

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF SAN FRANCISCO

DEWAYNE JOHNSON,

Plaintiff,

vs.

Case No. CGC-16-550128

MONSANTO COMPANY, et al.,

Defendants.

-----/

Proceedings held on Tuesday, July 17, 2018,
Volume 11, Morning Session, before the Honorable
Suzanne R. Bolanos, at 9:27 a.m.

REPORTED BY:

LESLIE ROCKWOOD ROSAS, RPR, CSR 3462

Job No. 2965314A

Pages 2423 - 2464

1 APPEARANCES:

2

3 FOR THE PLAINTIFF:

4 R. BRENT WISNER, ESQ.

5 BAUM, HEDLUND, ARISTEI, GOLDMAN PC

6 12100 Wilshire Boulevard, Suite 950

7 Los Angeles, California 90025

8 310-207-3233

9

10 DAVID DICKENS, ESQ.

11 THE MILLER FIRM, LLC

12 108 Railroad Avenue

13 Orange, Virginia 22960

14 540-672-4224

15

16 FOR THE DEFENDANT:

17 SANDRA A. EDWARDS, ESQ.

18 FARELLA BRAUN + MARTEL LLP

19 235 Montgomery Street

20 San Francisco, California 94104

21 415-954-4400

22

23

24

25

1 APPEARANCES (Continued):

2

3 FOR THE DEFENDANT:

4 GEORGE C. LOMBARDI, ESQ.

5 JAMES M. HILMERT, ESQ.

6 WINSTON & STRAWN LLP

7 35 West Wacker Drive

8 Chicago, Illinois 60601

9 312-558-5969

10

11 KIRBY T. GRIFFIS, ESQ.

12 HOLLINGSWORTH LLP

13 1350 I Street, N.W.

14 Washington, D.C. 20005

15 202-898-5800

16

17

18

19

20

21

22

23

24

25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

INDEX OF PROCEEDINGS

WITNESS	DIRECT	CROSS	REDIRECT	RECROSS	VIDEO
CHRISTOPHER JUDE PORTIER			2437	2449	
WILLIAM HEYDENS					2462

EXHIBITS ADMITTED

(None.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Tuesday, July 17, 2018

9:27 a.m.

Volume 11

Morning Session

San Francisco, California

Department 504

Judge Suzanne Ramos Bolanos

PROCEEDINGS

[REDACTED]

09:27:20

[REDACTED]

[REDACTED]

09:27:30

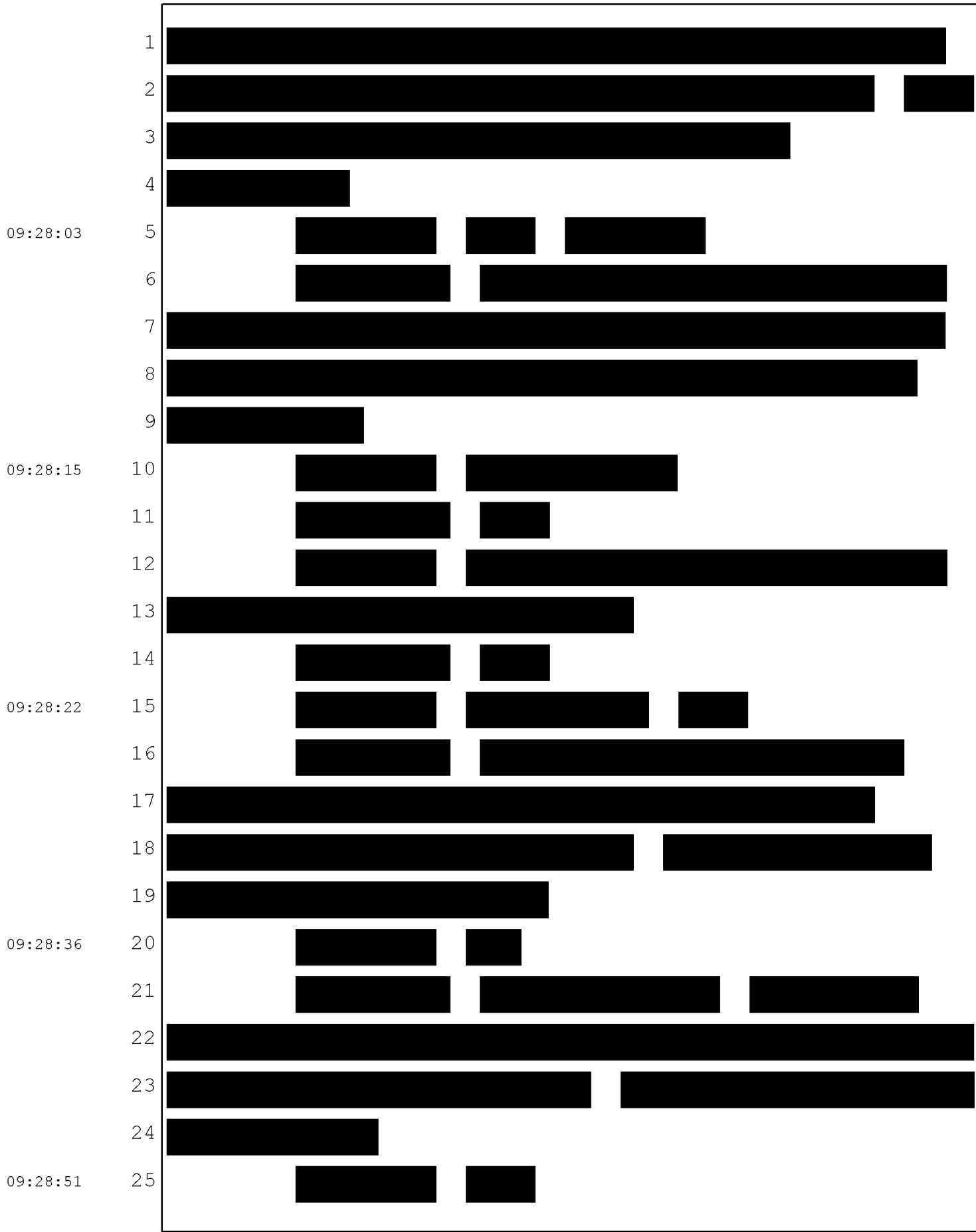
[REDACTED]

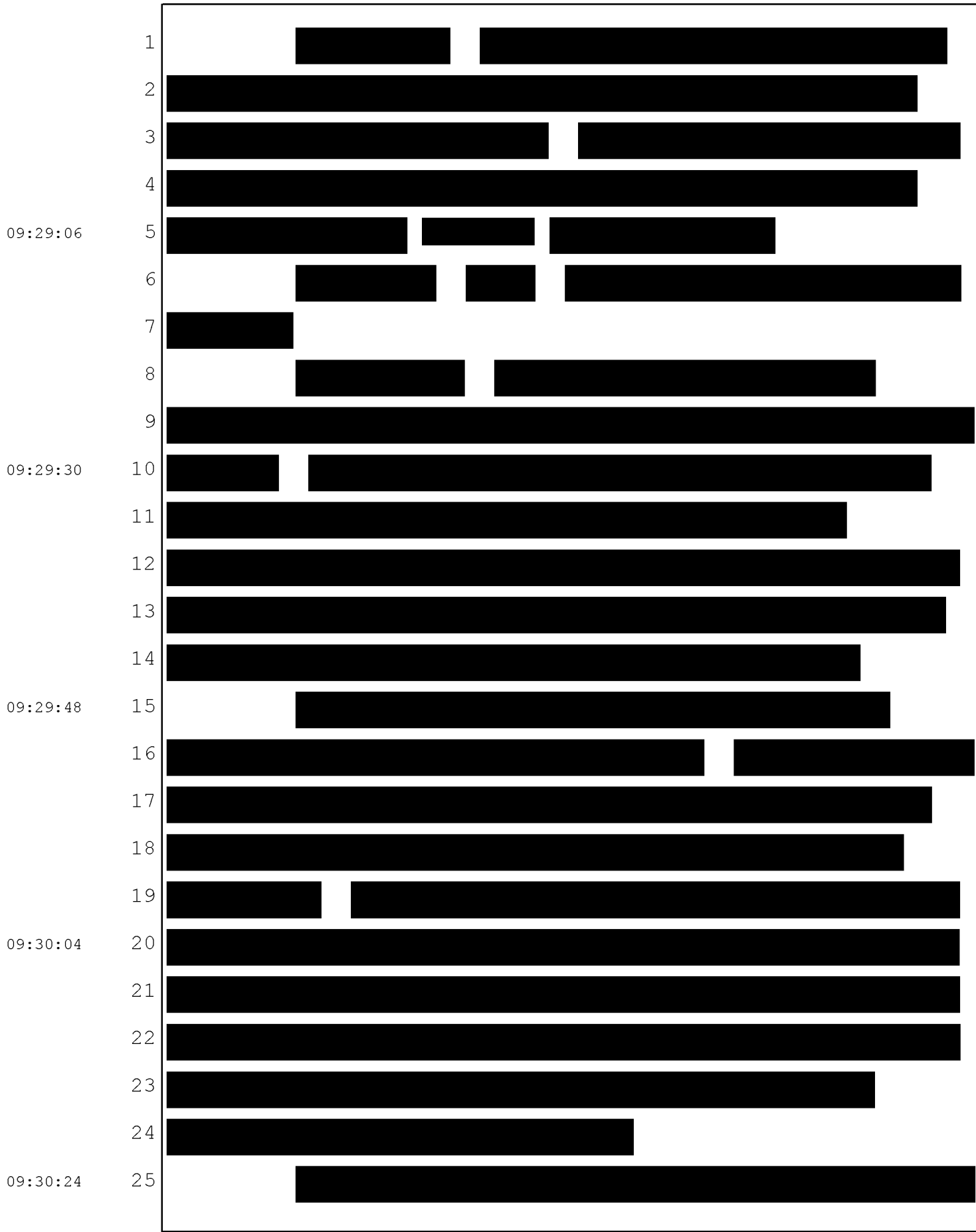
[REDACTED]

