INFORMATION Redacted PURSUANT TO THE FREEDOM OF
INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

EA12-005

CHRYSLER

12-13-2012

Enclosure 3 – Public

1984-1992 XJ

Lawsuits and Claims

SUMMARY OF INPUTS RELATED TO 1984 THROUGH 1992 JEEP CHEROKEE/WAGONEER (XJ) VEHICLES

Name	VIN	Field Reports (EAA Reports)	CAIR	Lawsuit	Claim	Notice	
1. [redacted]	1JCMT754XHT[redacted]			√			
2. [redacted]	1J4FJ58S0ML[redacted]			√			
3. [redacted]	1JCMT783XJT[redacted]		√				
4. [redacted]	1J4FJ58S3NL[redacted]		√ (2)		√		
5. [redacted]	1J4FJ28S4ML[redacted]			√			
6. [redacted]	1J4FT38L4KL[redacted]			√			
7. [redacted]	1JCWB7812GT[redacted]			√			
8. [redacted]	1JCMR7833HT[redacted]			√			
9. [redacted]	1JCUX7813FT[redacted]			√			
		Field Reports (EAA Reports)	**CAIR**	**Lawsuit**	**Claim**	**Notice**	**VOQ Inputs (Name)**
SUBTOTALS		0	2 VINs (Ficenko also was a claim)	7	1	0	0
TOTAL 9 unique inputs		9 unique VINs					

20,687,319.1\142778-00045

EA12-005- Chrysler -012018

NHM END
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PE983501
QS3
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GEICO
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Jeep
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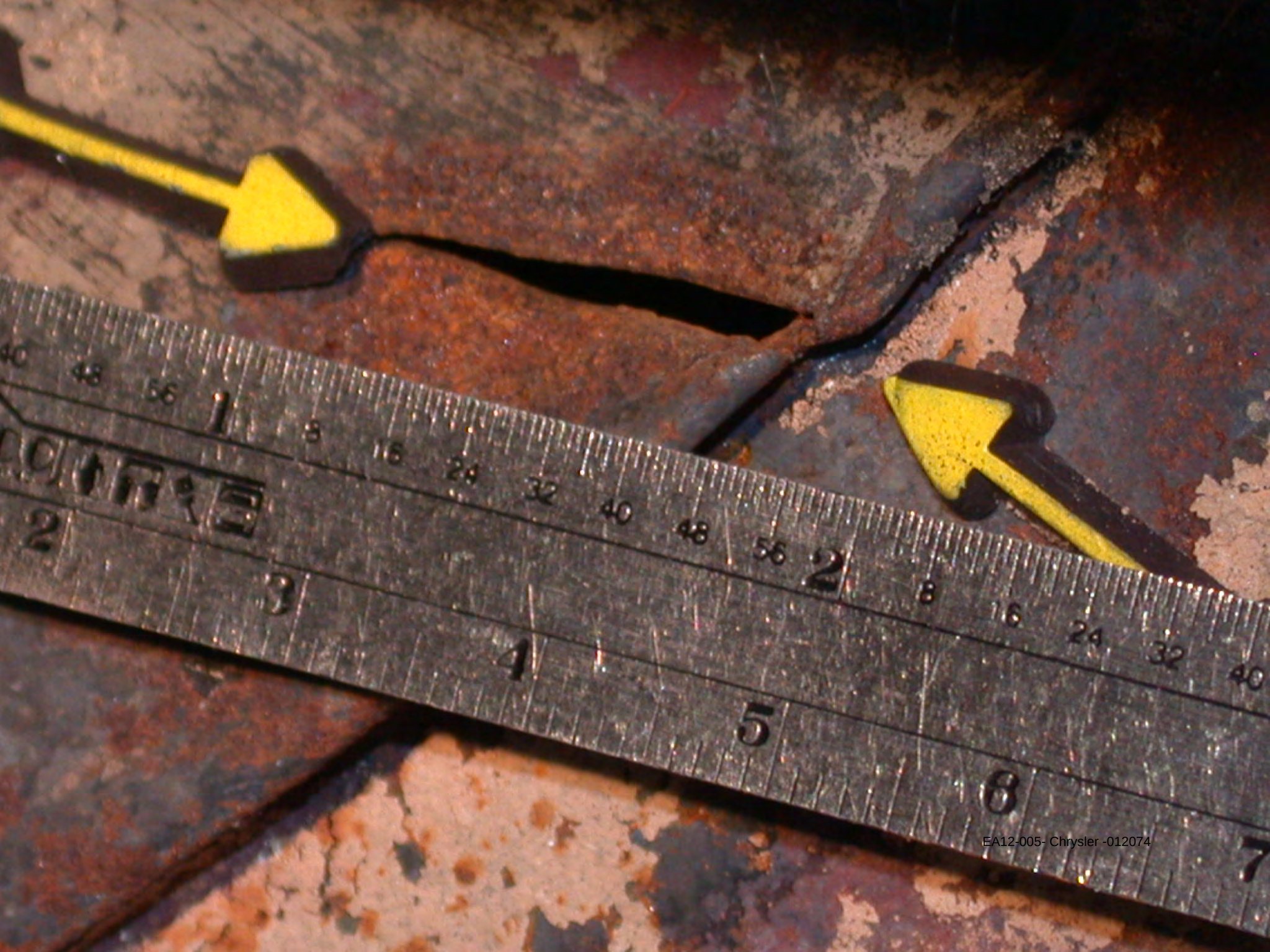
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US DCC

DT56035

6-29-04

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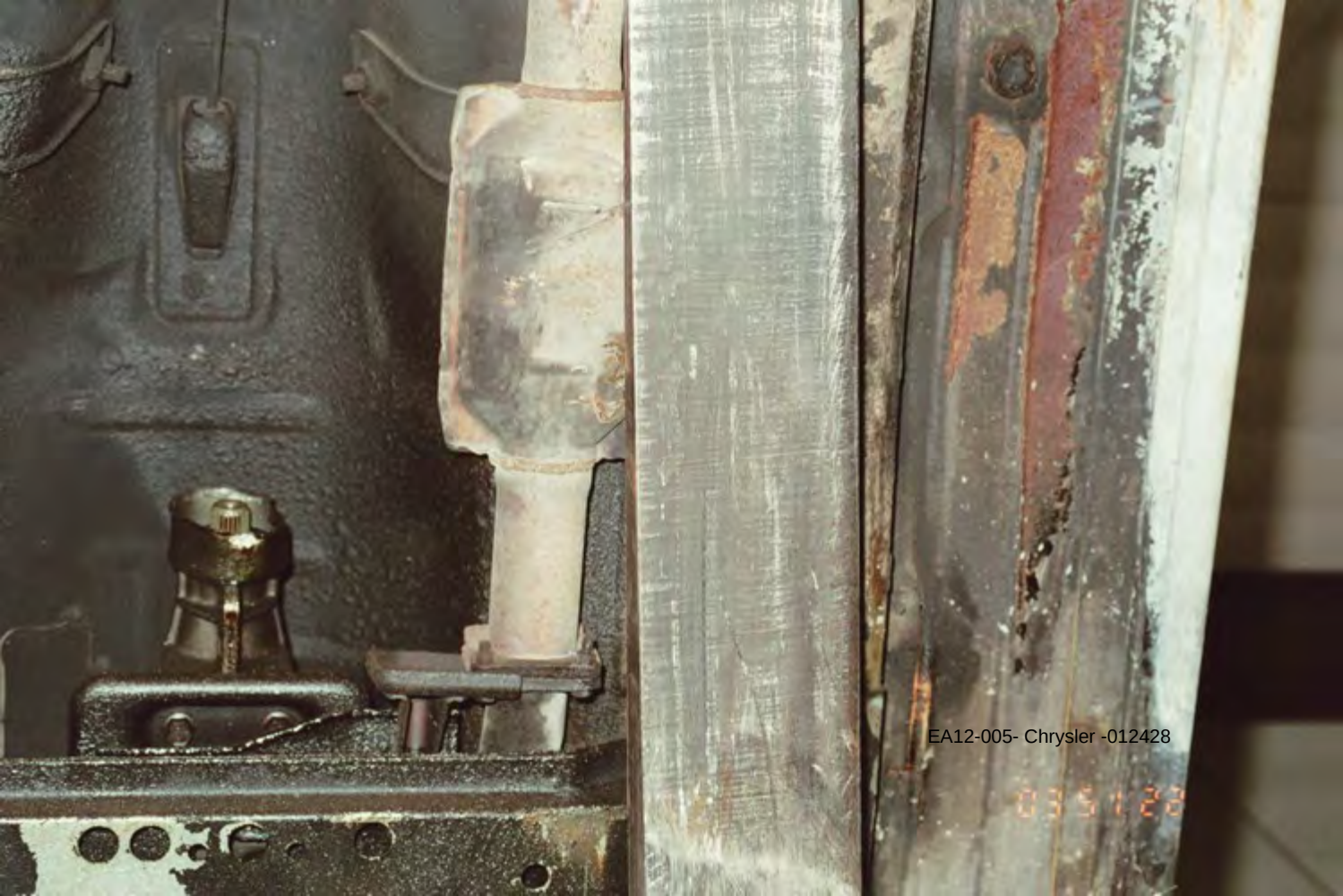
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VS DCC

DT56035

6-29-04

1

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WEIGHT CARRYING
HITCH
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MAX. TONGUE WEIGHT 200 LB.
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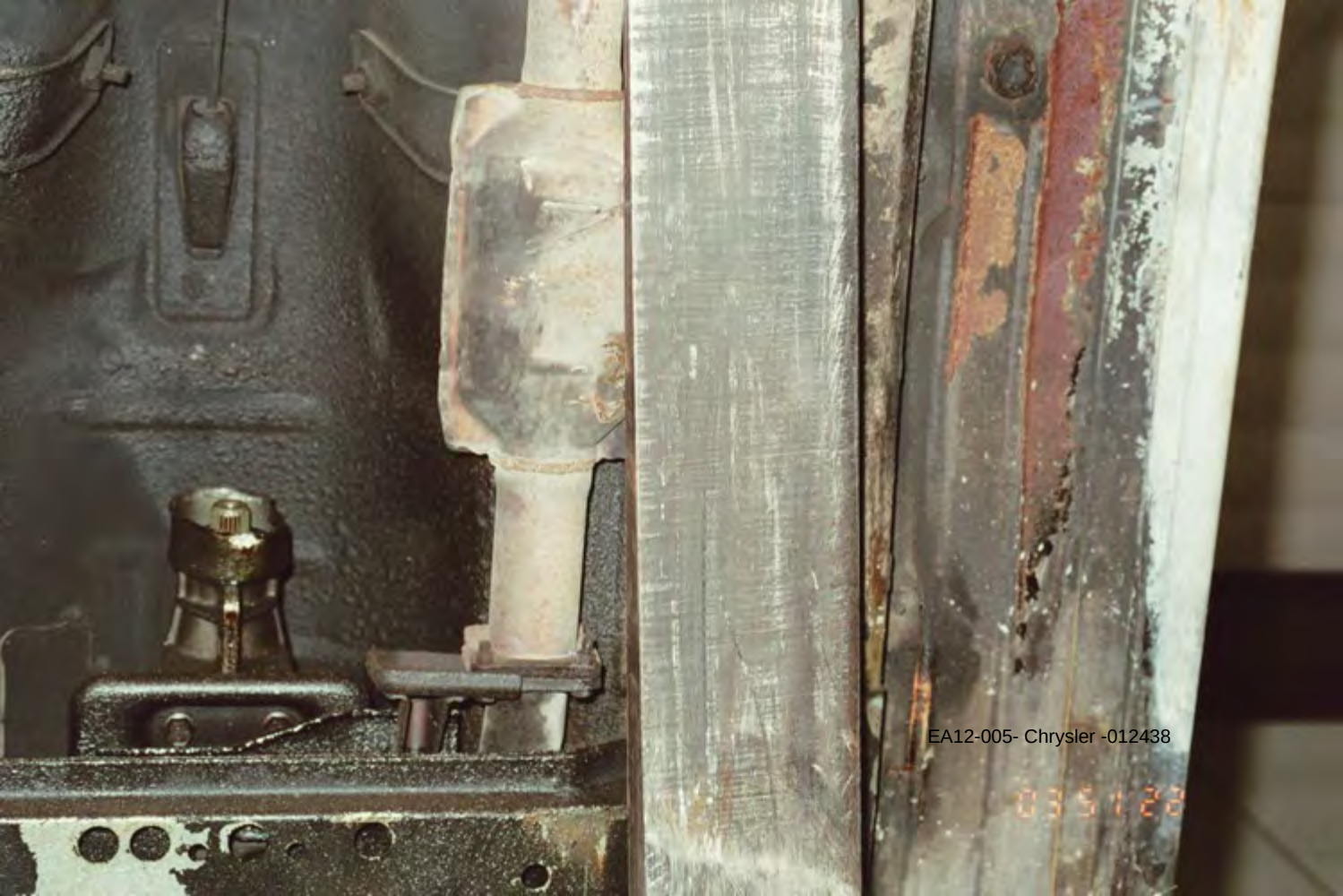
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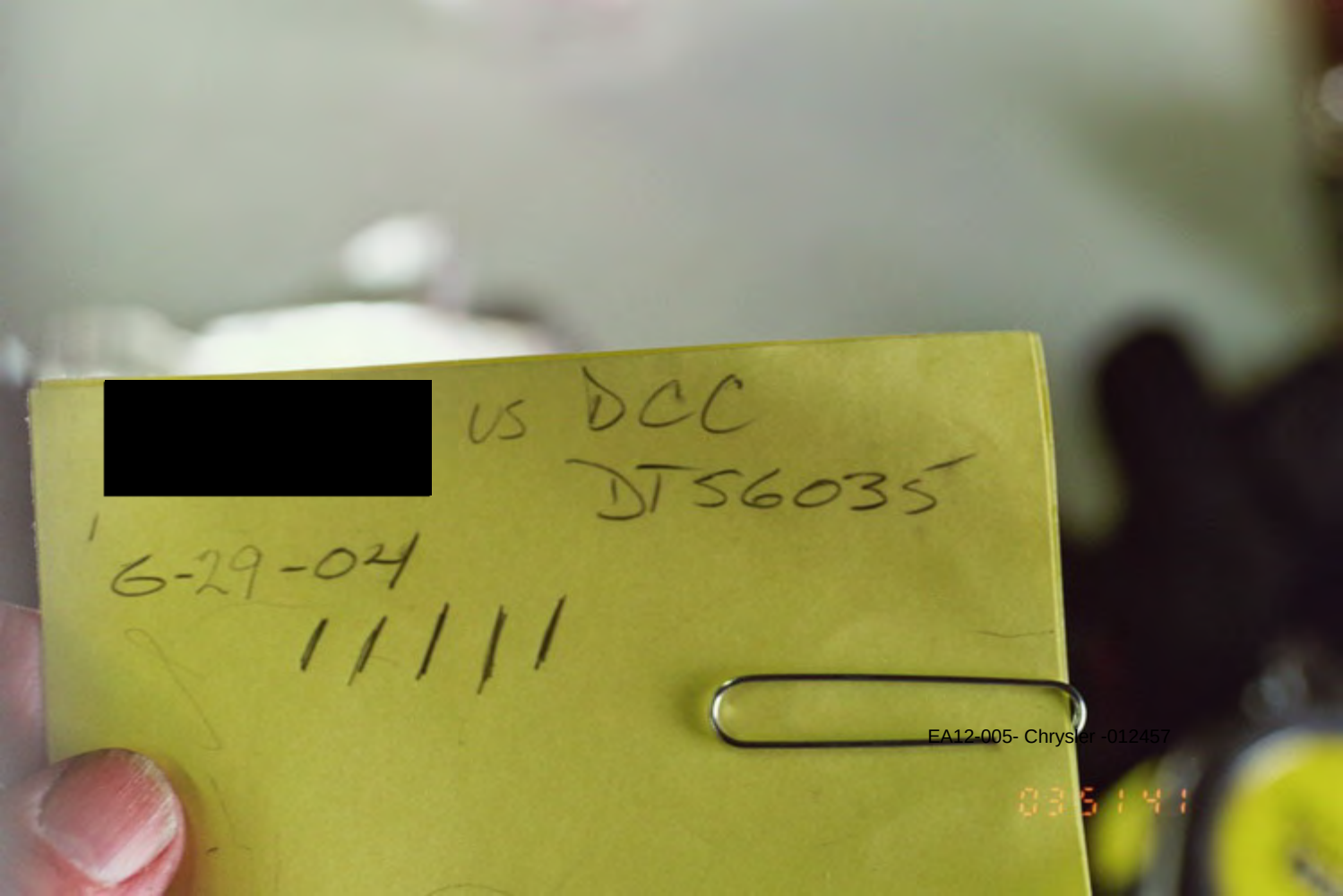
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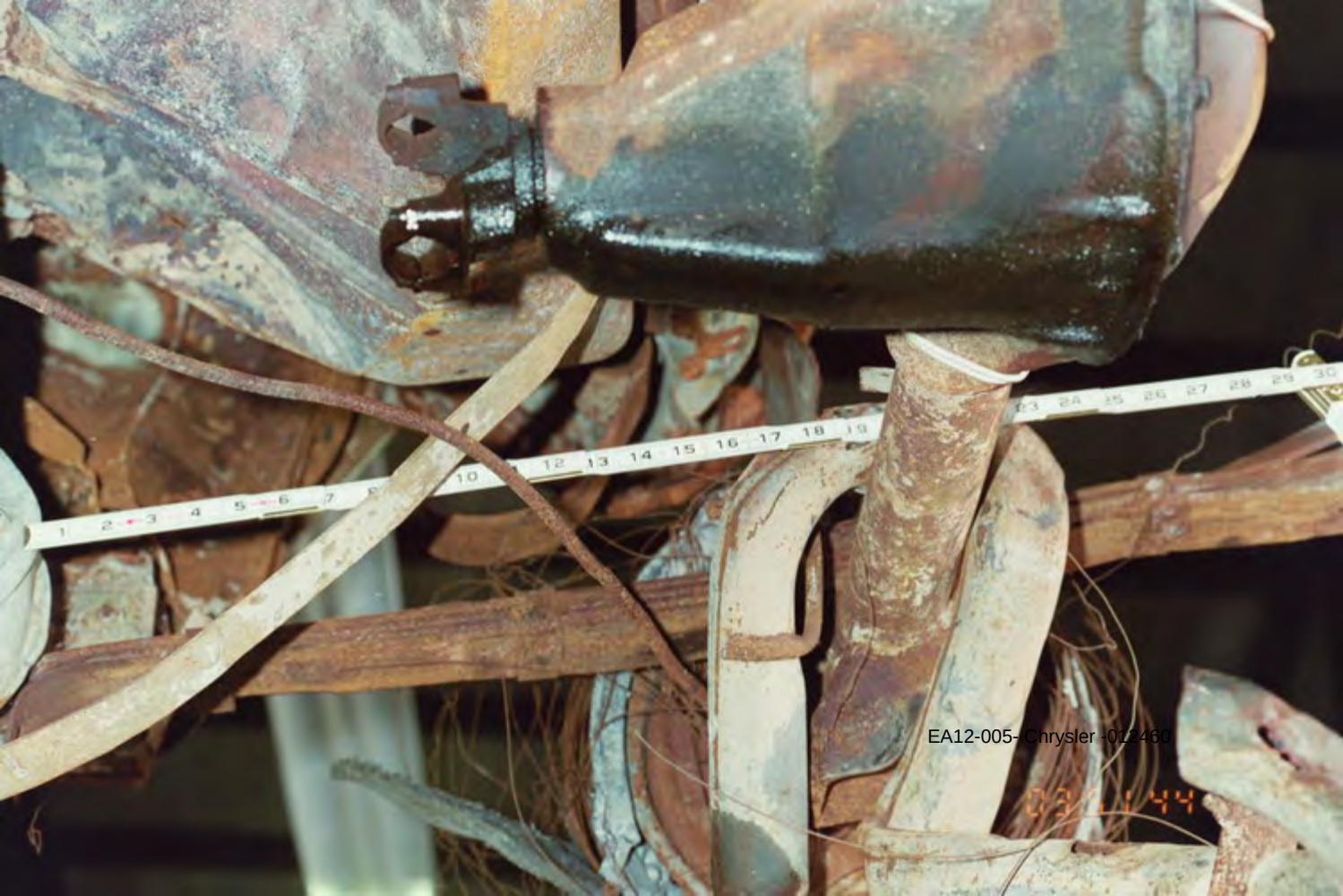
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US. DCC

