

Deposition of James D. Gardner

1 CAUSE NO. 00-02303-A

2 -----

MICHAEL GEORGE BAILEY, as Next Friend for * IN THE

3 JEREMIAH NATHANIEL BAILEY, a Minor child,

and CASSONDRA MICHELLE BAILEY, Individually * DISTRICT

4 and as Guardian of the Person and Estate of

DONNA LYNN BAILEY, an incapacitated person, * COURT

5

Plaintiffs, *

6

-vs- * NUECES

7 COUNTY,

TEXAS

8 FORD MOTOR COMPANY; BRIDGESTONE/FIRESTONE *

INC., and TRADEWIND FORD SALES, INC., d/b/a

9 CROSSTOWN FORD SALES, INC., *

28TH

10 Defendants. * JUDICIAL

----- DISTRICT

11

V I D E O T A P E D E P O S I T I O N O F

12

13 WITNESS: JAMES D. GARDNER

14 LOCATION: Sheraton Suites

Cuyahoga Falls, Ohio

15

DATE: December 13, 2000

16 11:30 a.m.

17

18 APPEARANCES:

19 FOR PLAINTIFF: TURNER & ASSOCIATES, PA

4702 W. Commercial Drive, Ste. B

20 North Little Rock, AR 72116

BY: MR. C. TAB TURNER

21

MR. THOMAS THRASH

22 1101 Garland Street

Little Rock, AR 72201

23

24

25 REPORTER: Patricia R. Murray, CSR-2155

0002

1 FOR DEFENDANT SNELL & WILMER

FORD: One Arizona Center

2 Phoenix, AZ 85004

BY: MR. VAUGHN CRAWFORD

3

4 FOR DEFENDANT ZUMMO, MITCHELL & PERRY, LLP

BRIDGESTONE/ Three Allen Center

5 FIRESTONE: 333 Clay, Ste. 4100

Houston, TX 77002

6 BY: MR. PATRICK ZUMMO

7 HOLLAND AND KNIGHT

55 West Monroe, Ste. 800

8 Chicago, IL 60603

BY: MR. THOMAS WOODROW

9

10

11

12

I N D E X

13 _____

| |

14 | WITNESS: JAMES D. GARDNER PAGE NO. |

| _____ |

15

Examination by Mr. Turner 5, 160

16

Examination by Mr. Crawford 144

17

18

0003

1 EXHIBIT INDEX

2 | |

| EXHIBIT NO. DESCRIPTION PAGE NO. |

3 | _____ |

4

No. 1 P235/75R15, ATX, ATX II & Wilderness 24

5 cover sheet

6 No. 2 Photograph, Radial ATX Firestone Tire 26

7 No. 3 Photograph, Wilderness Tire 28

8 No. 4 Photograph - Explorer 32

9 No. 5 Photograph - Explorer 32

10 No. 6 Printout of the National Highway
Traffic Safety Administration web page 38

11

No. 7 Fatalities Involving Firestone Tires 40

12 NHTSA database

13 No. 8 ABC News Article 41

14 No. 9 ATX/Wilderness Tire Claims Data 46

1989 - 1999

15

No. 10 Black/white marketing brochure 54

16

No. 11 Black/white marketing brochure 57

17

No. 12 Color brochure - Wilderness tires 62

18

No. 13 August 23, 1989 Ford Light Truck 65

19 - Firestone Product Improvement
Programs

20 Bates Nos. EXP3 1172 - 1195

21 No. 15 Letter from Calspan - FR-480 77

22 No. 14 Tire Construction Detail Sheets 86

Bates Nos. EXP7 1963 - 1967;

23 EXPA 1025-1026

EXPA 0985-0986; EXP5 1563-1575;

24 EXPA 1357; EXPV 8214-8213

25

0004

1 No. 17 E-mail from September of 1990 97

Bates No. RGRO 15404

2

No. 18 Memo 102

3 Bates Nos. RGRO 44362 - 44370

4 No. 19 Attachment, 1993 Explorer SL 106

Bates No. EXPA 1017

5

No. 20 August 27, 1982 letter from Mr. 110

6 Behr

Bates No. EXPA 0992

7

No. 21 Washington Post article September 117

8 21, 2000, Firestone Redesigned

Tires in 1998

9

No. 22 News article, New York Times 122

10 Fatigue Cracks Cited as Source of

Tire Failures

11

No. 23 Counts of Firestone Claims for 125

12 1991-2000 Firestone for OE and

Replacement Tires

13

No. 24 Alleged Failure Mode for 127

14 Firestone ATX and Wilderness OE

and Replacement P235/75R15 Tires

15

No. 25 Comparison of 1998 versus 1999 127

16 adjustment records

Bates No. 0500416 - 0500442

17

No. 26 Videotape 134

18

No. 27 Videotape 136

19

No. 28 Letter to various individuals at 141

20 Bridgestone/Firestone

Bates Nos. 0600208 - 210

21

No. 29 Explorer Tire DNP - dealer 143

22 notification program

23

24

25

0005

1 Cuyahoga Falls, Ohio

2 December 13, 2000

3 11:30 a.m.

4 - - - - -

5 THE TECHNICIAN: Today's date is December
6 13, 2000 and we're on the record at 11:47 a.m. This
7 is the video deposition of Mr. James D. Gardner and
8 we are at the Sheraton Suites Hotel in Cuyahoga
9 Falls.

10 Counsel, would you put your appearance on
11 the record, please?

12 MR. TURNER: Tab Turner for plaintiffs.

13 MR. THRASH: Tom Thrash for plaintiffs.

14 MR. CRAWFORD: Vaughn Crawford, for
15 Ford Motor Company.

16 MR. WOODROW: Tom Woodrow, for
17 Bridgestone/Firestone.

18 MR. ZUMMO: Pat Zummo for
19 Bridgestone/Firestone.

20 JAMES D. GARDNER.

21 called as a witness by the Plaintiff, being first
22 duly sworn, was examined and testified as follows:

23 EXAMINATION

24 BY MR. TURNER:

25 Q. Mr. Gardner, my name is Tab Turner and we've had an
0006

1 opportunity to meet on a couple occasions in the
2 past, is that correct, sir?

3 A. I think that's correct.

4 Q. I'm here to take your deposition today. If during

5 the course of the deposition you don't understand my
6 question, please stop me and I'll be glad to ask
7 another question or we will have Pat read the
8 question back so everybody is on the same page.

9 Can we have that agreement?

10 A. Yes.

11 Q. At the close of the deposition -- and you've been
12 through this before but let me go ahead and lay this
13 out -- at the close of the deposition today you'll
14 have the opportunity to read and sign the
15 deposition.

16 Would you like to do that?

17 A. I believe so.

18 MR. TURNER: Can we have an agreement that
19 he can have a reasonable time to read and sign it
20 but we've got a trial date on January 8th and in the
21 event Mr. Gardner gets ill or goes out of town or
22 out of the country or something and doesn't have
23 time to read and sign it that we can use the
24 unsigned version?

25 MR. ZUMMO: We will go under the Texas

0007

1 rules but they do provide for the unsigned copy
2 if it's not provided in the time period.

3 BY MR. TURNER:

4 Q. Give us your full name, Mr. Gardner.

5 A. James D. Gardner.

6 Q. It's my understanding that you were formerly an
7 employee of Bridgestone/Firestone, Inc., is that
8 correct?

9 A. Yes, that's correct.

10 Q. You retired from the company or did you simply leave
11 the company? What is your status?

12 A. I retired as of October 1st.

13 Q. It's my understanding that you began working as
14 a co-op engineering student within the OE Passenger
15 Tire Development Group back in 1965 at Firestone, is
16 that correct?

17 A. Yes, that's correct.

18 Q. At that point in time the company was not called
19 Bridgestone/Firestone, is that right?

20 A. That's correct.

21 Q. It was just simply Firestone?

22 A. It was actually technically called the Firestone
23 Tire and Rubber Company but I think most people
24 just used the word Firestone.

25 Q. In 1967 you graduated and receive your degree and
0008

1 you became a full-time employee of Firestone, is
2 that correct?

3 A. Yes, that's correct. I graduated in -- did you say
4 '67?

5 Q. Yes, sir.

6 A. Yes, okay.

7 Q. In 1969 I believe you joined the Advanced Tire Group
8 as a senior engineer, is that correct?

9 A. Yes, I did.

10 Q. Between 1976 and 1982 you worked in the Field
11 Engineering Division of the Development Group, is
12 that correct?

13 A. Yes, I did.

14 Q. The Field Engineering Division; would you briefly
15 explain to the jury what exactly that means?

16 A. Basically I analyzed failed fires, tires that had
17 been returned from service and from customers.

18 Q. Any other job responsibilities in Field Engineering?

19 A. I dealt with customers and dealers and that type of
20 thing.

21 Q. Kind of a customer service area?

22 A. Yes. It was an engineering part of the company that
23 dealt with the field, which is the marketplace.

24 Q. In 1982 I think the management within Firestone
25 decided to separate that group out and name it

0009

1 Product Analysis, is that correct?

2 A. It wasn't separated out. What they did in 1982,
3 they decided they wanted an independent group that
4 wasn't reporting directly to any of the line
5 functions that either designed tires or manufactured
6 tires that could be called on by either of those
7 groups or called upon by management as a consultant

8 and so certainly some of the functions that were in
9 Field Engineering ultimately ended up in Product
10 Analysis. But it was set up as a separate group.

11 Q. So this Product Analysis group continued to
12 basically do the same things you were doing -- just
13 changed names and sort of chain of command?

14 A. Yes. Some of the things I was doing -- for example,
15 tires that were involved in lawsuits and litigation
16 would go to the Field Engineering group ultimately.
17 When the Product Analysis was set up they went to
18 that group.

19 But there were other functions in Product
20 Analysis that we never did in Field Engineering.

21 Q. You had two engineers working for you, is that
22 correct?

23 A. Yes.

24 Q. Their names were what?

25 A. Well, at different times, different people. Back
0010

1 when it began I think I had Bob Lee and Jack Gawdy
2 -- excuse me, Bob Lee and Bob Shipman, and another
3 Bob Lee and ultimately over time, I don't remember
4 the years, but that changed to -- Lloyd Gallaway
5 replaced Bob Lee when he retired and Bob Lee
6 ultimately retired. Denny Waylon replaced Bob Lee
7 and we ultimately added Jack Gawdy when Lloyd
8 Gallaway retired.

9 Q. Between 1982 and 2000 when you retired, during
10 that 18-year period did you continue as director of
11 Product Analysis?

12 A. Yes.

13 Q. Did Product Analysis continue to remain as a
14 separate group -- consulting group, so to speak, for
15 management?

16 A. Yes.

17 Q. You consulted with various areas within the company,
18 I presume, over those 18 years?

19 A. Yes; Manufacturing, Quality Assurance, Tire
20 Development.

21 Q. In the chain of command, who did you report to as
22 director of Product Analysis?

23 A. I reported to different people. Most recently it
24 was David Thomas and I generally reported to the
25 person who was chief compliance officer for the
0011

1 company and that was most recently until I retired
2 Dave Thomas.

3 Q. So the chief compliance officer, regardless of who
4 actually filled that spot for the 18-year period,
5 was the organizational person that you reported to
6 as director of Product Analysis?

7 A. I think that's correct.

8 Q. Mr. Thomas' job was chief compliance officer.

9 What does that mean -- compliance with what?

10 A. He was the chief compliance with all rules and
11 regulations the company would have to deal with
12 including any laws which would include all the
13 Department of Transportation requirements for the
14 company, standards for the company.

15 Q. Things like Federal Motor Vehicle Safety Standards?

16 A. Yes. He didn't deal directly with the people who
17 worked on the nuts and bolts of that kind of thing
18 but he was the one that had the responsibility
19 that all the products that we manufactured met all
20 those requirements.

21 Q. I've had an opportunity recently to visit with

22 Robert Martin. You know Mr. Martin?

23 A. Yes, I do.

24 Q. He recently retired from Bridgestone/Firestone as

25 well? You understand that?

0012

1 A. Yes, I do.

2 Q. I believe, if I remember the dates correctly,
3 between 1991 and the date of his retirement in April
4 of 2000, Mr. Martin was head of Quality Assurance
5 within Bridgestone/Firestone?

6 A. Yes. He was vice-president of Quality Assurance.

7 Q. Mr. Martin told us during the course of our
8 questioning and the opportunity we had to talk with
9 him that he communicated with you and you
10 communicated with him periodically regarding issues

11 about failed tires. Is that true or false?

12 A. That's true.

13 Q. Did you have a standard routine meeting with Mr.

14 Martin on a monthly basis regarding failed tires,

15 tires that for some reason or another had failed on

16 a customer out in the field?

17 A. I don't think we had a regularly scheduled meeting

18 but I did consult with him on a periodic basis.

19 Q. Let's talk for just a second about the kinds of

20 things that Product Analysis, the group you were

21 director of, Product Analysis, did.

22 Number one, did you examine tires that

23 failed on customers out in the field from time to

24 time?

25 A. Yes.

0013

1 Q. Did you go out and/or have people within your

2 department go out to the various service centers

3 across the country and visit with the people who

4 were actually inspecting customers' failed tires?

5 A. Yes.

6 Q. From time to time between 1982 and 2000, basically

7 a 20- or 18-year period, did you from time to time

8 testify in lawsuits brought by consumers following

9 either injury or death in situations like we're here

10 to talk about today?

11 A. Yes.

12 Q. If I read some of your testimony correctly, over
13 that 18-year period as a general average --
14 recognizing you don't remember every deposition --
15 but you basically gave about two depositions a year?

16 A. I probably gave more depositions than that on the
17 average. I think I testified in the range I always
18 felt was about three to ten times a year and
19 certainly the trials would be more down to the two
20 or three times a year, where the depositions would
21 have been more up towards the higher end of that.

22 I have since that period of time, there was
23 a requirement by the lawyers -- at least it was
24 conveyed to me by the lawyers; I guess it was a
25 requirement, really, of the legal system -- that I
0014

1 maintain a list of testimony I gave in trial and
2 depositions, which I think people refer to as the
3 Rule 26 list.

4 I have maintained and kept that type of
5 list so the numbers on that would be more accurate
6 than the estimates.

7 Q. From a practical standpoint since we're here to talk
8 about the ATX, the ATX II and the Wilderness AT
9 tires, could you give us an estimate of how many
10 times you believe between 1990 and the present date
11 you've given sworn testimony in a case involving
12 somebody who was either killed or injured following a

13 failure of an ATX, ATX II or Wilderness AT tire on
14 an Explorer?

15 A. I don't know off the top of my head but I would
16 estimate it at probably something like ten, maybe
17 slightly higher than that, but something in that
18 order of magnitude.

19 Q. Can you tell us based upon your recollection when
20 your first deposition would have been? And I don't
21 mean a specific date or location. I don't expect
22 you to remember that. If you do, feel free to tell
23 me.

24 But my question is really aimed at a
25 more general estimate of approximately what year you
0015
1 first testified.

2 A. You're talking about on radial ATX, ATX II and
3 Wilderness AT?

4 Q. That is correct.

5 A. I don't remember specifically. I remember the first
6 case that was in trial and I think that was about
7 1995 so if that was the one, there might have been
8 one before that that wasn't in trial. But there was
9 a case that was tried about 1995-ish, plus or minus,
10 that I testified in.

11 Q. During the 1990s in the Product Analysis department
12 if a failed tire came to your department in the
13 context of a lawsuit like this, somebody would

14 inspect that tire in the ordinary course of

15 business, is that correct?

16 A. Yes. In the ordinary course of business what

17 generally happened is the lawyer that was handling

18 the case for Bridgestone/Firestone would have

19 somebody look at it internally, which most likely

20 would have been me or somebody in my group if it was

21 a serious injury case.

22 They would also have somebody outside of

23 our company look at it. That would be another

24 independent expert that was either from some other

25 company or from some independent laboratory to see

0016

1 if their opinion conferred with our opinion.

2 Q. Let's go back to the Product Analysis department

3 for a second. In the 1990s if you received an

4 ATX, ATX II or Wilderness AT tire that had failed in

5 service -- in other words, had failed in use by a

6 consumer -- and the case was in litigation, and

7 Product Analysis inspected the tire, would notes be

8 taken of those inspections?

9 A. Generally speaking, yes.

10 Q. Where would those notes be maintained in the

11 ordinary course of business at

12 Bridgestone/Firestone?

13 A. Those notes would be maintained in the file by case

14 name of that case.

15 Q. Are those files and have those files during the
16 1990s been subject to any form of record retention
17 program?

18 A. I don't know that there's an official record
19 retention program for those but our policy has been
20 as it's been always, when the case is active we keep
21 a complete file. Once the case is disposed of we
22 usually discard the file and fold into the Law
23 Department's file if it's a legal claim the
24 photographs of the tire and the notes of the tire.

25 Q. Let me go through with a hypothetical. For
0017

1 instance, if the National Highway Traffic Safety
2 Administration was interested in looking at
3 inspection notes from an ATX tire examined by
4 Firestone's Product Analysis group in 1992, do you
5 based upon your experience believe those records
6 would still exist?

7 A. I'm not sure what the record retention program is
8 for the legal files but that's where they are put.
9 When we close our files out, that's where we put the
10 notes and so certainly, there's a probability that
11 they would be there.

12 Q. Over the course of your career in Product Analysis
13 at Firestone have you from time to time had an
14 opportunity to communicate with Ford Motor Company
15 about lawsuits, lawsuits involving Firestone tires

16 and Ford vehicles?

17 A. Well, Ford is a separate company and we don't get
18 involved in working directly with them on lawsuits.
19 However, I'm not sure what you mean by communicate
20 but in most of the tire cases that have been on Ford
21 vehicles -- particularly when we're talking about
22 the ATX, ATX II and Wilderness AT -- Ford has been a
23 co-defendant in those cases so they have received
24 whatever the normal give and take of the discovery
25 is.

0018

1 But I don't know that we've had any direct
2 communications. At least I haven't, but maybe some
3 of the lawyers have.

4 Q. You haven't attended any meetings, for instance,
5 over the years in the 1990s wherein people from Ford
6 Motor Company were in attendance and the purpose of
7 the meeting was to talk about a failed tire on an
8 Explorer vehicle in a lawsuit?

9 A. I don't believe so.

10 When you say attended meetings, certainly a
11 deposition would be -- I don't know if you construe
12 that as a meeting or not but like I say, they were
13 co-defendants on most of the lawsuits so anything --
14 any formal get-together such as a deposition, they
15 would have probably attended.

16 Q. Going back to Product Analysis group

17 responsibilities for just a second, did you also
18 have responsibility over the years for something
19 called property damage claims?

20 A. Product Analysis never did and I never did.

21 Property damage claims were generally handled out of
22 our Sales Engineering office so we were not
23 generally involved in those.

24 Q. In the ordinary course of business during the 1990s
25 would you have had an opportunity from time to time
0019

1 to see property damage claim information or data on
2 tires in the field?

3 A. I don't remember seeing data on property damage
4 claims. Occasionally I saw specific tires. There
5 were occasions where somebody in the Sales
6 Engineering group would either send the tire in or
7 ask me or somebody in my group to look at a tire to
8 determine the failure mode but we didn't in Product
9 Analysis share information with that group.

10 We did and I'm not sure -- I just want to
11 make sure we're clear. We also have tires returned
12 -- what I call adjustments -- where there's no
13 property damage. That's another form of a claim. I
14 did periodically look at that data.

15 Q. We will talk about adjustments a little bit later.
16 But just to make sure I'm understanding the scope of
17 Product Analysis, Product Analysis was not

18 responsible for property damage claims data, is that
19 correct?

20 A. That's correct. Product Analysis was a consulting
21 function and didn't have the line responsibilities
22 for anything. We were called in by management or in
23 the case of lawsuits by lawyers, to analyze
24 individual tires or maybe in the case of development
25 to analyze some particular process or something of
0020

1 that nature.

2 Q. Is that likewise true with respect to adjustments?

3 Your department was not responsible for handling
4 adjustment data?

5 A. That's correct.

6 Q. That was actually Mr. Martin's department, is that
7 correct?

8 A. I'm not positive sure of that but I think adjustments
9 came under Quality Assurance.

10 Q. I believe he told us that in his testimony. But
11 from time to time you were exposed to adjustment
12 figures?

13 A. Yeah. I looked at adjustment figures periodically
14 because I was analyzing tires and they give you a
15 broad picture of what kind of performance the tire
16 is experiencing in the field.