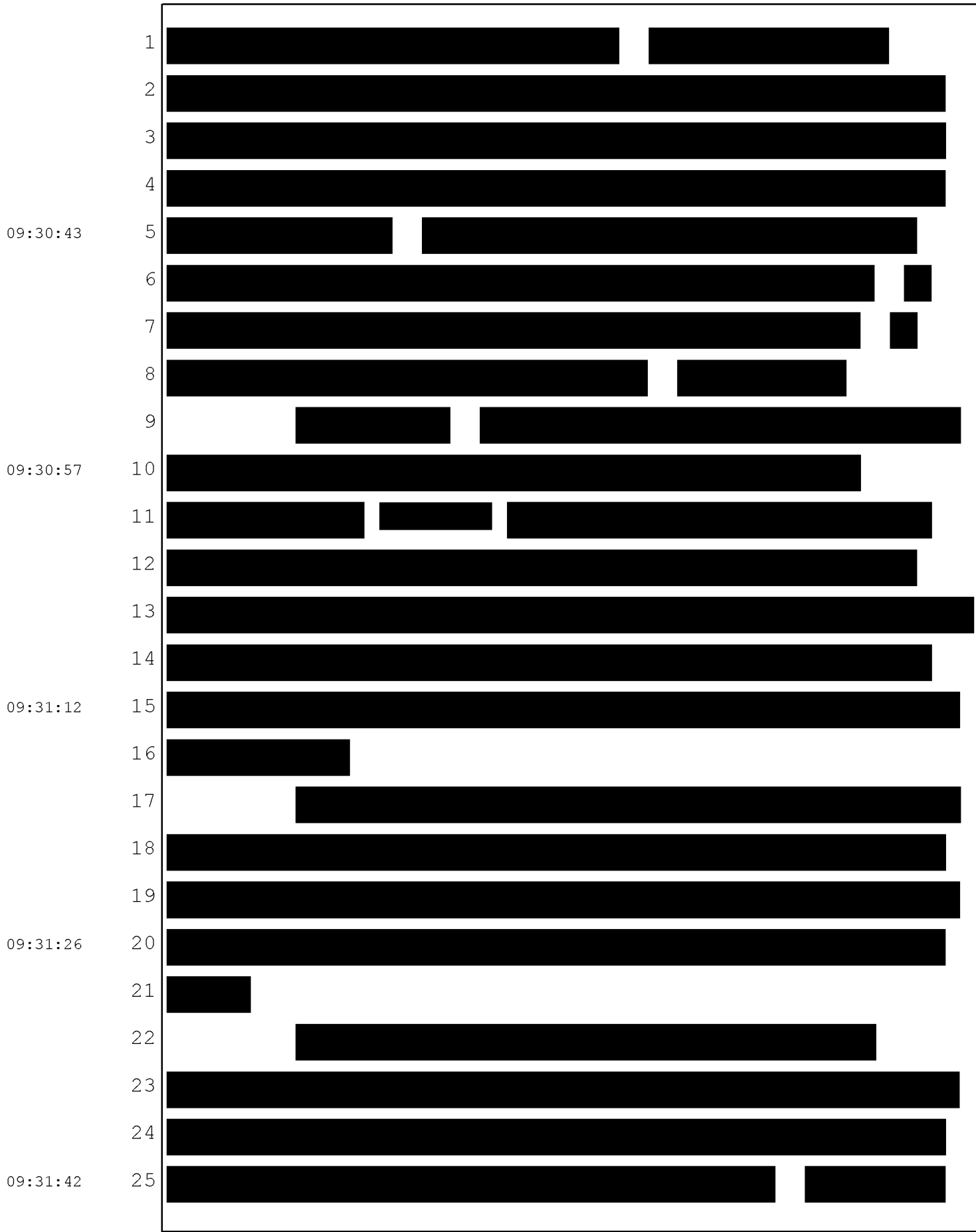
[REDACTED]

09:27:50

[REDACTED]