6-29-04

DT56035

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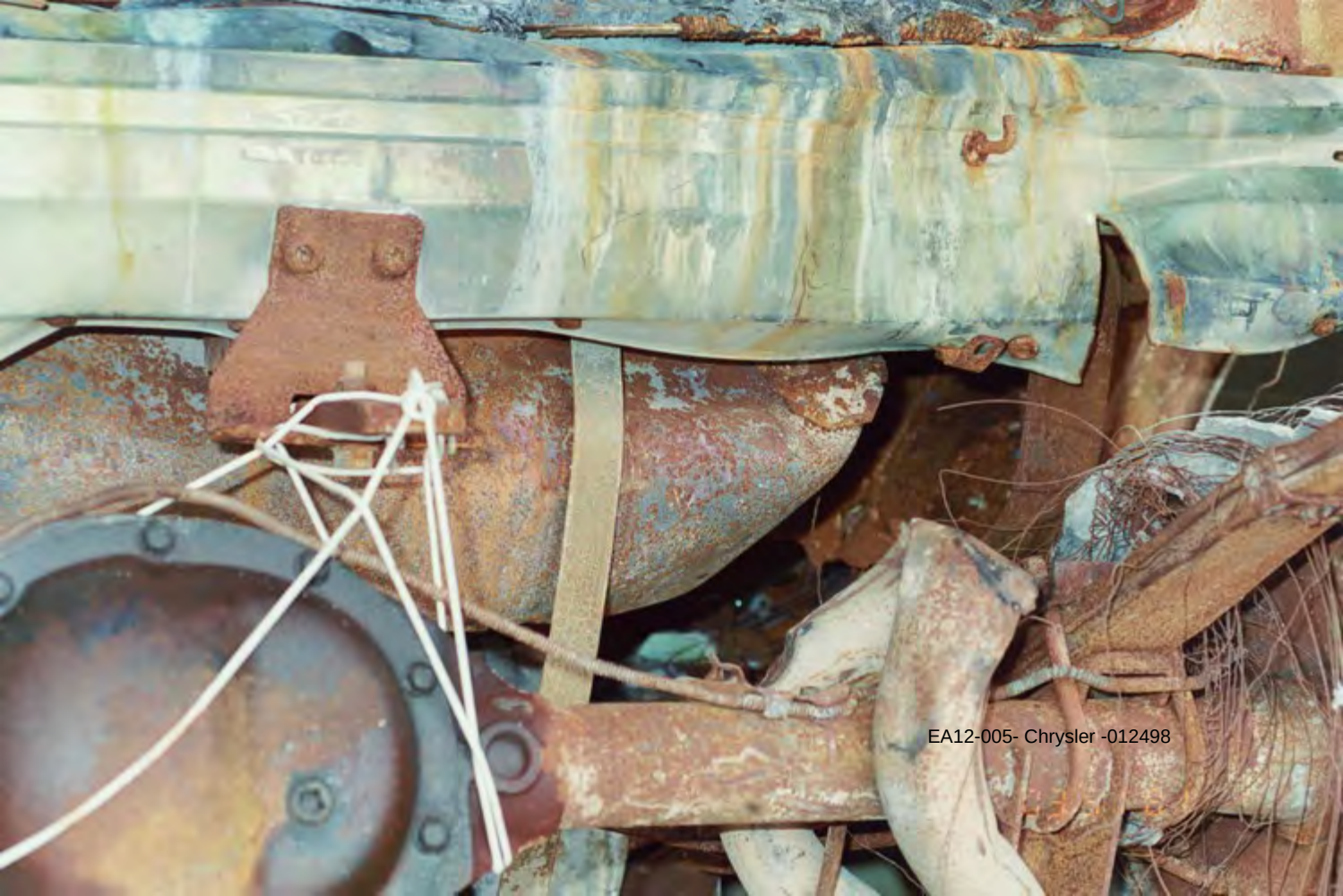

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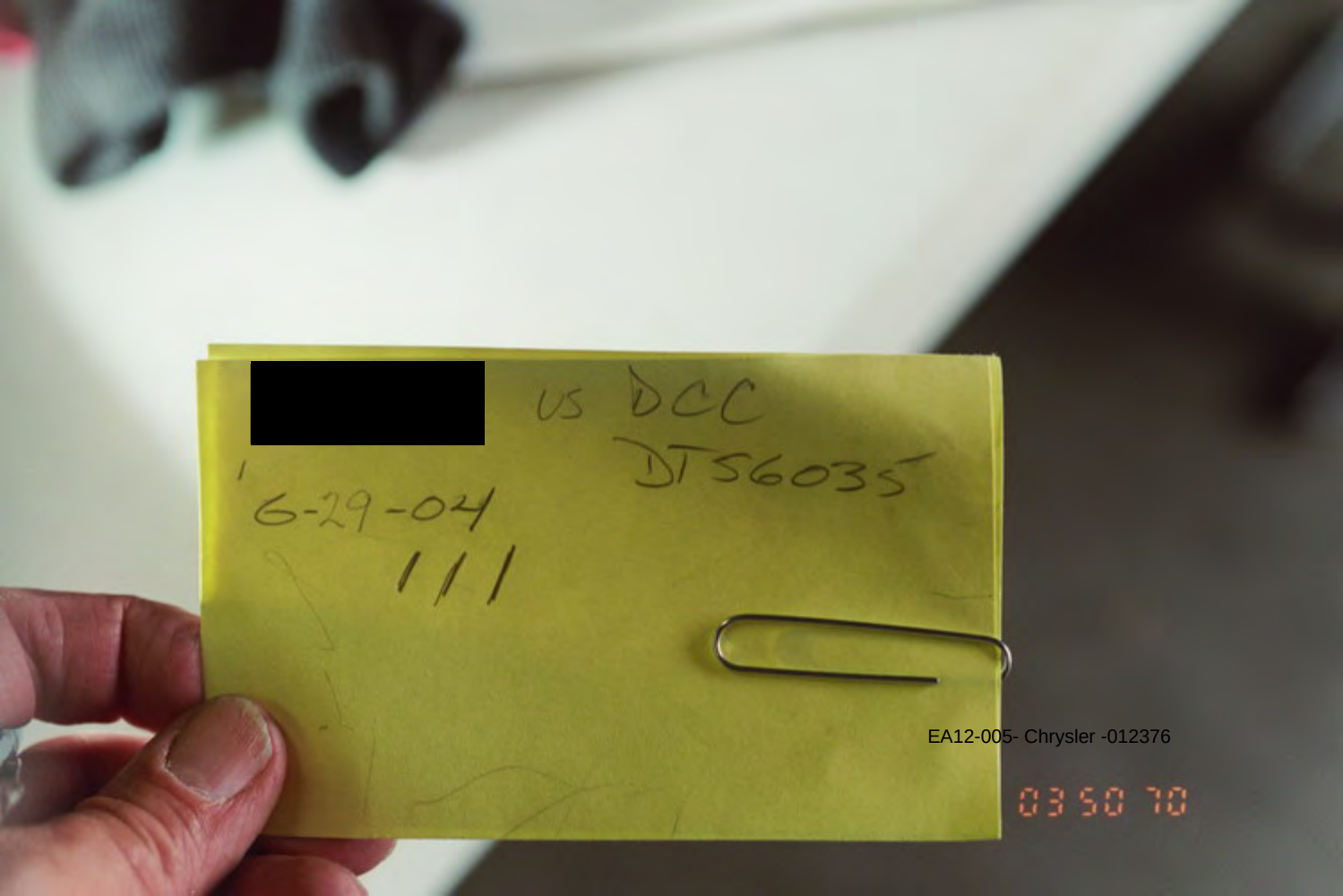
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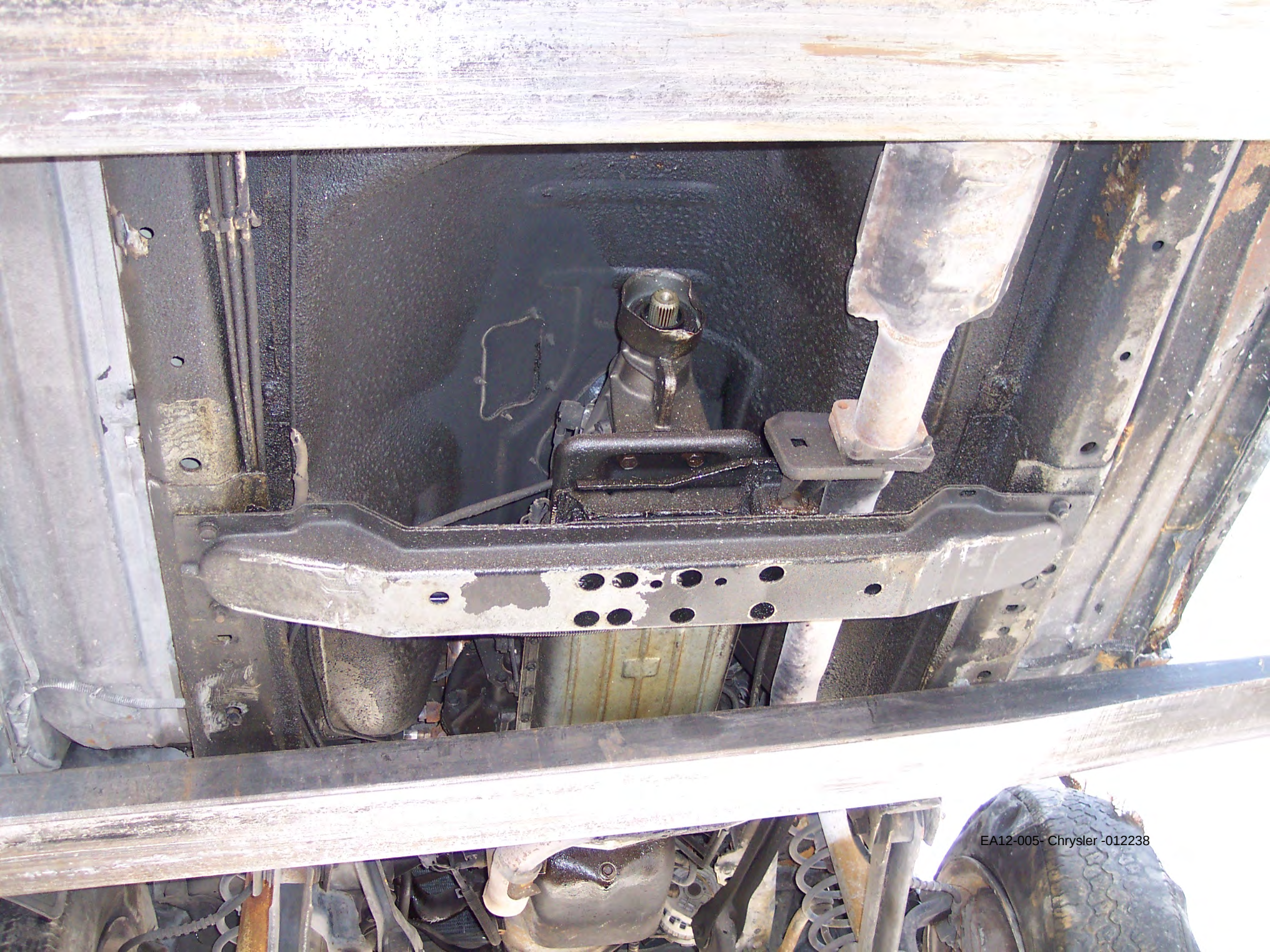
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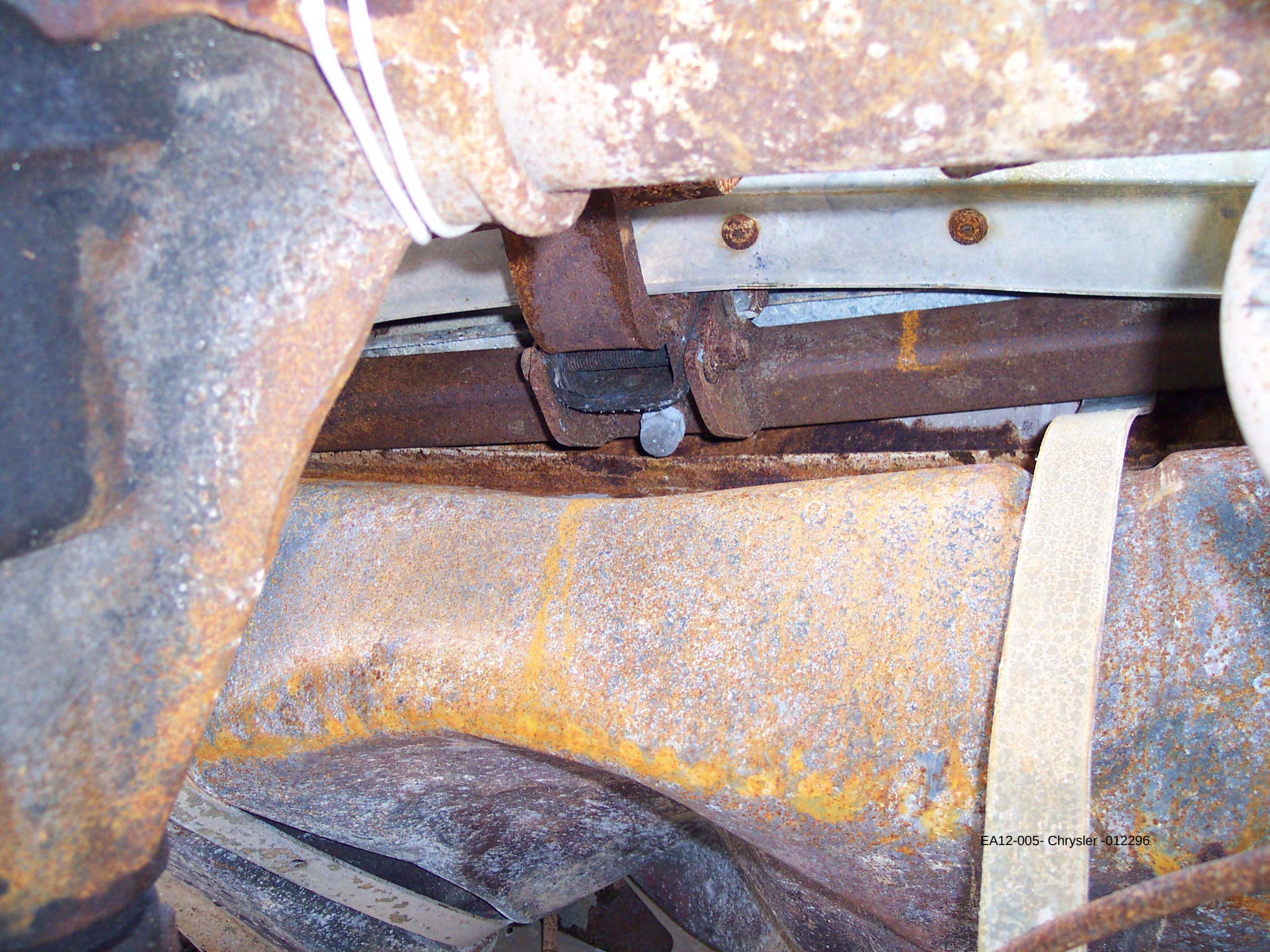
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BUSH
INVESTIGATIVE
SERVICES, LLC