17 Q. Just to make sure the jury understands adjustment
18 figures, what we're talking about is when a customer

19 has a tire-related problem and goes to a Firestone
20 dealership someplace in the country and turns a tire
21 in or complains to the dealer and the dealer
22 pro-rates the tire and fills out a form that
23 ultimately goes to the service center which is
24 then logged into a computer somewhere and the
25 information relating to the failure mode -- in other
0021

1 words, what appears to have caused the tire to fail
2 -- is coded in using some sort of coding system
3 Firestone had, is that correct?

4 A. Yeah. When you say appear -- first of all, your
5 general statement is basically correct. There's a
6 few little things I would point out. One, there is
7 no determination made of cause. The cause is
8 sometimes engineers go out to the service center and
9 analyze tires but at the point the customer is
10 taking it into the store or dealer it's just a
11 transaction where they look at it and make some
12 overall determination of what appearance it has.
13 I think you used that word. There's
14 different codes that they put it under.
15 The other thing is that there's no property
16 damage. It's an exchange of only a tire.

17 Q. In other words, a fairer description I guess would
18 be whatever the person at the Firestone dealership
19 puts down is not a description of the cause, it's

20 just a description of what that person sees, whether
21 it's a tread separation or puncture hole or whatever
22 it happens to be?

23 A. Yes, that's correct.

24 Q. There's a whole long list that Firestone provides to
25 its dealers where they can code in their
0022

1 description? There is a description for the code,
2 is that correct?

3 A. That's correct.

4 Q. From time to time in Product Analysis do you analyze
5 competitors' tires?

6 A. Yes.

7 Q. Would you explain to the jury how it is with regard
8 to a Goodyear tire -- how do you analyze a Goodyear
9 tire?

10 A. Sometimes they are on the same vehicle so they come
11 in for inspection. But we also are involved with
12 analyzing just for our own knowledge base what our
13 competitors have in their tires, what kind of
14 materials, what kind of fabric belts and so on. We
15 do that by following the various industry analyses
16 that are done by laboratories such as Smithers.

17 We do that by reviewing development data
18 where they do analysis of competitors' tires.

19 Q. Do you physically from time to time cut other tires
20 apart and look at the contents of those tires?

21 A. Yes. Certainly not a tire that's involved in
22 litigation but we do cut tires, yes.

23 Q. For instance, competitors' tires, tires like
24 Goodyear tires -- do you from time to time cut those
25 open just to see what Goodyear is doing with regard
0023

1 to the tires?

2 A. Yes.

3 Q. Do you also analyze those tires chemically from time
4 to time?

5 A. I haven't personally been involved personally in
6 analyzing them chemically but Firestone does and
7 I've seen the results of some of that work and
8 also that's done by laboratories such as Smithers
9 that send in monthly reports.

10 Q. Over the 18-year period you were director of Product
11 Analysis, did any of your responsibility include the
12 design of tires?

13 A. Well, I was not responsible for the design of tires
14 but once again I consulted with the Tire Development
15 Department that was responsible for the design. So
16 I was familiar with what they were doing and why
17 they were doing it and I'm sure that on occasion I
18 gave them my thoughts on specific issues.

19 But it wasn't a line responsibility of
20 Product Analysis.

21 Q. Were you responsible for testing tires to ensure

22 compliance with Federal Motor Vehicle Safety

23 Standards before they were sold to the public?

24 A. No. We were not responsible for the testing but

25 once again, we were familiar with it.

0024

1 Q. If somebody in the test area wanted your input they

2 would call you or contact you in some way to get

3 your input?

4 A. That's correct. Or we might call them and ask them

5 to run a specific test for us that had something to

6 do with an issue we were working for.

7 Test responsibility also was -- compliance

8 testing was part of the Quality Assurance

9 department's function. Design testing was part of

10 the Development Department's function.

11 Q. From time to time in your career in Product Analysis

12 have you conducted document searches or participated

13 in document searches for the collection of documents

14 for purposes of lawsuits?

15 A. I have not generally participated in the searches.

16 I have though when I was at Bridgestone/Firestone on

17 an ongoing basis been asked questions about

18 documents. People would ask me where I would expect

19 to find a document, where they should look.

20 I certainly was on numerous occasions

21 provided copies of documents that were produced in a

22 search but I generally didn't get personally

23 involved in the search.

24

25 (Deposition Exhibit No. 1 was marked.)

0025

1

2 Q. As I indicated earlier, we're here to talk about

3 ATX, ATX II and Wilderness AT tires and I've marked

4 as Exhibit 1 -- and you can look on the screen if

5 you want to. This screen is just showing you the

6 document itself and this screen is actually what's

7 on the video. So you're not on the video right now.

8 This particular document is, so it's okay

9 for you to turn your head and look up here if you

10 would like to.

11 A. All right.

12 Q. I want to ask a couple questions about this just so

13 the jury understands what we're talking about.

14 The designation we're going to be talking

15 about today for the tires that we're here to ask

16 questions is a P235/75R15.

17 First of all, would you break that down for

18 the jury and describe for them what the 235 part of

19 this designation means?

20 A. The 235 part of the designation is the section width

21 of the tire in millimeters when it's measured on a

22 rim that is 70 percent of the tire section width.

23 For all practical purposes, that simply

24 means that's the width of the tire in millimeters.

25 Q. If you're looking at the tire from behind the

0026

1 vehicle you're looking at the width of the tire, how

2 wide it is?

3 A. The widest part of the tire would be the width.

4 Q. Second part of this particular designation is called

5 75. Could you describe for the jury what that

6 means?

7 A. 75 is the aspect ratio of the tire and that is the

8 ratio of the section width of the tire on that

9 special 70 percent rim divided by the section height

10 of the tire.

11 Excuse me, I said that backwards. It's the

12 section -- height of the tire divided by the section

13 width of the tire. So if the tire is perfectly --

14 has the same height as width, that number would be

15 one. If the tire is a very squatty tire, low, the

16 section height of the tire would be 50 percent of

17 the section width.

18

19 (Deposition Exhibit No. 2 was marked.)

20

21 Q. Basically just so we kind of get a better feel of

22 what we're talking about and the jury gets a better

23 view, I've marked as Exhibit 2 a photograph of a

24 radial ATX Firestone tire.

25 When we're talking about the section width

0027

1 -- or aspect ratio, I guess, is the best way to put

2 it -- you're talking about this distance from here

3 to here divided by -- (Indicating.)

4 A. That's the section height of the tire.

5 Q. Right. This is the height of the tire?

6 A. And the width -- you have to rotate that photograph.

7 Q. If we rotated it around, the width would be from

8 this side to the other? (Indicating.)

9 A. Yes, except it's usually right above the lettering.

10 That's probably about where the width would be the

11 widest and would be measured.

12 Q. It would be measured from this side to the inside

13 part of the tire?

14 A. Yes.

15 Q. Then the R15 designation, what does that stand for?

16 A. The R means it's a radial tire, that is, the body

17 plies run directly from bead to bead in a radial

18 direction. The 15 is the nominal diameter of the

19 rim in inches.

20 Q. The three designations below this -- ATX, ATX II and

21 Wilderness AT tires -- the ATX tire, that tire was

22 made by Firestone, is that correct?

23 A. Yes.

24 Q. The ATX II was basically the same tire as the ATX

25 with some slight design modifications?

0028

1 A. Well, it was a different tread pattern and to be
2 clear, we never used the word ATX II on the tire.

3 The ATX was used on both tires but technically there
4 was a difference between the shoulder design of the
5 ATX II and the ATX.

6 Q. Then the Wilderness AT tire was a tire that came
7 out for the later model Explorers, the post '95
8 Explorers, is that correct?

9 A. Yes.

10 Q. That was a completely different design?

11 A. Yes, it was. That was a totally different tread
12 pattern.

13 Q. These particular tires right here are the tires that
14 are -- at least some of them -- are subject to the
15 current recall, is that correct?

16 A. The ATX II and Wilderness AT from the Decatur plant
17 and the P235/75R15 size are subject to the recall.

18

19 (Deposition Exhibit No. 3 was marked.)

20

21 Q. There's another photograph of a Wilderness tire.

22 This is Exhibit 3.

23 This one really gives us a better view.

24 A while ago we were looking at the height of the
25 tire and this one actually gives us a better view of

0029

1 the width of the tire, basically from this general
2 area across in this direction, is that correct?

3 A. Yes.

4 Q. Then the 15 at the end of the designation stands for
5 the size of the rim or the diameter of the rim?

6 A. Yeah, the nominal diameter of the rim.

7 Q. That's Exhibit 3. Now, these tires, the ATX tires
8 as I understand it -- and correct me if I'm wrong --
9 these came as original equipment on Explorers, is
10 that correct?

11 A. Well, technically the ATX didn't. The ATX II tires
12 came as original equipment on the Ford Explorer.

13 Q. The ATX tire was an optional tire for the Ford
14 Explorer? 1999?

15 A. I don't think so. I think basically the ATX tire
16 was a tire that had a very aggressive shoulder
17 pattern. It was more of an on-off highway tire --
18 they are both on-off highway but the ATX was more of
19 an aggressive more off highway tire that was made
20 back in the 1980s and subsequent.

21 The ATX II was a revision of that tire and
22 the shoulder that was made -- designed specifically
23 for the Ford Explorer.

24 Q. So you're talking about the original ATX,
25 the flotation tire?

0030

1 A. Yes, that was primarily a flotation.

2 Q. That's a problem with my question more than anything
3 else. The Ford Explorer when it was first produced
4 in 1990 came equipped with an ATX tire. I think you
5 referenced that to be the ATX II, is that correct?

6 A. Yes.

7 Q. That particular tire came as an original equipment
8 on the Explorer in 1990, is that correct?

9 A. I believe that's correct.

10 Q. Also between '92 and '96 it was sold on Nissan
11 pickup trucks?

12 A. There was ATX II tires sold on other vehicles, yes.

13 Q. Do you specifically recall --

14 A. As I sit here today, I don't specifically remember
15 what other vehicles they were on.

16 Q. Do you remember it being sold on the Bronco?

17 A. No, I don't think so. I think the Bronco was
18 FR-480.

19 Q. The big Bronco?

20 A. Oh, full size Bronco -- I was thinking Bronco II. I
21 don't have that data and I don't remember.

22 Q. The information that I had been provided by Ford
23 Motor Company indicates that these tires, these ATX
24 tires that came on the Explorer, were likewise sold
25 on '92 through '96 Nissan pickup trucks, full-size
0031

1 Bronco, F-150 pickup truck, the Ranger pickup truck,
2 the Mazda B400 and the Mazda Navajo, which is just a

3 different brand of the 2-door Explorer.

4 Does any of that refresh your recollection?

5 MR. ZUMMO: I'm going to object and ask for

6 clarification on whether when you say "these tires"

7 you are referring also to the same size, the

8 P235/75R15.

9 MR. TURNER: No, not on the same size in

10 terms of all those vehicles, but I believe on the

11 Bronco, the Ranger, the Mazda B400 and the Navajo.

12 They were P235/75R15s.

13 BY MR. TURNER:

14 Q. Does any of that refresh your recollection?

15 A. Yes. I do remember specifically that the Ranger had

16 -- one of the sizes that was on the Ranger was

17 a P235/75R15 ATX. The other ones, I don't remember

18 specifically what size they were but I don't dispute

19 what you said.

20 Q. From time to time over the years you've been

21 involved in litigation involving failures of these

22 tires or alleged failures of these tires resulting

23 in Explorer rollover crashes, is that correct?

24 A. Yes, I have.

25

0032

1 (Deposition Exhibit No. 4 was marked.)

2

3 Q. From time to time you've been aware -- and I think

4 we all have in the country recently -- regarding
5 some of the events and what I've marked as Exhibit
6 No. 4 is a photograph of one of these events
7 depicting a Ford Explorer upside down.

8 Has part of your job responsibility at
9 Firestone included evaluating not only the failure
10 mechanism of tires but why particular vehicles went
11 out of control and rolled over?

12 A. I have to some extent analyzed that but primarily
13 tire failure mechanism.

14 Q. In fact, in your career you've actually published
15 papers about the effect of tread separations, treads
16 peeling off of tires, the effect of that on vehicle
17 control characteristics, is that correct?

18 A. Oh, yes, I have.

19

20 (Deposition Exhibit No. 5 was marked.)

21

22 Q. Exhibit 5 is another photograph of an Explorer.
23 From time to time in your experience, Mr. Gardner,
24 have you actually gone to scenes of wrecks to
25 investigate the physical evidence on the road

0033

1 surface?

2 A. Yes, I have.

3 MR. CRAWFORD: Are these from this case?

4 MR. TURNER: One of them is; one of them is

5 not.

6 MR. CRAWFORD: I will object to whichever

7 one is not.

8 BY MR. TURNER:

9 Q. Part of your responsibility as an engineer at

10 Firestone has included going to the scenes of the

11 wrecks in these Explorer rollovers?

12 A. In some instances, yes.

13 Q. The Wilderness AT tire was designed for the

14 Explorer, is that correct?

15 A. Yes.

16 Q. The Wilderness AT tire, can you tell us what plants

17 in the United States made the Wilderness tire?

18 A. Not off the top of my head but I know they were

19 probably made in Decatur, I know they were made in

20 Wilson, North Carolina, I know they were made in

21 Joliette, Canada.

22 There could have been some other plants but

23 those were the primary producing plants for that

24 tire.

25 Q. I've been told throughout the course of this lawsuit

0034

1 that with regard to both the ATX II and the

2 Wilderness AT tires that some of those tires were

3 made in Decatur, Illinois at that plant, is that

4 correct?

5 A. That's certainly correct.

6 Q. I've also been told some of those tires were made at
7 Wilson, North Carolina at a Firestone plant?

8 A. That's certainly correct.

9 Q. I've also been told that some of those tires were
10 made at a facility in Joliette, Quebec, Canada?

11 A. That's also correct.

12 Q. I think some of those tires were likewise made in
13 Oklahoma City?

14 A. It's possible that that's the case, I'm not sure
15 about that without looking at records.

16 Q. How about Aiken, South Carolina?

17 A. In more recent times I think Aiken would have made
18 some. I don't think Aiken would have made any ATX
19 because I don't think it was on line then. But it's
20 certainly possible Aiken made some Wilderness AT
21 tires.

22 Q. Correct me if I pronounce this wrong, but Mr.
23 Pantalone I think was originally involved in the
24 design of the ATX tire, is that correct?

25 A. Yes. He was in charge of Passenger Tire Engineering
0035

1 during all that time period.

2 Q. Mr. Martin testified recently when we had an
3 opportunity to talk to him that he was in charge of
4 the group who was creating the design of the ATX II
5 in the late 1980s, do you recall that?

6 A. Mr. Martin said he was or he said Mr. Pantalone was?

7 Q. He said he was.

8 A. He was in Development in the '80s. That's possible

9 the original ATX may have been developed during the

10 time period when he was in Development.

11 Q. I'm not going through all that history about the

12 change from the flotation tire to the tire for the

13 Explorer with you but suffice it to say Firestone

14 has produced to you in the past --

15 THE TECHNICIAN: Off the record at 12:26.

16 (A pause was had in the proceedings.)

17 THE TECHNICIAN: Back on the record at

18 12:30 p.m.

19 BY MR. TURNER:

20 Q. Mr. Gardner, when we broke just a second ago we were

21 talking about the plants that made the ATX II and

22 Wilderness tires and I wanted to focus in on one or

23 two brief issues I did talk with Mr. Martin about.

24 But I wanted to make sure I understood Firestone's

25 position on this.

0036

1 This particularly relates to the design of

2 the ATX II and design of the Wilderness tire and

3 also the manufacturing processes. Are you familiar

4 with the design of these two tires, these two lines

5 of tires and the manufacturing process used to make

6 them?

7 A. Yes. I'm familiar with them. I didn't necessarily

8 prepare and have information with me on that but I'm
9 generally familiar.

10 Q. My questions are very simple. First of all, with
11 regard to the three or four plants that made the ATX
12 II tire, did those plants as a general rule follow
13 the same basic processes in manufacturing the tires?

14 A. When you say the same basic processes, the answer to
15 that is yes, depending on how basic you want to get.
16 There were different equipment at the plants and
17 there was some variations in the processing
18 techniques because of the different equipment but
19 the same basic processes were used.

20 Q. Are the designs basically the same regardless of
21 which plant is making that tire?

22 A. Yes.

23 MR. ZUMMO: I apologize, but Mr. Woodrow
24 wanted to take a short break to visit with me about
25 something.

0037

1 THE TECHNICIAN: Off the record at 12:33.

2 (A recess was taken.)

3 THE TECHNICIAN: Back on the record at
4 12:50.

5 BY MR. TURNER:

6 Q. Mr. Gardner, we were talking about the plants and
7 we were talking about the design of the tire, the
8 ATX II and the Wilderness tires.

9 With regard to the materials used to make
10 those tires in each of the plants, whether you're
11 talking about Decatur or whether you're talking
12 about Wilson or whether you're talking about
13 Joliette, were the materials basically the same?
14 A. Well, the materials where it started out, if you're
15 talking about the compounds, would have had the same
16 basic formula, but they would have varied from plant
17 to plant depending on the processing at that plant.
18 They also would have varied even within the
19 plant within the tolerances that are allowed,
20 depending on the kind of equipment that was being
21 used.

22 Q. All those tolerances are based upon the same basic
23 design of the tire, it just differed slightly from
24 plant to plant?

25 A. That's correct.

0038

1 Q. With regard to the people making the tires in
2 Wilson, North Carolina, for instance, versus Decatur
3 are the people in Wilson trained any differently in
4 terms of how to make tires and how Firestone wants
5 to you make tires than the people in Decatur?

6 A. I don't think you could say there's a basic
7 difference in them but certainly the kinds of
8 equipment that are used in the different plants
9 would require different training for the people.

10 Also in those three plants there's two
11 different unions involved and one is a non-union
12 plant. So there would certainly be whatever the
13 rules and regulations of the unions are to be taken
14 into consideration.

15

16 (Deposition Exhibit No. 6 was marked.)

17

18 Q. Exhibit 6 is also an exhibit to Mr. Martin's
19 deposition and this is a printout out off of the
20 National Highway Traffic Safety Administration web
21 page and it's a summary of a given point this fall
22 of the Office of Defect Investigations Fatal Crash
23 Summary for these particular tires. As you will see
24 on the left-hand side of the page -- can you see
25 this okay?

0039

1 A. Yes, I think so.

2 Q. On the left-hand side of the page the vehicles that
3 are reported in the National Highway Traffic Safety
4 Administration's database for fatalities included
5 the Explorer, the Bronco II, the Blazer and then
6 there were apparently three incidents where they
7 were unable to identify the vehicle and as of this
8 particular date when they loaded this on their
9 computer web page, there were apparently 63 total
10 incidents with 77 total fatalities, 59 of which

11 occurred in a rollover crash and if you look at the
12 Explorer, the Explorer counted for 71 of the 77
13 fatalities in NHTSA's database and 53 of the 59
14 rollover events.

15 Before today had you been following the
16 National Highway Traffic Safety Administration's
17 database as shown on Exhibit 6?

18 A. I don't know. I certainly have seen their database
19 before but if you look at the total rollovers from
20 all causes, I think that number is going -- rollover
21 fatalities -- is going to be more like 700. These
22 numbers are obviously restricted by some --

23 Q. Restricted by tire relation.

24 A. This is strictly tire-related?

25 Q. That is correct.

0040

1 A. I'm sorry. The tire-related, that would probably be
2 fixed at some point in time and I think it ended up
3 being actually higher than that.

4 Q. In fact, I think it's in excess of 100 at this point
5 in time, is it not?

6 A. I think that's correct. At least, those are the
7 numbers I've heard.

8 Q. We've also prepared another graph that -- let me put
9 up on the screen.

10

11 (Deposition Exhibit No. 7 was marked.)

12

13 Q. We will mark this as 7. If you break this down to
14 fatalities involving Firestone tires within the
15 National Highway Traffic Safety Administration's
16 database, according to their database of the tires
17 being recalled and complained of and specifically
18 the ATX II and the Wilderness AT tires, 86 percent
19 of those fatalities are due to a Ford Explorer
20 rolling over.