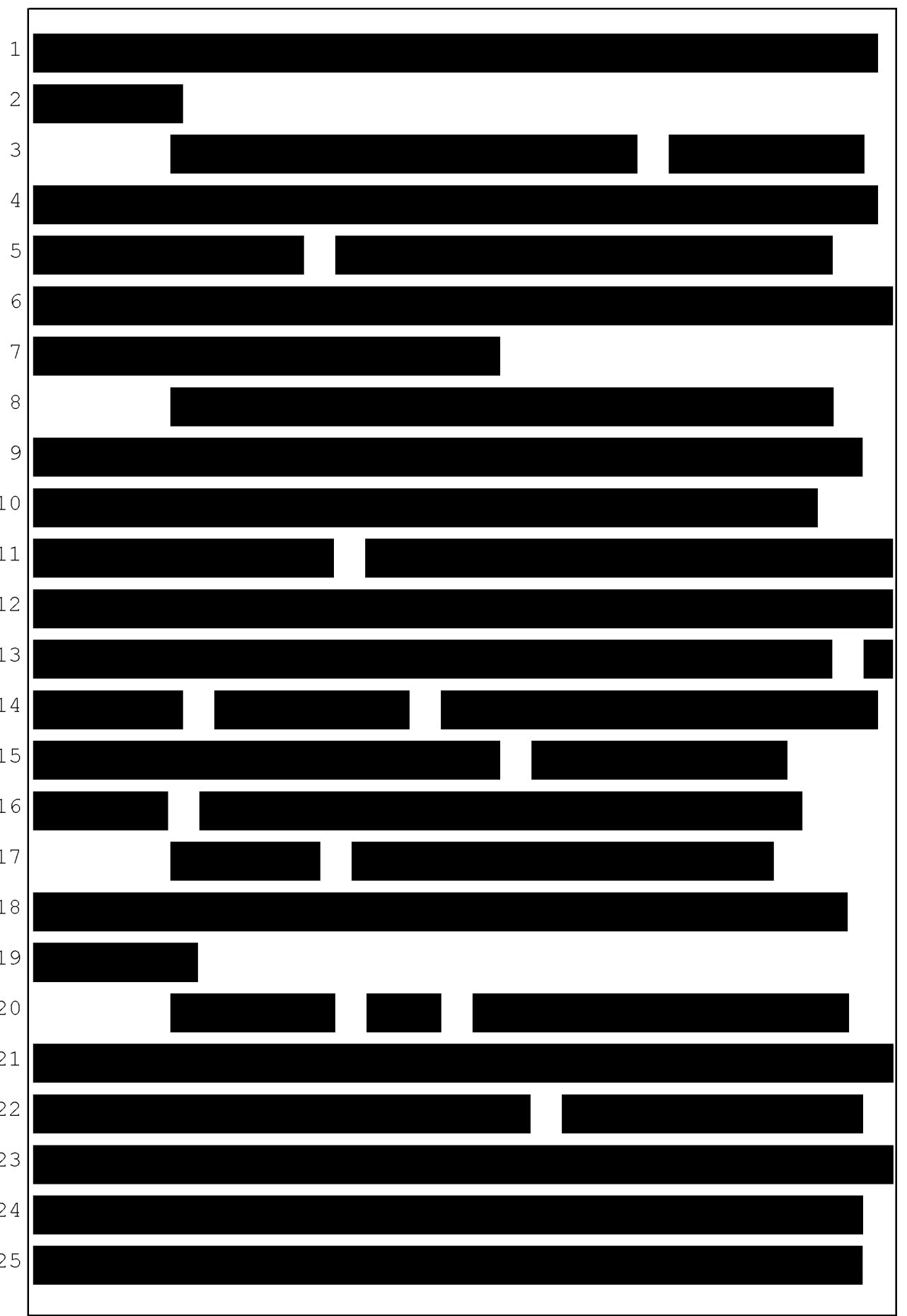
09:31:54

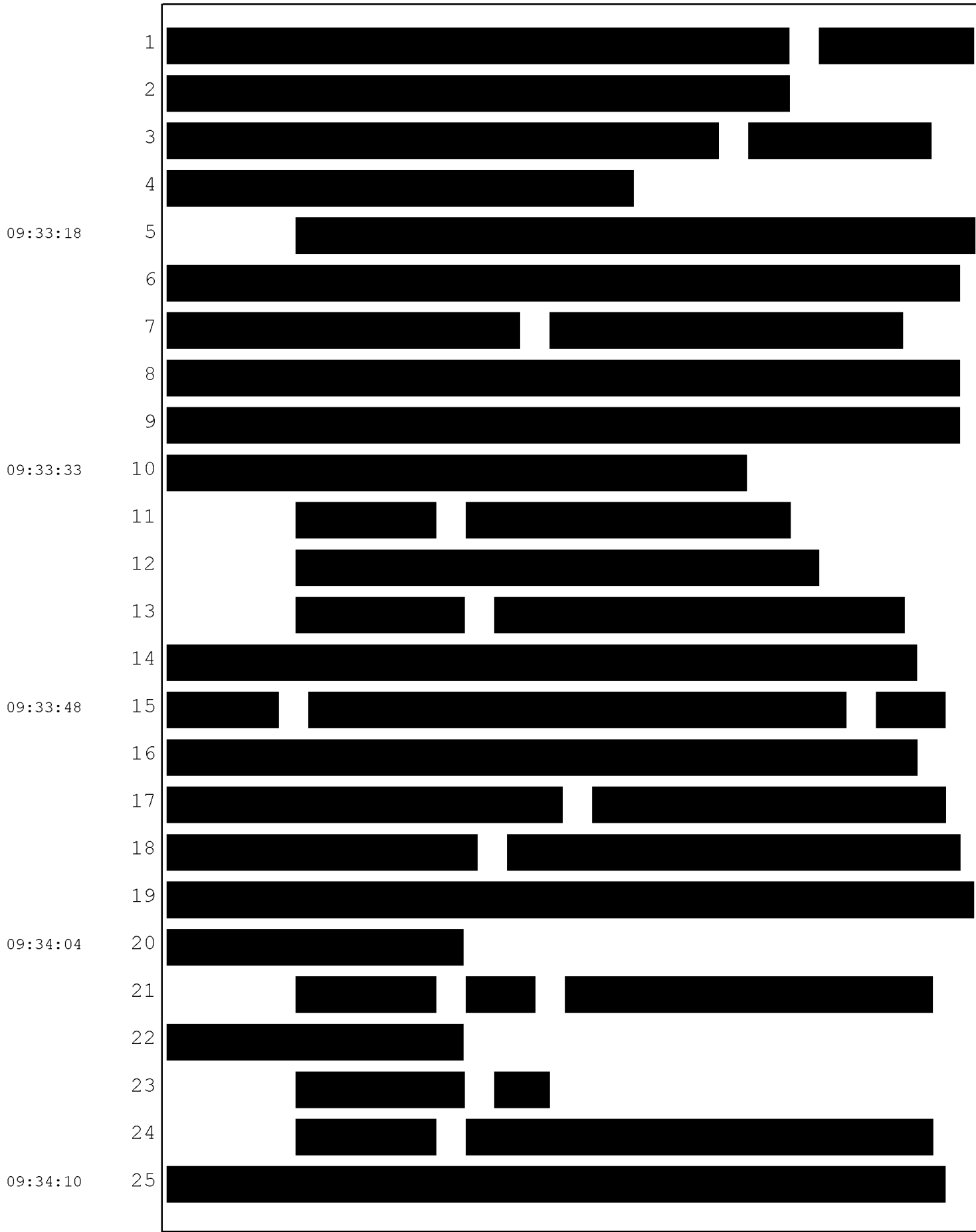
09:32:09

09:32:28

09:32:44

09:33:03





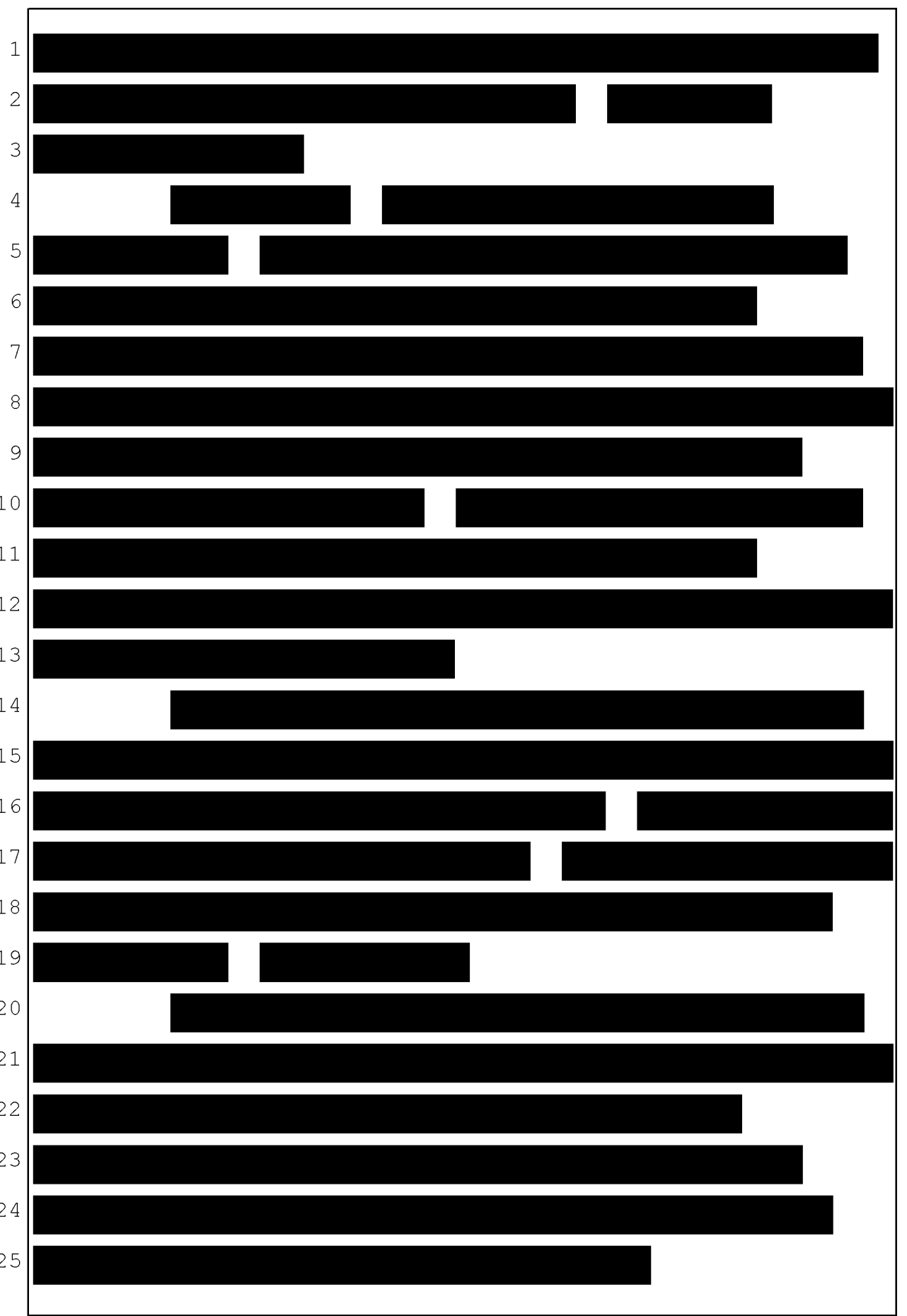
09:34:31

09:34:46

09:35:01

09:35:19

09:35:33



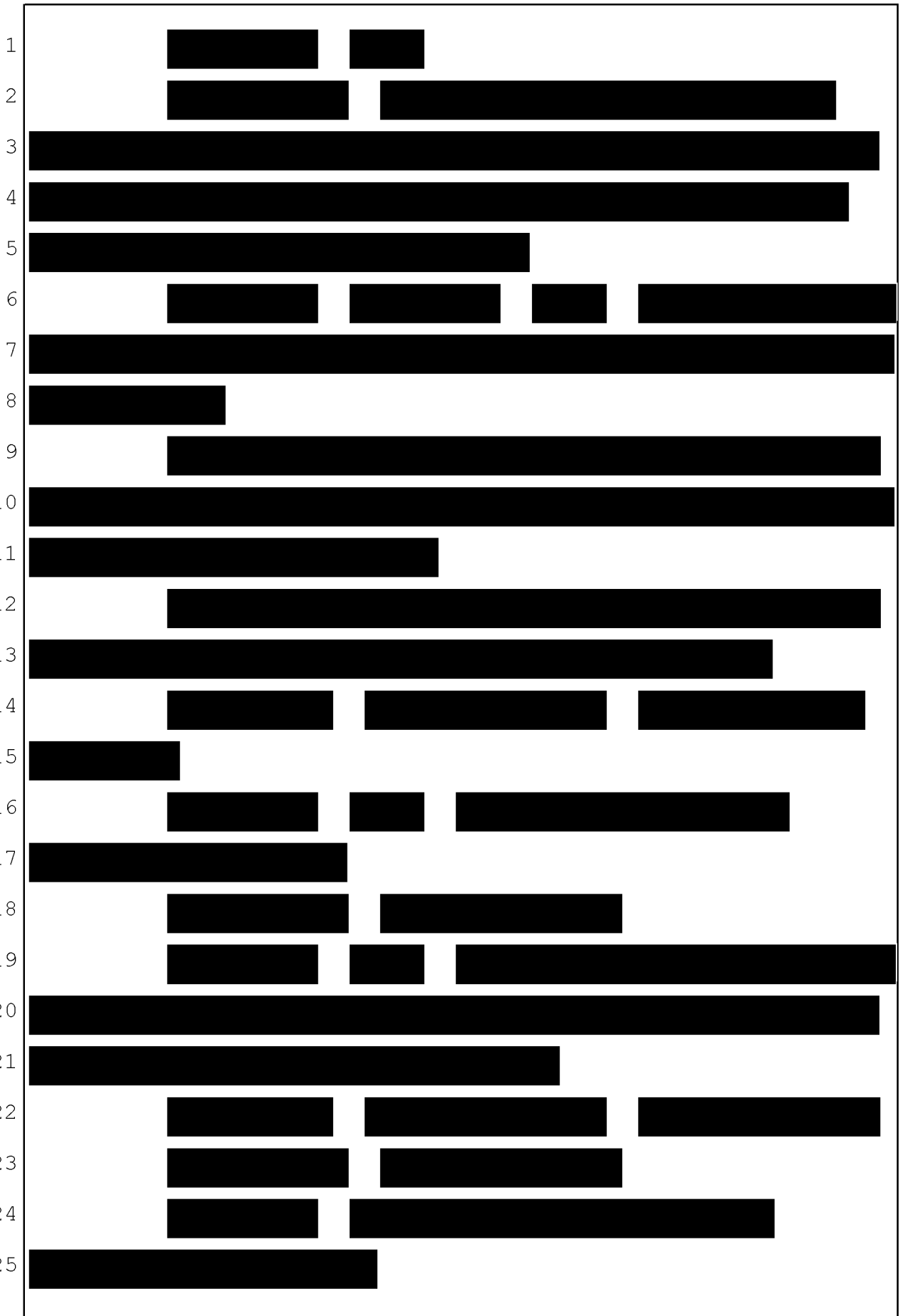
09:35:44

09:35:57

09:36:13

09:36:19

09:36:30



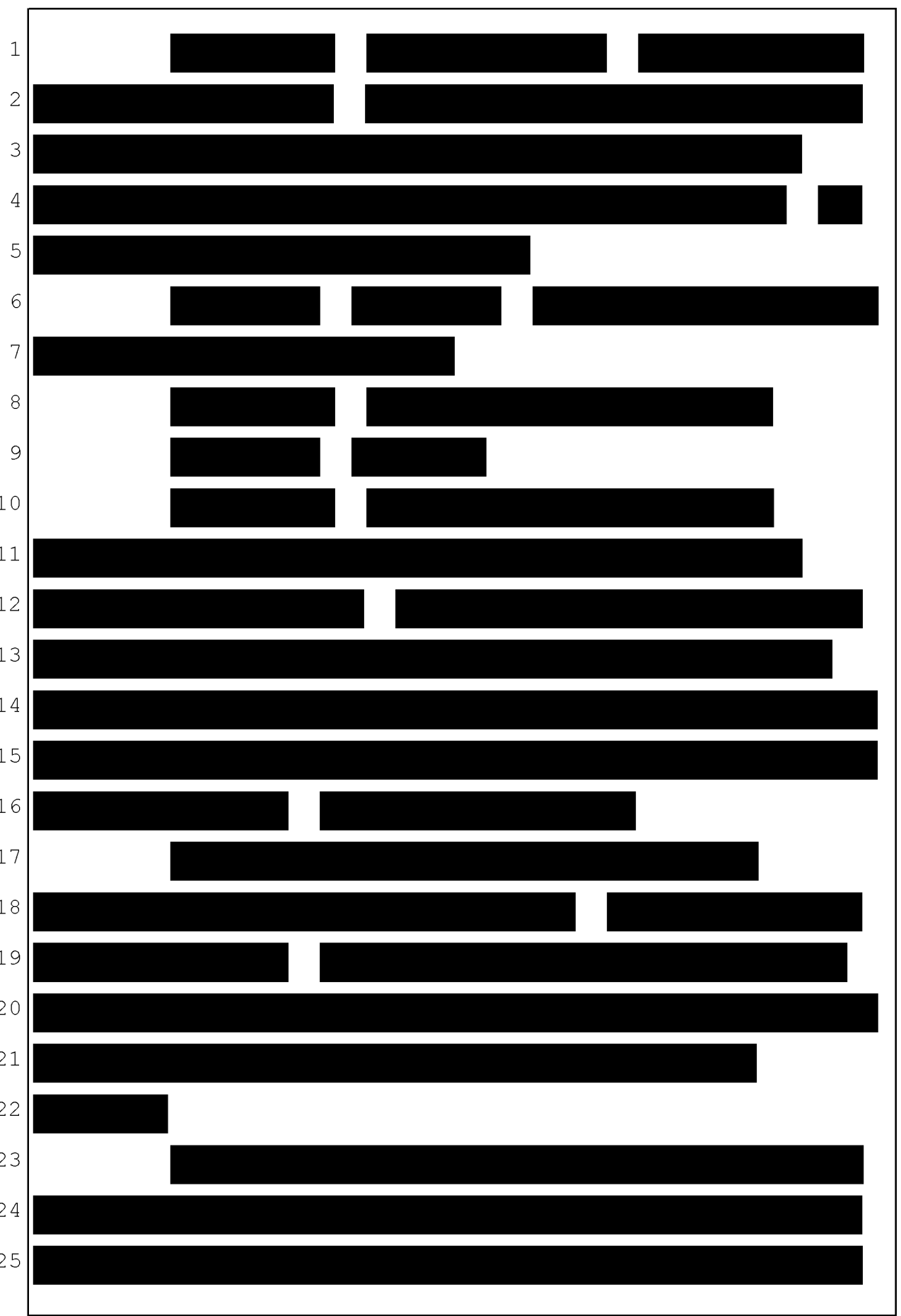
09:36:42

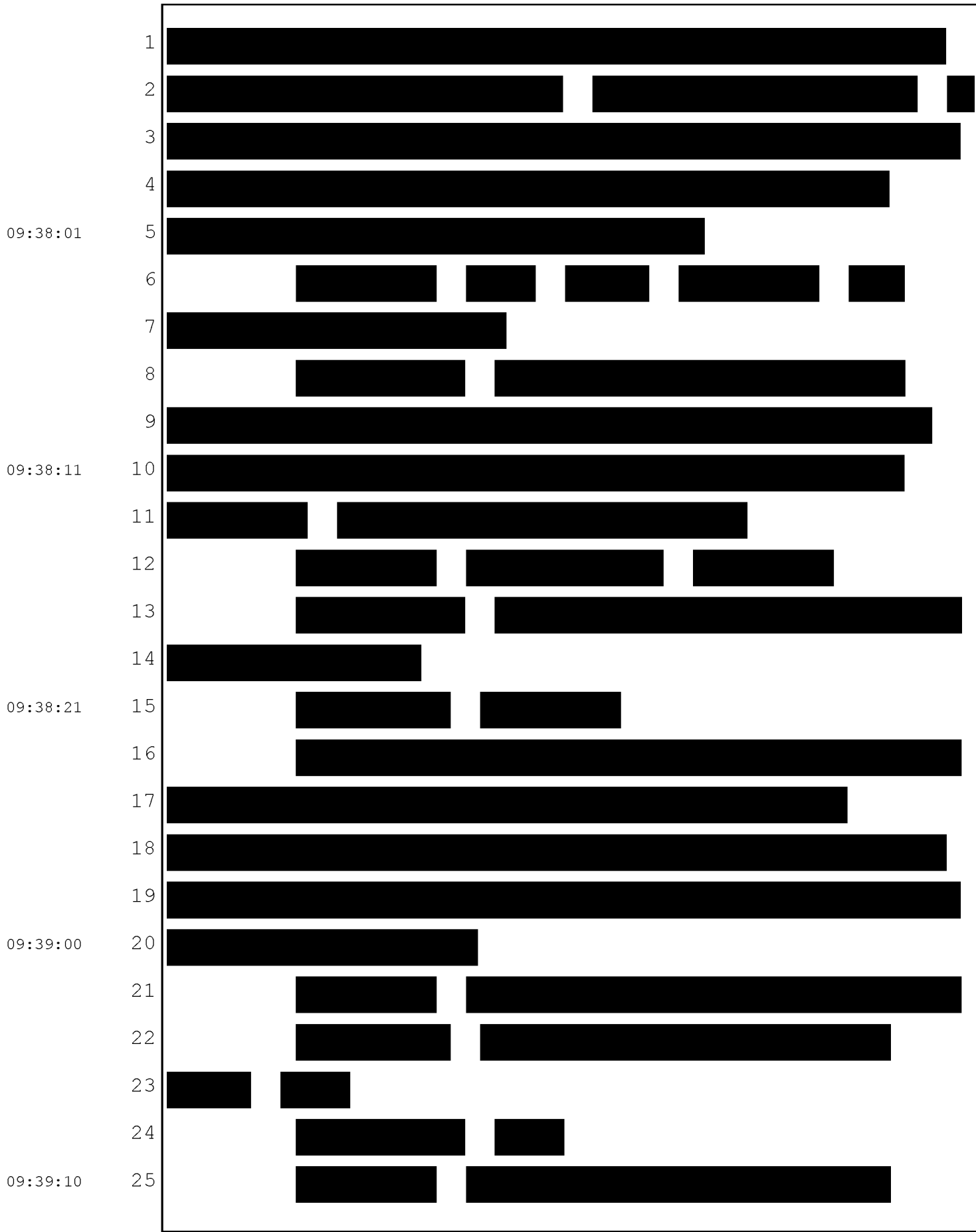
09:36:49

09:37:08

09:37:28

09:37:41





1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

[REDACTED]

[REDACTED]

[REDACTED]

(Jury enters courtroom.)

09:40:02

THE COURT: Good morning, Ladies and Gentlemen.
Welcome back.

Good morning, Dr. Portier.

THE WITNESS: Good morning, your Honor.

09:40:16

THE COURT: Thank you for your patience, Ladies
and Gentlemen. We're now ready to resume with
Dr. Portier, who remains under oath, and, Mr. Wisner,
when you're ready, you may proceed.

MR. WISNER: Thank you, your Honor.

Good morning.

REDIRECT EXAMINATION (Continued)

BY MR. WISNER:

Q. Good morning, Doctor. How are you?

A. I'm fine. Thank you.

09:40:29

Q. If all goes according to plan, you will be off
the stand today. Okay. Hopefully very soon.

All right. First thing I want to talk to you
about is IARC, and one of the issues that came up on
cross-examination was the timing that you guys had to
look at information at IARC. Can you please explain to

09:40:50

1 the jury how much time your understanding is that people
2 had to review data and then come to a consensus at the
3 meeting?

09:41:05 4 A. So my understanding is that the experts are
5 chosen about a year in advance of the meeting. They're
6 identified into what subgroup they will start the work
7 with. They're given sections of the document to draft.
8 They're given papers that IARC has identified as being
9 important, and they go out and find their own papers as
09:41:29 10 well.

