: Oh, okay.

9 MR. NYDEGGER: Make it easy.

10 MS. FLANNERY: Okay. No problem. Just
11 wanted to be consistent with what we had discussed.

12 Are you passing the witness?

13 MR. NYDEGGER: Yes, I'll pass the witness.

14 MS. FLANNERY: Okay. I just have two quick
15 questions for you, Mr. Smith.

16 EXAMINATION

17 BY MS. FLANNERY:

18 Q. It is Mr. Smith, right, as opposed to
19 Dr. Smith?

20 A. It is.

21 Q. Just for the record. I wanted to make
22 sure.

23 Do you recall some questions earlier today
24 about -- it was paragraphs 51 and 52 of your
25 declaration where you discussed some of the actions

1 that Masaba -- or that patent owners' response
2 reported that Masaba had taken in doing their work.

3 Do you recall those questions?

4 A. Yes, I do.

5 Q. Do your opinions about what a person of
6 skill in the art would have done with the Waldner and
7 Dynatek prior art, in what way do those rely on your
8 discussion about what Masaba did?

9 A. So I think my discussion is what a person
10 of skill in the art would have considered, and
11 looking at what Masaba did just confirms that.

12 Q. So do your opinions about what a POSITA
13 would have done, do they rely upon what the Masaba
14 engineers did in their design work?

15 A. No, they don't.

16 Q. Okay. Last question. I think you
17 discussed with counsel for patent owner various
18 paragraphs of your declaration that you recalled
19 typing versus portions of the declaration that you
20 recall -- that you didn't type, those words were
21 provided after discussion with counsel?

22 A. Yes.

23 Q. I heard your testimony that you didn't
24 recall which portions of your testimony you actually
25 typed versus which portions were provided after those

1 discussions. Is that right?

2 A. That's correct.

3 Q. Which portions of your declaration reflect
4 your sworn testimony?

5 A. All of it.

6 MS. FLANNERY: I have no further questions.

7 MR. NYDEGGER: All right. Thank you,
8 Mr. Smith. I appreciate your time today.

9 (The proceedings concluded at 2:40 p.m.)

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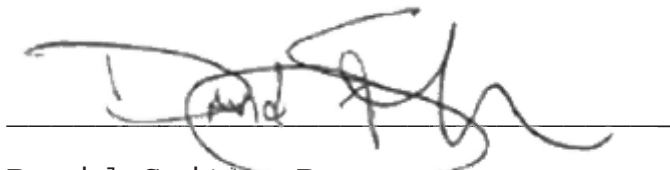
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1	CERTIFICATE OF DEPONENT		
2	PAGE	LINE	CHANGE
3	38	8	"articulated conveyor" to "arcuate path" - Misspoke or mistranscribed
4	45	14	"an" to "so" - Misspoke or mistranscribed
5	76	24	"problem" to "process" - Misspoke or mistranscribed
6	102	18	"fifth is wheel" to "fifth wheel" - Misspoke or mistranscribed
7			
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19	--oOo--		
20	I, David Smith, deponent herein, do hereby		
21	certify and declare under penalty of perjury the		
22	within and foregoing transcription to be my		
23	deposition in said action; that I have read,		
24	corrected, and do hereby affix my signature to said		
25	deposition.		
			
	David Smith, Deponent		

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2 STATE OF UTAH)

3 COUNTY OF UTAH)

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5 I, Daren S. Bloxham, a Certified Shorthand
6 Reporter, Registered Professional Reporter, hereby
7 certify:

8 THAT the foregoing proceedings were taken
9 before me at the time and place set forth in the
10 caption hereof; that the witness was placed under
11 oath to tell the truth, the whole truth, and nothing
12 but the truth; that the proceedings were taken down
13 by me in shorthand and thereafter my notes were
14 transcribed through computer-aided transcription; and
15 the foregoing transcript constitutes a full, true,
16 and accurate record of such testimony adduced and
17 oral proceedings had, and of the whole thereof.

18 I further certify that a reading copy of the
19 same was delivered to the witness, through their counsel,
20 Ms. Flannery, for the reading and signature.

21 I have subscribed my name on this 18th day
22 of September, 2025.

23

24 _____
25 Daren S. Bloxham
 Registered Professional Reporter #335

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