21 At some point in time did you begin to
22 question -- and by you, I'm talking about Firestone
23 -- the relationship or the role of the Ford Explorer
24 in causing fatalities when a tire-related problem
25 occurred on these vehicles.

0041

1 MR. CRAWFORD: Object to the form of the
2 question; also lacks foundation.

3 THE WITNESS: Yes, I think Firestone did
4 start to look at that as recently as -- when all the
5 investigation was going on that became very
6 apparent.

7

8 (Deposition Exhibit No. 8 was marked.)

9

10 BY MR. TURNER:

11 Q. In fact, Exhibit 8 is an article from ABC News and
12 it's dated September 11 and it quotes a Mr. -- I'll

13 butcher this name and I apologize because it's a
14 Japanese name, Yoichiro Kaizaki. Are you familiar
15 with that person?

16 A. Kaizaki?

17 Q. You can tell me.

18 A. Yeah, Kaizaki.

19 Q. What is his job?

20 A. He's the chairman of Bridgestone Corporation.

21 Q. That is the parent corporation for

22 Bridgestone/Firestone?

23 A. Yes. The company that owns Bridgestone/Firestone.

24 Q. This particular quote says.

25 While not directly blaming Ford, Mr.

0042

1 Kaizaki pointed out that Explorers fitted
2 with Bridgestone/Firestone tires had a high
3 accident rate while other manufacturers'
4 vehicles using the same tires did not.
5 There were a lot of accidents on Fords.
6 The accident rate for other cars is
7 dramatically lower. Kaizaki said in Tokyo
8 at his first meeting with reporters since
9 the recall of 6.5 million tires was
10 announced last month.

11 Did I read that correctly?

12 A. Yes, you did.

13 Q. Now, in addition, with regard to the role of the

14 vehicle versus the role of the tire, Mr. Kaizaki in
15 the same article -- let's flip back to the witness a
16 minute and let me ask a foundational question on
17 this.

18 When all of this broke in the year 2000 --
19 and all of this I'm talking about is this issue
20 about the Firestone tires and Ford Explorers --
21 sometime before this year an issue arose in Saudi
22 Arabia regarding Firestone tires on Ford Explorers,
23 is that correct?

24 A. That's correct.

25 Q. At some point in time some sort of consumer
0043

1 assistance program, I think Ford called it, was
2 instituted in the GCC countries, is that correct?

3 A. That's correct.

4 Q. Just to make crystal clear for everybody, did
5 Firestone recall tires in Saudi Arabia?

6 A. I don't think so. Certainly all the Firestone tires
7 were removed in Saudi Arabia. I think Ford actually
8 had a program where they had replacements.

9 Q. At some point in time Ford Motor Company in Saudi
10 Arabia and subsequently in Venezuela demanded that
11 Firestone at their own expense take these tires off
12 these vehicles, is that correct?

13 A. I'm not sure I remember the details exactly but yes,
14 there was. In Saudi Arabia Ford wanted a different

15 tire for the vehicle that we weren't ready -- when I
16 think we called an Australian tire that we didn't
17 have enough in production to put on in Saudi Arabia.
18 In Venezuela -- and I don't remember
19 specifically -- but that was a much different issue
20 because that was a locally-produced Ford Explorer
21 with locally-produced tires as well as some imported
22 Explorers and imported tires.

23 Q. Going back up to this exhibit, Exhibit 8, the ABC
24 News article:

25 Mr. Kaizaki, it states, also disputed Ford
0044

1 claims that the U.S. carmaker was forced to
2 recall Explorers from Saudi Arabia because
3 Firestone refused to fix tire defects
4 suspected in accidents. In a joint
5 investigation, Ford and Bridgestone of
6 Nashville found tire problems did not cause
7 the accidents, prompting Ford to assume its
8 responsibility and order the recall, he
9 said.

10 Did I read that correctly?

11 A. Yes.

12 MR. CRAWFORD: Object to the form.

13 BY MR. TURNER:

14 Q. At any point in time did you ever become aware of
15 Ford demanding that Firestone take care of the

16 problem in Saudi Arabia?

17 A. I don't remember that being the case. My

18 recollection of Saudi Arabia was that we looked at

19 some tires -- as a matter of fact, I actually looked

20 at some of the tires that had improper repairs in

21 them and unrepaired punctures and we ultimately sent

22 a joint team of Ford engineers and Firestone

23 engineers to Saudi Arabia to review the situation

24 and what they determined was that the people in

25 Saudi Arabia were in many instances letting the air

0045

1 pressure out of their tires for flotation so they

2 could run on the desert and then getting back on the

3 highway and not re-inflating them.

4 The ultimate solution, as I thought in

5 Saudi Arabia, they slowed down the vehicle. They

6 changed the chip in the vehicle so it wouldn't go as

7 fast and they also as I recall replaced the

8 Firestone tires with Goodyear tires.

9 Q. Now, were you involved in providing Ford with the

10 tire that they wanted on the Explorers in Saudi

11 Arabia?

12 A. My recollection is we didn't have the tire we

13 thought was needed in Saudi Arabia for those

14 conditions and that's why they ended up using

15 Goodyear.

16 Q. But I'm talking originally when the Firestone tires

17 were on the Explorers in Saudi Arabia?

18 A. Well, those tires were supplied in the U.S. by

19 Firestone and the vehicles exported to Saudi

20 Arabia.

21 Q. Was Firestone aware that those tires were being

22 exported to Saudi Arabia?

23 A. I don't know that we were or weren't aware of that.

24 I don't have any knowledge of that.

25 Q. There's also been talk and I have an exhibit for

0046

1 this as well. This was an exhibit to Mr. Martin's

2 deposition as well. We'll mark this as Exhibit 9.

3

4 (Deposition Exhibit No. 9 was marked.)

5

6 Q. At some point in time claims data was shared by

7 Firestone with Ford Motor Company, is that correct?

8 A. That's correct. The property damage claims data was

9 shared with Ford.

10 Q. This particular map of the United States is dotted

11 with all the claims out of that data between 1989

12 and 1999, reflecting property damage claims for

13 tires on Explorers -- ATX and Wilderness tires on

14 Explorers -- that suffered tread separation events

15 or alleged tread separation events, because I

16 presume you didn't personally inspect every one of

17 these tires, did you?

18 A. Of the property damage claims, I probably didn't
19 look at any of those tires. But it's possible I --
20 if there were some of the more serious ones, I
21 probably did look at them. So I may have looked at
22 a small number of those.

23 Q. The reason I put this map up, if you divide the
24 country in half from north to south, I don't think
25 there's any dispute that by far the majority of
0047

1 these, the very large majority of these occurred in
2 the southern states, did they not?

3 A. That's correct.

4 Q. That's been a topic of discussion quite often about
5 the fact these tires appear to be coming apart more
6 frequently in states like California, Arizona,
7 Texas, New Mexico, Florida, Georgia, across the
8 south, is that correct?

9 A. Yeah, primarily, yeah -- your map shows it and
10 that's pretty much the way it is.

11 Q. Had somebody at Firestone been following these
12 property damage claims and dotted them on a map like
13 this at any point in time?

14 A. I don't know whether they did that or not.

15 Q. That was not your job?

16 A. No. I was not involved in that.

17 Q. When Firestone became aware of the significant
18 number of these tread separations that were actually

19 resulting in Explorers flipping over out in the
20 country, did Firestone become concerned?

21 A. Well, I think that Firestone, when we started to see
22 the number of deaths that were occurring, yeah, we
23 did become concerned and we viewed that as a very
24 serious safety issue.

25 Q. One of the reasons that was a serious safety issue

0048

1 is because rollover crashes are particularly harmful
2 or can be particularly harmful to occupants, can
3 they not?

4 A. It turns out in this particular instance, that's
5 correct. There were a fairly large number of people
6 that were involved in serious injuries or death.
7 That's why we did become very concerned about it
8 and that's why we ultimately recalled the tires.

9 Q. Is that in part true also for even those people who
10 are conscientious enough to wear their seatbelts or
11 safety belts in vehicles?

12 A. I would say that probably a lot of them happened
13 because people were ejected that don't have
14 seatbelts but certainly there are cases like the one
15 involved in this accident as I recall where they did
16 have the seatbelt on.

17 Q. I take it you don't have any experience -- or maybe
18 you do and you can tell me -- with designing
19 vehicles to provide occupants with protection in the

20 event of a rollover crash?

21 A. That's not something that I have been directly
22 involved in.

23 Q. I take it also it wasn't Firestone's job to design
24 this car, was it, this vehicle?

25 A. That's correct.

0049

1 Q. You guys weren't responsible for going out and
2 testing it to make sure the wheels stayed on the
3 ground, were you?

4 A. That's correct?

5 Q. You weren't the guys responsible for going out to
6 ensure the roof and safety belt combination didn't
7 cause people to be paralyzed in a rollover crash,
8 were you?

9 MR. CRAWFORD: Object to the form.

10 THE WITNESS: That's correct. We didn't
11 get involved in any of that.

12 BY MR. TURNER:

13 Q. In fact, were you even given any information from
14 Ford Motor Company about the performance of this
15 vehicle -- and by performance, I'm talking about
16 whether its wheels stayed on the ground in turning
17 maneuvers?

18 A. Not that I'm aware of.

19 MR. CRAWFORD: Objection to the form; lacks
20 foundation.

21 BY MR. TURNER:

22 Q. I want to talk about the design of these tires very
23 briefly and like I said, I'm not going to go back
24 through all of what Mr. Martin has said. Let me
25 kind of summarize some of that and make sure I
0050

1 understand.

2 First of all, the ATX tire, the original
3 ATX tire, Mr. Martin described as basically an
4 off-road flotation type tire that was generally
5 produced for RV-type vehicles?

6 A. Yes. That was a very aggressive tire and that was
7 the purpose.

8 Q. He described for me a process that occurred in mid
9 to early part of the latter part of the 1980s
10 wherein Ford Motor Company came to Firestone and
11 asked Firestone to make a tire that looked like a
12 truck tire but performed like a passenger car tire.
13 Are you familiar with that?

14 A. Yeah, I think that was the basic impetus for the
15 design of the ATX II. Ford liked the looks of that
16 tire but the noise level was too high. So we toned
17 down the shoulder design or made it more solid to
18 make the tire quieter.

19 Q. The way this process worked as Mr. Martin described
20 it is Ford created performance specifications for a
21 tire and gave them to Firestone and said, make us a

22 tire that performs like this, is that right?

23 A. Essentially, that's correct. We submitted tires and
24 they ultimately approved one for the vehicle.

25 Q. The kinds of performance specifications that we're
0051

1 talking about are things like rolling resistance, is
2 that right?

3 A. Yes.

4 Q. The ride quality?

5 A. Yeah, ride, traction.

6 Q. The lateral capability, lateral traction
7 capability of the tires?

8 A. All the force and rolling characteristics.

9 Q. All of those kinds of things were put together and
10 given to you guys and you were told, we want it to
11 look like this and we want it to perform like this
12 and now make back a tire and submit it us?

13 A. Yes. That's how it was.

14 Q. In some of the papers I've been given both by Ford
15 and Firestone it's also pretty clear to me that some
16 of the testing Ford Motor Company said they were
17 going to do and some of the testing was Firestone's
18 responsibility. Is that right or wrong?

19 MR. CRAWFORD: Object to the form.

20 THE WITNESS: That's correct. That varies
21 from time to time. But we did some testing and they
22 did some testing.

23 BY MR. TURNER:

24 Q. The kinds of testing we're talking about are things

25 like -- well, the very basic ones are, I guess,

0052

1 chemical tests done on the chemicals used in the

2 compounds of these tires, right?

3 A. You mean the processing?

4 Q. Yes.

5 A. Yes. That's the kind of testing we would do.

6 Q. That's the kind of stuff Firestone would do?

7 A. That's correct.

8 Q. I guess there's adhesion testings that are done with

9 the materials that are put in these tires at some

10 point in time?

11 A. We do some testing in the plants and in development,

12 yes.

13 Q. That's where you actually do the tests where you

14 pull the rubber apart?

15 A. Yes.

16 Q. And you measure how much force it takes to pull the

17 rubber apart?

18 A. Yes, that's correct.

19 Q. There's also what we commonly refer to and the jury

20 may not understand all this, Federal Motor Vehicle

21 Safety Standards, those are regulations -- testing

22 that the government requires be done on products

23 before they get out to the ultimate consumer, is

24 that right?

25 A. Well, that's right. They don't require you do the
0053

1 testing; they require the tires comply with those
2 tests and in order to assure that, we actually do
3 testing.

4 Q. That's for passenger car tires like this and this is
5 a P metric tire, is Federal Motor Vehicle Safety
6 Standard what?

7 A. 109.

8 Q. Was Firestone responsible for doing the 109 testing
9 or was Ford?

10 A. Firestone did that.

11 Q. Ford had their own tire testing at some point in
12 time, too, right -- procedures?

13 MR. CRAWFORD: Objection; lack of
14 foundation.

15 BY MR. TURNER:

16 Q. Did Ford and has Ford throughout the 1990s to the
17 best of your knowledge, Mr. Gardner, did they have
18 their own tire testing procedures that they liked to
19 have done on their tires or tires that were going on
20 their vehicles with regard to high speed and
21 durability?

22 MR. CRAWFORD: Same objection.

23 THE WITNESS: I think they did some high
24 speed testing and I think they did some durability

25 testing.

0054

1 BY MR. TURNER:

2 Q. In fact, let me just ask you. Do you recall whether
3 or not Ford Motor Company took responsibility for
4 the high speed testing?

5 MR. CRAWFORD: Same objection.

6 THE WITNESS: I think there was a time
7 period where they did that. That's the kind of
8 thing where you would have to look at a specific
9 date because over the years that varied between who
10 did it.

11 Q. The radial ATX II tire and we will mark this as
12 Exhibit 10.

13

14 (Deposition Exhibit No. 10 was marked.)

15

16 Q. This is a black and white marketing brochure and
17 actually comes off Firestone's web page from
18 November of the year 2000. I can tell that and you
19 don't have to take my word for it. Look at the
20 bottom. You can see the date in the right-hand
21 corner, 11/5/2000.

22 This is the Bridgestone USA products. It
23 looks like a http web page thing.

24 A. Right.

25 Q. Radial ATX II and it's not a very good picture of

0055

1 the tire and it describes this particular tire and
2 just to make sure we know what we're looking at on
3 Exhibit 10, this is the tire that would have been
4 provided to Ford Motor Company pursuant to their
5 specifications for the 1990 model Explorer, right?

6 A. Yes.

7 Q. It says:

8 Feature: Five rib tread design with
9 continuous shoulder and center rib.

10 Benefit: All-terrain traction.

11 Feature: Outline white-letter styling

12 Benefit: Sporty appearance.

13 Did I read that correctly?

14 A. Yes.

15 Q. Down here there's something called UTQG. Can you
16 explain to the jury what UTQG means?

17 A. Yeah. UTQG is Uniform Tire Quality Grading System
18 that is used for passenger car tires and there are
19 grades for temperature, tread wear and traction,
20 either A, B or -- well, temperature and traction are
21 either A, B or C and tread wear is a relative
22 number.

23 Q. Who is responsible for designating a particular tire
24 with this grading system, for instance, with regard
25 to temperature?

0056

1 A. Firestone.

2 Q. How do you determine whether it's an A, B or C?

3 A. It's a test that's run.

4 Q. Do you run the test and then grade it or do you
5 grade it and design it to fit a particular grade and
6 then label it?

7 A. Well, we run -- we would run the test to grade it or
8 we would undergrade it. So in other words, we could
9 put a grade on that the tire would far exceed and
10 certainly that grade would be if the tire we knew
11 was much greater than that, we could use a lower
12 grade.

13 But we would generally run a test to grade
14 it.

15 Q. I guess my question is really simpler than that.
16 My question is: Is the grade for temperature a
17 function of the design or is the design a function
18 of where you want the temperature grade to be?

19 A. Well, the two are interactive. If you want a higher
20 grade you would have to change the design to make it
21 a higher grade. You would actually bring the tire
22 in at the grade you wanted it to be.

23 Q. If we go back to Exhibit 10, the Radial ATX II, this
24 says, Uniform Tire Quality Grading does not apply.

25 Why is that?

0057

1 A. Because the quality grades applied to passenger car

2 tires and this tire since it was on a Ford Explorer,
3 that's a light truck, and we didn't at that time
4 grade tires that were in light truck application.

5 Q. At some point in time you did begin to grade
6 passenger tires placed on light trucks like
7 Explorers, is that correct?

8 A. Yes, that is correct.

9

10 (Deposition Exhibit No. 11 was marked.)

11

12 Q. Exhibit 11 is the same type of thing from the same
13 date off the same web page and it is for
14 the Wilderness AT tire. This one is being described
15 as:

16 Feature: Aggressive new designs

17 Benefit: Updated looks for light trucks

18 and SUVs.

19 Feature: Two steel belts

20 Benefit: Resistance to cuts and abrasion

21 Feature: Polyester body cord

22 Benefit: Smooth ride.

23 Did I read all that correctly?

24 A. Yes.

25 Q. Now we're beginning to get as of -- by the way, when

0058

1 did the Wilderness tire actually become available to
2 consumers to use?

3 A. I think we brought the Wilderness tire in -- and I'm
4 not going to be off the top of my head totally
5 accurate -- but it was about 1997 or -8 or somewhere
6 in that timeframe. Maybe '96. I think actually it
7 was more like '96, I think.

8 Q. Up to that point in time the Explorers were coming
9 equipped with ATX II tires, right?

10 A. That's right.

11 Q. If I read the Ford documents correctly, Ford
12 actually came to Firestone in the early 1990s -- I
13 believe it was 1992 -- in preparation for the 1995
14 Explorer and asked Firestone to design a new tire
15 that basically was like the ATX except it had a new
16 tread pattern, it had better tread wear, and
17 improved harshness and better rolling resistance.

18 Are those the four factors you can recall
19 or were there more?

20 A. Yeah --

21 MR. CRAWFORD: Object to the form of the
22 question; lacks foundation.

23 THE WITNESS: I would have to look at
24 the sheets to be sure. There were actually two
25 versions of the radial ATX. One was -- the first
0059

1 change was for the 1995, as I recall, when Ford
2 changed the suspension of the Explorer for the 1995
3 model year.

4 That was the first change of tire we made
5 and then later, maybe '96 or thereabouts, we made
6 the change to the Wilderness AT.

7 BY MR. TURNER:

8 Q. Going back to the issue of the Wilderness, did the
9 tread pattern change between the ATX and
10 the Wilderness?

11 A. Yes. It was a different tread pattern.

12 Q. Did the shoulder change as well?

13 A. Yes, it did.

14 Q. Was one of the goals to improve rolling resistance
15 of the tire?

16 A. Yes.

17 Q. One of the goals to improve the tread wear of the
18 tire?

19 A. I don't remember. I suppose that's always a goal
20 but I don't remember that being an issue.

21 Q. One of the things it did to improve the treadwear
22 from one tire to the next was the change from the
23 Twin-I-Beam to the short/long arm suspension.

24 A. That was the change of the ATX. The treadwear,
25 particularly shoulder wear, was an issue in that

0060

1 design change. That was going from what I call the
2 SL531J to the SR897. But that was still the ATX but
3 there was a request to improve the shoulder wear and
4 the tire did end up with an improvement in shoulder

5 wear although we didn't change the tire in that
6 area.

7 So probably the improved shoulder wear came
8 about from the suspension change.

9 Q. Let's move the ATX aside for a second and let's
10 focus on the Wilderness. Let's go back to Uniform
11 Tire Quality Grading ratings on Exhibit 11. It
12 says: Treadwear 440. Do you see that?

13 A. Right.

14 Q. It says: Traction, and I believe that's a B, is
15 that correct?

16 A. Right.

17 Q. The temperature resistance is a C, is that correct?

18 A. Yes, that's correct.

19 Q. This was a speed-rated tire?

20 A. Yes, it was.

21 Q. It had a speed rating of what -- S?

22 A. S.

23 Q. Could you tell the jury what that means?

24 A. S means it is tested in compliance with two tests,
25 there's an SAE test and there's an ECE test. The
0061

1 SAE test is for the United States or North America
2 and the ECE test is for Europe. Both of those tests
3 have a requirement that the tire be run on the
4 dynamometer to a given speed at specified load and
5 pressure conditions and pass that without having any

6 failure.