11 About two to three months before the meeting,
12 they generally start circulating drafts. They'll go to
13 IARC first for English language correction. Not all of
14 the scientists are native English speakers, and then they
09:41:48 15 pass them back and forth. There's at least one reviewer
16 for each section that's different than the person that
17 wrote it, and then they all come together on -- for the
18 Working Group meeting, and at that point, there's a draft
19 in front of them, and they work from that for the eight
09:42:06 20 days.

21 Q. And for all this time spent finding articles,
22 reviewing them, summarizing them, drafting the Monograph,
23 how much are the Working Group members paid for their
24 time?

09:42:18 25 A. Nothing. They just get travel expenses, and

1 that's it.

2 Q. So you're telling me everyone in the Working
3 Group, these 17 different scientists, didn't get paid for
4 all the work they did on IARC?

09:42:30 5 A. No. They never get paid.

6 Q. What about you, as an invited specialist, do you
7 get paid for your time?

8 A. No.

9 Q. Then why do you do it?

09:42:39 10 A. Because it's scientifically interesting to me,
11 because it's an honor to work with IARC on one of these
12 Working Group meetings. That's probably the main two
13 reasons.

09:42:56 14 Q. Now, Doctor, I understand you submitted some
15 comments to the EPA and EFSA. Do you recall talking
16 about that on cross?

17 A. Yes.

18 Q. How much were you paid for the time you spent
19 putting together all those documents?

09:43:05 20 A. Nothing.

21 Q. Why did you do it?

22 A. Because I spent my entire career working on the
23 best ways to evaluate and analyze and present data on
24 carcinogenicity and help the interpretation of it, and I
09:43:25 25 participated in a lot of the guideline developments, and

1 they just weren't following them. So all of that effort