4009 Crosshaven Drive
Birmingham, Alabama 35243
Telephone: 205-969-1002
Fax: 205-969-1004

October 10, 2004

Mr. Christopher Bradshaw-Hull, Esquire
4200 Montrose Blvd. Suite 570
Houston, Texas 77006

Re: [redacted] v. DaimlerChrysler

Dear Mr. Bradshaw-Hull:

I am William R. "Chip" Bush, Jr. I have over twenty-seven years of experience in the field of fire suppression and investigations. I have received training on both the national and state levels in these areas. This training includes fire science, fire behavior, fire chemistry and fire investigation. Please see attached Curriculum Vitae for a detailed listing of my educational and training background.

In accordance with your request, I became involved in the aforementioned matter. After reviewing your file and personally inspecting the scene and the subject vehicle involved, I was able to make a determination as to the origin and cause of the fire. My findings are as follows:

The accident occurred on September 4, 2003 at approximately 7:50 a.m. The scene of the accident is located on Highway 249 approximately one tenth of a mile west of Ella Blvd. in Houston, Texas.

The vehicles involved were as follows:

(1) 2000 Chevrolet Tahoe, gold in color
Texas Registration #[redacted]
Vin # 1GNEK13RXY[redacted]

(2) 1989 Jeep Pioneer, gray in color
Texas Registration #[redacted]
Vin # 1J4FT38L4KL[redacted]

(3) 2003 Chevrolet Impala, silver in color
Texas Registration #[redacted]
Vin # 2G1WF52E939[redacted]

The Jeep Pioneer was driven by Mr. [redacted]. According to the accident report, Mr. [redacted] Jeep was struck in the rear by the Chevrolet Tahoe driven by Ms. [redacted] The Jeep Pioneer was then pushed into the rear of the Chevrolet Impala driven by Mr. [redacted] Mr. [redacted] Jeep Pioneer burst into flames. All three vehicles came to rest in the right lane.

As a result of the collision, Mrs. [redacted] sustained severe burns; Mr. [redacted] received burns attempting to rescue his wife. Ms. [redacted] received minor injuries and Mr. [redacted] was not injured.

On Thursday July 8, 2004, I traveled to Corpus Christi, Texas, to inspect the subject vehicle. During this inspection numerous photographs were taken to accurately and properly document the fire patterns and damage to the vehicle.

I observed primary fire patterns to the rear of the vehicle. These fire patterns extended forward into the passenger compartment and into the engine compartment. The right side of the vehicle revealed heavy fire patterns extending from the rear forward to the front quarter panel. An inspection of the front of the vehicle revealed the heaviest fire patterns at the rear of the engine compartment. An inspection of the left side of the vehicle revealed the heaviest fire patterns to the rear portion of the vehicle.

An inspection of the engine compartment revealed the fire entered the engine compartment from the passenger's compartment. A close inspection of the engine compartment revealed none of the ignitable liquids in the engine compartment had been released

An inspection of the passenger's compartment revealed the heaviest fire patterns to the rear portion. These fire patterns revealed the fire entered the passenger's compartment from two areas. The first was through openings created during the crash at the right rear fender well. The second was through the rear glass. Fire patterns reveal the fire spread forward from the right rear side.

An inspection of the undercarriage revealed fire patterns to be heaviest at the rear of the vehicle. These fire patterns proceeded forward along the right rear side to approximately the "B" pillar. During this inspection a hole was noted to the lower right portion of the fuel tank. This hole was approximately two inches long and approximately one eighth of an inch wide. Heavy fire patterns were noted to this area.

On Wednesday, August 11, 2004 I traveled to Houston, Texas to inspect the scene of the accident. During my inspection it was noted the highway is crowned from the center toward the fog lines. According to the accident report the vehicles

involved came to rest in the outside, east bound lane. A "milk test" was conducted to determine the fall of the roadway. This test revealed the flow toward the emergency lane to the right. This confirmed the fire patterns to the subject vehicle.

It is my opinion, based on experience, education, training, and method of investigation and testing used by my peers nationwide, this fire originated in the area of the fuel tank, located at the rear of the vehicle. The fire spread into the passenger compartment and into the engine compartment. This fire was a gasoline fire caused by a puncture fuel tank. The vapors from the spilled gasoline were likely ignited by either friction sparks or electrical arcing at impact.

My opinions are based on scientific methodology customarily used by fire investigators generally. These methods have been peer reviewed and used routinely by other fire experts.

I intend to use the following exhibits in my testimony:

1. Photographs taken by William R. "Chip" Bush, Jr.
2. Subject Vehicle.
3. Subject fuel tank.
4. And all other materials provided to me by the Plaintiff

If you have any questions regarding these findings, please contact me. It has been a pleasure working with you, and if I may be of any assistance in the future, please don't hesitate to call.

Sincerely,

William R. (Chip) Bush, Jr.
Bush Investigative Services, LLC

Project # HUL 1001

AAD's Opinions
[redacted] v DaimlerChrysler

submitted to:

Law Offices of Christopher Bradshaw-Hull
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American Automotive Design
J. D. Mundo

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October 12, 2004

TABLE OF CONTENTS

AAD's Opinions . . . . . Page 1

Discussion . . . . . Page 2

James Mundo's CV . . . . . Appendix A

AAD's 2004 Fee and Expense Schedule . . . . . Appendix B

AAD's Deposition and Trial List . . . . . Appendix C

Materials Reviewed List . . . . . Appendix D

Abridged Vehicle Inspection Photos . . . . . Appendix E

AAD'S OPINIONS [redacted]

Introduction

American Automotive Design (AAD) was retained by the Christopher Bradshaw-Hull Law Firm on August 4, 2004 to provide engineering services for the [redacted] v DaimlerChrysler case. AAD was asked to review the case with respect to automotive design engineering practices as they relate to vehicle crashworthiness.

Materials Reviewed

Please see Appendix D for list of materials reviewed.

Background

AAD understands from the Texas Peace Officer's Accident Report that the accident vehicle is a 1989 Jeep Cherokee Pioneer. AAD further understands that the vehicle was traveling eastbound on 2000 State Highway 249 when, after having slowed for traffic, it was struck in the rear by a 2000 Chevrolet Tahoe.

Methodology

To arrive at the opinions that follow, AAD combined over thirty-two years of hands-on automotive design engineering experience in combination with:

. physical inspection of the [redacted] accident vehicle
. study of the inspection photographs
. study of various other relevant photographs
. study of discovery materials

Opinions Summary

It is AAD's opinion that the 1989 Jeep Cherokee Pioneer's fuel tank package configuration is defective and unreasonably dangerous beyond what would be expected by the user as exemplified by the following:

1. The fuel tank is packaged rearward of the rear axle where:
   a. there is insufficient structure rearward of the rear of the fuel tank, which
   b. places the fuel tank directly in the rear crumple zone, therefore
   c. the fuel tank is in harms way and exposed to catastrophic failure

2. DaimlerChrysler demonstrated a lack of commitment to safety for the motoring public by failing to follow the tenets of the design hierarchy and design the danger out of the fuel tank package, rear occupant compartment intrusion and post crash door openability by the establishment and execution of internal design standards for:
   a. rear impact sequential crush
   b. limited rear occupant compartment intrusion
   c. ease of post crash door openability
   d. 50 mph car-to-car rear FMVSS 301 crash tests

DISCUSSION

Energy Management System

One concept applicable to the case at hand is that of an energy management system. When a target vehicle is struck in the rear by a bullet vehicle, it is the target vehicle's rear structure that is the first line of defense for the fuel system, as-well-as, for the all important occupants. This rear structure is often referred to as the energy management system (EMS) and the key design parameter for the EMS is the efficient conversion of the bullet vehicle's kinetic energy to work. This event is often referred to as the absorption of the impact energy by "crumpling" the rear of the vehicle.

The bullet vehicle has impact or kinetic energy because it has mass and it is moving with a velocity. When the bullet vehicle strikes the target vehicle, a percentage of the bullet vehicle's kinetic energy is transferred to the target vehicle. The design of the target vehicle's rear structure determines just how efficiently this transfer occurs and what implications it has on the fuel system and occupants.

Kinetic energy is defined to be equal to work and work is defined to be a force acting over a distance or in equation form:

kinetic energy = work
kinetic energy = force x distance

$$\tfrac{1}{2} M V^2 = F \times D$$

M = vehicle mass
V = vehicle velocity
F = force
D = distance

It can be seen from the above equation that a force F must act over some distance D to absorb the energy of the impact. The distance D is often referred to as the amount of crumple observed in a rear impact event. The salient point here is that the rear structure must crumple over some distance D to absorb the energy of the impact.

Fuel Tank Location

Automotive design engineers know about kinetic energy and its relationship to force and distance. So much so, that the phrase crumple zone or crush zone are part of their work-a-day vocabulary. Sound engineering practice dictates that no fuel tank should ever be packaged in a crumple zone. It is possible to package a fuel tank rearward of the rear axle, as-long-as, there is ample crumple distance D rearward of the fuel tank's location to absorb the energy of the impact.

Most design engineers are familiar with the design hierarchy and its tenets, i.e.:

1. design the danger out whenever possible
2. protect against if the danger cannot be designed out
3. warn if the danger cannot be protected against

Sound engineering practice also requires that the design engineer pay homage to the tenets of the design hierarchy. Packaging a fuel tank in a crumple zone puts the fuel tank directly in harms way and presents an unreasonable danger to the motoring public. Moreover, it is in direct contradiction of the design hierarchy tenet to design the danger out whenever possible.

The amount of expected crumpling of the structure in a rear impact can be upwards of two or more feet. Automotive design engineers know that this much crumple is expected as demonstrated by the rear structural design of many products including such vehicles as the Taurus and Lincoln LS as seen in Appendix E, page E 11. Not only do they expect it, the design engineers actually design features into the

structure to make it crumple in this range. Unfortunately, the Jeep Pioneer does not rate this same attention to rear crashworthiness. The fuel tank is packaged directly in the crumple zone with only a scant two to three inches to the rear end of the chassis as seen in Appendix E, page E 10. Two to three inches is simply not enough crumple distance D to absorb the energy of the impact rearward of the fuel tank and therefore, the fuel tank is placed in harms way and becomes part of the crumple zone with catastrophic results as demonstrated in this accident.

Occupant Safety Cage

Another concept applicable to the case at hand is that of the occupant safety cage. Many automotive manufacturers advertise that their vehicles surround the occupants with a cage of steel with crumple zones in the front and in the back of the vehicle designed to absorb the energy of the impact. In this way, the occupants are protected by virtue of the crumpling structure which minimizes the intrusion into the occupant compartment. How efficiently the rear structure crumples or manages the energy of the crash establishes the amount of intrusion into the occupant compartment.

A well behaved rear EMS is designed to crumple sequentially. For example, the rear bumper is the weakest part of the EMS and crumples first, next the very rear of the structure crumples, then the mid portion of the rear structure crumples and so on step-by-step. The rear structure grows stronger and stronger as the crumple zone approaches the occupant compartment. In this way, the structure just aft of the back seat is normally designed to be the strongest to resist excessive intrusion into the occupant compartment. This strongest point is often referred to as the backup structure meaning that it must hold fast and enable the rest of the structure reward to crumple in a sequential manner.

A study of the photographs in Appendix E, pages E 6 through E 9 demonstrates that the Jeep Pioneer's rear structure or EMS did not crumple in a sequential manner. Rather, the backup structure failed in bending and enabled the structure to breach the floor pan and push the rear seat up and forward into the back of the front seats. The tearing of the rear floor pan also enabled the burning gasoline direct access into the occupant compartment with catastrophic results.

The key point here is the lack of a DaimlerChrysler internal rear EMS design standard that establishes the behavior of the rear structure and the level of occupant compartment intrusion. Had such an internal standard been established, the design engineers would have most likely designed, analyzed and tested the Jeep Pioneer to conform.

Post Crash Door Openability

Another concept applicable to the case at hand is that of post crash door openability. Many automotive manufactures, such as Ford and GM, have internal design standards which establish the parameters that govern the design process to assure ease of door openability after the vehicle has been crashed.

One of the design parameters for ease of post crash door openability is known as shingling. Consider, that in a frontal or rear crash event the sides of the vehicle will tend to compress and force the doors together. When the doors do come together, it is vitally important that the design control just how they run into each other. For example, the rear of the front door must slide over the front of the rear door to assure that both doors can be opened. A study of the photographs in Appendix E, pages E 3 and E 4 demonstrates that the Jeep Pioneer's doors shingled in the opposite manner with the rear of the front doors passing under the front of the rear doors, thus trapping the occupants inside of the vehicle.

The key point here is the lack of a DaimlerChrysler internal post crash door openability design standard. Had such an internal standard been established, the design engineers most likely would have designed, analyzed and tested the Jeep Pioneer to conform.

Alternative Design

As far back as the late 1970s and early 1980s automotive design engineers worldwide recognized the need to design the danger out of their products whenever possible. Mercedes-Benz took the position;

"To minimize the risk for vehicle occupants, the objectives for all types of collision are:
. preservation of the survival space for occupants
. preservation of large, energy-absorbing contact zones
. reliable functioning of restraint systems
. easy occupant rescue
. a securely sealed fuel system ..."

General Motors and Ford also recognized the need for safer designs and began testing at elevated speeds for both frontal and rear impacts. By the early 1980s both General Motors and Ford initiated 50 mph vehicle-to-vehicle rear impact fuel system integrity testing. Additionally, the industry was adopting internal post crash door openability design standards.