7 Q. The temperature resistance is indicated to be a C
8 rating, is that correct?

9 A. That's correct.

10 Q. Is that the highest potential rating or is that the
11 lowest?

12 A. That's the lowest.

13 Q. Could you describe for the jury what it means to
14 have a C-rated tire temperature-wise versus A or B?

15 A. That's basically another high speed test, I think
16 it's like the 109 tests, that measures the high
17 speed capability of the tire.

18 I don't have that in front of me but I
19 could dig it up for you.

20 Q. Basically the temperature resistance is focusing in
21 on the issue of heat, is that correct?

22 A. Yes. It's focusing in on the issue of heat but my
23 recollection is they don't actually measure
24 temperature, they measure high speed capability.

25 Q. Because high speed capability typically correlates
0062

1 with heat; is that a fair conclusion?

2 A. Well, when running at higher speeds, that's true.

3 Q. The higher the speed the more heat that builds up
4 inside the tire?

5 A. Yeah, but I don't know -- certainly, you could say
6 at 90 miles an hour the tires would run hotter than

7 they do at 50 miles an hour, but I don't know that
8 you could quantify those grades up through the speed
9 ranges because when you start getting into high
10 speed operation, other factors come into play.

11 Q. Also and correct me if I'm wrong, but the tests to
12 qualify for S-rated, S speed-rated tire, are
13 basically equivalent to those needed for a B rating
14 in temperature, are they not?

15 A. The tests are not identical but probably an S speed
16 rating tire would probably qualify for a B.

17 Q. Moving to, you were mentioning these numbers a
18 while ago, these code designations for these
19 particular tires.

20 Let me put this up there because we ought
21 to define a couple things.

22

23 (Deposition Exhibit No. 12 was marked.)

24

25 Q. Exhibit 12 is a color brochure produced by your
0063

1 company, Firestone, that talks about these Firestone
2 Wilderness AT tires and the second page of Exhibit
3 12, has a tire that's a Wilderness tire that's
4 -- actually, a diagram of one that's actually
5 kind of cut open so you can focus in on some of the
6 components of the tire.

7 What I would like to do is I would like to

8 point to some things and have you describe for the
9 jury if you would what each of these particular
10 components are in this particular tire because this
11 is the kind of tire that was involved in some of
12 these lawsuits and particularly this one.

13 Q. First of all, we see the designation for the
14 Wilderness tire, is that correct?

15 A. Right, correct.

16 Q. What is this part of the tire called down here?

17 A. That's the bead region of the tire.

18 Q. Is this the part that kind of wraps around the rim?

19 A. That's the part that holds onto the rim, seated on
20 the rim.

21 Q. What's this part that wraps all the way around here?

22 A. That's the radial body plies.

23 Q. What does a body ply mean? Is it steel, is it

24 rubber, what?

25 A. It's a composite of rubber and polyester.

0064

1 Q. This part right in here would be a composite of
2 rubber and polyester?

3 A. Yes.

4 Q. There's a piece that runs right here underneath the
5 other one. What's that called?

6 A. Those are the steel belts.

7 Q. This particular tire has two steel belts, is that
8 right?

9 A. That's correct.

10 Q. The upper steel belt is right here?

11 A. That's also correct.

12 Q. Now, the upper steel belt looks to me like it's a

13 little narrower than the lower steel belt. Is that

14 right or wrong?

15 A. On this particular design, that's correct.

16 Q. Why is that?

17 A. To provide a step at the edge of the belt.

18 Q. A step meaning kind of like you're stepping from

19 here up to there?

20 A. Yes.

21 Q. Why do you want a step at the edge?

22 A. YOu want to do that because of the change in modulus

23 of the composite for this particular tread pattern

24 and design.

25 Q. That didn't make any sense to me. I'm sure the tire

0065

1 engineers understood every word of it.

2 Could you change all that modulus stuff

3 into something I could understand?

4 A. Well, with this particular tire we wanted to make

5 the stiffness of the tire change as you moved from

6 two tread plies to one tread ply to no tread plies.

7 So you kind of had a ladder where that was released

8 incrementally as opposed to abruptly.

9 Q. When you get out here to the edges of where these

10 steel belts end, do you see this area in here --

11 A. Yes.

12 Q. By the way, these steel belts, these are little fine

13 pieces of steel that are in strands that are side by

14 side?

15 A. No, no. Actually, they are cables, individual

16 filaments that are twisted into a cable and then the

17 cables are side by side.

18 Q. I've got a picture of one of these and this is

19 probably a good time to let me pull that out and

20 look at it real quick.

21

22 (Deposition Exhibit No. 13 was marked.)

23

24 Q. That way everybody understands what we're looking

25 at. Exhibit 13 is an August 23, 1989 Ford Light

0066

1 Truck - Firestone Produce Improvement

2 Programs, presentation provided to Ford Motor

3 Company by Firestone. The reason I'm going to put

4 this up is because I think -- and you correct me if

5 I'm wrong -- but I think this talks about these

6 little cables we're talking about, is that right?

7 A. Yes.

8 Q. Right up here at the top, this says: Steel

9 cord descriptions, right?

10 A. Yes.

11 Q. Now, the particular cable used in the Wilderness

12 tire is the 1 x 5, is that right?

13 A. I think that's correct. I would have to look at the

14 spec to be sure of that, but that's my

15 recollection.

16 Q. We're going to look at the Tire Construction Detail

17 Sheets provided by Firestone to Ford in a minute and

18 they indicate a 1x5 cord.

19 So for purposes of my purpose, this is what

20 we're going to be talking about. Mr. Martin

21 described when I was asking him questions and I

22 showed him this chart.

23 As you can tell, right over on the side

24 this is tensile and I guess that means the tensile

25 strength of each of these individual cords?

0067

1 A. Yes.

2 Q. That's what we're measuring on this graph, is that

3 right?

4 A. That's correct.

5 Q. If you start on one side you've got 6/3 cord and

6 then you've got the 1x5 cord and the 2+2 and then

7 you've got the 1x2.

8 A. Correct.

9 Q. As you move from left to right on these graphs each

10 of these increase in strength of the cable, right?

11 A. Correct.

12 Q. Now, there's another one that's not referenced on
13 here referred to sometimes as 721?

14 A. We have used that before, yes.

15 Q. What is that, 7x2/1 --

16 A. 7/2+1, wrapped Around the 7/2.

17 Q. When you look down below it, we see all these little
18 diagrams. If I'm understanding all of this
19 correctly, if we took one of these little cables
20 that is shown in these steel belts, if you took one
21 of those cables out and held it up to the end under a
22 microscope of some sort, this is what a 1x5 would
23 look like at the end?

24 A. Yes, that's correct.

25 Q. So it's got basically these five little cables. Are
0068

1 they twisted --

2 A. There's one cable, five filaments.

3 Q. Five filaments, one cable. Are they twisted at all?

4 A. Yes, absolutely.

5 Q. Okay. So these are twisted around each other?

6 A. They are twisted together, just like an elevator
7 cable or any kind of cable.

8 Q. Was this 1x5 used on other radial tires at Firestone
9 over the years?

10 A. Yes. That's a fairly predominant wire construction.

11 Q. Mr. Martin told me and let me ask you if this is
12 consistent with your experience, that these kinds of

13 cables are the kinds of cables that are usually used
14 on passenger car tires?

15 A. That is correct.

16 Q. He told me that these kinds of cables, the ones with
17 the higher strength are usually used for light
18 trucks.

19 A. I would say that's probably more often correct
20 than not but there are a lot of light truck tires
21 that use 1x5.

22 The total strength is not just a function
23 of the strength of an individual cable but a
24 function of the number of cables per inch times the
25 total strength of the individual cables.

0069

1 So you could use four smaller cables would
2 have the same strength as two bigger cables.

3 Q. If we go back over to the diagram for just a minute.
4 One of the highest stress areas in a tire would be
5 considered to be in the area of the belt edges, is
6 that fair?

7 A. That's correct.

8 Q. The belt edges are these edges right here where the
9 belts end, right?

10 A. That's correct.

11 Q. Is there kind of a simple way you could tell the
12 jury why it is that these belt edge areas, these
13 areas where the edges of the belts are, why those

14 particular areas are high stress areas when you're
15 driving a car down the road on radial tires?

16 A. Yeah. Very simply, if you could get underneath the
17 road and look through the road, you would see a
18 certain length of the tread is deflected so it's
19 against the road.

20 It's through that deflected piece of tread
21 you get all the traction and forces transferred
22 between the vehicle and the tire. In order to get
23 down on the road the rest of the tire is staying up
24 on the rim. So you can imagine that the more you
25 try to pull down on the road the higher the stress

0070

1 is at that edge.

2 Q. Now, where we're going to go now is I want to ask
3 you some historical questions and kind of put the
4 ATX II and the Wilderness into context about the
5 changes that were made over time in the design of
6 those tires.

7 But before we do that, I want to ask you
8 some pretty general questions about design-related
9 issues.

10 As I understand the process basically, tire
11 design begins with whatever the customer needs or
12 whatever market that customer is desiring to go into
13 in terms of the size and load carrying capability of
14 the tire and the intended use of the vehicle.

15 A. That's certainly true but you also have all the
16 history. In other words, you don't start out
17 designing a tire, saying, what should we make it out
18 of, let's try steel, let's try rubber.

19 We already know from the evolution what
20 kinds of things work in tires. Tires came about
21 historically starting out impregnating fire hose to
22 ultimately ending up in the sophisticated steel
23 belted radial tires of today.

24 So we have all that history but the part
25 you said is why do you change something and that is
0071

1 -- one of the reasons is that because the customer
2 wants some new thing or something to serve some
3 specific need.

4 Q. I didn't mean to imply that in the tire industry you
5 don't use your experience and your education and
6 things that you learned from your evolution of tire
7 design. I don't mean that.

8 But if a customer comes to you and asks you
9 to create -- for instance, in the context of the
10 Explorer -- a hybrid-type tire that looks like a
11 truck and performs like a passenger car tire, the
12 design begins with what the customer needs and what
13 the customer wants and what the customer intends to
14 use that vehicle for in terms of big is the tire
15 going to be, what kind of load carrying capability

16 is it going to have, what kind of intended use out
17 in the marketplace that particular vehicle is going
18 to have, right?

19 A. Yes. Now, that's true generally but that varies
20 depending on the customer. Obviously when you're
21 dealing with original equipment tires, you're
22 dealing with very sophisticated customers who have
23 their own engineering staffs and their own tire
24 people that work for them as compared when you're
25 dealing with a less sophisticated company like a
0072

1 private brand customer that's just a retailer.

2 Q. Just to put into context what we're talking about
3 here, how would you, Mr. Gardner, based on your
4 experience describe Ford Motor Company --
5 unsophisticated in terms of tires or sophisticated?

6 A. I would say a customer like Ford is probably at the
7 top level of sophistication. In other words, they
8 have the most ability, the most expertise about
9 tires than any of our customers.

10 Q. There are approximately -- and correct me if I'm
11 wrong -- but I think there are approximately about
12 24 or 25 separate components in a typical radial
13 tire along with about twelve, a dozen or more
14 compounds, is that right?

15 A. That sounds about right.

16 Q. The components have a direct impact on the -- the

17 components of the tire, what the tire is made of,
18 directly impacts how much load you can carry on that
19 particular tire, is that right?

20 A. Well, really, the size of the tire and the pressure
21 inside the tire tell you what the load is. The rest
22 of it is just how you make the casing to carry that
23 pressure. The load pressure relationship is set up
24 by the tire and rim association.

25 Q. Do the components have a direct impact on load
0073

1 carrying capability, proper inflation pressure
2 and intended use?

3 A. Yes, they do.

4 Q. We're going to look at some tire specifications
5 later on. A specification is what?

6 A. A specification are all the details that we use to
7 manufacture a tire. That's a tire manufacturing
8 specification.

9 Q. Now, a specification would typically include things
10 like the tire size, is that right?

11 A. Yes.

12 Q. The type of construction?

13 A. Yes.

14 Q. The number and types of components in that
15 individual tire?

16 A. Yes, all the components would be specified.

17 Q. The gauges?

18 A. Yes.

19 Q. The dimensions?

20 A. Yes.

21 Q. And the relative placement of each component?

22 A. Yes.

23 Q. And the exact types of compounds used?

24 A. Yes.

25 Q. The bead and the steel cord and the amount of each?

0074

1 A. Yes.

2 Q. Would it also include the manner and sequence of how

3 you're going to assemble each of the components in

4 the total tire?

5 A. Yes.

6 Q. How about the curing process?

7 A. Well, it would specify the cure.

8 Q. By curing -- at some point in time when you're

9 building the tire, you cook the tire or cure the

10 tire, right?

11 A. Yes.

12 Q. And then finally, would the specification also

13 include some reference to the kind of equipment to

14 be used in the manufacturing process?

15 A. Yes.

16 Q. Now with respect to the tire performance, what is

17 the purpose of this curing or this cooking process

18 in terms of creating this tire?

19 A. Well, the curing process is what changes the
20 physical properties of the rubber to the resilient
21 properties cured rubber has. If you take rubber
22 before it's cured it has a putty-like consistency
23 and if you stretch it, it doesn't really snap back
24 like a rubber band, it just sort of stays and may
25 come back a little bit. But it's sort of like a
0075

1 putty.

2 When it cures with the combination of
3 sulphur, the tire then has new physical properties
4 that make it resilient so when you stretch it, it
5 returns to its original position.

6 Of course, that's the whole reason rubber
7 is used in tires as opposed to steel because tires
8 as I pointed out earlier are not running on a fixed
9 rail, they have to grip the road.

10 So what has to happen, the tire has to
11 deflect and deform -- in other words, change shape
12 so it can develop a patch of rubber and contact with
13 the road. So that makes it a very complicated
14 engineering structure but it also makes it a
15 structure that requires something that's stretchable
16 believe and bendable.

17 Q. I want to back up for just a second now that we've
18 gone through the basic design questions and I want
19 to go back to the mid 1980s when Mr. Martin was

20 telling me about the evolution from the off-road
21 ATX flotation to this hybrid tire that Ford wanted.

22 Before we do that, why don't we take time out
23 for lunch.

24 THE TECHNICIAN: Off the record at 1:37

25 p.m.

0076

1 (A recess was taken.)

2 THE TECHNICIAN: Back on the record at

3 2:24 p.m.

4 BY MR. TURNER:

5 Q. Mr. Gardner, where we left off a while ago, I was

6 about to go into picking up in the late 1980s. We

7 earlier talked about what Mr. Martin told us about

8 the evolution from the ATX flotation tire to the

9 hybrid that Ford was asking Firestone to build.

10 Now, were you personally involved on the

11 team that designed the ATX II in the late 1980s?

12 A. No, I was not personally involved.

13 Q. Mr. Pantalone was?

14 A. It was under Mr. Pantalone's direction and he had

15 engineers that worked for him that did that.

16 Q. At or about the same time Ford was asking Firestone

17 to consider providing supplying a 70 series tire as

18 well as a 75 series tire. I think that was an

19 FR-480. Do you recall that?

20 A. I'm familiar with the FR-480 but I don't recall

21 whether Ford wanted that or not.

22 Q. One of the things that occurred that I talked to Mr.

23 Martin about was the fact that the FR-480 tire which

24 was a P245/70R15 was running parallel to the ATX

25 program at the time in the late 1980s as another

0077

1 option they were looking at as a tire.

2 But they were having difficulty -- they

3 being Ford -- were having difficulty convincing the

4 marketing people to allow them to put a 70 series

5 tire on the Explorer.

6 Do you recall any of that?

7 MR. CRAWFORD: Objection to the form, lack

8 of foundation.

9 THE WITNESS: I don't recall that.

10 BY MR. TURNER:

11 Q. Do you recall there being a tread separation

12 problem associated with that particular tire, the

13 245/70R15 in some testing that Ford requested

14 Calspan to do?

15 MR. CRAWFORD: Same objection.

16 THE WITNESS: I think that at one time or

17 another I have seen a document that was run by

18 Calspan that reported a tread separation but I don't

19 remember whether it was on that size or not.

20

21 (Deposition Exhibit No. 15 was marked.)

22

23 Q. Exhibit 15 is an exhibit also in Mr. Simpson's
24 deposition at Ford Motor Company. Mr. Simpson was
25 the program manager for the Explorer, just for your
0078

1 information.

2 This is a letter from Arvin/Calspan, the
3 tire testing company -- I presume they test other
4 things other than tires as well. But this
5 particular test had to do with a Firestone FR-480
6 and it was a P245 test that was actually done and it
7 indicates a total of 17 test runs were performed at
8 29 psi pressure condition shows a severe tread
9 package separation from the tire carcass. And it
10 goes on to indicate the runs represented testing of
11 the tires at inclination angles of 0, +3 and +6
12 degrees.

13 I presume this is the document you saw?

14 A. I don't know if that's it or not but it's possible
15 that's it.

16 Q. In the ordinary course of business would you have
17 become aware of this kind of thing in your job in
18 Product Analysis?

19 A. No. I saw that actually later in some sort of
20 litigation.

21 Q. Now, also, during this same period of time -- and
22 we're talking about now, 1987, 1988, 1989 timeframe

23 -- Ford Motor Company informed Firestone that they
24 were going to deflate the tires from 35 psi down to
25 26 psi on the Explorer and that was recommendation
0079

1 they were going to put on the vehicle.

2 Did you become aware of that at some point?

3 MR. CRAWFORD: Objection.

4 THE WITNESS: I certainly know they made
5 that ultimate decision. I don't know exactly what
6 time period it was but they definitely decided they
7 were going to run 26 front and rear.

8 By the way, that's for the P235/75R15.

9 BY MR. TURNER:

10 Q. Right, the ATX II?

11 A. Correct.

12 Q. That was a standard load tire as designed for Ford,

13 correct?

14 A. Correct.

15 Q. And it was not speed-rated at that point in time?

16 A. At that point in time, it was not.

17 Q. And we've already talked about the fact it did not

18 have the Uniform Tire Quality Grading associated

19 with it at that point?

20 A. That's also correct.

21 Q. Also, if I remember the numbers correctly, the tire

22 was designed for a maximum of 35 psi at -- I don't

23 remember the specific numbers but I have them

24 written down and I think it was at 1844 pounds.

25 Do you recall that?

0080

1 A. 35 psi is correct and that number sounds right for
2 the Explorer.

3 Q. Correct.

4 A. Because, you know, passenger tire used on a light
5 truck has a penalty for its load-carrying capacity.

6 Q. To make it crystal clear, is Firestone the company
7 that chose to lower the air pressure to 26 psi on
8 all four tires of the Explorer?

9 A. No.

10 MR. CRAWFORD: Object to the form.

11 BY MR. TURNER:

12 Q. Who made the decision to lower the air pressure and
13 operate them at 26 psi?

14 MR. CRAWFORD: Same objection.

15 THE WITNESS: That would have been Ford
16 Motor Company.

17 BY MR. TURNER:

18 Q. Is that the kind of decision -- and by kind of
19 decision, I'm talking about making the decision to
20 tell consumers it's okay to run their tires at 26
21 psi -- is that the kind of decision that Firestone
22 is in the business of making or is that the vehicle
23 manufacturer's business?

24 A. That's the vehicle manufacturer's business.

25 Q. From a beginning to end standpoint so to speak at
0081

1 some point in time this year Firestone publicly told
2 the consuming public that they recommend operating
3 these tires at 30 psi, not 26, is that correct?

4 A. That's correct.

5 Q. Were you involved in the decision to tell the
6 consuming public not to do what Ford had said at 26
7 psi but heretofore to run them at 30 psi?

8 A. I was not directly involved in that decision.

9 Q. Were you involved in investigating whether the 26
10 psi was a factor in these tires coming apart?

11 A. Well, I certainly looked at the reserve load at one
12 point in time the tires at 26 psi had and would
13 certainly degree that 30 psi would be better and I
14 would recommend that but I don't think I actually
15 was directly involved in that decision?

16 Q. There is no question that operating the tires at 26
17 psi will have certain kinds of effect not only on
18 the tire but on the vehicle, is that fair?

19 A. That's correct.

20 MR. CRAWFORD: Object to form.

21 BY MR. TURNER:

22 Q. For instance, let's talk about the vehicle for a
23 minute. If you deflate the tires from 35 psi down
24 to 26 psi how is that going to affect the rolling
25 resistance of the tires?