2 had gone to waste, and it kind of made me a little
3 annoyed.

09:43:42 4 Q. All right. Doctor, I understand you actually
5 met with people in the EU who would listen to your
6 scientific critiques; is that right?

7 A. That's correct.

8 Q. And so you spent time walking through science
9 with these people; is that right?

09:43:54 10 A. Correct.

11 Q. How much did you get paid for that?

12 A. Nothing.

13 Q. So, again, is this part of this general concern
14 about the quality of science?

09:44:01 15 A. Yes. I mean, I have a general concern about the
16 quality of reviews for pesticides globally from all
17 compounds, not just glyphosate, having scanned some of
18 the others at this point.

09:44:17 19 Q. Have you ever testified as an expert in a
20 litigation before?

21 A. No, never.

22 Q. So why did you choose to do it in this case?

23 A. I was asked.

09:44:26 24 Q. Okay. Were you interested in the subject
25 matter?

1 A. Oh, yes. Absolutely. A glyphosate issue,
2 absolutely I'm interested in it.

09:44:38

3 Q. And why are you so interested in it? Why are
4 you spending so much of your free time trying to get the
5 science straight on this issue?

6 A. Like I said, it's what I've dedicated my entire
7 career to doing, and it seems to have been completely
8 unraveled in some of these reviews.

09:44:51

9 MR. WISNER: Can you please put this on the
10 Elmo?

11 Permission to publish Defendants' Exhibit 3183?

12 MR. GRIFFIS: No objection.

13 THE COURT: No objection?

14 MR. GRIFFIS: No.

09:45:00

15 THE COURT: You may proceed.

16 Q. BY MR. WISNER: Doctor, this is that chart we
17 were looking at earlier from the defendants.

18 A. Yeah.

09:45:09

19 Q. All right. Remember we discussed previously
20 that there was some communications from the EPA to ECHA
21 about this virus that was supposedly in the Kumar study?
22 Do you recall that?