DaimlerChrysler was not a participant in the worldwide movement to design safer vehicles as demonstrated by the design of the Jeep Pioneer which failed to:
. preserve large energy-absorbing contact zones especially around the fuel tank resulting in the breach of the fuel tank in this accident
. preserve survival space by enabling excessive intrusion into the rear seat compartment
. provide for easy occupant rescue via the door systems

The packaging of the fuel tank aft of the rear axle is defective and unreasonably dangerous in this Jeep Pioneer configuration. It cannot be made safe in its present location by designing the danger out, nor by protecting against the danger and certainly not by warning about the danger. In this case, the fuel tank must be moved forward of the axle.

Had DaimlerChrysler established internal design standards for post crash door openability and for limited occupant compartment intrusion, the design engineers would have most likely complied. The knowledge and design features to assure compliance where well established and demonstrated by other manufacturers at that time.

Conclusions

A forward of the axle midship fuel tank package configuration could have easily been incorporated without impairing the utility, usefulness, practicality or desirability of the 1989 Jeep Cherokee Pioneer. To a high degree of engineering certainty, the rear structure can then be designed to exhibit improved crashworthiness performance and minimize the the excessive crumpling intrusion into the fuel tank's environment. Moreover, most average design engineers have the education, training and experience to design safer automotive products given that the manufacturer is supportive of a commitment to safety.

The opinions expressed in this report are based on AAD's knowledge of the facts and information to date. If AAD's opinions (or the bases for them) change as a result of additional information which becomes available through depositions or other discovery, AAD will amend or supplement the opinions appropriately.

Appendix A

James Mundo's CV

James David Mundo
Curriculum Vita

CV Summary

- Thirty-two years experience in the Automotive Industry
- Engineering expertise from conventional through electric and alternative fuel vehicles
- Hands on cradle-to-grave engineering experience for numerous product lines
- Extensive experience with US, Canadian and European crash safety standards
- Designed, built and implemented first US/Swedish heavy truck crash safety facility
- International design engineering experience with European and Japanese vehicles
- Served as Ford's Crash Safety Technical Specialist for all NAAO product lines
- Taught crash safety design techniques in Ford's US and European engineering centers
- Formulated and published Ford corporate standard engineering safety guidelines

Employment History

American Automotive Design, Canton, Michigan 1986-present
Position: Founder and Owner
Negotiated and awarded numerous multifaceted and multilevel engineering contracts with Ford, General Motors, BMW, Modern, SDRC, TDM and others. Contracts ranged from FMVSS crash safety programs through production vehicle redesign for alternative fuel and electric vehicle systems.

SDRC, Madison Heights, Michigan 1985-1986
Position: Senior Consultant Engineer
Organized, staffed and trained a new Design Engineering Department to:
- execute total design programs
- integrate engineering analysis into design process
- develop procedures for cycle testing components on computer driven test equipment

Volvo White Corporation, Greensboro, North Carolina 1983-1985
Position: Special Assistant to Director of Engineering
Assigned to technical projects of specific interest to the company.
- established heavy truck domestic vehicle crashworthiness safety programs
- revised Swedish design standards to comply with US/Canadian FMVSS standards
- designed, built and implemented first US/Swedish heavy truck crash safety facility

Ford Motor Company, Dearborn, Michigan 1972-1983
Position: Safety Technical Specialist
Design Engineering Supervisor
Senior Design Engineer
Product Development Engineer
Product Design Engineer
Direct major program experience in each phase of the design, development and manufacture of automotive products from cradle-to-grave.

- safety specialist responsible for NAAO product compliance to FMVSS crash regulations
- supervision of Taurus vehicle design engineering group
- formulated and issued corporate engineering technology guidelines
- pioneered static and dynamic structural safety design techniques
- coordinated major design programs with both Europe and Japan

McDonnell Douglas Aircraft Company, St. Louis, Missouri 1970-1972
Position: Airframe Structural Design Engineer
Configuration Aerodynamicist
Direct experience with F-15 aircraft and Harpoon missile in airframe structures design, materials development and aerodynamics.
- structural design, loads, stress and fatigue analysis
- aerodynamic surface configuration and performance

Areas of Distinction

US Patents
- mechanical propulsion systems
- bumper safety systems

Organizations

Member in good standing, Society of Automotive Engineers

Education

Graduate: University of Michigan, Professional Development in Engineering Degree, 1976
Undergraduate: Northrop University, Bachelor of Science in Aerospace Engineering, 1970

Appendix B

AAD's 2004 Fee and Expense Schedule

2004 Fee and Expense Schedule

Hourly Rates:
Billables include all time expended at an hourly rate on behalf of the client including, but not limited to, onsite inspections, document reviews, research, reports, depositions, court testimony, testing, photography, telephone conversations, waiting and travel portal-to-portal.

Senior Engineer	.....	$330.00
Project Engineer	.....	$165.00
Technician	.....	$83.00
Staff Assistants	.....	$83.00
Drafting	.....	$72.00
Mechanic	.....	$55.00
Clerical	.....	$50.00

Minimum Fees:
Four-hour minimum fee per case for engineering investigation/consultation.
Four-hour minimum fee per deposition.
Eight-hour minimum daily trial fee.

Reimbursable Expenses:
1. General Expenses: All out-of-pocket expenses including, but not limited to, those for travel, meals, lodging, photographic supplies and processing, postage and shipping, codes and standards acquisition, research data, computer modeling, telephone calls, component storage and other materials are billed at cost plus 15%. Use of personal/ company automobiles is billed at $0.36 per mile.

2. Testing Expenses: All testing expenses including, but not limited to, those for physical test properties, pre-test preparations, test facility usage, videos, raw data hard copies, test reports and disposition of post-test properties must be paid for at the time the expenses are incurred.

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revised 01/05/03

Appendix C

AAD's Deposition and Trial List

AAD's DEPOSITION LIST

1. Brown v Peterbilt Motors Company
   Case # 97-721053-NZ
   Circuit Court for the County of Wayne, State of Michigan
   Dani K. Liblang
   Birmingham, Michigan, March 17, 1999 and April 22, 1999

2. Hensler v Ford Motor Company
   Case # 98-CV-218
   Circuit Court for the County of Jefferson, State of Wisconsin
   Robert Slattery
   Waukesha, Wisconsin, September 17, 1999

3. Carson v Mack Truck, Inc.
   Case # 982-00908
   Circuit Court of the City of St. Louis, State of Missouri
   Martin Perron
   St. Louis, Missouri, September 21, 1999

4. Moore v General Motors Corporation
   Case # CIV-98-042-2
   Circuit Court for the county of Ouachita, State of Arkansas
   Rodney Moore
   Bloomfield Hills, Michigan, September 30, 1999

5. Roblez v Ford Motor Company
   Case # CC-99-02300-C
   In The County Court At Law, Dallas County, Texas
   Todd Tracy
   Dallas, Texas, January 25, 2000

6. Van Vleet v Ford Motor Company
   Case # CIV B-C-98-125
   In The United States District Court
   Eastern District of Arkansas, Northern Division
   David Hodges
   Little Rock, Arkansas, February 5, 2000

7. Benavides v Mazda Motor Corporation
   Case # INC 008380
   Superior Court of California, County of Riverside
   Richard McCune
   Redlands, California, February 21, 2000

8. Hensler v Ford Motor Company, Vol2
   Case # 98-CV-218
   Circuit Court for the County of Jefferson, State of Wisconsin
   Robert Slattery
   Waukesha, Wisconsin, March 22, 2000

9. Fechtig v General Motors Corporation, Volvo White Truck Corporation, Volvo Trucks North America
   Case # CV 97-23606
   Superior Court of Arizona, Maricopa County
   Jeff Embry
   Romulus, Michigan, March 27, 2000

10. Daniel v Mack Trucks
    Case # 198CC0135
    In the Circuit Court of Greene County, Missouri at Springfield
    Steve Garner
    Springfield, Missouri, April 18, 2000

11. Perez v Ford
    Case # 4:98CV01973LOD
    United States District Court
    Eastern District of Missouri, Eastern Division
    Joan Lockwood
    St. Louis, Missouri, August 23, 2000

12. Rangel v Ford
    Case # DC-99-369
    District Court of Duval County, Texas
    229th Judicial District
    Craig M. Sico
    Corpus Christi, Texas , September 18, 2000

13. Johnson v Mack Truck
    Case # CV-99-106
    Circuit Court for Perry County, Alabama
    Greg Allen
    Montgomery, Alabama, October 19, 2000

14. Wade v Mazda, Vol 1
    Case # CV 99-174
    Circuit Court for Tallapoosa County, Alabama
    Kenneth Ingram, Jr.
    Alexander City, Alabama, February 13, 2001

15. Sturdevant v Ford Motor Company
    Case # RA-97-1318 (c)
    First Judicial District Court
    County of Rio Arriba, New Mexico
    Gilbert Arrazolo
    Albuquerque, New Mexico, February 20, 2001

16. Green v Ford Motor Company
    Case # 98-236CV
    Eighth Judicial District Court
    County of Taos, New Mexico
    Gilbert Arrazolo
    Albuquerque, New Mexico, February 22, 2001

17. Moore v Mazda Motor Company
    Civil Action # 99-0136CI
    Circuit Court of LeFlore County, Mississippi
    Edward Sanders
    Romulus, Michigan, May 17, 2001

18. Wade v Mazda, Vol 2
    Case # CV 99-174
    Circuit Court for Tallapoosa County, Alabama
    Kenneth Ingram, Jr.
    Romulus, Michigan, May 31, 2001

19. Murray v Century Products
    Case # 96-68
    Court of Common Pleas, 44th Judicial Wyoming County Branch, Pennsylvania
    Robert Murray Jr.
    Romulus, Michigan, June 7,2001

20. Romeo v Dana Corporation
    Case # 982-08128
    Circuit Court of the City of St. Louis
    John Turner
    Kansas City, Missouri June 12, 2001

21. Hanson v Nissan
    Case # 99-CVS-319
    Ashe County Civil Superior Court, Ashe County, North Carolina
    Douglas Abrams
    Raleigh, North Carolina, June 19, 2001

22. Thomas v Krispy Kreme
    Case # CV-99-0115
    In the Circuit Court for Macon County, Alabama
    Greg Allen
    Montgomery, Alabama, June 27, 2001

23. Ross v Ford Motor Company
    Case # 00-CV-4137-JPG
    In the United States Federal District Court for the Southern District of Illinois
    Jason Dodson
    St. louis, Missouri, August 2, 2001

24. Steiner v General Motors Corporation
    Case # 00-1108-JTM
    # 00-1109-JTM
    In the United States Federal District Court for the District of Kansas
    Peter Daughtery
    Atlanta, Georgia, September 18, 2001

25. Bryant v General Motors
    Case # CV196-48CC
    In the Circuit Court for Cass County
    John Turner
    Harrisonville, Missouri, January 30, 2002

26. Cruz v Ford Motor Company
    Case # C20006069
    In the Superior Court of Arizona, in the county of Pima
    Patrick J. McGroder III
    Romulus, Michigan, February 19, 2002

27. Hurd v General Motors
    Case # CV-99-H-71
    In the Circuit Court for Coffee County, Alabama, Elba Division
    Richard Morrison
    Montgomery, Alabama, February 28, 2002

28. Sturdevant v Ford Motor Company, Vol 2
    Case # RA-97-1318 (c)
    First Judicial District Court
    County of Rio Arriba, New Mexico
    Gilbert Arrazolo
    Canton, Michigan, March 15, 2002

29. Jernigan v General Motors
    Civil Action # CV-2000-104
    Circuit Court, Bullock County, Alabama
    Greg Allen
    Montgomery, Alabama, March 26, 2002

30. Phi N. Le v Ford Motor Company
    Docket # 98-01957
    21st Judicial District Court, Parish of Tangipahoa Louisiana, Division A
    Glen McGovern
    Troy, Michigan, June 14, 2002

31. Wolfe v Ford Motor Company
    Case # 00C35E
    In the District Court of Neosho County, Kansas
    Lynn Johnson
    Romulus, Michigan, July 26, 2002

32. She Pin Chen v GM
    Case # 01CV03840
    District Court of Johnson County, Kansas
    James Frasier
    Tulsa, Oklahoma, July 30, 2002

33. Kessler v Big O Tires
    Case # 99AS06353
    In the Superior Court of California, County of Sacramento
    Paul Nelson
    Dearborn, Michigan, August 3, 2002

34. Poirier v Ford Motor Company
    Case # 74,600-A
    In the Probate Court, Travis County, Texas
    Donald Slavik
    Detroit, Michigan, August 20, 2002

35. Taylor v Hornady, Vol 1
Case # CV-2001-90
In the Circuit Court of Wilcox County , Alabama
Benjamin Baker
Montgomery, Alabama, December 6, 2002

36. Weir v Groendyke Transport Inc.
Case # 4:01CV00948CAS
In the United States District Court for
the Eastern District of Missouri
Paul Passanante
St. Louis, Missouri, January 21, 2003

37. Taylor v Hornady, Vol 2
Case # CV-2001-90
In the Circuit Court of Wilcox County , Alabama
Benjamin Baker
Dearborn, Michigan, January 24, 2003

38. Blair v Navistar International
Case # CV-01-135
In the Circuit Court of Lamar County, Alabama
Benjamin Baker
Montgomery, Alabama, February 11, 2003

39. Straman v Volkswagen of America
Case # 812391
Superior Court of the State of California for the County of Orange, Central Justice Center
Stanley Gibson
Los Angeles, California, March 6, 2003

40. Allred v Freightliner
Case # 248-187-98
In the District Court of Johnson County, Texas, 249th Judicial District
Ken Lewis
Romulus, Michigan, March 11, 2003

41. Maddox v Toyota
Case # 1:01-CV-0997-TWT
In the United States District Court for the Northern District of Georgia, Atlanta Division
James Carter
Romulus, Michigan, April 25, 2003

42. Sasser v Ford Motor Company, Vol 1
Case # 2003 cv 68680
In the Superior Court of Fulton County, State of Georgia
Jeff Harris
Romulus, Michigan, September 30, 2003

43. Stiren v DaimlerChrysler
Case # 962-8179
In the Circuit Court of the City of St. Louis, State of Missouri, Division #1
Nancy Richards
St. Louis, Missouri, December 9, 2003

44. Sasser v Ford Motor Company, Vol 2
Case # 2003 cv 68680
In the Superior Court of Fulton County, State of Georgia
Jeff Harris
Ann Arbor, Michigan, February 18, 2004

45. Mohr v DaimlerChrysler
Case # CT 002 433-03
In the Circuit Court of Shelby County, Tennessee, for the Thirtieth Judicial District at Memphis
Jeremy Knowles
Birmingham, Alabama, February 27, 2004

46. Vasquez v Freightliner
Case # 842127-0
Superior Court of California, County of Alameda – Unlimited Jurisdiction
Alfred Lombardo
Romulus, Michigan, March 1, 2004

47. Vaughn v DaimlerChrysler
Case # 01-CI-00362
Commonwealth of Kentucky, Clay Circuit Court
Peter Perlman
Romulus, Michigan, March 12, 2004

48. Jernigan v General Motors Corporation, Vol 2
Civil Action # CV-2000-104
Circuit Court, Bullock County, Alabama
Greg Allen
Montgomery, Alabama, March 18, 2004

49. St. Clair County v Ford Motor Company
In the Circuit Court of the Twentieth Judicial Circuit, St. Clair County, Illinois
David Perry
Dearborn, Michigan, June 29, 2004

50. Perry v DaimlerChrysler
Case # B-CJ-2002-105
In the District Court of Creek County, Bristow Division, State of Oklahoma
Robert Waltman
Romulus, Michigan, July 9, 2004

51. Beasley v Mack Trucks, Inc.
Civil Action # CV - 2003 - 129
In the Circuit Court for Montgomery County, Alabama
Richard Morrison
Montgomery, Alabama, August 6, 2004

52. Taylor v General Motors Corporation
Law # CI99-123
Virginia: In the Circuit Court of the City of Chesapeake
Henry Courtney
Romulus, Michigan, August 14, 2004

AAD's TRIAL LIST

1. Hanson v Nissan
   Case # 99cvs319
   Ashe County Civil Superior Court, Ashe County, North Carolina
   Douglas Abrams
   Raleigh, North Carolina, August 17, 2001