0082

1 A. That would make the rolling resistance of the tires
2 higher.

3 Q. From a higher standpoint, what does that mean in
4 terms of fuel efficiency for the Explorer?

5 A. It will reduce the fuel efficiency.

6 Q. From a tire standpoint, if you run the tires at 26
7 pounds of pressure at full load as opposed to 35
8 pounds of pressure at full load, what kind of
9 stress, additional stress if any does that put on
10 the internal components of the tire?

11 A. Assuming the load is the same, running the tire at
12 26 psi will put more internal stress on the tire
13 than operating it at 30 psi or -- I forget you asked
14 30 or 35, but either one.

15 Q. If you have a tire that is recommended to be
16 operated at 26 pounds of pressure, is there general
17 information within both the automotive industry and
18 the tire industry as to how conscientious owners of
19 vehicles are in checking their air pressures in
20 this day and time where there are very few
21 full-service gas stations?

22 A. I think there is knowledge in both industries --
23 tire industry and automotive industry. I certainly
24 think that the overall knowledge, though, of
25 maintenance of a particular vehicle would be more in

0083

1 the area of the vehicle manufacturer as opposed to
2 the tire manufacturer because they set up all the
3 scheduled maintenance programs and the way they
4 check things and they deal with the customers and so
5 on.

6 In the replacement market probably that
7 reliance becomes more on the tire manufacturer,
8 although still has to conform to whatever the
9 maintenance schedules set out by the original
10 equipment manufacturer are.

11 Q. We know that one of the things that can harm a tire
12 and can create an opportunity for a tread separation
13 to occur -- where the tread physically peels off the
14 tire -- is operating the tires in an under-inflated
15 condition, is that correct?

16 A. There's no question about that.

17 Q. I presume that there's a margin in there where being
18 maybe one or two or maybe three psi under what the
19 manufacturer of the car recommends is not
20 necessarily dangerous.

21 Is there some cut-off, some point, some
22 standard used within the tire industry or that
23 you've used?

24 MR. CRAWFORD: Object to form.

25 THE WITNESS: I don't think there's a

0084

1 cut-off because it depends on the speed and the

2 load, the type of driving and so on, the ambience
3 to some extent. I've always felt when you get about
4 20 percent under-inflated, you're starting to get
5 into an area where you could be in trouble.

6 BY MR. TURNER:

7 Q. If we've got a vehicle like the Explorer where Ford
8 is recommending that consumers go out there and run
9 their cars at 26 pounds of inflation pressure, if
10 their tires get down into the neighborhood of 21 as
11 opposed to 26 or in the neighborhood of 20 as
12 opposed to 26 and they are in west Texas or south
13 Texas driving at 70, 75 miles an hour in very hot
14 temperatures, on freeways for very long distances,
15 can that be dangerous to the consumer?

16 A. Yes.

17 Q. Is there some particular area of the tire that is
18 affected -- particularly affected when you are
19 operating tires in an under-inflated condition?

20 A. Yes.

21 Q. What particular area?

22 A. The belt edge region of the tire.

23 Q. Is that the same area we were pointing out on the
24 video earlier?

25 A. Yes, it is.

0085

1 Q. Now, Ford Motor Company had somebody by the name of
2 Jason Vines who has described in an Associated Press

3 article -- and I'll just read the quote and then I
4 want to ask you a question about it. This is
5 dated October 12 of this year. Jason Vines was
6 quoted as saying:

7 Our supplier partner, talking about
8 Firestone, our supplier partner has ben
9 waving red flags about tire pressure in
10 vehicle design, Vines said. We're
11 incredibly disappointed with what they've
12 done.

13 He references Firestone here as being a partner in
14 terms of supplying tires to Ford Motor Company.

15 Did Firestone consider Ford to be playing a
16 major role in the creation of this particular tire?

17 MR. CRAWFORD: Object to the form.

18 THE WITNESS: Yeah, this tire was developed
19 for them.

20 BY MR. TURNER:

21 Q. In terms of the tire pressures, did Ford Motor
22 Company ever come and ask you, Mr. Gardner, and
23 Firestone in the Product Analysis department, ask
24 you your opinion before they told consumers it was
25 okay to run Explorers at 26 pounds of pressure? Did

0086

1 they ask you if that was okay?

2 A. No.

3 Q. At some point in time did Ford come back to

4 Firestone in the year 2000 objecting to Firestone's
5 public position about don't operate these tires at
6 under 30 pounds of pressure anymore?

7 A. I think Ford when we made the recommendation they
8 had tested -- we asked them to test the tires on
9 their vehicles at 30 psi and ultimately they
10 concluded it would be satisfactory to run the tires
11 at 30 psi.

12 I don't think initially they were fully
13 supportive of it and the recommendation but I think
14 ultimately, they decided that in the interests of
15 preventing consumer confusion they would support it.

16 Q. Actually, I think Mr. Mazaron from Ford sent
17 Firestone a letter to that effect? Do you recall
18 that?

19 A. I don't remember that specifically but that was my
20 general understanding.

21

22 (Deposition Exhibit No. 14 was marked.)

23 Bates Nos. EXP7 1963 - 1967

24 EXPA 1025 - 1026

25 EXPA 0985 - 0986

0087

1 EXP5 1563 - 1575

2 EXPA 1357

3 EXPV 8214 - 8213

4

5 Q. The next thing I want to talk about is what we've
6 marked as Exhibit 16 (sic, 14) and during the break
7 I gave you a package of information and that
8 includes a summary sheet on the very front page.
9 These relate to something called Tire Construction
10 Detail Sheets.
11 Just so everybody is crystal clear on what
12 we're talking about, what is a Tire Construction
13 Detail Sheet?

14 A. A Tire Construction Detail Sheet is basically a
15 piece of paper that has all the construction details
16 on it for a tire that's going to be ultimately in
17 the running to be sold to Ford Motor Company.
18 Before Purchasing and Sales can get
19 together and arrange to sell tires to Ford, it has
20 to have an engineering approval. The Tire
21 Construction Detail Sheet specifies the details of
22 the construction that Ford approved. Then it's
23 signed off by Ford and at that point it goes to
24 Purchasing and their purchasing agents if they agree
25 on it with our salespeople on price and scheduling

0088

1 and timing and so forth, then we can sell tires to
2 them.

3 Q. If I could see that. Let me show the jury an
4 example of what a Tire Construction Detail Sheet
5 looks like so everybody can kind of get a better

6 feel for what we're talking about. It's a sheet
7 that has a lot of different blanks in it that you
8 can fill in; is that fair?

9 A. Yes.

10 Q. If you focus in on the top it says Ford Light Truck
11 Tire Construction Detail Sheet and, of course, this
12 particular one -- each of them are unique but this
13 particular one relates to P235/75R15 standard load
14 tire of an AT type, correct?

15 A. Correct.

16 Q. This happens to be the Radial ATX. It doesn't say
17 ATX II, but that's what this is, right?

18 A. That's correct. We never used the ATX II actually
19 on the tire.

20 Q. The construction number is SL531J. This particular
21 number as we will see on the summary sheet, this
22 defines within Firestone what?

23 A. That defines the tire. That is actually molded on
24 the tire. That defines the specification.

25 Q. Out here beside it there's a DOT code number and
0089

1 of course, this would be, I take it, the plant code
2 for which plant is approved to produce this tire
3 under this Tire Construction Detail Sheet at any
4 given time?

5 A. That's correct.

6 Q. This one has a W2; that means Wilson, North Carolina?

7 A. That's correct.

8 Q. IMO, what's that?

9 A. That's an internal code we use for distribution.

10 Q. That tells you what part of country it goes to or

11 which plant?

12 A. No. It just tells us it's the SL531J tire.

13 Q. The VN. That means Joliette, Quebec, Canada?

14 A. Yes.

15 Q. Over here, VD, and it gives the date it was

16 approved for VD in 1993. VD is Decatur, Illinois?

17 A. Correct.

18 Q. Of course, it's got the Ford part number reflected

19 on the Ford records and then it's got the cord

20 detail and we were talking earlier about the 1x5

21 cord?

22 A. Yes.

23 Q. And it has the ends, both green ends and cured ends.

24 That would be the number of ends per inch?

25 A. Yes, it would.

0090

1 Q. If you looked at all those little steel belt cords

2 that we were talking about earlier, if you measured

3 off an inch and counted the number of ends in a

4 given inch that's what we're really talking about

5 here?

6 A. Yes; measuring perpendicular to the direction of the

7 cords.

8 Q. Over here there are code numbers given, code
9 designations given for the various compounds and
10 compound means the chemical rubber compound, right?

11 A. That's correct.

12 Q. You've got a different compound for the tread than
13 you do for the side wall than you do for the body
14 than you do for the belt?

15 A. Correct.

16 Q. I presume each of these codes would contain some
17 sort of formula that would tell you what the rubber
18 was made of?

19 A. Exactly. There would be a recipe for that.

20 Q. It also tells you how many steel belts you have and
21 how many polyester belts, body plies you have.

22 A. Yes.

23 Q. The other thing down here it tells you that pursuant
24 to the specification, the average tire assembly
25 weight for this particular tire is 30.1 pounds?

0091

1 A. Correct.

2 Q. Then, it's got all sorts of other information about
3 the specifications and these would be specifications
4 that would have been created by Ford, revolutions,
5 rolling resistance, and forced variations in
6 balance?

7 A. Yes.

8 Q. At the bottom, everybody kind of signs off on this

9 thing when it's done. You've got Mr. Reichenbach's
10 signature?

11 A. Yes. He was a Detroit sales engineer at the time.

12 Q. This one actually happens to be January 3, 1989.

13 This is Firestone's representative?

14 A. Yes.

15 Q. You have a place for all the various Ford engineers
16 to sign on concurrence for this particular tire,
17 right?

18 A. That's correct.

19 Q. The very first page of 16 (sic, 14) and by the way,
20 Vaughn, these Tire Construction Detail Sheets came
21 from Ford and they have Bates numbers. Probably
22 best thing when we take a break in a minute, we'll
23 go back and read these in but I've got these in
24 chronological order by date.

25 Let's go to the summary for just a second
0092

1 and I want to talk about a couple of these things.
2 First of all, on this summary sheet at the top are
3 the ATX tires and beginning at the bottom are the
4 Wilderness tires. Let's talk about the ATX first.
5 We've got four construction detail sheets
6 that were issued, one in January of '89, one
7 in January of '91, one in July of '92 and one in
8 April of '94.

9 Now why is it that we have four different

10 Tire Construction Detail Sheets for that particular
11 tire? Do you have to issue one every other year or
12 something?

13 A. I'm not sure what the 598 is.

14 THE TECHNICIAN: Off the record at 2:45.

15 (A pause was had in the proceedings.)

16 THE TECHNICIAN: Back on the record at

17 2:46.

18 BY MR. TURNER:

19 Q. Let's walk down through these for just a second and

20 we will get down to 598J. This first Tire

21 Construction Detail Sheet from January of 1989, that

22 clearly would have applied to the first model year

23 of the Explorer, is that right?

24 A. Yeah. That was the tire used on the Ford Explorer

25 up to the 1995 model year, as I recall.

0093

1 Q. On January 2, 1991, 598J was approved.

2 A. I don't think so. I don't see where it was ever

3 approved.

4 Q. On the particular sheet, you're talking about? You

5 don't see a signature?

6 A. I don't recall that ever being used on the Explorer.

7 Q. Can you tell me the difference between the first one

8 and the 531J and 598J?

9 We're going do plug in some facts here in

10 just a second. It's not a quiz or a test. They

11 look identical to me, at least according to the Tire
12 Construction Detail Sheet.

13 A. Looks like they have a different tread compound.

14 Looks like a different body compound. Seems like
15 that's what's different -- compounds.

16 Q. But sizes, dimensions --

17 A. Dimensions are the same but if I'm not mistaken, I
18 don't recall SL598J ever being used, ever being put
19 on Explorers.

20 Q. We're going to talk about why that is in just a
21 second.

22 In July of 1992, 598J was again reflected
23 in there?

24 A. Yes, that's correct.

25 Q. Is that one signed off on?

0094

1 A. I don't think so.

2 Q. Does that one look identical to the January of '91?

3 If you look at the tread compounds --

4 A. Let's see. July -- I'm trying to find the date.

5 Q. Look beside Mr. Reichenbach's name.

6 A. 7/8/92, yeah. There was never approved.

7 Q. Never signed off on by Ford?

8 A. That's true.

9 Q. Is there some difference between the compounds used
10 in the 1991 598J and the '92 598J?

11 A. Shouldn't be. They should be the same. They look

12 the same.

13 Q. So can you explain to us why a Tire Construction
14 Detail Sheet revising the compounds was submitted in
15 '91 but not accepted and then submitted again in
16 July of '92 but not accepted?

17 A. I don't know.

18 Q. If we move to April of 1994 --

19 A. I can just tell you that SL598J would be the same
20 tire, whenever it was submitted. I don't know why
21 Ford didn't approve it but it wasn't approved.

22 Q. What you're telling me is that these two
23 submissions, the '91 and '92 submissions, would have
24 been identical tires submitted on different dates
25 but not approved on either date?

0095

1 A. Well, they may have been submitted, I'm sure before
2 the construction detail sheet, doesn't necessarily
3 correspond to the date the tires were taken into
4 Ford, but certainly they were submitted for approval
5 on those two different dates and they weren't
6 approved and I don't know why.

7 Q. In April of 1994, 897J. Was that one approved?

8 A. Yes. That was the tire revisions that were done
9 when the suspension change was made and there was
10 some additional criteria that that tire had to meet.

11 Q. In other words, what you're telling us is when Ford
12 changed the Explorer from a Twin-I-Beam front

13 suspension to a short/long arm front suspension for
14 the 1995 model year, this is the tire that was going
15 to be used on that particular vehicle?

16 A. Yes. At that point they wanted some additional
17 improvements and that was the tire submitted and
18 it was approved.

19 Q. One of things they changed was the shoulder of the
20 tire?

21 A. I don't think on the 897 -- I don't think the mold
22 was changed at all. They changed the -- the tire
23 was speed-rated and they wanted some improvements in
24 ride and they changed the bead area of the tire. I
25 don't think the shoulder belt area was changed.

0096

1 Q. Let me list these for you. I got these four things
2 out of a deposition you gave in the Hendricks case.

3 A. Yes.

4 Q. Let me read these four things off and see if this
5 refreshes your recollection at all.

6 You told the lawyers deposing you in the
7 Hendricks case that the change from 531J to SR897J
8 included a slight change in the shoulder, a change
9 in the bead in that it was destiffened --

10 A. I remember that, that's for sure.

11 Q. For harshness. The tire was speed-rated as an S
12 speed rating?

13 A. That's for sure.

14 Q. And a lower rolling resistance was obtained by using
15 a subtread compound that was different from the
16 subtread compounds previously used?

17 A. That sounds right, too. I'm not sure about the
18 shoulder. I know they wanted a wear improvement
19 for the shoulder, but I thought we didn't change the
20 shoulder of the tire but they got the wear
21 improvement because of the suspension change of the
22 vehicle.

23 I will tell you this, that at the time I
24 gave that deposition in Hendricks, that was a
25 subject I was supposed to cover so I was more

0097

1 familiar with that probably then than I am at the
2 moment.

3 Q. Really, the bottom line out of what you just told me
4 was that if in fact you testified in the Hendricks
5 case they did slightly change the shoulder, you
6 would be more comfortable with that testimony than
7 you are today because you haven't gone back and
8 looked at it?

9 A. Yeah, but I also think you might have been
10 misreading it in that they wanted a *wera
11 improvement in the shoulder as opposed to us
12 actually changing the shoulder of the tire.

13 But there was a shoulder wear issue going
14 from the SL531J to SR897J.

15 Q. I want to walk through some other things in the
16 context of these four dates and see if we can't
17 explain the '91/'92 submissions that were never
18 approved by Ford, okay? Are you with me on the top
19 four?

20 A. Yeah, I'm with you.

21

22 (Deposition Exhibit No. 17 was marked.)

23 Bates No. RGR0 15404

24

25 Q. First of all, Exhibit 17 is an internal Ford
0098

1 document that previously has been marked as an
2 exhibit in Mr. Simpson's deposition. This
3 particular document an E-mail from September of 1990
4 which would have been between the date of the
5 original ATX for the Explorer and the date of this
6 submission, okay?

7 A. Correct.

8 Q. Let's put it up here. It's a gentleman by name of
9 Jim Burdette who worked in the fuel efficiency area
10 at Ford. As you can see, the date up here at the
11 top is dated September of 1990 and it says:
12 Jim Burdette has requested that the current
13 construction (SL531J) -- and that's the
14 first ATX, right?

15 A. Yeah, that one was clearly on the Explorer.

16 Q. He's asking that it be replaced by the SL571J which
17 contains the low rolling resistance polymer for the
18 1992 model year, (a .15 mile per gallon metro
19 highway improvement). And that may be a 371.
20 That's awful difficult to read. I said 571. It
21 looks like a 5.

22 A. It's also a number that I don't think was ever used.

23 Q. Right. Then it goes on to say.

24 Firestone has reported that it could
25 contain this timing if Ride and Handling
0099

1 approval were given by 10/31/90. This
2 timing is limited as sample tires would not
3 be available until October 15, '90. Dave,
4 can this be contained?

5 A second issue -- first of all, let's go back and
6 talk about this issue. I'm a layperson, I'm not an
7 engineer, but if I'm reading this correctly somebody
8 named Jim Burdette at Ford had requested the ATX
9 design be replaced with a tire that has a lower
10 rolling resistance polymer for fuel efficiency
11 reasons.

12 As an engineer, is that how you would read
13 that?

14 A. Yeah. It would be the kind of thing they would
15 want.

16 Q. In other words, if you wanted to improve your fuel

17 efficiency one of the ways to do that is to improve
18 the rolling resistance of the tire?

19 A. Yeah. If you're talking about tire. Everything
20 else on fuel efficiency is not tire-related but to
21 improve the fuel efficiency on the tire, that's what
22 you do. You change the polymer or up the pressure,
23 one or the other, or possibly do some other
24 construction things.

25 Q. Did you become aware at some point in time that
0100

1 people working in the fuel efficiency area at Ford
2 had become concerned with the fuel efficiency of the
3 Explorer because they had deflated the tires down to
4 26 psi which had harmed the rolling resistance of
5 the tire?

6 MR. CRAWFORD: Object to form; lacks
7 foundation.

8 THE WITNESS: I wasn't involved in that
9 and I don't know whether they did or didn't.

10 BY MR. TURNER:

11 Q. Okay. It goes on to say the second issue is
12 involved with the Firestone wear testing and it goes
13 on to talk about the 5K -- that means 5,000 mile and
14 10,000 mile wear tests, is that correct?

15 A. Yes, those were the tests they ran at that time.

16 Q. Then it goes on down here and says:

17 Jim Burdette has also requested -- and I'm

18 reading this last paragraph -- that the
19 tire recommended pressure be increased from
20 26/26 to 30/35 for a .16 mile per gallon
21 metro highway improvement.
22 Again, I'm not an engineer but if I'm understanding
23 that correctly, what Mr. Burdette is recommending is
24 let's put more air in the tires to improve the fuel
25 efficiency of the Explorer.

0101

1 Is that, from an engineering standpoint,
2 the way you would read that?

3 A. Yeah, that would have that effect.

4 Q. It goes on to say:

5 Are there any ride and handling or vehicle
6 dynamics issues? Please respond to Tom

7 Mast or myself. Thanks.

8 I don't have the answer to that particular
9 electronic mail. I've looked for it but don't have
10 it. My question to you is: At any point in time
11 were these kinds of communications that we see going
12 on within Ford in 1990 during this period between
13 the time we've got the original Tire Construction
14 Detail Sheet in '91, were you aware of any of these
15 discussions within Ford about putting air back in
16 the tires because of fuel efficiency?

17 A. I was not personally involved in it so I don't know.

18 Q. Do you know a gentleman at Ford -- he may not still

19 be there -- named James Englehart?

20 A. I don't know.

21 Q. Mr. Englehart was vice-president of Ford Truck
22 Operations. He was the guy in North America who was
23 in charge of all the trucks, including the Explorer
24 that was made in July of '91.