23 A. No. It was from EPA to EFSA.

24 Q. Fair enough. Thank you.

09:45:25

25 So EPA to EFSA, there was a conversation from

1 someone within the EPA that there was this virus; is that
2 right?

3 A. That's right.

4 Q. Who -- who made that communication from the EPA?

09:45:35

5 A. I -- I only have hearsay. I -- I don't have
6 firsthand knowledge of it.

7 MR. GRIFFIS: Objection. Hearsay.

8 THE COURT: Sustained.

9 MR. WISNER: Well, all right.

09:45:46

10 THE WITNESS: Sorry.

11 MR. WISNER: I love you, Man. All right.

12 Q. Well, let's talk a little bit about the AHS.

13 Now, the AHS was recently published, as it
14 relates specifically to glyphosate, at the end of 2017;
15 is that right?

09:46:07

16 A. The Andreotti paper, yes.

17 MR. WISNER: Permission to publish the Andreotti
18 paper? It's Plaintiff's Exhibit 669.

19 THE COURT: Any objection?

09:46:16

20 MR. GRIFFIS: No objection.

21 THE COURT: You may proceed.

22 Q. BY MR. WISNER: All right. Here we go.

23 All right. Doctor, this is a copy of the
24 Andreotti paper on the screen.

09:46:36

25 Do you see that?

1 A. Yes, I do see it.

2 Q. Now, I understand you don't agree that this is a
3 well-conducted analysis of the AHS data for glyphosate;
4 is that right?

09:46:45 5 A. It has some serious flaws, that's correct.

6 Q. Now, I want to be very clear. Do you have a
7 problem with the AHS generally?

8 A. No, I don't.

9 Q. What is your problem?

09:46:57 10 A. Well, for -- for glyphosate, they -- the
11 estimation -- the imputation of the exposures and the
12 people there is just tremendously wrong.

13 For the other chemicals, it's wrong, but we're
14 talking about percentages of less than 1 percent,
09:47:13 15 1-and-a-half percent. Not 7-and-a-half percent.

16 Q. All right. I'm going to look at one of the last
17 pages of this document.

18 I'm looking at here, on page 7 of 8 -- okay,
19 Doctor, I'm going to zoom in, so you can see it in a
09:47:34 20 second. Let's call out these limitations.

21 It says right here -- and limitations, is this a
22 typical part of any published peer-reviewed article?

23 A. Yes. It typically is part of an article.

24 Q. All right. So it reads here: "This evaluation
09:47:48 25 has some limitations that should be acknowledged. First,

1 despite the specific information provided by the
2 applicators about use of glyphosate, some
3 misclassification of exposure undoubtedly occurred."

4 What does that mean?

09:48:02

5 A. Exactly what it says, that even though people
6 gave them very clear information about what they used and
7 when, it's never perfect. And so some people will have
8 said they used it, and they didn't. Others will have
9 said they didn't use it, and they actually did. That's
10 exposure misclassification.

09:48:20

11 Q. All right. And then it goes on to say here,
12 "Given the prospective design, however, any
13 misclassification should be nondifferential and lead to
14 attenuated risk estimates."

09:48:34

15 What does that mean, "attenuated risk
16 estimates"?

17 A. That means smaller than true. So if the true
18 risk is 1.6, if it's attenuated it will be 1.4, 1.2.
19 Depending on how bad the problem is.

09:48:48

20 Q. Okay. So generally it brings it closer to 1?

21 A. Correct.

22 Q. All right. I'm going to show you another
23 limitation here. I think it's interesting.

09:48:58

24 It says, "Finally, it is important to note that
25 these studies have been conducted in different time

1 periods. Changing agricultural practices, such as
2 pesticide application methods and use of protective" --
3 "personal protect equipment may impact actual exposure
4 levels. In addition, if changing product formulations or
09:49:16 5 amounts used are associated with risk, this may also
6 impact results."

7 Do you see that?

8 A. Yes.

9 Q. Do we have any evidence that glyphosate had
09:49:29 10 changing product formulations or amounts used during the
11 study period?

12 A. I -- I'm not sure about formulations, but the
13 amounts used have changed dramatically during the study
14 period.

09:49:41 15 Q. And that was that diagram we showed of the
16 country, where Iowa showed almost 20 times increased
17 over -- between 1993 and 2015?

18 A. Yeah.

19 Q. Okay. Now, I understand you don't think that
09:49:56 20 this study's data is particularly reliable, but let's
21 assume for a second that Monsanto's right, okay, that
22 this is the end-all-be-all of epidemiological studies,
23 the most important one. Okay? Let's walk into that
24 universe for a second, if we can.

09:50:13 25 I want to look at some of the data on here. So

1 they pointed out -- this is the non-Hodgkin's lymphoma
2 data.

3 Do you see that, Doctor? It's on the screen.

4 A. Yes, I do see it.

09:50:24

5 Q. And we talked about the different quartiles, 1,
6 2, 3 and 4.

7 Do you see that?

8 A. Yes.

09:50:32

9 Q. And it appears, based on this, that every single
10 exposure group is below 1; is that right?

11 A. That's correct.

12 Q. Below 1, actually -- I mean, if this was
13 statistically significant, would suggest that glyphosate
14 actually protects you against NHL, wouldn't it?

09:50:47

15 A. That's what it would suggest, yes.

16 Q. I mean, it would be like, "Hey, we should do a
17 shot of glyphosate in the morning with breakfast to help
18 us protect against cancer"?

19 A. I wouldn't go there.

09:50:57

20 Q. Okay. But if you actually look, it's not just
21 NHL. I mean, all these other cancers are at or below 1.
22 We have kidney, that one, Hodgkin's lymphoma,
23 non-Hodgkin's lymphoma B-cell, chronic lymphocytic
24 lymphoma, diffused B-cell lymphoma, marginal zone
09:51:19 25 lymphoma, follicular lymphoma, multiple myeloma.

1 Do you see how they're basically almost all at
2 or below 1?

3 A. Correct.

4 Q. So we're not having any -- okay.

09:51:32

5 Does that in any way suggest anything to you
6 about the quality of the study?

7 A. It's a consequence. It's an expected
8 consequence of the exposure misclassification that is
9 differential in this case.

09:51:46

10 Q. Okay. Now, here's one they didn't show you,
11 non-Hodgkin's lymphoma T-cell.

12 Do you see this, Doctor?

13 A. Yes.

14 Q. And these risks are not below 1, are they?

09:51:57

15 A. No.

16 Q. In fact, for the middle exposure group, 4.25.

17 Do you see that?

18 A. Yes.

19 Q. And that's not statistically significant,

09:52:06

20 though, is it?

21 A. No. It crosses 1.

22 Q. But it's pretty elevated; right?

23 A. Yes.

24 Q. And if I were to pull out your plot chart and

09:52:16

25 lay it out for you, that would actually -- that number --

1 that point would be bigger than all the other ones on the
2 chart, wouldn't it?

3 A. Yes.

09:52:24 4 Q. Now, if we actually go to the next page, there's
5 a more comprehensive evaluation of a more deeper dive
6 into non-Hodgkin's T-cell. And as you can see here,
7 Doctor, for the first group, which is the less than five
8 years of exposure, okay, we have a 1.86 for the middle
9 group.

09:52:47 10 Do you see that?

11 A. Yes.

12 Q. So for the middle dose group, there's still an
13 elevated, but it's not statistically significant.

14 Do you see that?

09:52:54 15 A. Yes.

16 Q. But for the 20-year lag -- well, before I ask
17 you, what is a 20-year lag?

18 A. Basically if -- if -- they go back in time for
19 20 years and then start looking at your exposure and
09:53:09 20 ignoring the exposure for the last 20 years.

21 Q. And so this would be -- you have had 20 years
22 to, sort of, collect up cancers to look at; is that
23 right?

24 A. Yeah.

09:53:22 25 Q. And so if you only looked at five years -- and

1 we talked about the bell curve of latency; right? If you
2 look at only five years, you're looking at the first
3 half -- the first part of the bell curve; right?

4 A. It's not latency here. It is lag time.

09:53:38

5 Q. Lag. You're only looking at the first part.
6 Whereas for 20 years, you have more time to see more
7 cancers to see if there's a risk?