2. Murray v Century Products
   Case # 96-68
   Court of Common Pleas, 44th Judicial Wyoming County Branch, Pennsylvania
   Robert Murray Jr.
   Tunkhannock, Pennsylvania, November 8, 2001

3. Jernigan v General Motors
   Civil Action # CV-2000-104
   Circuit Court, Bullock County, Alabama
   Greg Allen
   Union Springs, Alabama, April 25, 2002

4. Hanson v Nissan
   Case # 99cvs319
   Ashe County Civil Superior Court, Ashe County, North Carolina
   Douglas Abrams
   Raleigh, North Carolina, May 15, 2002

5. Poirier v Ford Motor Company
   Case # 74,600-A
   In the Probate Court, Travis County, Texas
   Donald Slavik
   Austin, Texas, October 17, 2002

6. Sasser v Ford Motor Company
   Case # 2003 cv 68680
   In the Superior Court of Fulton County, State of Georgia
   Jeff Harris
   Atlanta, Georgia, February 20, 2004

7. Vasquez v Freightliner
   Case # 842127-0
   Superior Court of California, County of Alameda – Unlimited Jurisdiction
   Alfred Lombardo
   Oakland, California, April 5, 2004

8. St. Clair County v Ford Motor Company
   Case #03-L-115
   In the Circuit Court for the Twentieth Judicial District, St. Clair County, Illinois
   David Perry
   Belleville, Illinois, September 23, 2004

Appendix D

Materials Reviewed List

MATERIAL REVIEWED LIST [redacted]

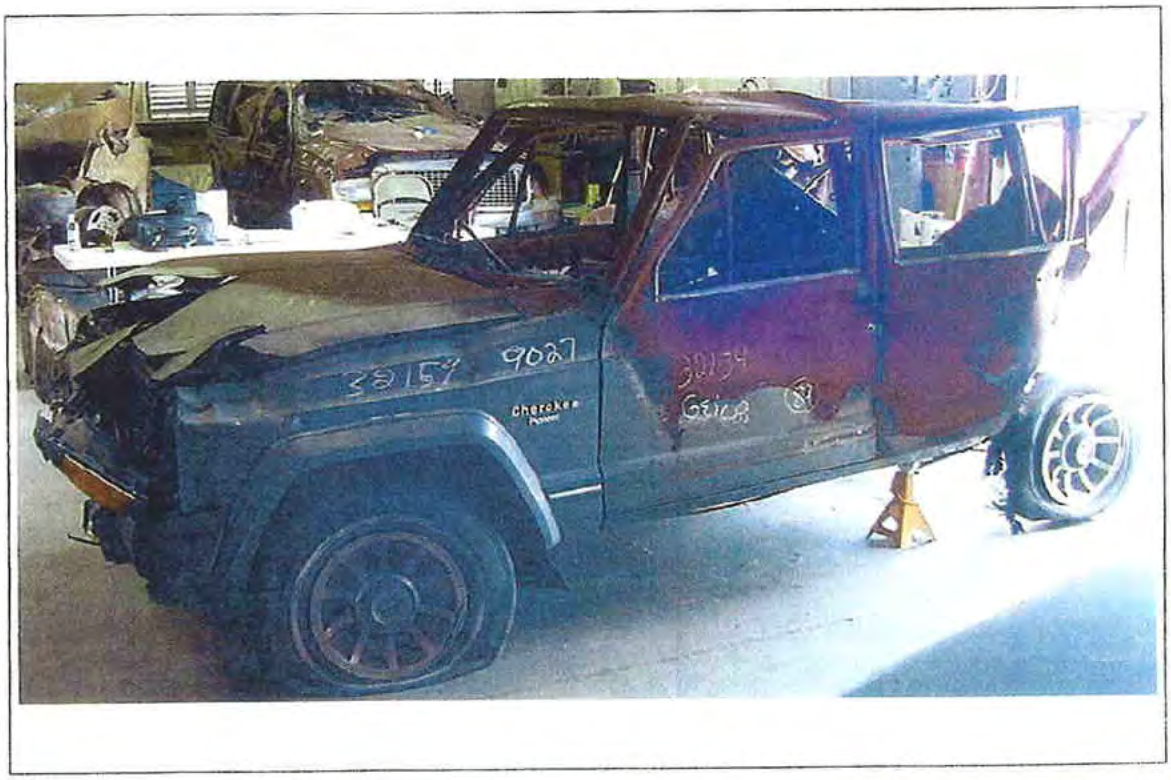
. physical inspectio[redacted]accident vehicle, 09.14.04
. Texas Peace Officer's Accident Report, 09.04.03
. 10 insurance photographs
. 100 AAD inspection photographs
. deposition[redacted]
. interview[redacted]
. Bush Investigative Services Report, 10.10.04
. The Thomas M. Grubbs Corp. Letter, 10.12.04
. American Motors test report 1458, 1522, 1533, 1540, 1573, 1581, 1584, 1623, 1626, 1635, 1661, 1665, 1669, 1671, 1679, 1689, 1696, 1700, 1706
. Wisconsin Safety Test Services report 1711, 1723, 1736, 1755, 1762, 1798, 1829, 1845, 1848, 1880, 1888, 1928, 1932, 2028, 2041
. package of interoffice letters
. Mercedes-Benz, Information, December 1988
. Discharge Summary, Tarsha Randle
. Protective Order
. XJ-YJ Program, Advance Vehicle Specifications, 03.17.80
. XJ Design Considerations

Appendix E

Abridged Vehicle Inspection Photos

View looking at front of [redacted] accident vehicle.

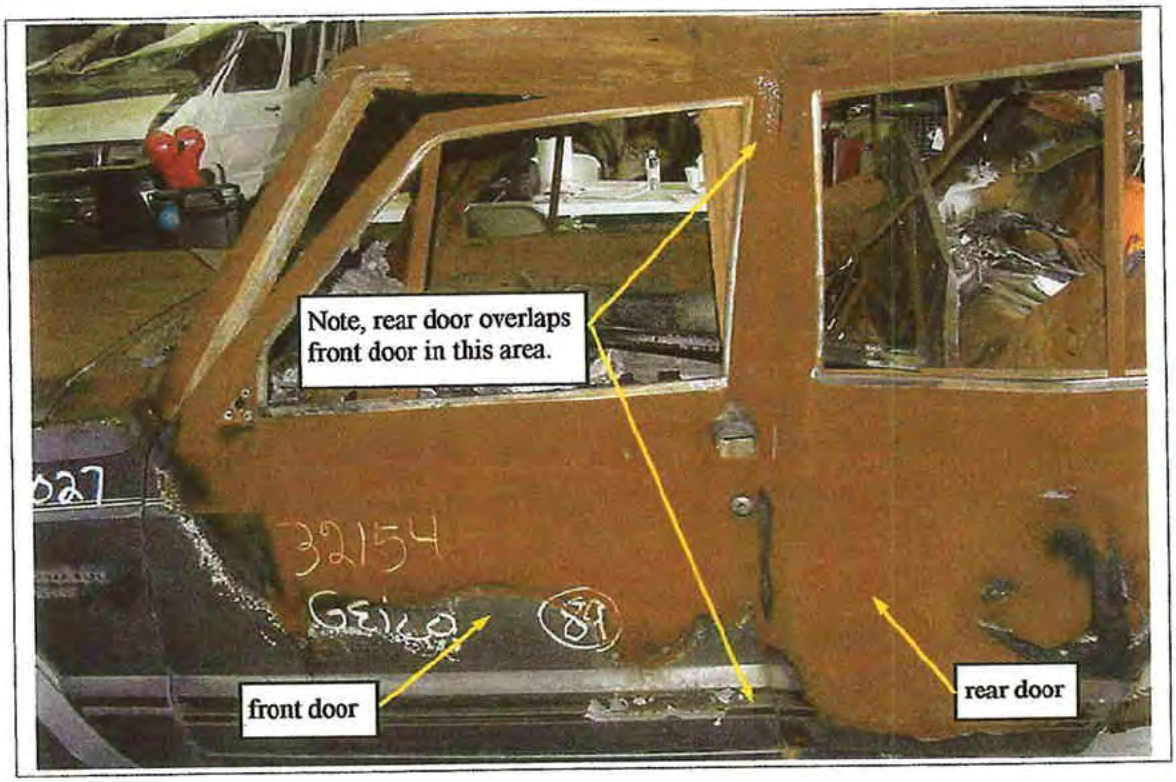
View looking at driver side of [redacted] accident vehicle.



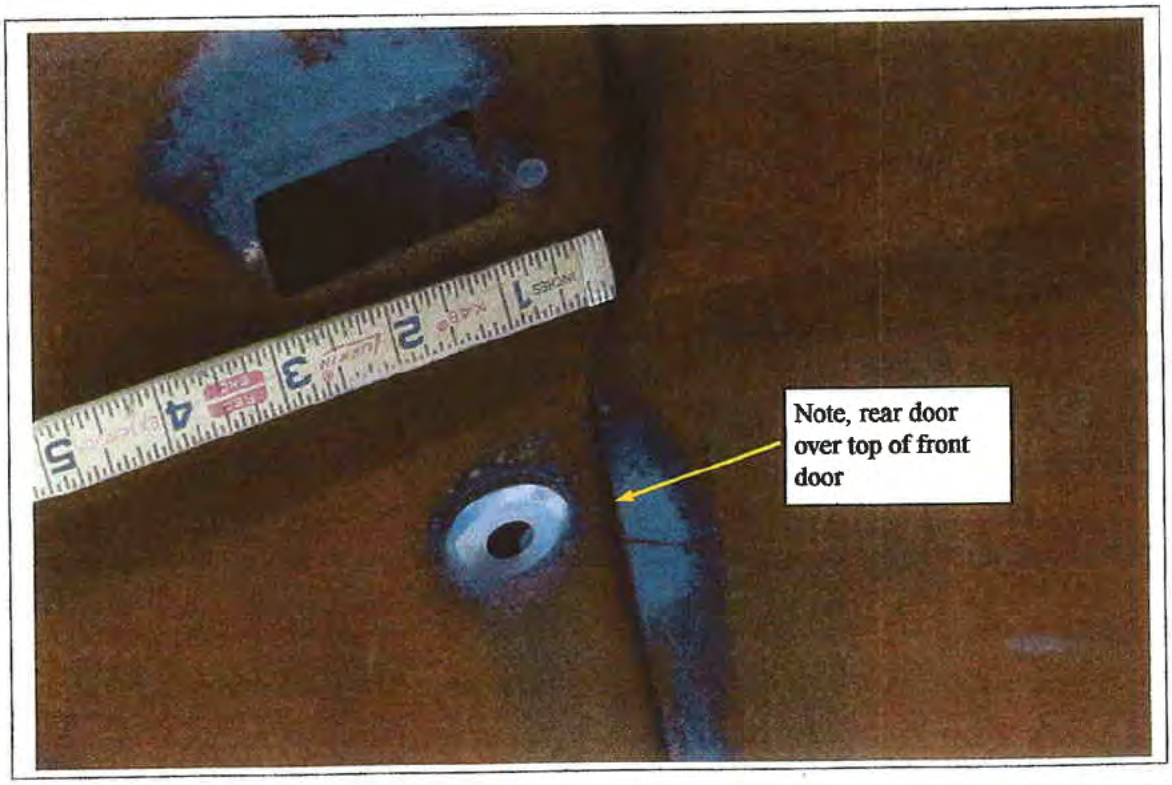
View looking at rear of [redacted] accident vehicle.

View looking at passenger side of [redacted] accident vehicle.

View looking at driver side front and rear doors [redacted] accident vehicle.



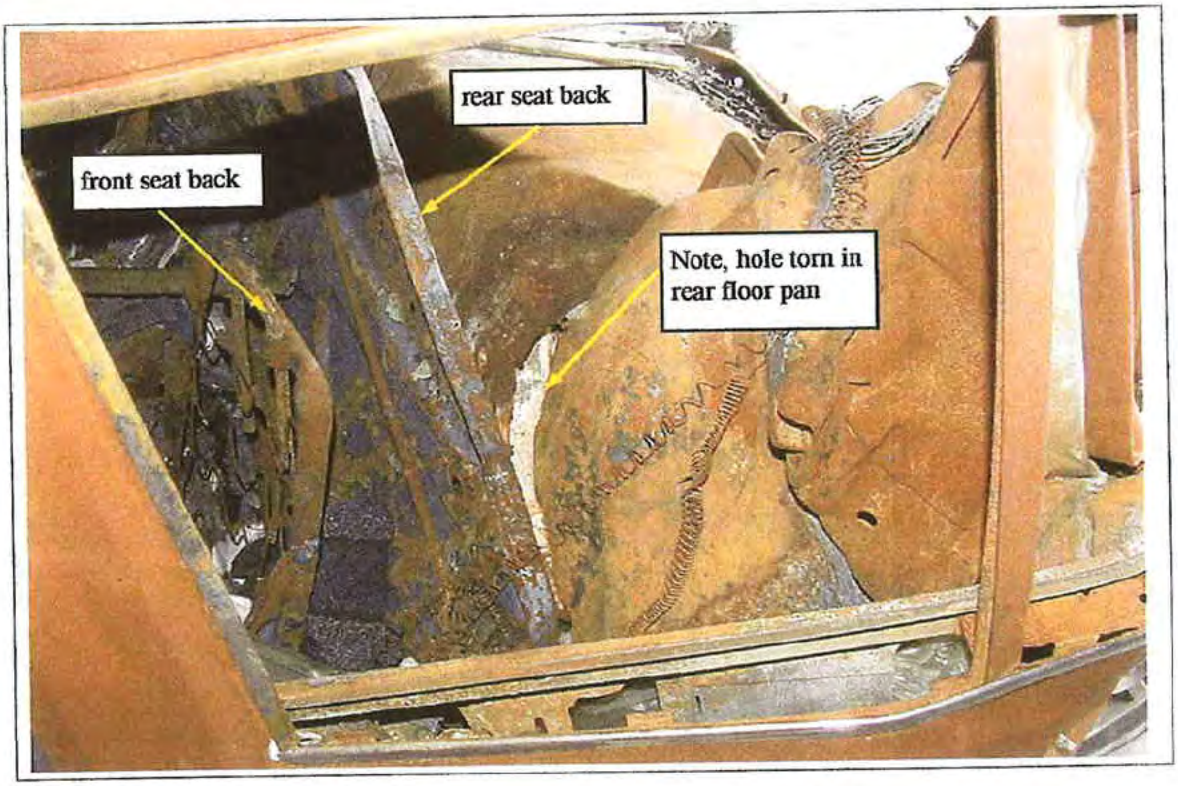
Close-up of driver side rear door overtop of front door [redacted] accident vehicle.



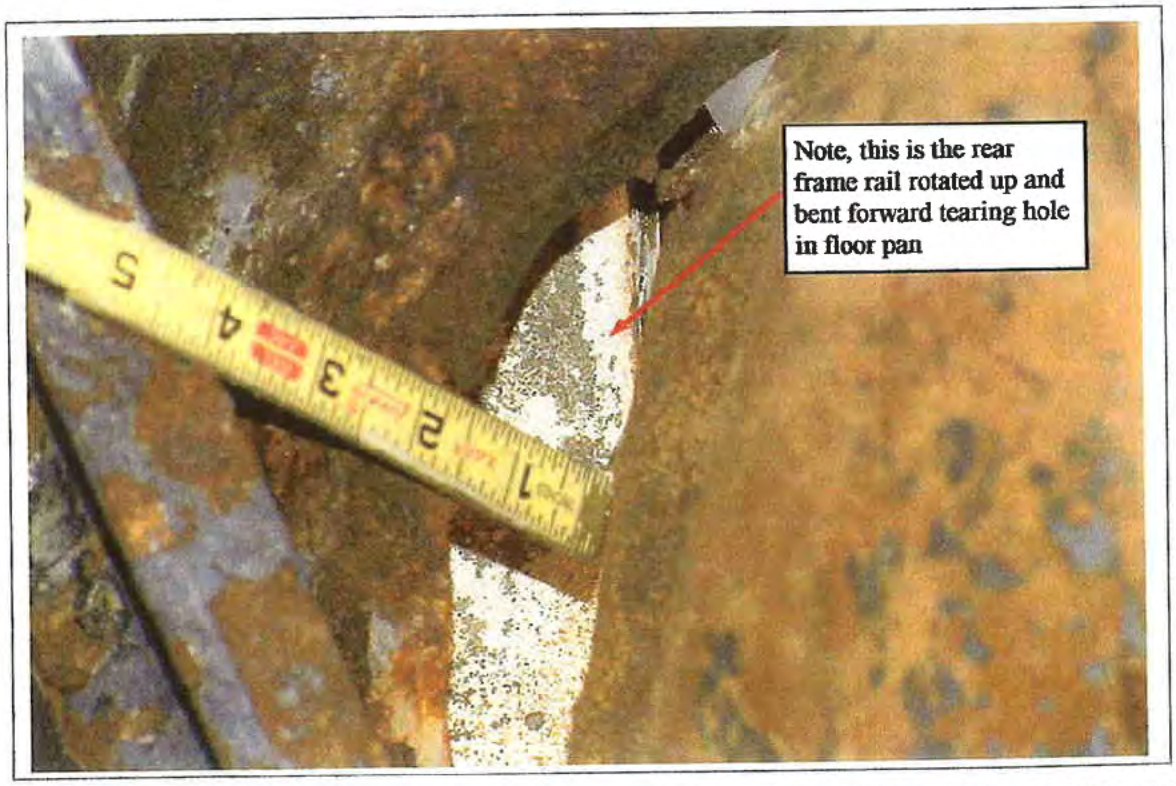
View looking at passenger side front and rear doors [redacted] accident vehicle.