25

0102

1 (Deposition Exhibit No. 18 was marked.)

2 Bates Nos. RGR0 44362 -44370

3

4 Q. Now, after this submission in January of 1991, this
5 next document, Exhibit 18, that I'm going to show
6 you is likewise an exhibit from Mr. Simpson's
7 deposition and it's a memo dated July 1, and it goes
8 to a variety of different individuals from Jim
9 Avouris. You know him, don't you?

10 A. Yeah, I know Jim.

11 Q. He was one of the tire guys at Ford?

12 A. Yeah.

13 Q. And then it's got a whole bunch of other people,
14 including Mr. Burdette, Mr. Skynar, he was a tire
15 guy at Ford, right?

16 A. I don't know him.

17 Q. Mr. Bacigalupi, you know him?

18 A. That name sounds familiar. I don't know that I ever
19 met him but I know the name.

20 Q. Mr. Avouris has sent a memo to all these people and
21 it references the subject as being: JEE Concern of
22 Too High Tire Rolling Resistance.

23 The subject of this particular memo appears
24 to be Mr. Englehart, because it defines him
25 down here. Jim Englehart's concern that
0103

1 the tire has too high of a rolling
2 resistance. We met with Tom Hause to
3 resolve Jim Englehart's concern from a tire
4 rolling resistance non-competitive
5 standpoint. Tom has agreed to pursue our
6 tact of keeping tire wear at good
7 outstanding levels and cautiously moving to
8 lower rolling resistance. We are setting
9 up a meeting with Englehart, Cooper,
10 DeJonckheere, Dave R and Messner to inform
11 program management as well of this charter.
12 If you have any questions.

13 Did you become aware of concerns at Ford Motor
14 Company in 1991 about the effect of rolling
15 resistance on their fuel efficiency competitiveness?

16 A. I wasn't personally involved in it so I don't know
17 whether that's correct or not.

18 Q. If you turn over to the third page of this exhibit
19 which is 18, it give you a little understanding of
20 the tire strategy and position at Ford at this

21 particular time. It says:

22 Tire rolling resistance accounts for around
23 4 to 8 percent of the fuel economy number
24 so if rolling resistance can be completely
25 eliminated miles per gallon would increase
0104

1 on an average of 6 percent. A regression
2 of competitive Ford rolling resistance data
3 is Attachment I one, showed Ford to be 7
4 percent below competition.

5 NOW, it goes on to say down here:

6 Rolling resistance tradeoffs.

7 At the best current tire technology levels,
8 rolling resistance, wear and traction are
9 trade-offs.

10 Do you agree with that?

11 A. I'm not sure I would totally agree with that, no.
12 It depends on the tire but certainly when you talk
13 about traction -- maybe it depends on how they are
14 getting rolling resistance.

15 If you're talking about hydroplaning, for
16 example, the higher the pressure, the better off you
17 are and the higher the pressure, the lower the
18 rolling resistance.

19 So I don't know that I would always agree
20 with that.

21 Q. This is a little bit unfair because you've never

22 seen this, right?

23 A. Never seen it before.

24 Q. Ford didn't invite you to this meeting, right?

25 MR. CRAWFORD: Objection to the form.

0105

1 THE WITNESS: No.

2 BY MR. TURNER:

3 Q. They didn't share this document with you, either,
4 did they?

5 A. That's correct.

6 Q. Anyway, the Ford engineers are saying:

7 At the best current tire technology levels,
8 rolling resistance, wear and traction are
9 tradeoffs; improvement in one degrades one
10 or both of other two. Industry lessons
11 learned from the early '80s have led Light
12 Truck Engineering offices to a controlled
13 approach to rolling resistance reductions.
14 Severe wear issues were generated in that
15 period that were traced to the aggressive
16 approach to low rolling resistance.

17 I presume that means lower.

18 Do you recall in the 1980s the kinds of
19 problems they are referencing here with severe wear
20 issues?

21 A. I don't specifically remember that.

22 Q. After that particular memo, we know that -- going

23 back to our chart up here -- we know that sometime
24 again in July of 1992 this same tire -- and by the
25 way, this tire, the difference between SL598J and
0106

1 this first one right here, 531J, was a change in the
2 compounds, right?

3 A. I think we looked at it and it was a tread compound
4 change.

5

6 (Deposition Exhibit No. 19 was marked.)

7 Bates No. EXPA 1017

8

9 Q. We also have what was marked as Exhibit 11 to Mr.
10 Simpson's deposition and it's going to be Exhibit 19
11 here today.

12 It is an attachment that went along with
13 one of those letters a while ago and it talks about
14 the 1993 Explorer SL. That would be the standard
15 load, right?

16 A. Correct.

17 Q. Rolling resistance improvement. I think we're going
18 to find out the answer to why those Tire
19 Construction Detail Sheets were never approved.

20 It says:

21 With the proposed Explorer tire not passing

22 J-turn -- you know what a J-turn test is?

23 A. Yes.

24 Q. Were you generally familiar with the fact that
25 during this same timeframe that Ford had an internal
0107

1 procedure, that they ran a test on a computer
2 with the Explorer called a J-turn where if two
3 wheels came off the ground simultaneously, at 55
4 miles per hour, and a 360-degree steering wheel
5 input at 515 degrees per second -- if two wheels
6 came off the ground, it failed the test?

7 MR. CRAWFORD: Object to the form.

8 THE WITNESS: I know Ford did ADAMS
9 modeling but I don't know sitting here what their
10 criteria was but certainly they did have a criteria
11 for failing and passing.

12 BY MR. TURNER:

13 Q. I want you to assume for purposes of my questions
14 here today that the Ford engineers have verified in
15 sworn testimony that not passing the J-turn means
16 wheels are coming up in the air, okay?

17 A. Yes.

18 Q. Okay.

19 With the proposed Explorer tire not passing
20 J-turn, Firestone was asked if there was
21 anything other than compound changes that
22 could get a rolling resistance improvement.
23 So apparently, Firestone was attempting to improve
24 rolling resistance by making compound changes to the

25 tire. Is that how you read that?

0108

1 A. Yeah. That's something you do. Compound is one of
2 things you can do to improve rolling resistance.

3 Q. When we go back and look at these two tires right
4 here, these two Tire Construction Detail Sheets, we
5 know compounds were being changed, right?

6 A. Yeah, the tread compound was changed.

7 Q. The tread compounds were apparently being changed
8 based on these documents we're looking in order to
9 try to improve the rolling resistance, right?

10 A. Correct. That's what that appears to be.

11 Q. According to Exhibit 19, when they made these
12 compound changes the wheels were coming off the
13 ground?

14 A. They were failing the J-turn test, yes.

15 Q. Was Firestone being told that?.

16 MR. CRAWFORD: Object to the form.

17 THE WITNESS: I don't know. Generally we
18 weren't aware of that kind of information. We
19 didn't get involved in the J-turn testing they did.
20 We provided tire data to them and sometimes I
21 think we actually ran the program for them, but we
22 didn't get involved with their criteria for what
23 passed and failed.

24 BY MR. TURNER:

25 Q. Going back to this Exhibit 19 for one second and

0109

1 then we'll move to something else because this is

2 important. It says:

3 Was there anything other than compound

4 changes that could get a rolling resistance

5 improved?

6 Mr. Martin told me two things. He told me that one

7 way to improve rolling resistance is to change the

8 compounds.

9 A. That's one way.

10 Q. He told me that there was another way you could

11 improve the rolling resistance of the tire as well

12 and that is to make the tire lighter. You either

13 take weight out of tire by taking rubber out, by

14 taking polyester out, by decreasing the gauge of

15 certain components of the tire, or by using a

16 lightweight belt package. Is that correct?

17 A. I would say that directionally that's probably going

18 to be correct.

19 Q. Firestone did submit a letter in which they

20 indicated they did not have any additional

21 proposals. Some of the technology improvements

22 going into the new F-Series, XL tire -- that's the

23 extra load tire, correct?

24 A. Right.

25 Q. -- are already in the current Explorer tire. To

0110

1 respect Firestone's confidentiality, this letter
2 will not be included in the minutes.

3 The letter he's referring to I've got a
4 copy of and we'll mark it as well.

5

6 (Deposition Exhibit No. 20 was marked.)

7 Bates No. EXPA 0992

8

9 Q. This is No. 20, this one is dated August 27, 1982
10 and it's a letter from Mr. Behr. You know Mr. Behr,
11 don't you?

12 A. Yes.

13 Q. He's an account representative at Firestone?

14 A. Yeah.

15 Q. His name is right down here. The subject of this
16 particular memo is: Rolling Resistance, ATX XL
17 versus standard load, is that correct?

18 A. Correct.

19 Q. He's writing this to Mr. Bacigalupi at Light Truck
20 Engineering at Ford. He says:

21 During our meeting of August 7 on the
22 improved rolling resistance program for the
23 P235 XL tires, you inquired as to potential
24 gains available by incorporating some of
25 the features of the new XL into the

0111

1 Explorer SL.

2 The XL is for the big pickup truck and the SL is for
3 the Explorer, right?

4 A. Right.

5 Q. Okay.

6 As you will recall, we were projecting the
7 gains without changing the tread compound
8 for the F-Series pickup truck. The tread
9 compound in both ATX tires also happens to
10 be the same. I'll address the three areas
11 we are modifying in the ATX extra load
12 tire, those being the belt package,
13 subtread compound, and body ply gauge. The
14 vast majority of the gain we are projecting
15 will come from the change to the belt
16 package and more specifically, the steel
17 cord. However, this Explorer already
18 utilizes a lightweight belt package.
19 Do you see that right there?

20 A. Yes.

21 Q. Can we stop for a minute and explain to the jury
22 what a light weight belt package is so everybody
23 understands.

24 A. Well, compared to extra load tires it would be
25 basically a smaller amount of steel.

0112

1 Q. So it's going to weigh less, in other words?

2 A. Right.

3 Q. Then it says:

4 With steel cord similar to what we are
5 adopting in the extra load tire, we would
6 anticipate little or no change in rolling
7 resistance in the Explorer if we adopt the
8 belt package used in the new XL tire. As
9 for the other two modifications, the body
10 ply package that we are adopting is already
11 identical to that used in the standard load
12 tire. With respect to the new subtreed
13 compound, this could potentially benefit
14 the Explorer tire.

15 Now, this was ultimately used, right?

16 A. Yes, in the SR897J.

17 Q. Okay.

18 In summary, the changes being planned for
19 the extra load are either already incorporated or do
20 not have a large enough impact to warrant a change
21 at this time. You were not involved in any of these
22 discussions. Though, is that correct?

23 A. That's correct.

24 Q. We do know that when you go back over to Exhibit 19
25 and kind of pull all this together for a second,

0113

1 the '93 Explorer with all of these fancy compounds
2 that were being proposed in these two, had wheels
3 coming off the ground and then we know that in April

4 of 1994 this one was actually approved, is that

5 correct?

6 A. That's correct.

7 Q. We talked about the things that you could recall

8 being changed about it, right?

9 A. Yes.

10 Q. The other thing I noticed on the Tire Construction

11 Detail Sheet which appeared to be the only

12 difference I could see between all four of these was

13 if you look over here on the Tire Average Weight,

14 the tire went down to 28-1/2 pounds.

15 A. Is that the assembly or just the tire?

16 Q. The Tire Construction Detail Sheet says average tire

17 weight.

18 A. Then it would be just the tire. You're looking at

19 assembly --

20 Q. I don't have it in front of me.

21 A. It says average tire assembly weight. I'm not sure

22 but let's assume it's the tire.

23 Q. There's one other place that you can look. If you

24 flip over, one of those has the Wilson, North

25 Carolina warrant where they actually have the spec

0114

1 on one side of the package and the other side of the

2 page they actually made a tire and compared it to

3 the spec?

4 A. That's the tire weight.

5 Q. We know that between 1989 and April of 1994 the tire
6 weight on the specification or at least the Tire
7 Construction Detail Sheet, went from 30.1 down to
8 28.5 on those sheets, right?

9 A. That's right.

10 Q. Can you tell me from the Tire Construction Detail
11 Sheet what it is that was taken out of this tire
12 that resulted in basically a 10 percent loss in the
13 weight of the tire?

14 A. They put in a different subread which probably
15 weighed less and in addition, they also took out
16 some of the bead filler area because one of the
17 issues was ride improvement and so the tire was if
18 you will destiffened, or some of the hard material
19 in the bead area was removed and that probably
20 would account for lower weight.

21 Q. Would the actual design specifications tell you
22 exactly what change was made in order to take that
23 10 percent of the weight out?

24 A. Yes. The actual specifications you could go through
25 and see what component dimension changes -- you
0115

1 would have to do some calculations to get the weight
2 changes.

3 Q. The last thing I want to talk about with respect
4 to the ATX and then we'll move into the Wilderness
5 real quick is the fact the last version of the ATX

6 we know based on the Tire Construction Detail Sheets
7 ended up with a 28-1/2 pound tire, right?

8 A. Yes.

9 Q. When we moved into the Wilderness tires which are
10 down at the bottom, of course, the first one weighs
11 35.6 pounds but that's the bigger tire, that's the
12 255/70R16?

13 A. Correct.

14 Q. That's a much bigger tire. That was actually
15 produced only for the Eddie Bauer version of the
16 Explorer?

17 A. That's my understanding.

18 Let me put it this way, it was an option
19 that was standard on the Eddie Bauer package. You
20 may have been able to buy it as option on other
21 ones.

22 Q. You actually couldn't buy that as an option on, for
23 instance, Ms. Bailey's 2-door 4x2 vehicle, could
24 you?

25 A. I don't know. You're right that it was made
0116

1 for the Eddie Bauer package. Whether you could get
2 it or put it on, at least it was approved to be put
3 on.

4 Q. As a matter of fact, with regard to the 2-door
5 Explorer, the 2-wheel drive version, not the
6 4-wheel version, with respect to the 2-wheel

7 drive version, this particular tire didn't pass

8 Ford's standards because the wheels came off the

9 ground. Did you know that?

10 A. I did not know that.

11 Q. The 235 tires we have construction detail sheets

12 for are dated in May of '95 and August of '99.

13 A. All right.

14 Q. Both of these weight 28.2 pounds, which is basically

15 some minor differences between the old ATX of

16 28-1/2, but not much difference.

17 A. It was a different tread pattern and that might

18 account for it, I don't know.

19 Q. Both of these were called ST381J tires, correct?

20 A. Yes.

21 Q. Were there any other Tire Construction Detail Sheets

22 for the Wilderness AT of this version, the

23 P235/75R15?

24 A. I don't know. Typically there's a lot of different

25 tire construction numbers, some of which end up

0117

1 getting to Ford, some of which don't and of those

2 which get to Ford only some actually get close

3 enough for approval that somebody fills out a sheet

4 on.

5 Q. We do know that between May of '95 and August of '99

6 a change was made in the design of the Wilderness AT

7 tire, correct?

8 A. They both have the same number. I don't know what
9 it would be.

10 Q. There's been some reference to going back in in 1998
11 and redesigning the wedge. Are you familiar with
12 that?

13 A. Yes. If that's what it is, then that would make
14 sense.

15 Q. I've got that here as well. We will mark this as
16 21.

17

18 (Deposition Exhibit No. 21 was marked.)

19

20 Q. This comes out of a Washington Post article where
21 it's quoting a Mr. Adomitis. Do you know Mr.
22 Adomitis?

23 A. I know a Mr. Adomitis who worked at Firestone. He
24 was a lawyer. I don't know what he would be saying
25 about wedges.

0118

1 Q. I'm not sure what he was either. This is dated
2 September 21, 2000, called Firestone Redesigned
3 Tires in 1998. This came from some of the
4 Congressional testimony.

5 Did you watch any of that, by the way?

6 A. I didn't watch much of it. I think I saw some of it
7 on the news highlights.

8 Q. Let me zoom in here.

9 Spokesman Dan Adomitis said the changes
10 were not changed to eliminate a particular
11 problem. This was part of our continuous
12 improvement program, he said. That was not
13 in response to some specific problem with
14 Explorers or even the recalled tires, for
15 that matter. But the company found a
16 certain percentage of tread separations in
17 evaluating tire performance and your goal
18 is zero, he said, making that a reality is
19 harder. Adomitis declined to address how
20 the company knew what the rate of tread
21 separation is for light-truck and SUV
22 tires. The change involved widening a
23 piece of rubber called a wedge between the
24 two steel belts on the tires, he said.

25 Investigations of the fatal crashes have
0119

1 shown the treads often separate between the
2 two belts.

3 Did I read that correctly?

4 A. Yes, you did.

5 Q. Are you familiar with the redesign change that Mr.
6 Adomitis is talking about in Exhibit 21?

7 A. Yes.

8 Q. Were you involved in the decision to redesign
9 that tire?

10 A. I was not directly involved but I was aware of it.

11 Q. Can you explain to me -- I may have asked this and

12 you answered and I lost you. Were you involved in

13 this decision to redesign the tire?

14 A. I was not involved in it, no.

15 Q. Were you aware it had occurred?

16 A. I was aware it had occurred, yes.

17 Q. Did you discuss the redesign of the wedge with

18 anybody?

19 A. I don't remember doing that, no.

20 Q. Do you know who made that decision?

21 A. That was made by people in Tire Development which

22 would have been at that time Bob Johnson was in

23 charge of Tire Development and in '98, I'm not sure

24 who was in charge of passenger cars then.

25 Q. Just to make sure that we all understand exactly

0120

1 what's going on here, we're going to put this tire

2 diagram back up here for a second, okay? I want to

3 ask you and I know you can't reach over here, your

4 arms aren't long enough to reach over here and

5 point, but I'm going to point for you and you kind

6 of tell me where.

7 I want you to tell me where in this

8 particular diagram in general this wedge area would

9 be that would be increased in its design change.

10 A. There's one of the yellow pieces, there's one on

11 each side.

12 Q. So it's the one between the belts?

13 A. It's the one between the belts, yes.

14 Q. By widening do we mean making it longer from here to

15 here or thicker? (Indicating.)

16 A. They did both. My recollection is they did both.

17 Q. So on this particular diagram we circle these areas

18 right in here. On both sides of the belt edges they

19 made them wider and made them thicker?

20 A. That was my recollection and just so we're clear,

21 you've shown your schematic as the Wilderness AT.

22 That change was made across the board to all our

23 tires that used that wedge. It was not just done to

24 the Wilderness AT.

25 Q. I presume somewhere Firestone has a list of

0121

1 all of the tires at that point in time that were

2 changed because they were using this kind of wedge?

3 A. I don't think we have a list. At least if we do, I

4 haven't seen it but we have the information that

5 would certainly tell us which tires were

6 involved.

7 Q. One of the effects -- I think it's even referenced

8 in that article -- one of the effects of increasing

9 the width and the thickness of these wedges is to

10 make the belt edges a little bit more durable, is

11 that fair?

12 A. I would say -- you don't want to oversimplify it,
13 to say that is probably in the right direction. You
14 have to be careful; you go too thick and too wide
15 you start to add weight and it would be
16 counter-productive. It also depends a little bit on
17 the tire's construction.

18 I think the consensus would be that by
19 increasing that, the tire would be a little more
20 durable.

21 Q. Is it Firestone's position that tread separations
22 and the rates of tread separations that Firestone
23 was becoming aware of in 1998 had nothing whatsoever
24 to do with that change?

25 A. I certainly was not aware it that it did. I think
0122

1 at that time period Firestone probably had historic
2 low levels of tread belt separations. Certainly
3 compared to what we have now seen through some of
4 the NHTSA industry surveys, we had historic
5 industry low levels of tread belt separations.

6 But I think there was always an effort to
7 try to increase and improve the durability of our
8 tires.

9 Q. The only reason I'm changing directions on you,
10 Mr. Gardner, is that I want to stay on the same
11 topic, just moving forward in time just a little
12 bit.

13

14 (Deposition Exhibit No. 22 was marked.)

15

16 Q. Exhibit 22 is a copy of a news article from I think

17 the New York Times and it's captioned Fatigue Cracks

18 Cited as Source of Tire Failures..

19 This is an article that discusses a man by

20 name of Sanjay Govindjee. Do you know him?