8 A. Correct. And it changes where people go in
9 what -- in which group.

09:53:50

10 Q. In this study, the one that Monsanto says is the
11 greatest, there's actually a statistically significant,
12 almost tripling of the risk for T-cell lymphoma; isn't
13 there?

14 A. Yes, in the 20-year lag group.

09:54:02

15 Q. And, Doctor, mycosis fungoides, that's a T-cell
16 lymphoma, isn't it?

17 A. Yes, it is.

18 MR. WISNER: No further questions.

19 THE COURT: Mr. Griffis.

09:54:12

20 MR. GRIFFIS: Yes. Thank you, your Honor.

21

22 RE-CROSS-EXAMINATION

23 BY MR. GRIFFIS:

24 Q. Good morning, sir.

09:54:18

25 A. Good morning.

1 Q. I'm going to talk to you about two things from
2 the epidemiology part of the case. I'm going to talk to
3 you about the NAPP slides that you were asked about
4 during the redirect examination, and I'm going to ask you
09:54:30 5 about the MCI 2018 study that we were just talking about.

6 So first of all, let's go to the NAPP slides.
7 That's Defendants' Exhibit 2867.

8 MR. GRIFFIS: Permission to publish?

9 MR. WISNER: No objection.

09:54:44 10 THE COURT: Very well.

11 Q. BY MR. GRIFFIS: So let's go to page 10 of that.

12 And yesterday -- you remember when I asked you
13 about these, sir? We talked about the difference between
14 odds ratio A, which was controlled for age, sex, state,
09:55:01 15 province, et cetera, and odds ratio B, which corrected
16 for all of those -- adjusted for all of those plus the
17 pesticides that they had found to be confounders. And
18 there's statistical analyses; correct?

19 A. Correct. Well, potential confounders.

09:55:19 20 Q. Potential confounders. Well, they did change
21 the data when you controlled for that; right?

22 A. Correct.

23 Q. Okay. And Mr. Wisner pointed you to this column
24 (indicating) during your redirect examination, the A
09:55:31 25 column. And the B column is the one that controls for

1 other pesticides; right?

2 A. Correct.

3 Q. And the overall risk there is not significant,
4 1.13 point estimate from 0.84 to 1.51; right?

09:55:46 5 A. That's -- that's what's there, yes.

6 Q. Now, I'd like to go to page --

7 A. But as I've noted many times, yes, no
8 significance is not necessarily what you want to be
9 looking at here.

09:56:03 10 Typically when you do these types of
11 corrections, you're looking to see how much of the effect
12 you see without the correction disappears when you put
13 the correction.

14 You don't always just think of it as, well, it's
09:56:17 15 not significant, so it goes away. You look and see how
16 much of a difference it made.

17 Q. And it makes a difference when you control for
18 other pesticides. That's something we see consistently
19 in the epidemiology. When we control for other
09:56:30 20 pesticides, the calculations go down. And that's because
21 they're real confounders; right?

22 A. Not always. If you -- if you take a statistical
23 analysis of an epidemiology study and keep adding on
24 potential confounders, even if they're not confounders
09:56:48 25 you're going to see a reduction of statistical

1 significance.

09:56:59 2 Q. What I'm talking about is the glyphosate
3 epidemiology. And the glyphosate epidemiology
4 consistently, when studies are able to control for other
5 pesticides and they do so, the -- their calculated risks
6 decline; correct?

09:57:20 7 A. That's only true on three of the studies. Three
8 of -- two of the other studies didn't do a correction for
9 other pesticides. And the De Roos 2003 study -- 2005
10 study didn't show us the case without correction for
11 pesticides.

09:57:32 12 Q. Okay. Of the case control studies that you're
13 relying on here, Eriksson, Orsi, the ones that are
14 included in the North American Pooled Project, which are
15 all the North American US and Canadian ones, those, when
16 they were able to correct for other pesticides, risk
17 drops; right?

18 MR. WISNER: Objection. Compound. The lawyer's
19 testifying.

09:57:43 20 THE COURT: Overruled.

21 He may answer, if he knows.

22 THE WITNESS: I'm not sure I know what the
23 question was.

09:57:51 24 Q. BY MR. GRIFFIS: Okay. We'll move on. Let's go
25 to page 11 of the slides.

1 I'm sorry, page 12 is the one you were shown. I
2 just want to ask you about stuff you were shown here.

3 So this is one that Mr. Wisner showed you as
4 well, pointing to some statistically significant point
09:58:11 5 estimates in the greater than two days per year group;
6 correct?

7 A. Correct.

8 Q. Take a look at the asterisk on the odds ratio,
9 and tell us whether this was controlled for other
09:58:21 10 pesticides.

11 A. It did not control for other pesticides.

12 Q. Okay. Let's go to the last page -- or not the
13 last page, because there were some pictures. But the
14 last page of data on page 26 from this slide show.

09:58:38 15 And here we have a couple of exposure
16 calculations. We have duration -- and this is something
17 we went over during your cross-examination, sir.
18 Duration, number of years of exposure, frequency, greater
19 than 0 and less than or equal to 2 and greater than 2.

09:58:58 20 And then a combined measure of intensity that combines
21 lifetime days, number of years times number of days per
22 year; correct?

23 A. Correct. That's what it seems to be. Again, I
24 can't be certain, because I don't have a document to go
09:59:13 25 with it. But that's what it seems to say.

1 Q. Right. Dr. Weisenburger and his colleagues
2 never published this, so we don't have -- we don't have a
3 publication. We have to deal with what we have; right?

09:59:26

4 A. Or not, which is what I've done -- what I've
5 chosen to do.

6 Q. You've chosen not to deal with it, because you
7 don't have it? Is that what you mean?

09:59:36

8 A. Yes. To me, it's not a -- it's not a solid
9 piece of science, if I can't understand all the methods
10 used, et cetera.

09:59:50

11 Q. Okay. Let's look at the self-respondents only.
12 We talked about the problem with proxy and
13 self-respondents. So these are the people reporting on
14 their own exposure data, the aggregate calculation
15 adjusted for other pesticides, combined intensity of
16 exposure. Is that statistically significant, sir?

17 A. The one you've highlighted?

18 Q. Yes.

19 A. The confidence bound includes 1.

10:00:04

20 Q. All right. Let's go to the AHS study. That's
21 Defendants' 2052.

22 MR. GRIFFIS: Permission to publish that?

23 THE COURT: Any objection?

24 MR. WISNER: Sorry, what is it?

10:00:19

25 MR. GRIFFIS: The 2018 --

1 MR. WISNER: Oh, yeah.

2 THE COURT: All right. Very well. You may
3 proceed.

4 Q. BY MR. GRIFFIS: Let's go to Table 2,
10:00:28 5 non-Hodgkin's lymphoma T-cell -- Table 2 is the
6 display -- I'm sorry. We're on -- we're on page 5.
7 Page 5, second page.

8 So this is a table -- a multi-page table showing
9 the overall results for multiple cancer types; right?

10:00:46 10 A. Table 2?

11 Q. Yes.

12 A. Yeah. It's -- it's one of their measures of
13 exposure. The intensity weighted measure of exposure for
14 several cancers.

10:00:57 15 Q. Intensity weighted measure.

16 Let's go down to non-Hodgkin's lymphoma T-cell,
17 because you were asked about that.

18 MR. GRIFFIS: A little farther down. Highlight
19 the last one there.

10:01:07 20 Q. Now, first of all, these are in moieties; right?

21 A. Correct.

22 Q. And they're in moieties because there wasn't
23 very much data. There wasn't enough data for terciles.
24 There wasn't enough data for quartiles. They had to do
10:01:23 25 moieties for this one; right?

1 A. Well, there's tons of data here. What you're
2 talking about is the number of cancer cases that they're
3 looking at is what they did -- what they used. And since
4 there was so few cancer cases, they only went into --
5 breaking it into half.

10:01:35

6 Q. There's so few cases of non-Hodgkin's lymphoma
7 T-cell in this study. There's lots of multiple myeloma.
8 They're able to have quartiles. There's a good amount of
9 follicular lymphoma. They're able to have terciles.
10 Lots of diffused B-cell lymphoma. They're able to have
11 quartiles. But not so much of this T-cell; right?

12 A. For the non-Hodgkin's lymphoma T-cell, they
13 have 22.

14 Q. Let me ask you this: If you had an animal study
15 and you had an exposed group -- and unexposed group and
16 then a low dose group that went up from the unexposed
17 group, and then a high dose group that went down, what
18 would you conclude about the significance of that tumor
19 in your animal study (indicating), a response like that?