Close-up of passenger side rear door overtop of front door [redacted] accident vehicle.

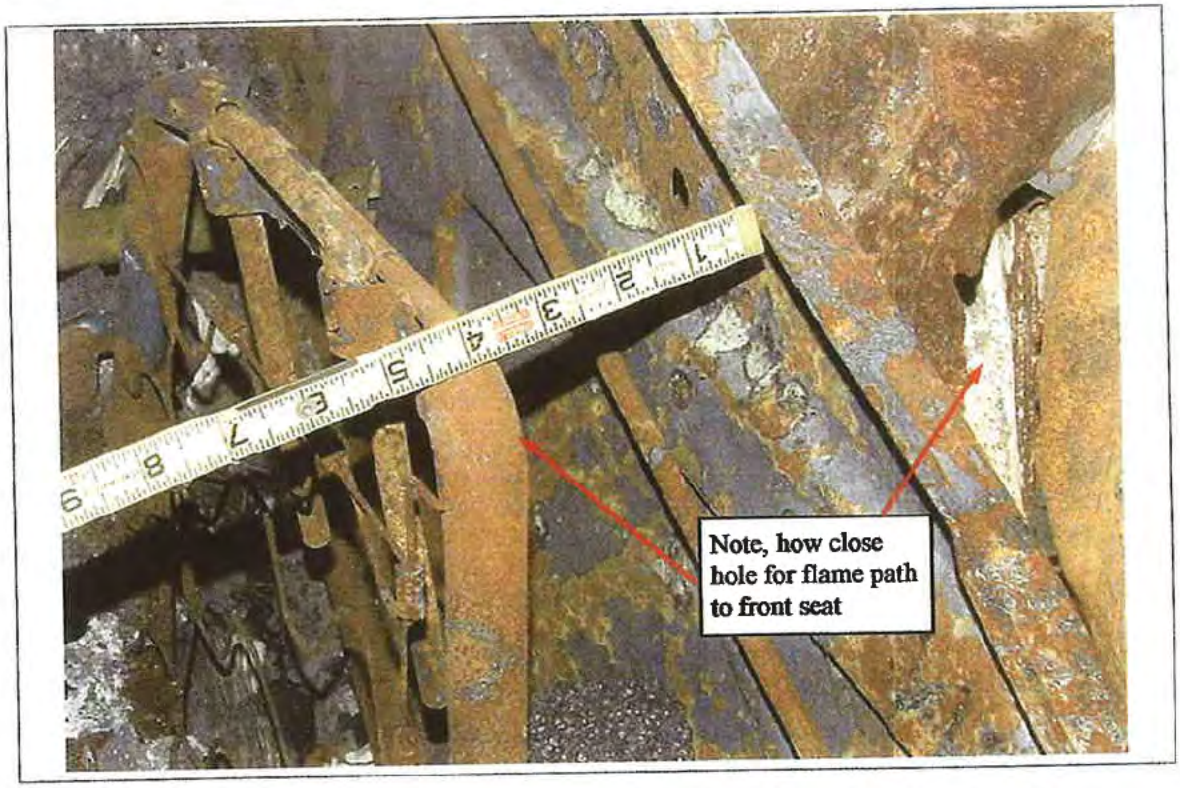
View looking down and in through driver side rear door window [redacted] accident vehicle.



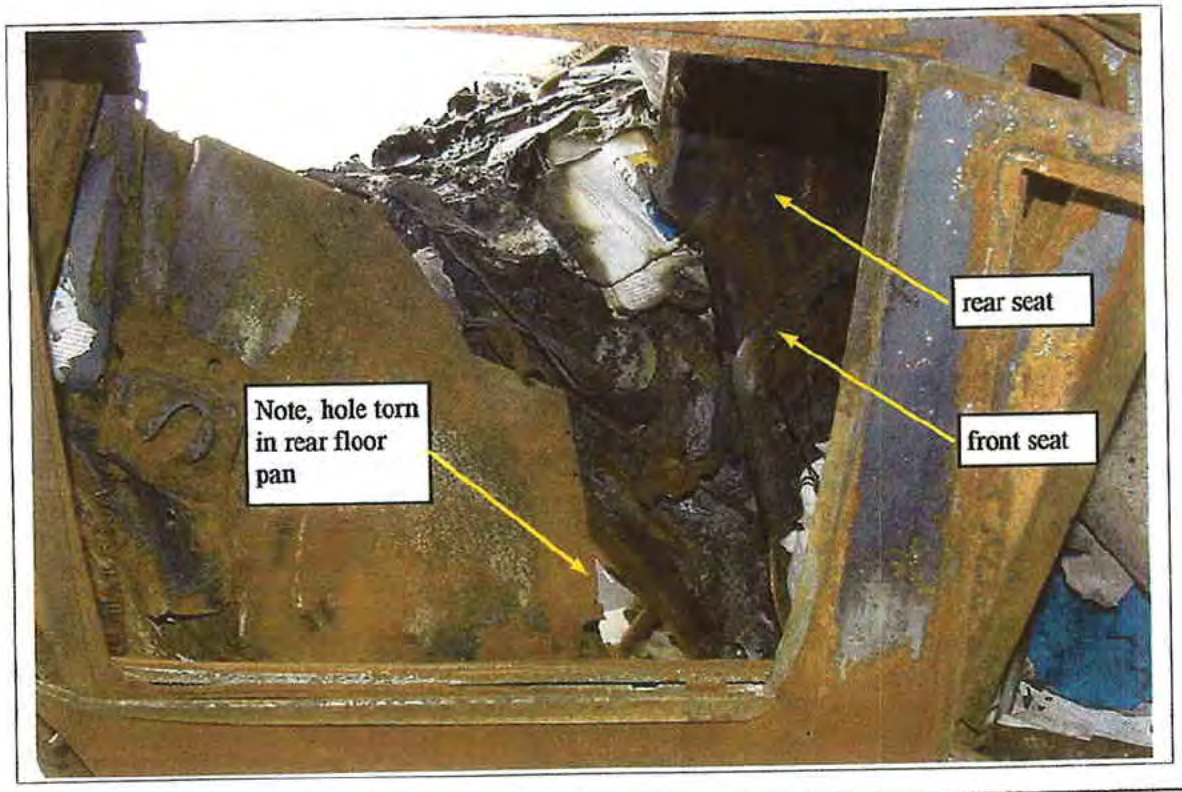
Close-up of hole torn in rear floor pan shown above [redacted] accident vehicle.



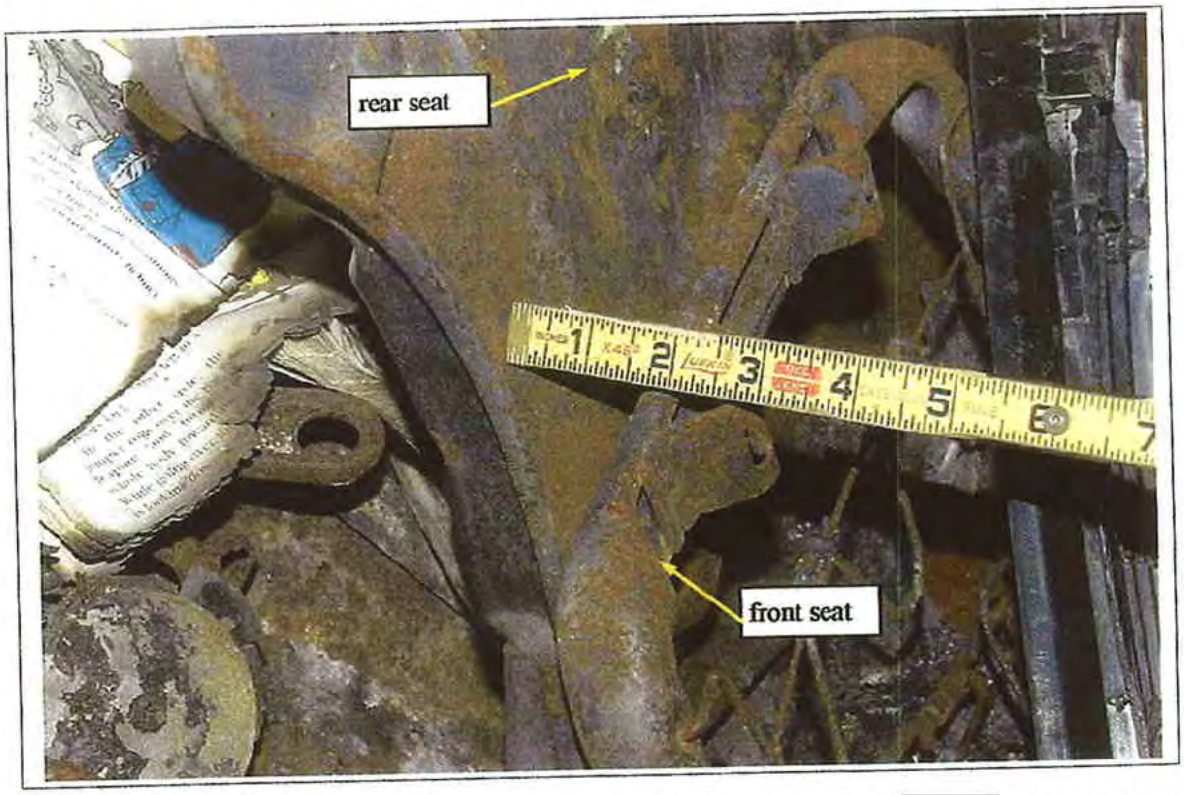
Close-up of driver side front to rear seat shown on page E5 [redacted] accident vehicle.



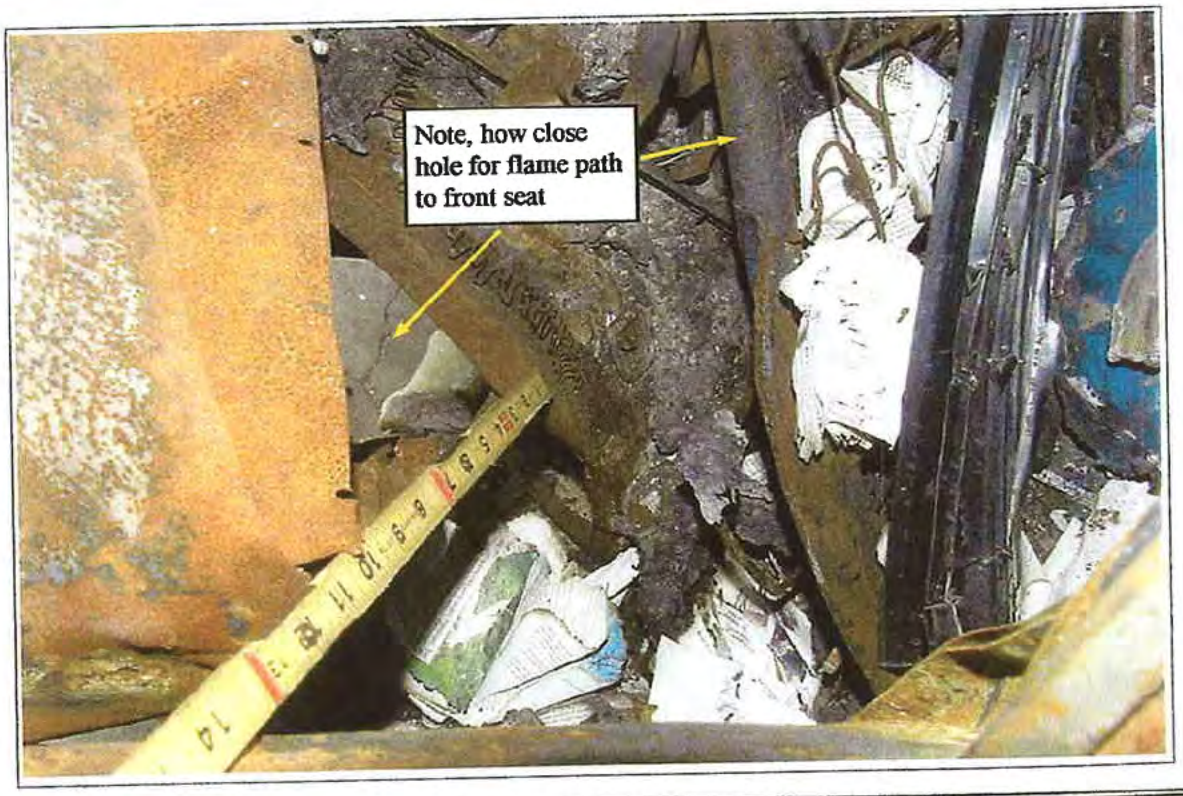
View looking down and in through passenger side rear door window [redacted] accident vehicle.



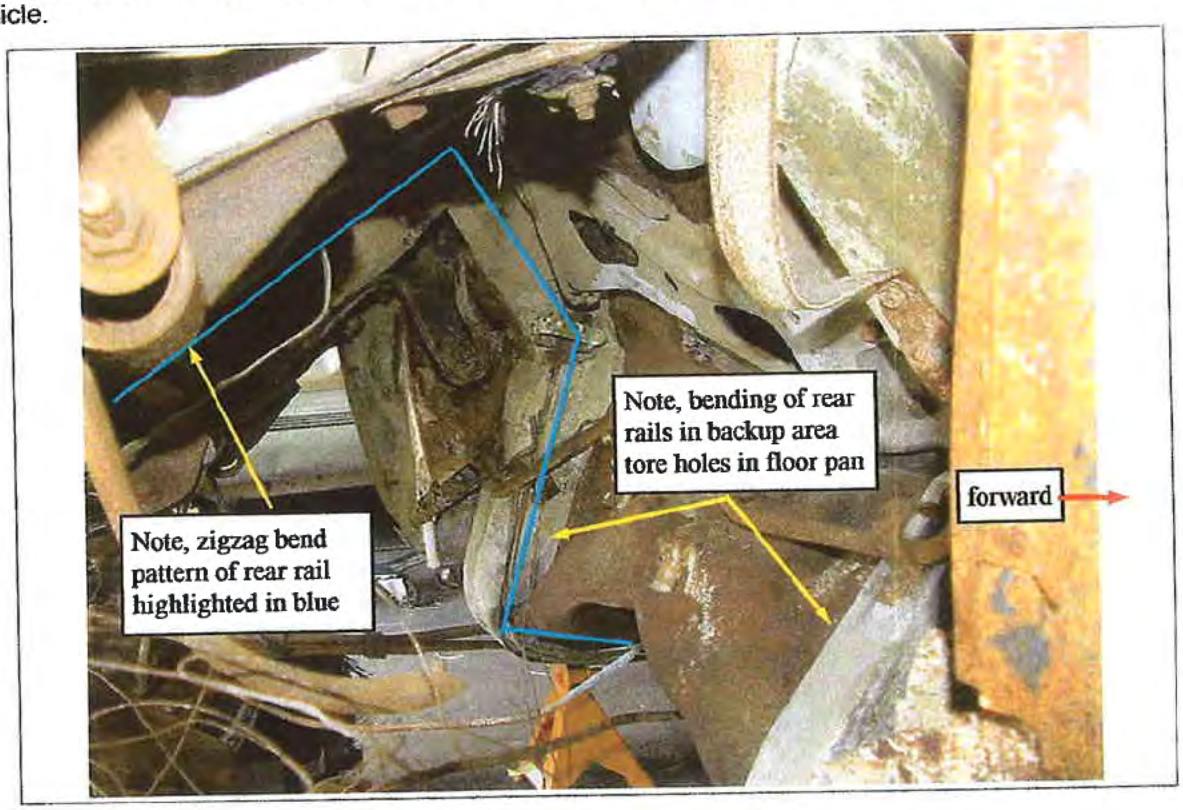
Close-up view of passenger side front to rear seat shown on page E6 [redacted] accident vehicle.