21 A. Yes, I know who he is. I don't know him.

22 Q. He's a professor at Berkeley in California who

23 Firestone has hired as an independent consultant?

24 A. Yes.

25 Q. He says in this article, it says:

0123

1 An examination of recalled tires and

2 the factories where they were made shows

3 the tires developed internal cracks that

4 eventually caused them to loose their

5 treads, according to an independent expert

6 hired by Bridgestone/Firestone to

7 investigate the series of tire failures.

8 The cracks spread to the area between the

9 tires' two steel belts, said Sanjay

10 Govindjee, an associate professor in the

11 Department of Civil and Environmental

12 Engineering at UC Berkeley in a memo to

13 Bridgestone/Firestone that the tire maker

14 released Monday.

15 By the way, this is in October of this year, right?

16 A. Yes.

17 Q. Then he says:

18 My present focus is on the inter-belt

19 materials and their fatigue problems,

20 Govindjee wrote. All evidence to date

21 point to a slowly developing fatigue crack

22 that propagates through the belt wedge

23 material.

24 Now, the belt wedge material is what we were just

25 talking about, right?

0124

1 A. Correct.

2 Q. Okay.

3 And then subsequently into the belt skim

4 between the belts.

5 Now, the belt skim is the compound that encases the

6 belts?

7 A. Yes.

8 Q. At some stage the cracks reach a critical size and

9 the tires subsequently fail. Have you talked to Mr.

10 Govindjee about what he's finding with regard to

11 this wedge?

12 A. I have not specifically talked to him about the

13 wedge. I do think, though, that's an awful lot of

14 tire failures for whatever propagation of the

15 failure is through the wedge.

16 Q. I presume --and correct me if I'm wrong -- but I
17 presume Mr. Govindjee has been asked to investigate
18 not only those Wilderness tires that failed before
19 the wedge was redesigned in 1988 but after as well,
20 correct?

21 A. I don't know specifically what Mr. Govindjee's
22 assignment was other than I think he's pretty much
23 been given carte blanche to be independent and look
24 at materials from anybody within the company he
25 desires.

0125

1 Q. Now, the other reason I was asking you about
2 whether tread separations -- these tires peeling
3 apart -- was playing any role in the decision to
4 modify the wedge in 1998 is for a couple different
5 reasons, one of which is -- and I'm not going
6 through all these because most of these have been
7 reviewed with Mr. Martin.

8 But there are three of these I would like
9 to ask you about real quick.

10

11 (Deposition Exhibit No. 23 was marked.)

12

13 Q. We will mark as Exhibit 23 -- again, this is already
14 an exhibit to Mr. Martin's deposition. These were
15 actually marked also in Mr. Grush's deposition. Do

16 you know Mr. Grush?

17 A. I've never met Mr. Grush but I've heard his name.

18 Q. He's with Ford Motor Company.

19 A. Yes, that's my understanding.

20 Q. Exhibit 23 is a graph Mr. Grush prepared from those

21 property damage claims we talked about earlier.

22 Counts of Firestone Claims for 1991-2000 Firestone

23 for OE -- meaning original equipment, correct?

24 A. And Replacement Tires.

25 Q. OE means original equipment, though?

0126

1 A. That's correct.

2 Q. He's got them by tire size and I guess really what

3 he --

4 A. Is that something Grush produced?

5 Q. Yeah, he claims to have.

6 A. I'm not disputing -

7 Q. He's got his sticker on the bottom.

8 A. Anyway, whoever did it, I'm familiar with that kind

9 of chart.

10 Q. What we have basically here is a number of claims --

11 MR. CRAWFORD: That was a deposition

12 exhibit for Grush.

13 MR. TURNER: Right. When he testified he

14 said these were the graphs he prepared based on the

15 Firestone claims.

16 BY MR. TURNER:

17 Q. The count of tire claims -- this one goes all the
18 way up to 2000 right here. And these are the
19 235/75R15s so out of this for lack of a better
20 word -- out of this box of claims during this
21 period of time for Firestone OE and replacement
22 tires, out of all these sizes of tires these
23 235/75R15 tires represented by and far the biggest
24 group of tires for the claims, right?

25 A. Yeah, but keep in mind that that has to be

0127

1 normalized which I thought he did on a parts per
2 million basis because you can't just look at the raw
3 numbers.

4 What you're saying is true, that is the
5 biggest.

6 Q. Right. Then he also in 24 --

7

8 (Deposition Exhibit No. 24 was marked.)

9

10 Q. In 24 this was Mr. Grush's Exhibit 3 to his
11 deposition, he then took out of all these claims the
12 Alleged Failure Mode for Firestone ATX and
13 Wilderness OE and Replacement P235/75R15 Tires. He
14 took the count of claims and the lighter one is the
15 ATX and the darker ones are the Wilderness as per
16 the legend over here. Out of all these claims he
17 went and look at tread separation versus blowout

18 versus other kinds of problems versus unknown
19 problems, and by and far the biggest portion of all
20 these claims involved tread separations, according
21 to this chart, right?

22 A. Yeah. That would certainly make total sense.

23

24 (Deposition Exhibit No. 25 was marked.)

25 Bates Nos. 0500416 - 0500442

0128

1

2 Q. Then, Exhibit 25 was a comparison of 1998 versus
3 1999 adjustment records. Those adjustment records
4 we talked about earlier, those are the guys, the
5 people out in the world who, they are not hurt, they
6 don't have any property damage, they don't file a
7 claim necessarily with the legal department at
8 Firestone but they show up at the local Firestone
9 dealer with a bad tire and they want it replaced?

10 A. Yes.

11 Q. And it goes through the system?

12 A. Right.

13 Q. At the end of every year somebody at Firestone
14 punches the buttons and creates a comparison of how
15 are we doing this year versus to last year.

16 A. I think it's done more often than that but, yeah,
17 somebody keeps an eye on this?

18 Q. Exhibit 25 is one copy of one of these kinds of

19 things. This one is 1999 versus 1998 year end

20 adjustments, correct?

21 A. Correct.

22 Q. The page I want to flip to, if we go over here to

23 the Wilderness. First of all, on this particular

24 page -- this is all the tires, not just Wilderness

25 tires, the ATX included as well, this particular

0129

1 page is devoted to telling somebody at Firestone

2 that separations were increasing during this

3 timeframe. Is that what this says?

4 A. That's what it says. I don't recognize the document.

5 Q. Belt edge sep is up 14.7 percent over last year.

6 Did I read that correctly?

7 A. Yes.

8 Q. When you look down here, it actually gives you the

9 current number, 4,694, previous year was 4200

10 tread separations. Percentage change was 11.8.

11 Current adjustment is \$37.72.

12 What does that mean?

13 A. That must be the cost of it.

14 Q. Per every one of these?

15 A. Yes.

16 Q. If we multiply \$37.72 by 4,694, that would tell us

17 how much tread separations was costing Firestone

18 that year?

19 A. That's how I would read that.

20 Q. The previous was \$38.08 so apparently the cost of
21 adjustments had gone down a little bit in cost.

22 A. Apparently.

23 Q. The percentage of total -- I read this to be but you
24 need to correct me if I'm wrong -- that this 63
25 percent represents out of all the adjustments for
0130

1 that particular year, 63 percent of those
2 adjustments were tread separations.

3 MR. ZUMMO: Objection; form.

4 THE WITNESS: I'm not sure that I --

5 BY MR. TURNER:

6 Q. That's not how you would read that?

7 A. Those are probably -- I don't know whether that's
8 right or not. What years are these for?

9 Q. '98 and '99.

10 A. So the '99 -- that could be. But I don't know. The
11 document speaks for itself. I'm not familiar with
12 that particular document.

13 Q. I'm not really, either. These came from Congress
14 and Firestone apparently gave them to Congress and
15 they have these little lawsuit numbers down here
16 on the corner and the page we're looking at is
17 0500419, and it's confidential, the entire page.

18 If you flip over to the next page, it

19 actually breaks it out. We can look at the

20 Wilderness and the ATX II tires. FHATX moved to new

21 address. I guess what that means is that they moved
22 that to a different area?

23 A. Apparently.

24 Q. If we take, for instance, let's just use the
25 Wilderness tire because that's the tire that -- some
0131

1 of those tires are still out on the market, right,
2 they are not recalled?

3 A. That's correct.

4 Q. If we look at that, the current year showed 885
5 tread separations, if you believe this. The
6 previous year was 301 and the percentage change from
7 '98 to '99 was 194 percent.

8 Did I read that correctly?

9 A. Yes.

10 Q. Now, the percent of total -- in other words,
11 again, this may draw an objection but I'm doing the
12 very best I can in reading Firestone's documents --
13 as I read this, the percentage of all of the total
14 adjustments, all of the returns that were made to
15 the dealers -- because this is dealer only, correct?

16 A. Oh, this is only the dealers, okay.

17 Q. It says dealer only -- is 76 percent of all of those
18 that were returned were tread separations. In other
19 words, out of ten tires that people brought back
20 into the Firestone dealers, eight of those were
21 tread-separated tires.

22 MR. ZUMMO: Objection to form.

23 THE WITNESS: If that's what that document

24 says, yes, that would be right.

25 BY MR. TURNER:

0132

1 Q. Now, is it your testimony, Mr. Gardner, that these

2 kinds of numbers we're seeing on this particular

3 exhibit, that these kinds of numbers didn't have

4 anything to do with Firestone redesigning the

5 Wilderness tire wedge area?

6 A. Well, it wasn't done in these only in a couple lines

7 of tires. It was done across the board. So it was

8 not based on these. It was clearly based on

9 improving durability, as I pointed out earlier.

10 MR. TURNER: Let's take a five-minute

11 break. I am 15 minutes from being through.

12 THE TECHNICIAN: Off the record at 3:38.

13 (A brief recess was had.)

14 THE TECHNICIAN: Back on the record at

15 3:47 p.m.

16 BY MR. TURNER:

17 Q. Okay, Mr. Gardner. The last thing I want to talk

18 about is handling stability following a tread

19 separation.

20 You told me early on in this deposition you

21 personally have conducted research in the past and

22 I think actually published peer reviewed

23 information relating to that, is that correct?

24 A. Yes, I have.

25 Q. One of the issues you've looked into is what happens

0133

1 to a vehicle when tread separates from the tire and

2 what kind of change and direction of the vehicle

3 can occur ordinarily?

4 A. Yes, I have.

5 Q. From a vehicle dynamic standpoint, one of the things

6 that can happen when a vehicle is put into a severe

7 turning maneuver of some sort is the vehicle

8 oversteers or the back end begins to slide around

9 and the vehicle physically begins to slide, is that

10 correct?

11 A. If there's too much steering input put in, that's

12 correct.

13 Q. Or if the vehicle is designed to be an inherently

14 oversteering vehicle under certain turning

15 circumstances, that can also occur despite the

16 steering wheel input, can't it?

17 A. I think you have to have some input in order to get

18 a vehicle to go out of control but certainly some

19 vehicles react differently than others.

20 Q. Right. There are basically three things and we're

21 going to watch a videotape in just a second that

22 demonstrates each of these three propositions, but

23 one of the things that can occur in a turning

24 maneuver is the vehicle can plow and remain stable,

25 is that correct?

0134

1 A. That's correct.

2 Q. One of things that can occur is that the back end

3 of the vehicle begins to slide around and if the

4 vehicle is unstable, its wheels lift off the ground

5 and it begins to roll over?

6 A. That can happen, too.

7 Q. Another design -- the car company can design a

8 vehicle that will slide but not roll over, isn't

9 that true?

10 A. Certainly if it slides, if it doesn't dig into

11 something, sure, it can happen.

12 Q. Like on flat, level pavement?

13 A. Yeah. You can spin around three times and just come

14 to a stop.

15 Q. Sure. I'm not talking about running off the side of

16 a cliff while you're sliding sideways. I'm talking

17 about very basically on flat level surfaces,

18 highways with shoulders and things like that, okay?

19 A. That's correct.

20 Q. Let's flip the videotape on and I want to ask you a

21 question about each of these.

22 This one we watching is Exhibit 26.

23

24 (Deposition Exhibit No. 26 was marked.)

25

0135

1 (Videotape played)

2

3 Q. First one is a Suzuki Samurai going up on two
4 wheels. That's not what you will want to be riding
5 in, correct?

6 A. That's correct. I wouldn't want to be going up on
7 two wheels.

8 Q. Here's another example of it.

9 Here's a demonstration of a four-way
10 comparison looking at each of them coming in
11 different directions, each of them a Suzuki
12 Samurai.

13 This is at half-speed.

14 Here are three examples of limit
15 performance of the vehicle. First one is the
16 Samurai, '88 model, 35-1/2 miles per hour. This is
17 a Jeep Wrangler design with a wider track width.
18 Watch what happens. That's an example of the
19 vehicle sliding but it remained stable.

20 A. Right.

21 Q. Here's a Chevy S-10 Blazer with 205 tires, 45-1/2
22 miles an hour, remained stable in plows.

23 Here they are at normal speed. Clearly,
24 the better design is the one that permits you to
25 continue to drive through the cones, is that

0136

1 correct?

2 A. Yeah, I would say anytime can you do that, that's
3 better.

4 Q. Clearly the second best choice in designing the
5 vehicle is that if it is going to break away and
6 begin to slide it will remain stable and the wheels
7 don't come flying off the ground.

8 A. Sliding isn't good, either. That happens.

9 Q. Sure. You could slide into oncoming traffic.

10 A. Exactly. Anytime you're out of control, to me it's
11 a bad thing.

12 Q. What you would rather do is design the vehicle like
13 that Blazer on the video where it remains stable
14 and you're able to drive through the cones?

15 A. The more stable you are, I would say the better off
16 you are.

17 Q. Next tape I want to show you is Exhibit 27.

18

19 (Deposition Exhibit No. 27 was marked.)

20

21 Q. The next one is 27 and let me lay a little bit of
22 foundation before we turn it on.

23 What we're about to watch, Mr. Gardner, is
24 one of the runs from some recent tread separation
25 testing that was conducted in Phoenix, Arizona --

0137

1 actually not Phoenix, but in a suburb of Phoenix --
2 using a post '95 Explorer where the right rear tire
3 was intentionally prepared so that hopefully in one
4 of the runs as we're driving down through there, the
5 tread physically peels off the tire replicating
6 the tread separation event with the intent being to
7 maintain the vehicle in a straight line course and,
8 of course, the vehicle is equipped with
9 instrumentation so you can measure the change and
10 direction of the vehicle.

11 This one is equipped with an outrigger to
12 hopefully keep the vehicle from flipping all the way
13 over. It's also got a roll cage for the driver's
14 protection as well as a helmet and 4-point
15 restraint. In this particular run, the vehicle
16 actually rolls over. Let's watch this
17 particular one and let me ask you a couple
18 questions about it. This is 27.

19 MR. CRAWFORD: This is your testing?

20 MR. TURNER: Yes.

21

22 (Videotape played)

23

24 BY MR. TURNER:

25 Q. I want to you watch how after this tread begins to

0138

1 peel off this Explorer, the vehicle suddenly and

2 violently jerks to the right.

3 MR. CRAWFORD: Objection.

4 BY MR. TURNER:

5 Q. Now, watch carefully, Mr. Gardner. I want you to
6 watch the steering wheel input. As the vehicle
7 begins to turn right, you will see the driver making
8 efforts -- in fact, makes almost three complete
9 turns of the steering wheel back to the left in an
10 effort to keep the vehicle from leaving the roadway.

11

12 (A pause was had in the proceedings while the
13 videotape was played.)

14

15 Q. Mr. Gardner, have you conducted any testing of a
16 post 1995 Explorer with P235/75R15 Wilderness tires
17 to determine what this vehicle will do in the event
18 the tire begins to come apart?

19 A. I don't know that I've done any post '95 Explorer
20 testing. I think I did a '95 and '94.

21 Q. A '94 model, I think, and you published an article
22 about that?

23 A. That's what it was -- a '94.

24 Q. I think there was another vehicle involved in that
25 as well?

0139

1 A. I did three vehicles in that testing.

2 Q. Before these vehicles were produced was it

3 Firestone's responsibility to go out and test the
4 Explorer to see how it would respond to a tread
5 separation?

6 MR. CRAWFORD: Object to the form of the
7 question. Also calls for a legal conclusion.

8 THE WITNESS: I don't think so. We make
9 tires but we don't really do vehicle testing.
10 Certainly, our experience with the history
11 we had would have indicated to us that the vehicle
12 would be controllable in the event of a tire failure
13 including a tread belt separation.

14 BY MR. TURNER:

15 Q. Have you seen some experience now as of today and
16 December of 2000 that would make you question
17 whether there's something about the Ford Explorer
18 that makes or puts or places consumers in a very
19 difficult position when a tread begins to separate?

20 MR. CRAWFORD: Object to the form.

21 THE WITNESS: I would say that what I've
22 seen are two things. We have seen what I call a
23 cascading effect where you have what you would
24 expect to be normal tire adjustments. We have
25 a higher number of those tires that turn into

0140

1 claims.

2 In other words, if for some reason on the
3 rear are left on and don't get taken off until they

4 fail with a complete detachment and then of those --
5 and I looked through all the letters of the 2000
6 claims we've had -- and of those we had 150 people
7 out of 2000 that lost control, which strikes me as
8 a relatively high number.

9 BY MR. TURNER:

10 Q. Have you personally gone out to study this
11 particular vehicle to determine what it is about
12 this vehicle that makes it so different than any
13 others?

14 MR. CRAWFORD: Object to the form.

15 THE WITNESS: I have not personally studied
16 that. I did tests on a 1994 when it was part
17 of a program and I didn't see anything peculiar
18 about the forces that are developed by the tire.
19 In other words, if you look at the drag
20 forces developed by the tire on that vehicle are no
21 different than it was on the other two vehicles I
22 tested which was a Toyota Camry and GM pickup truck.
23 As a matter of fact, the Explorer from a
24 drag perspective was right about in the middle of
25 the pack.

0141

1 BY MR. TURNER:

2 Q. This is the experience that you gained in, let's
3 say, the 1998, '99, 2000 timeframe. It was made
4 clear and specifically what I'm talking about and

5 I'll get to the point is Exhibit 28.

6

7 (Deposition Exhibit No. 28 was marked.)

8 Bates Nos. 0600208 - 210

9

10 Q. 28, which is a document previously identified by Mr.

11 Martin as an exhibit that he was familiar with.

12 This is a letter to various individuals at

13 Bridgestone/Firestone. Mr. Dave Thomas; you

14 mentioned him earlier, correct?

15 A. Yes.

16 Q. Hal Horton, he's a lawyer at Firestone?

17 A. Yes, he is.

18 Q. This relates to Ford's proposal down in Venezuela.

19 Specifically the reason I wanted to talk about

20 28 was to move to the second page and focus in on

21 the roll of the vehicle and the number of fatalities

22 and the problems we're seeing.

23 It says:

24 Only cause of problems faced with Explorers

25 and wash their hands. Our lawyers took

0142

1 this opportunity to remind them that the

2 same tire in the same design, Wilderness,

3 is fitted on Grand Blazers, Toyota Autanas,

4 which do not roll over even in cases of

5 tire failure and in case of 15-inch tiers,

6 all Chevrolet Blazers are equipped with
7 Firestone tires and they do not roll over
8 either. At the end of the meeting they
9 advised all participants that they would
10 have to consult with me and ultimately with
11 our head office. I've asked our lawyers to
12 prepare a full report of the meeting and
13 forward it to you and Mr. Horton in case of
14 any future questions.
15 Firestone made it clear to Ford as early as down in
16 Venezuela and as far back as Saudi Arabia and some
17 of the earlier litigation that there was something
18 different about the Explorer from these other
19 vehicles when tread separations were occurring;
20 isn't that correct.

21 MR. ZUMMO: Object.

22 MR. CRAWFORD: Object to the form; lacks
23 foundation.

24 THE WITNESS: I think essentially that's
25 been correct, yes.

0143

1

2 (Deposition Exhibit No. 29 was marked.)

3

4 BY MR. TURNER:

5 Q. Exhibit 29, this is the last one I've that relate to
6 this particular issue comes from Ford's submissions

7 to Congress. It's called Explorer Tire DNP, which
8 has previously been identified by Ford people as a
9 dealer notification program. You will notice the
10 tick mark I've highlighted on 29 that says:
11 High incidence vehicle rollover after a
12 tire blowout or tread loss has not been
13 detected for other vehicle brands. Toyota,
14 GM and Chrysler all have significant
15 presence in this market segment.
16 Given what you know about what has occurred with
17 regard to tread separation and rollovers in
18 Explorers in the U.S., in Venezuela and in Saudi
19 Arabia, have you seen the same rates of loss of
20 control and rollovers in vehicles other than the
21 Explorer?