10:02:02

20 A. I can't say. It depends how much it goes down.
21 It depends how it goes down.

10:02:32

22 Q. Okay. You've been talking about P trends a lot;
23 right? P trends are one of the main tools that you use
24 to tell us about the significance of the animal studies.

10:02:49

25 A. Correct.

1 Q. What's the P trend here? Is that significant?

2 A. The -- if you can get to the top, so I can
3 verify, but I think that the trend's statistic.

4 Q. P trend?

10:02:54

5 A. Yes. So it's .31.

6 Q. And that's not significant; right?

7 A. That is not statistically significant.

8 Q. Let's go over to the next table, Table 3, and
9 we're on page 6 of 8. And while we were looking at this
10 page, Mr. Wisner was talking about the issue of point
11 estimates above and below 1; right?

10:03:12

12 A. Yes.

13 Q. Take a look -- take a look at the column here.
14 There are 14 point estimates above 1 in this data; right?
15 In that column?

10:03:33

16 A. I couldn't know unless I sat down and counted
17 them.

18 Q. We've got values above and below 1 all the way
19 up; right? That's above, below, below, above, below,
20 below, below, below, above, below, below, below, above,
21 below, right, et cetera. Right? They're not all below.

10:03:44

22 A. They're not all below, that's clear.

23 Q. Okay. Let's go down to non-Hodgkin's lymphoma
24 T-cell, so this is a chart that's showing us five-year
25 lag and 20-year lags; right?

10:04:04

1 A. Correct.

2 Q. Again, we've got moieties? "Yes"?

3 A. Yes.

4 Q. Again, we have an increase and then a decrease
10:04:16 5 and a T trend that is very much not statistically
6 significant; right?

7 A. Both confidence intervals include 1, and the
8 p-value's 1.36.

9 Q. And this thing that you were told was tripling,
10:04:31 10 we don't have any data to calculate a P trend; right?
11 There's so little data over there in that column?

12 A. Yeah, there was only one case in the high
13 exposure group, so you don't have enough data there, but
14 you do for the lower exposure group.

10:04:47 15 MR. GRIFFIS: Thank you, sir. No further
16 questions.

17 THE COURT: Thank you.

18 All right. Ladies and Gentlemen, we have
19 reviewed the questions that you submitted to Dr. Portier,
10:04:59 20 and there are just a couple of questions that we're now
21 going to be asking to Dr. Portier. The remainder of your
22 questions we either already addressed during the course
23 of his testimony over the last several days or perhaps
24 they're not truly relevant to your decision in this case.

10:05:17 25 So having gone through all of the questions, I'm

1 now going to ask Dr. Portier a few questions, and you
2 should not speculate as to why some questions are asked
3 and others aren't.

10:05:35 4 All right. So, Dr. Portier, the first question
5 that the jurors have for you is: Are all human
6 carcinogenic compounds positive in the Ames test?

7 THE WITNESS: So the -- I hope you'll understand
8 that question, do they all have genotoxic activity as
9 identified by the Ames test? No, they do not. There are
10:06:01 10 several well-known human carcinogens, dioxin being one of
11 them, progesterone, estradiol, that do not have positive
12 activity in the Ames assay.

13 THE COURT: And then as a follow-up to that
14 question, how many are not positive in that test, but --
10:06:27 15 how many are not positive in that test but are human
16 carcinogenic?

17 THE WITNESS: Well, that's a harder question,
18 because I'd have to go and look at somebody's list of all
19 the known human carcinogens, and so that would take some
10:06:45 20 time. Like I said, there are some well-known ones,
21 dioxin is probably the most potent chemical carcinogen in
22 the world, and it does not cause DNA damage directly in
23 the Ames assay. I can't go beyond a few examples.

24 THE COURT: That's fine.

10:07:04 25 And then the final question is: Would

1 cytotoxicity have been reported in rat or mouse study
2 pathology reports, and as a follow-up to that, were those
3 made available during review?

4 THE WITNESS: So typically, in an animal cancer
10:07:25 5 study -- we have to make sure we don't confuse the cancer
6 studies with the genetic toxicology studies where they
7 were looking at micronuclei. In the cancer studies --
8 because in those studies, the micronuclei studies, they
9 seldom look inside the animals. They just take blood and
10:07:43 10 look to see if there's a problem in the blood in terms of
11 DNA damage or specific tissue, but they don't do full
12 pathology.

13 In an animal cancer bioassay, you look at every
14 tissue and every organ, and if there is tissue
10:07:58 15 deterioration that appears to show up, regardless of the
16 cause, it could be cell killing, it could be that the
17 tissue is being invaded by parts of the immune system
18 because it's beginning to look a little odd to the rest
19 of the body, there's many reasons why you might have
10:08:16 20 tissue damage, but that tissue damage is indeed recorded.

21 For the evidence that I had in -- from those
22 studies and the Greim papers, some of those papers
23 included some information on non-cancer findings. Others
24 only showed cancer findings, so it was mixed as to
10:08:37 25 whether I could see it.

1 In reading the reports of EFSA and the EPA, none
2 of them reported any of these truly exceeding the maximum
3 tolerated dose, which is what you would see when you
4 start making the animals sick and killing them, with the
10:08:55 5 exception of one study where they saw a 12-percent drop
6 in body weight gain, if you can figure that out. You're
7 looking at how the animals grow, and towards the end, the
8 highest dose group grew slower. So they saw a 12-percent
9 drop, which is indeed in the range of what would be
10:09:16 10 called exceeding the MPD. However, if you examine the
11 feeding, which they did at EFSA and at EPA, you see that
12 the animals ate less food because it tasted bad. It was
13 the highest dose of glyphosate. Probably it tasted bad,
14 but they ate less, and by eating less, they grew less.
10:09:40 15 So the conclusion was that none of them exceed the
16 maximum tolerated does.

17 THE COURT: All right. Thank you very much,
18 Dr. Portier.

19 THE WITNESS: And thank you for getting me out
10:09:49 20 on time.

21 THE COURT: You may be excused. Thank you.

22 All right. Ladies and Gentlemen, so we're now
23 going to return to the video deposition testimony of
24 Dr. Heydens, which was -- which we were playing to you on
10:10:20 25 Thursday before Dr. Portier came in on Friday to testify,

1 so we're now going to continue with that.

2 Counsel, when you're ready, you may proceed.

3 MR. DICKENS: Thank you, your Honor. We will
4 resume the video testimony of Dr. William Heydens.

5

6 VIDEOTAPED TESTIMONY OF WILLIAM HEYDENS (Continued)

7 (Video played.)

8 (Video paused.)

9 THE COURT: All right. Ladies and Gentlemen,
10 we're going to pause now and take the morning recess.
11 We'll resume again at 11:15. Please remember not to
12 discuss the case with anyone. Thank you.

13 (Recess.)

14 THE COURT: Welcome back, Ladies and Gentlemen.
15 Mr. Dickens, you may resume Dr. Heydens' video.

16 MR. WISNER: Thank you, your Honor.

17 (William Heydens video played.)

18 (End of William Heydens video.)

19 THE COURT: All right. Ladies and Gentlemen,
20 that concludes the testimony of Dr. Heydens. We're now
21 going to take the luncheon recess. Please remember do
22 not discuss the case or do any research on the case.
23 We'll resume again at 1:30. Thank you.

24 (Jury leaves courtroom.)

25 MR. WISNER: Your Honor.

1 THE COURT: We still have a juror present.
2 You know, Counsel, would you mind to approach
3 the sidebar.

4 (Sidebar.)

12:13:37

5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]

12:13:51

10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]

12:14:11

15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]

12:14:33

20 [REDACTED]
21 [REDACTED]
22 [REDACTED]

23 (End sidebar.)

24 THE COURT: I'll see you at 1:20.

25 (Time Noted: 12:14 p.m.)

1 REPORTER'S CERTIFICATE

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I certify that the proceedings in the within-titled cause were taken at the time and place herein named; that the proceedings were reported by me, a duly Certified Shorthand Reporter of the State of California authorized to administer oaths and affirmations, and said proceedings were thereafter transcribed into typewriting.

I further certify that I am not of counsel or Attorney for either or any of the parties to said Proceedings, not in any way interested in the outcome of the cause named in said proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand:
July 17th, 2018.

<%signature%>
Leslie Rockwood Rosas
Certified Shorthand Reporter
State of California
Certificate No. 3462