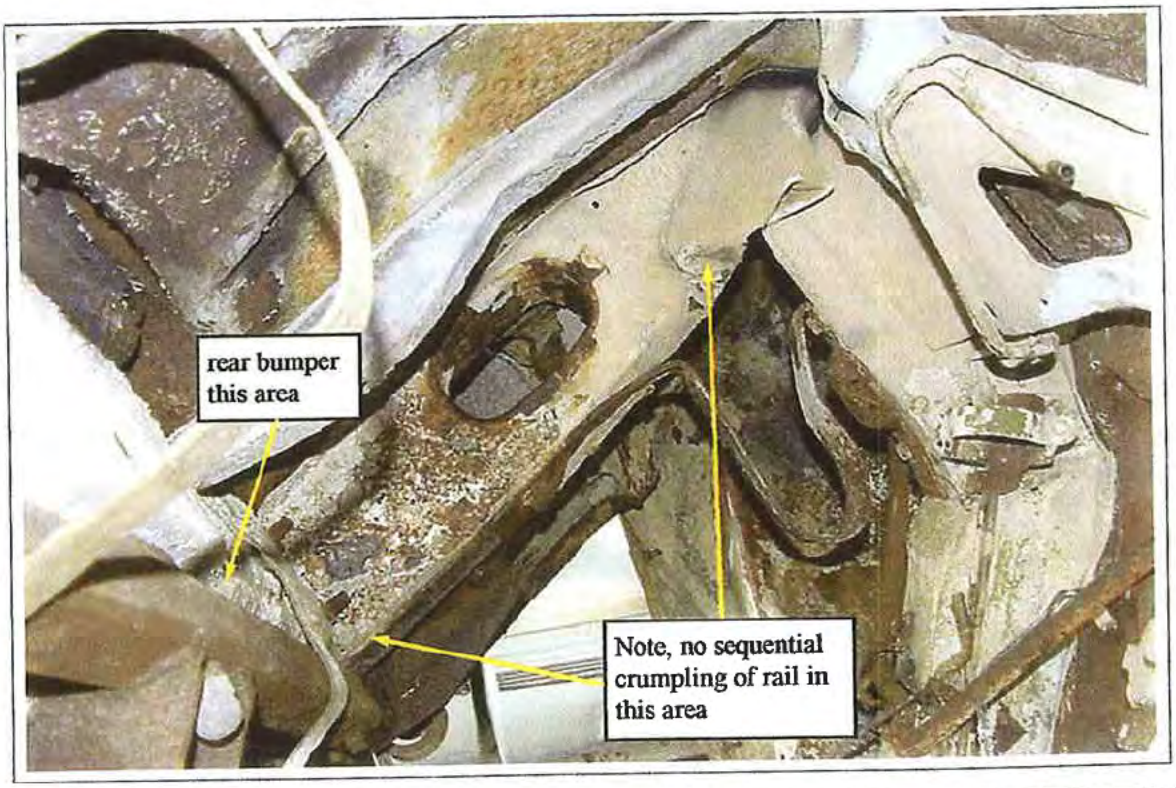
Close-up view of hole torn in passenger side rear floor pan shown on page E6 [redacted] accident vehicle.



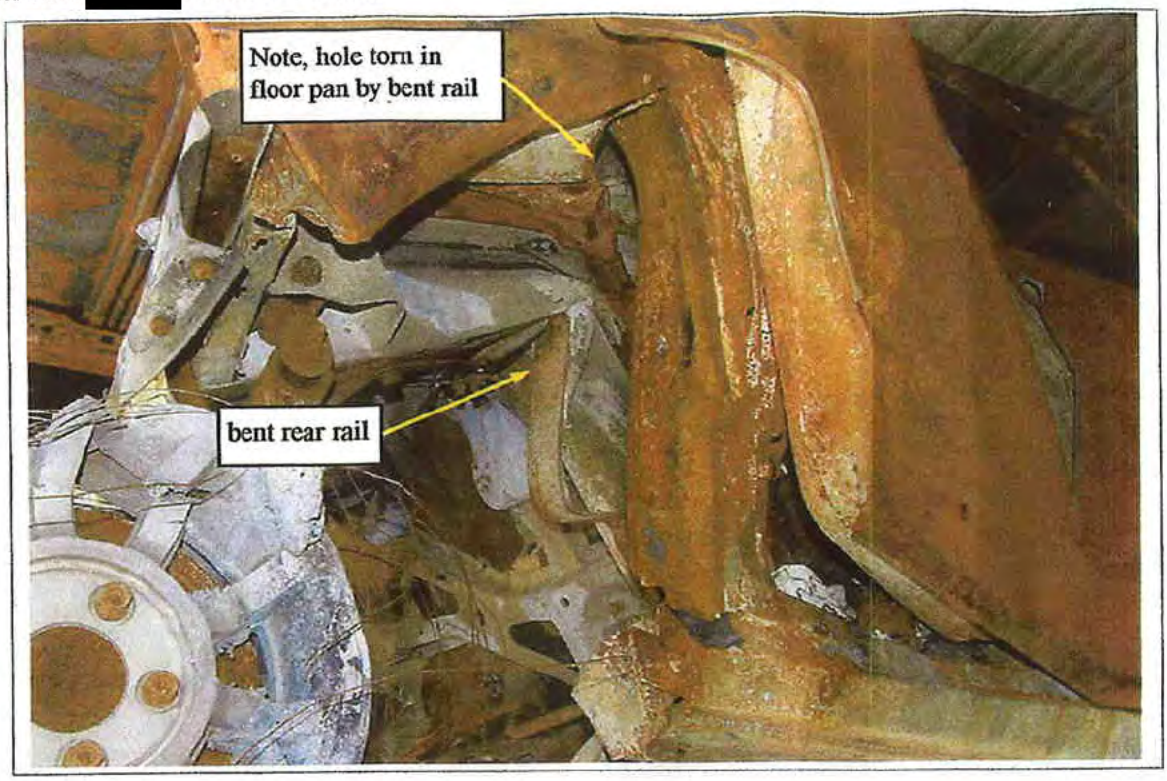
View looking inboard from passenger side rear wheel well at bent rear frame rails [redacted] accident vehicle.



Close-up view of bent rear rail shown above [redacted] accident vehicle.

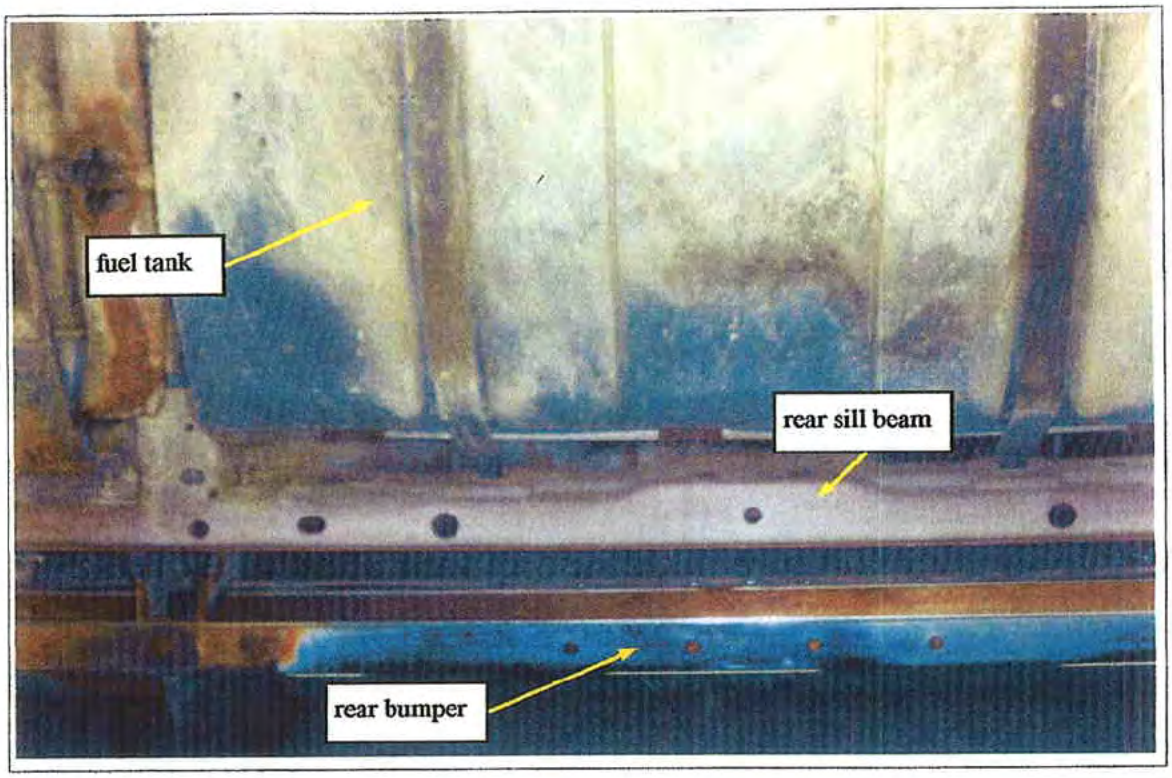


View looking up and inboard from passenger side rear wheel well at hole torn in floor pan by bent rear frame rails [redacted] accident vehicle.

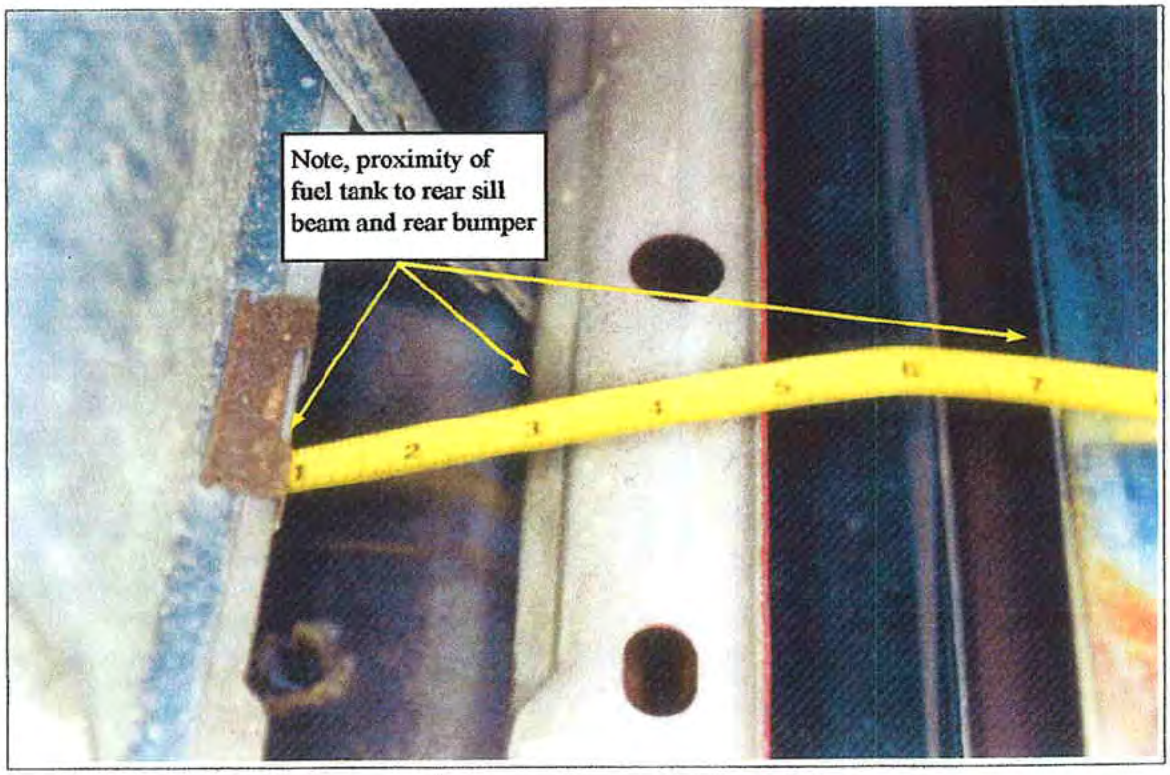


View looking up and inboard at driver's side of rear fuel tank. Exemplar vehicle.

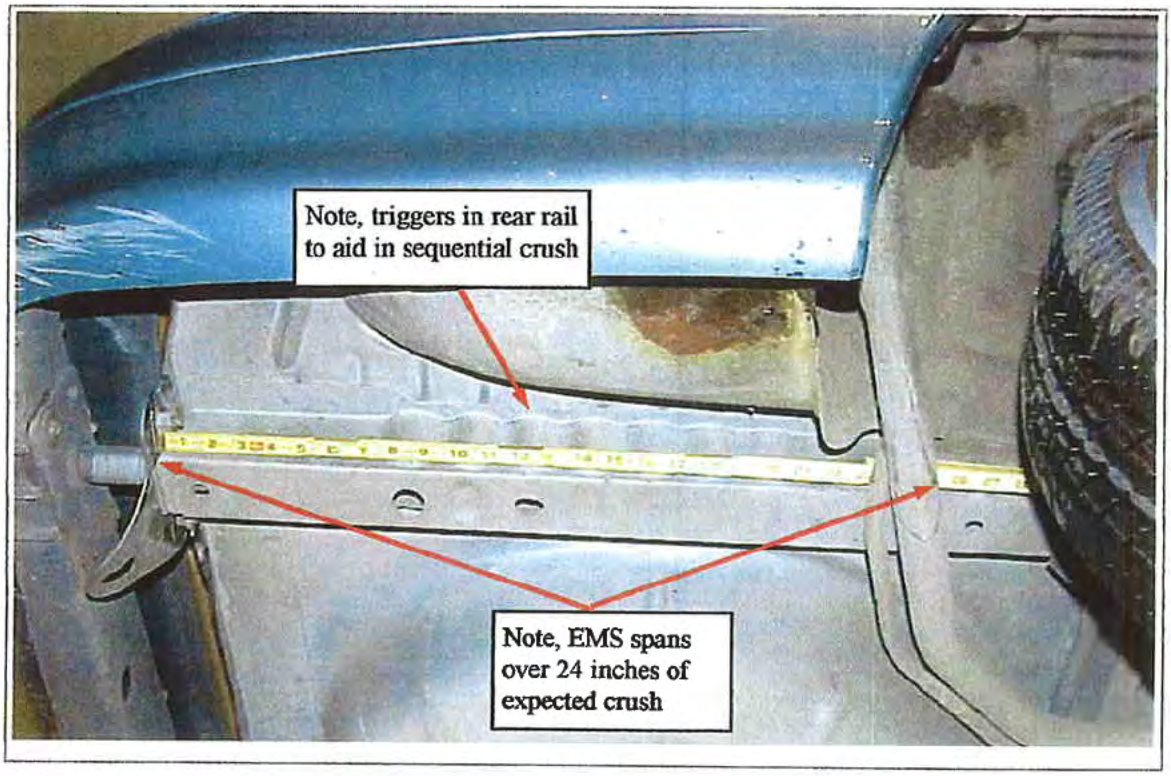
View looking up at fuel tank. Exemplar vehicle.