22 MR. CRAWFORD: Object; lacks foundation.

23 THE WITNESS: I don't think so.

24 MR. TURNER: That's all the questions I
25 have.

0144

1 EXAMINATION

2 BY MR. CRAWFORD:

3 Q. Mr. Gardner, let me start where Mr. Turner just left
4 off and ask if you have seen the same rates of loss
5 of control incidences and rollovers in other
6 vehicles as you have for the Explorer and your
7 answer was you don't think so.

8 What data have you looked at with regard to
9 that issue as it concerns other vehicles?
10 A. Well, I have looked at tire data, claims data,
11 versus adjustment data versus injury data.
12 For example, if you look at the Ford
13 Ranger, which has the same tire on it, I don't think
14 we have one death in that category of data. But it
15 doesn't -- I'm not sure, some of this could be
16 rollovers but I have never seen anything where we've
17 had so many people get killed or injured with tire
18 failures.
19 I've spent 35 years and everything I've
20 ever seen would indicate that although some people
21 do lose control with tire failures, historically,
22 people carry spares. We've never considered that a
23 tire failure should be an event that causes a loss
24 of control. I don't think historically -- although
25 in some instances it has -- but I think that's

0145

1 always been the exception more than the rule and in
2 this particular matter we've seen a very large
3 number of serious injuries and deaths which is what
4 forced us to recall tires.
5 We just said we don't understand this and
6 I'm not sure to this date we totally understand it.
7 It's still being investigated but we said we've got
8 to do something.

9 MR. CRAWFORD: Move to strike the answer as

10 nonresponsive.

11 BY MR. CRAWFORD:

12 Q. My only question, Mr. Gardner, was: What data have

13 you seen with regards to vehicles other than

14 Explorers that would lead you to conclude that the

15 rates of loss of control incidences or rollovers on

16 those vehicles are different. I'm looking for the

17 data.

18 MR. ZUMMO: Objection to form.

19 THE WITNESS: Let me give you an example.

20 I have looked at the FT-70 line of tires we make.

21 It's a pretty high volume line of tires and I think

22 out of about two and a half million tires, we've

23 seen ten claims. Of those claims nothing as I

24 recall was a rollover.

25 BY MR. CRAWFORD:

0146

1 Q. Is the FT-70C an original equipment tire?

2 A. I think it has been used OE on some vehicles.

3 Q. Which ones?

4 A. Off the top of my head, I don't know. I would have

5 to look that up. It's basically a passenger car

6 tire.

7 Q. Is that the data that you are relying on for the

8 statement that you made to Mr. Turner with regards

9 to not seeing the same rates of out of control and

10 rollover incidences on the Explorer as on other
11 vehicles?

12 A. No. That's just an example. I haven't gone through
13 every single line of tires but I've seen -- if you
14 look at tires' propensity to develop separations,
15 we're making tires like the radial ATX that are
16 record historical low. In other words, we have had
17 over the years that I've been there, lots of tires
18 that developed much higher rates of separation and
19 yet very few rollovers, very few injuries.

20 So it's not really totally -- to answer
21 your question about the rates -- it's not really
22 necessarily totally -- it may be but I haven't got
23 that totally worked out yet, it may not simply be a
24 matter of the rate of rollover as it is a rate of
25 tires that get past the adjustment stage and stay on

0147

1 the vehicle.

2 But I suspect you're going to find it has
3 something to do with rollover rates.

4 Q. Is that an ongoing data analysis?

5 A. Most of it has just been my history. We make tires
6 that we have literally made millions of tires of.

7 You know, you get a few accidents here and there
8 out of millions of tires and you get an occasional
9 rollover, but I think ongoing, I did look at one
10 line of tires and we're continually trying to

11 evaluate that because we're trying to in conjunction
12 with, I'm sure, Ford Motor Company and the other
13 automotive people and NHTSA, we're trying to set up
14 a standard of how you evaluate claims data and
15 injury data versus tire failure data or adjustment
16 data and it may be for some classes of vehicles we
17 need different standards. That's an ongoing
18 project of evaluation.

19 Q. By class of vehicle, you are referring at least in
20 this instance to the sport utility vehicles?

21 A. Well, you know, that would be drawing a conclusion.
22 I don't want to -- I think certainly that's going to
23 be one of them. But we're seeing things we haven't
24 seen historically and so we need some new ways to
25 measure things.

0148

1 We never looked, for example, at claims
2 data as a safety issue -- excuse me, as a tire
3 performance issue. We always looked at that as
4 -- looked at adjustment data because we had
5 historically never seen percentages of claims
6 that were such a high percentage of total returns.
7 Typically you'll see maybe one out of a
8 hundred adjustments or under that end up being a
9 claim. In this case, I think we end up with
10 something like one out of seven tire separations end
11 up as a claim. So we do need to evaluate why that

12 number escalates the way it does.

13 Q. You aren't suggesting, are you, that there's
14 something unique about the Explorer as a vehicle as
15 opposed to other SUVs in its class that is leading
16 to the claims information you are seeing, are you?

17 A. I haven't seen it on the other vehicles so I don't
18 really know I could say that but it certainly seems
19 to be occurring on the Explorer.

20 Q. Let me ask it another way. You're seeing it on the
21 Explorer because that's where the Firestone tires
22 are going, right?

23 A. That's where some of them are going.

24 Q. Okay. If those same tires in the same amounts had
25 been put on any other sport utility vehicle in the
0149

1 class and not on Explorers, you're not suggesting
2 you would not see the same or even worse sorts of
3 claims data, are you?

4 A. I haven't looked at it.

5 Q. You are not offering a suggestion, much less an
6 opinion, on that one way or the other?

7 A. I'm offering the opinion that we need to be open
8 minded in evaluating this whole issue. I never
9 looked at claims data before and then we started
10 looking at it and Ford helped us analyze our data
11 and started coming out with these parts per million
12 figures on claims and that would trigger a problem.

13 But then I started doing my own
14 calculations and I calculated, for example, if you
15 looks at the government rollover statistics and
16 assume a rollover whether anybody gets hurt or not
17 would produce a claim -- in other words, there would
18 be sheet metal to straighten out, paint to fix,
19 things like that -- claim would be somewhere whether
20 it would be to an insurance company.

21 And I'm not saying what the cause is, I'm
22 just saying the claim occurs. If you look at a
23 vehicle and look at the Ford Explorer vehicle, if
24 you look at the data the government estimates,
25 there's about 16,000 rollovers out of 4-1/2 million

0150

1 vehicles out there, that's as of I think at the time
2 of our submission to NHTSA which would be end of
3 1998, that would be claims per million, it's orders
4 of magnitude higher than the tire incidents.

5 So I'm now saying how do we look at claims
6 data, how do you evaluate, when does that number --
7 obviously those vehicles aren't all being parked.

8 All the tires are recalled.

9 How do we look at this, how do we as an
10 industry and that's what I think everybody is trying
11 to get a handle on.

12 Q. Have you seen any Firestone data on claims of
13 detread incidences resulting in rollover on vehicles

14 other than Explorers?

15 A. Yes, there have been?

16 Q. How many claims are in Firestone's database

17 involving non-Explorers?

18 A. I don't know off the top of my head, but it's a

19 fairly small number. But there are some.

20 Q. Relative to the number of Explorers that have

21 Firestone tires on them, the population of those

22 vehicles is smaller, isn't it?

23 A. Yes.

24 Q. Who is the keeper of that data at Firestone?

25 A. I think the claims data now is in a state of flux

0151

1 because they are re-evaluating how we deal with

2 it. We're trying to come up with a better way to do

3 it. But it was in the Sales Engineering Division's

4 hands.

5 Q. Does Firestone currently provide either ATX or

6 Wilderness tires as original equipment on any other

7 sport utility vehicles besides Explorer?

8 A. I don't think so, currently.

9 Q. Historically, let's say in the last ten years, has

10 that been the case?

11 A. Yes.

12 Q. Which sport utility vehicles has Firestone provided

13 its tires to as original equipment?

14 A. My recollection is they were on the Toyota 4Runner

15 and on the Blazer but I would have to verify that
16 for you.

17 Q. Can you give me the time period you believe they
18 were OE on the 4Runner?

19 A. Certainly in the 1990s, mid part of 1990s.

20 Q. For how long, do you know?

21 A. A couple years.

22 Q. How about the Blazer?

23 A. Same kind of time period is my recollection.

24 Q. For a couple years in the mid '90s?

25 A. Yeah. Once again, I don't have a photographic
0152

1 memory but I could verify that.

2 Q. Does Firestone develop and keep data on the types of
3 vehicles for which its aftermarket tires are being
4 bought and used?

5 A. No. All we know is that we know what size tires are
6 in the aftermarket and we know what size -- what
7 vehicles take that size but we don't know
8 specifically what percentage in the aftermarket of
9 our cars go on what vehicles.

10 Q. How big a list is there of the types of vehicles
11 that take, let's say, the ATX II?

12 A. In all different sizes?

13 Q. No. Let's start with 15.

14 A. There's a lot of different 15-inch sizes.

15 Q. P235/75R15.

16 A. With the P235/75R15, it's a fairly large list. I
17 would guess there's probably 20 vehicles out there.

18 Q. Firestone doesn't generate any data on the types of
19 vehicles that those tires are purchased and put on?

20 That doesn't come back to you from your dealers?

21 A. No.

22 Q. Has that always been the case?

23 A. Yes.

24 Q. Has Firestone ever done any surveys after the fact
25 to determine the types of vehicles that its tires

0153

1 are being bought and used for?

2 A. That I don't know. I haven't seen any but I'm not
3 saying there aren't any.

4 Q. What I'm asking, you've told me your dealer doesn't
5 identify the vehicle that he puts the tires on and

6 then relay that information to you.

7 My question was more -- I don't mean to

8 limit it to just a survey of a specific sort.

9 Are you aware of any surveys where

10 Firestone or somebody on Firestone's behalf

11 actually goes out into the field and identifies

12 random numbers of vehicles to determine what kinds

13 of vehicles its tires are on?

14 A. No, not that I know of.

15 Q. You mentioned this joint Ford-Firestone team that
16 went to Saudi Arabia to investigate the tire failure

17 issues down there?

18 A. Yes.

19 Q. Were you part of that joint team?

20 A. No.

21 Q. With regard to Exhibit 13, you were asked a number

22 of questions. This is one that had a number of

23 pages and it was the one that diagrammed the 1x5 and

24 7x2 cord configurations? Do you recall that?

25 A. Yes.

0154

1 Q. You were shown a graph having to do with the

2 diagrams of those particular configurations and it

3 had some information about tensile strength testing

4 that was done. Do you recall that.

5 A. Yes.

6 Q. I think you said -- although I may not have gotten

7 it entirely right -- that those cord configurations

8 had to do with the tensile strength of the steel

9 belt, is that right?

10 A. Yes.

11 Q. Does the tensile strength of those steel belts in

12 your judgment have anything to do with the

13 phenomenon that we're seeing in the tread

14 separations?

15 A. Generally speaking, not. There are some separations

16 that begin because of an impact with steel cords but

17 that's not the primary issue involved with most of

18 the cases.

19 Q. Tensile strength, if I understand it correctly from
20 my high school science days, is determined by
21 pulling with equal force on both ends of an object,
22 right?

23 A. Yes.

24 Q. In other words, you hook a gizmo up to each end of
25 it and you apply increasingly larger forces until
0155

1 the item breaks and that is its measured tensile
2 strength, is that right?

3 A. Yes, that's correct.

4 Q. As far as your investigation and analysis has gone
5 you don't see a correlation between tensile strength
6 of the steel cords and the tread separation problem?

7 A. No.

8 Q. This may be proprietary. If it is, I'm sure, Pat
9 will object. But in talking about the tires for
10 which the Firestone ATX and Wilderness AT, the
11 vehicles they are put on, you mentioned something
12 about also making those same tires for private
13 branding.

14 A. No, no. I don't think any of those tires have been
15 made for private branding. I was using the private
16 brand to describe the different kind of customers we
17 had.

18 Q. So as far as you know, the ATX II and Wilderness AT

19 are not tires that are made and sold to Sears or
20 anybody else for them to slap their label on?

21 A. That's correct.

22 I must say that there might be some common
23 green tires with the ATX or the AT that are made in
24 private brands molds and I would have to research
25 that, but that data is available.

0156

1 Q. When we were talking about Exhibit 16 (sic, 14) that
2 was the one that had the four different tire spec
3 changes?

4 MR. TURNER: This is 14 but I was
5 thinking it was 16.

6 MR. CRAWFORD: That's what I was thinking.
7 I have 16 written down.

8 MR. TURNER: The sticker says 14. Does
9 anybody have a note?

10 MR. CRAWFORD: My goes from 13 to 15 but
11 we dealt with 15 for a long time before we got to
12 16. I thought we kept calling it 16 when it was
13 up.

14 MR. TURNER: 14 is a summary along with
15 Tire Construction Detail Sheets.
16 We don't have a 16. Why don't we make the

17 summary sheet 14 and let's put the backup as 16?

18 MR. ZUMMO: I would rather leave it and we
19 can make it clear right now that we're all confused

20 as to whether it's 14 or 16.

21 MR. TURNER: No. 14 or 16, whatever you

22 want to call it, is the summary sheet for all the

23 Tire Construction Detail Sheets, along with the Tire

24 Construction Detail Sheets.

25 BY MR. CRAWFORD:

0157

1 Q. There was a question about Ford signing off on the

2 two intermediate configurations. Do you recall

3 that, Mr. Gardner?

4 A. The two intermediate ones Ford never signed off on.

5 Q. There were questions about Ford not signing off.

6 Did Firestone sign off on both of those?

7 A. Reichenbach's name was on them but he might have

8 just put it on there when he submitted it. That may

9 be his practice to sign his name and if anybody

10 else signs it, all the better.

11 Q. Were those tires actually built?

12 A. The tires were built like that, yes.

13 Q. They were built for testing?

14 A. Yes.

15 Q. But never went into production?

16 A. They were never in production. The question is

17 whether any prototype tires were ever built.

18 And I said yes. But I don't really know that. It's

19 possible the spec was issued and prototype tires

20 were never built.

21 Q. That's where I was going with that. Do you know
22 whether the sign-off was -- whether the decision not
23 to sign off on them was made based just on the spec
24 or was a tire prototype actually produced and
25 tested before that decision was made?

0158

1 A. I don't know.

2 Q. Is that true as to both those intermediate
3 configurations?

4 A. There is only one of them, right?

5 Q. There were two?

6 A. Same spec number. Either we built it as spec or
7 didn't. So the same would be true of both of them.

8 Q. You said that at some point Firestone asked Ford to
9 test the tires at 30 psi, Ford did so and in the
10 interest of avoiding consumer confusion, the
11 announcement was made they should be inflated to
12 that point.

13 When did that occur?

14 A. That occurred right about the time of the recall.
15 First Ford did the testing and said, yes, it's all
16 right to for you to recommend that and then later I
17 think they decided that they had an ad that rather
18 than have consumer confused between two
19 recommendations, they would then recommend 30 also.

20 Q. I wanted to clarify the time because I don't think
21 we had talked about it or you had talked about it at

22 the time you were being questioned.

23 A. It was either in '99 or 2000, in that timeframe.

24 Q. It was in connection generally with this whole

25 recall issue, at any rate?

0159

1 A. Yes, absolutely.

2 Q. Were you part of the root cause team that went to

3 Decatur?

4 A. No.

5 Q. Did you ever see any reports from the Firestone

6 engineers or data generated by the Firestone

7 engineers who were part of that team?

8 A. No.

9 Q. Is there a reason as far as you know that you didn't

10 participate in that?

11 A. That work has been ongoing since I retired. I have

12 shown tires to -- failed tires to some of the

13 members of that team but I think the primary reason

14 is I was retired and not --

15 Q. That started before you retired, though, right?

16 A. Yes. My retirement was set in motion.

17 Q. Long anticipated and much heralded?

18 A. I had already signed up long before any of this

19 happened.

20 Q. Mr. Turner asked you if Ford ever came to you, Jim

21 Gardner, and asked if it was all right to run the

22 tires at 26 psi and you said no.

23 Did Jim Gardner ever go to Ford and tell
24 them it was not okay to run them at 26 psi?

25 A. No.

0160

1 Q. Mr. Gardner, as a result of the actual testing which
2 you yourself did on a 1994 Explorer in connection
3 with the I-Tech article you wrote in 1998, you
4 concluded that based on your testing the forces
5 developed during a tread belt separation were well
6 within the range of the driver's ability to control
7 the vehicle, is that right?

8 A. Yes, they are.

9 Q. And that included the Explorer that you tested?

10 A. Yes, it did.

11 Q. And that was based on your own personal involvement
12 in the testing and evaluation of that particular
13 vehicle?

14 A. That's correct.

15 MR. CRAWFORD: I don't have any other
16 questions.

17 RE-EXAMINATION

18 BY MR. TURNER:

19 Q. I just want to make sure I understand and everybody
20 else understands. These deaths started occurring
21 and Firestone recalls some tires?

22 A. Well, I think it started out that -- I think the
23 first case was back in 1991, tire worn to the belt,

24 the vehicle rolled over and we looked at the tire
25 and didn't see anything wrong with the tire and
0161

1 there was kind of a dribbling along the way but
2 I think along about 1998 and certainly in 1999
3 everything -- the deaths just started mushrooming
4 and that's when we just reacted by recalling tires.
5 The thought was, we will recall the tires
6 now and figure out what's happening later.

7 Q. So your company recalled some of the tires, right?

8 A. Six and a half million of them.

9 Q. Have any of the cars been recalled?

10 A. No, not that I know of.

11 MR. TURNER: That's all.

12 THE WITNESS: Well, you know, when you say
13 recall, I guess in fairness, I should say that I
14 think there has been some changes made to some of
15 the vehicles in Venezuela, suspension changes.
16 But I don't think that's actually a recall,
17 I'm not sure of the status of that. So to be clear,
18 I don't know whether that's actually -- it started
19 out it wasn't a recall but whether at the end -- we
20 recalled everything in Venezuela but I don't know if
21 that was a recall with the vehicle.

22 BY MR. TURNER:

23 Q. To make it real clear, if we limit it to the U.S.,
24 you guys decided when these deaths began to mount

25 that your company wanted to get the tires off the
0162

1 road and then figure out what's wrong, is that
2 correct?

3 A. That's absolutely correct.

4 Q. But Ford did not do that with their car, did they?

5 A. That's correct.

6 MR. TURNER: That's all.

7 MR. ZUMMO: No questions.

8 THE TECHNICIAN: Deposition concluded at
9 4:31 p.m.

10 MR. TURNER: He's going to read and sign.

11 Second of all, the protective order agreement that
12 we have, I'm going to send something in writing to
13 you guys on the videotape. And all you need to do
14 is comment back to me how you feel about how you
15 want to handle that.

16 The third issue is we reserve our right
17 pursuant to our conversations earlier about once he
18 gets through doing what he's going to do regarding
19 this tire, you're going to tell me basically what
20 his conclusions are and then I can make a conscious
21 decision whether I want to depose him or not.

22 MR. ZUMMO: Yes.

23 (Deposition concluded at 4:30 p.m.)

24 * * * * *

25

0163

1 CERTIFICATE

2 STATE OF MICHIGAN)

) SS:

3 COUNTY OF LIVINGSTON)

4

5 I, PATRICIA R. MURRAY, Certified Shorthand

6 Reporter, a Notary Public, hereby certify that I recorded

7 in shorthand the examination of JAMES D. GARDNER,

8 the deponent in the foregoing deposition; and that prior

9 to the taking of said deposition the deponent was first

10 duly sworn, and that the foregoing is a true, correct and

11 complete transcript of the testimony of said deponent.

12 I further certify that request was made for

13 submission of the transcript to the deponent for reading

14 and signature and that such submission was made.

15 I also certify that I am not a relative or

16 employee of a party or an attorney for a party; or

17 financially interested in the action.

18

19 PATRICIA R. MURRAY, CSR-2155

20

Notary Public, Livingston County, Michigan

21

My commission expires: 1/27/01

22

Dated: This 15th day of December, 2000.

23

24

25