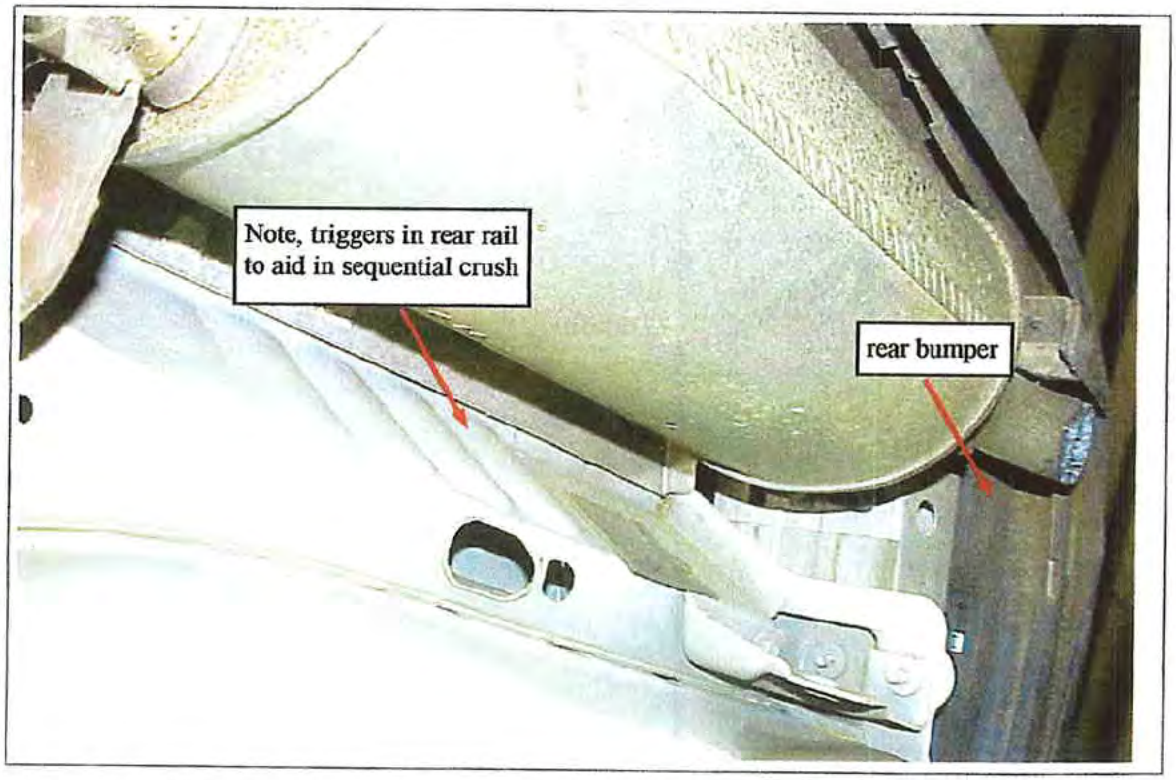
Close-up view of rear fuel tank to rear sill beam and rear bumper. Exemplar vehicle.



View looking up at Ford Taurus rear rail Energy Management System (EMS).



View looking up at Lincoln LS rear rail Energy Management System (EMS).



TEXAS PEACE OFFICER'S ACCIDENT REPORT ST-3 (Eff. 9/1/01) MAIL TO: ACCIDENT RECORDS, TEXAS DEPARTMENT OF PUBLIC SAFETY, PO BOX 4087, AUSTIN TX 78773-0001

LOC. NO 0308040750

PLACE WHERE ACCIDENT OCCURRED
COUNTY HARRIS CITY OR TOWN
IF ACCIDENT WAS OUTSIDE CITY LIMITS, INDICATE DISTANCE FROM NEAREST TOWN 0.8 MILES ☒ NORTH ☐ S ☐ E ☐ W OF HOUSTON

DO NOT WRITE IN THIS SPACE
LOC.
CODE
SEVERITY
FAT. REC.
DR. REC.

DPS NO

ROAD ON WHICH ACCIDENT OCCURRED 2000 Hwy 249 — CONSTR. ZONE ☐ YES ☒ NO SPEED LIMIT 55
INTERSECTING STREET OR RR X'ING NUMBER — CONSTR. ZONE ☐ YES ☐ NO SPEED LIMIT
NOT AT INTERSECTION 0.1 ☐ FT. ☐ ☐ ☐ ☒ OF Ella Blvd ☒ MI. N S E W

DATE OF ACCIDENT 09/04/2003 DAY OF WEEK Thursday HOUR 07:50 ☒ AM. ☐ PM. IF EXACTLY NOON OR MIDNIGHT, GO STATE

UNIT NO. 1 - MOTOR VEHICLE VEH IDENT NO 1GNEK13RXYR[redacted] IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY
YEAR MODEL 2000 COLOR & MAKE Gold Chevrolet MODEL NAME TAHOE BODY STYLE 4Dr SUV LICENSE PLATE 2003, TX[redacted]
DRIVER'S NAME [redacted] Spring, TX[redacted] PHONE NUMBER [redacted]
DRIVER'S LICENSE Texas [redacted] DOB [redacted] RACE White SEX F OCCUPATION
SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS) 1-BREATH 2-BLOOD 3-OTHER 4-NONE 5-REFUSED 4 ALCOHOL/DRUG ANALYSIS RESULT PEACE OFFICER, EMS DRIVER FIRE FIGHTER ON EMERGENCY? ☐ YES ☐ NO
LESSEE ☐ OWNER ☒ Same as Driver
LIABILITY INSURANCE ☒ YES ☐ NO GEICO [redacted] FD-3 VEHICLE DAMAGE RATING

UNIT NO. 2 MOTOR VEHICLE ☒ TRAIN ☐ PEDALCYCLIST ☐ TOWED ☐ PEDESTRIAN ☐ OTHER ☐ VEH IDENT NO 1J4FT38L4K[redacted] IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY
YEAR MODEL 1989 COLOR & MAKE Gray Jeep MODEL NAME PIONEER BODY STYLE 4Dr SUV LICENSE PLATE 2003, TX[redacted]
DRIVER'S NAME [redacted] Houston, TX PHONE NUMBER [redacted]
DRIVER'S LICENSE Texas [redacted] DOB [redacted] RACE Black SEX M OCCUPATION PARA PROFESSIONAL
SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS) 1-BREATH 2-BLOOD 3-OTHER 4-NONE 5-REFUSED 4 ALCOHOL/DRUG ANALYSIS RESULT PEACE OFFICER, EMS DRIVER FIRE FIGHTER ON EMERGENCY? ☐ YES ☐ NO
LESSEE ☐ OWNER ☒ Same as Driver
LIABILITY INSURANCE ☒ YES ☐ NO US Auto Ins. Co. [redacted] BD-6,FD-3 VEHICLE DAMAGE RATING

DAMAGE TO PROPERTY OTHER THAN VEHICLES $

LIGHT CONDITION 1	WEATHER 1	SURFACE CONDITION 1	TYPE ROAD SURFACE 2	DESCRIBE ROAD CONDITIONS (INVESTIGATOR'S OPINION)
1-DAYLIGHT 2-DAWN 3-DARK-NOT LIGHTED 4-DARK-LIGHTED 5-DUSK	1-CLEAR/CLOUDY 2-RAINING 3-SNOWING 4-FOG 5-BLOWING DUST 6-SMOKE 7-SLEETING 8-HIGH WINDS 9-OTHER	1-DRY 2-WET 3-MUDDY 4-SNOWY / ICY 5-OTHER	1-BLACKTOP 2-CONCRETE 3-GRAVEL 4-SHELL 5-DIRT 6-OTHER	Not a Factor

IN YOUR OPINION, DID THIS ACCIDENT RESULT IN AT LEAST $1000.00 DAMAGE TO ANY ONE PERSON'S PROPERTY? ☒ YES ☐ NO

CHARGES FILED
NAME [redacted] CHARGE FAIL TO CONTROL SPEED CITATION NUMBER [redacted]
NAME [redacted] CHARGE NO PROOF OF INS. CITATION NUMBER [redacted]

TIME NOTIFIED OF ACCIDENT 09/04/2003 08:01 AM HOW Dispatched TIME ARRIVED AT SCENE OF ACCIDENT 09/04/2003 08:04 AM
TYPED OR PRINTED NAME OF INVESTIGATOR Deputy Dennis Barker DATE REPORT MADE 09/04/2003 IS REPORT COMPLETE ☒ YES ☐ NO
SIGNATURE OF INVESTIGATOR ID NO. 1388 DEPARTMENT Harris SO DIST/AREA Dist 1

ORIGINAL

SOLICITATION (SOL)	EJECTED	CODE FOR TYPE RESTRAINT USED	AIRBAG CODE	HELMET USE	CODE FOR INJURY SEVERITY	ALCOHOL/DRUG ANALYSIS (COMPLETE IF CASUALTIES NOT IN MOTOR VEHICLE)
INDICATES PERSONS DESIRE TO RECEIVE CONTACT FROM PERSONS SEEKING PROFESSIONAL EMPLOYMENT AS / FOR AN ATTORNEY, CHIROPRACTOR, PHYSICIAN, SURGEON, PRIVATE INVESTIGATOR, OR ANY OTHER PERSON REGISTERED OR LICENSED BY A HEALTH CARE REGULATORY AGENCY. Y - O.K. TO SOLICIT N - NO SOLICITATION	A - NOT APPLICABLE Y - YES N - NO P - PARTIALLY U - UNK	A - HARNESS & SHOULDER STRAP B - HARNESS & NO SHOULDER STRAP C - CHILD RESTRAINT S - SHOULDER STRAP ONLY N - NONE	Y - DEPLOYED N - NO DEPLOYMENT U - UNK IF DEPLOYED	1 - WORN/BUCKLED 2 - WORN/NOT BUCKLED 3 - WORN/UNK IF BUCKLED 4 - NOT WORN 5 - UNK IF WORN	K - KILLED A - INCAPACITATING INJURY B - NON INCAPACITATING C - POSSIBLE INJURY N - NOT INJURED	1 - BREATH 2 - BLOOD 3 - OTHER 4 - NONE 5 - REFUSED

UNIT NO. 1 DAMAGE RATING FD-3 | TOWED DUE TO DAMAGE ☒ YES ☐ NO | VEHICLE REMOVED TO 11637 W. MONTGOMERY BY CROWN CHIP 198

Item No.	OCCUPANT'S POSITION	COMPLETE ALL DATA ON ALL OCCUPANTS: NAME, POSITION, RESTRAINTS USED, ETC; HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED. NAME (LAST NAME FIRST)	ADDRESS (STREET, CITY, STATE, ZIP)	SOL	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE
01	DRIVER	SEE FRONT	[redacted] r, Spring, TX [redacted]	N	N	A	Y	N/A	[redacted]	F	C
02											
03											
04											
05											

UNIT NO. 2 (COMPLETE ONLY IF UNIT NO. 2 WAS A MOTOR VEHICLE) DAMAGE RATING BD-9,FD-3 | TOWED DUE TO DAMAGE ☒ YES ☐ NO | VEHICLE REMOVED TO 11637 W. MONTGOMERY BY CROWN CHIP 217

Item No.	OCCUPANT'S POSITION	COMPLETE ALL DATA ON ALL OCCUPANTS: NAME, POSITION, RESTRAINTS USED, ETC; HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED. NAME (LAST NAME FIRST)	ADDRESS (STREET, CITY, STATE, ZIP)	SOL	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE
06	DRIVER	SEE FRONT	[redacted] , Houston, TX	N	N	A	N	N/A	[redacted]	M	B
07	Right Front	[redacted]	[redacted] Houston, TX	N	N	A	N	N/A	[redacted]	F	A
08											
09											
10											

COMPLETE IF CASUALTIES NOT IN MOTOR VEHICLE

PEDESTRIAN, PEDALCYCLIST, ETC.	CASUALTY NAME (LAST NAME FIRST)	CASUALTY ADDRESS (STREET, CITY, STATE, ZIP)	SOL	TYPE SPECIMEN TAKEN	RESULT	HELMET	AGE	SEX	INJURY CODE

DISPOSITION OF KILLED AND INJURED			IF AMBULANCE USED, SHOW		
ITEM NUMBERS	TAKEN TO	BY	TIME NOTIFIED	TIME ARRIVED AT SCENE	NO. ATTENDANTS INC. DRIVER
01	LBJ	Harris County ESD 1	08:00 AM	08:04 AM	2
06	Memorial Hermann	Life Flight	08:05 AM	08:30 AM	3

COMPLETE THIS SECTION IF PERSON KILLED

ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH

INVESTIGATOR'S NARRATIVE OPINION OF WHAT HAPPENED (ATTACH ADDITIONAL SHEETS IF NECESSARY)

See Attached Narrative Page

DIAGRAM ☐ ONE WAY ☐ TWO WAY ☐ DIVIDED

INDICATE NORTH

See Attached Diagram Page

FACTORS AND CONDITIONS LISTED ARE THE INVESTIGATOR'S OPINION

FACTORS / CONDITIONS CONTRIBUTING

UNIT 1	1 22	2	3
UNIT 2	1	2	3

OTHER FACTORS / CONDITIONS MAY OR MAY NOT HAVE CONTRIBUTED

UNIT 1	1	2
UNIT 2	1	2

TRAFFIC CONTROL

0-NO CONTROL OR INOPERATIVE
1-OFFICER OR FLAGMAN
2-STOP AND GO SIGNAL
3-STOP SIGN
4-FLASHING RED LIGHT
5-TURN ARROW
6-WARNING SIGN
7-HAND SIGNS OR SIGNALS
8-YIELD SIGN
9-CENTER STRIPE OR DIVIDER
10-NO PARKING ZONE
11-OTHER CONTROL

9

1. ANIMAL ON ROAD - DOMESTIC
2. ANIMAL ON ROAD - WILD
3. BACKED WITHOUT SAFETY
4. CHANGED LANE WHEN UNSAFE
5. DEFECTIVE OR NO HEADLAMPS
6. DEFECTIVE OR NO STOP LAMPS
7. DEFECTIVE OR NO TAIL LAMPS
8. DEFECTIVE OR NO TURN SIGNAL LAMPS
9. DEFECTIVE OR NO TRAILER BRAKES
10. DEFECTIVE OR NO VEHICLE BRAKES
11. DEFECTIVE STEERING MECHANISM
12. DEFECTIVE OR BLOW TIRES
13. DEFECTIVE TRAILER HITCH
14. DISABLED IN TRAFFIC LANE
15. DISREGARD STOP AND GO SIGNAL
16. DISREGARD STOP SIGN OR LIGHT
17. DISREGARD TURN ARROW AT INTERSECTION
18. DISREGARD WARNING SIGN AT CONSTRUCTION
19. DISTRACTION IN VEHICLE
20. DRIVER INATTENTION
21. DROVE WITHOUT HEADLIGHTS
22. FAILED TO CONTROL SPEED
23. FAILED TO DRIVE IN SINGLE LANE
24. FAILED TO GIVE HALF OR ROUNDABOUT
25. FAILED TO HEED WARNING SIGN
26. FAILED TO PASS TO LEFT SAFELY
27. FAILED TO PASS TO RIGHT SAFELY
28. FAILED TO SIGNAL OR GAVE WRONG SIGNAL
29. FAILED TO STOP AT PROPER PLACE
30. FAILED TO STOP FOR SCHOOLBUS
31. FAILED TO STOP FOR TURN
32. FAILED TO YIELD ROW - EMERGENCY VEHICLE
33. FAILED TO YIELD ROW - OPEN INTERSECTION
34. FAILED TO YIELD ROW - PRIVATE DRIVE
35. FAILED TO YIELD ROW - STOP SIGN
36. FAILED TO YIELD ROW - TO PEDESTRIAN
37. FAILED TO YIELD ROW - TURNING LEFT
38. FAILED TO YIELD ROW - TURN ON RED
39. FAILED TO YIELD ROW - YIELD SIGN
40. FATIGUED OR ASLEEP
41. FAULTY EVASIVE ACTION
42. HIT IN VEHICLE
43. FLEEING OR EVADING POLICE
44. FOLLOWED TOO CLOSELY
45. HIT BEER DRINKING
46. HANDICAPPED DRIVER (EXPLAIN IN NARRATIVE)
47. I.L. (EXPLAIN IN NARRATIVE)
48. IMPAIRED VISIBILITY (EXPLAIN IN NARRATIVE)
49. IMPROPER START FROM PARKED POSITION
50. LOAD NOT SECURED
51. OPENED DOOR INTO TRAFFIC LANE
52. OVERSIZE VEHICLE OR LOAD
53. OVERTAKE AND IMPROPER CLEARANCE
54. PARKED AND FAILED TO SET BRAKES
55. PARKED IN TRAFFIC LANE
56. PARKED WITHOUT LIGHTS
57. PARKED IN NO PARKING ZONE
58. PARKED ON RIGHT SHOULDER
59. PEDESTRIAN FAILED TO YIELD ROW TO VEHICLE
60. SPEEDING - UNSAFE (UNDER LIMIT)
61. SPEEDING - OVER LIMIT
62. TAKING MEDICATION (EXPLAIN IN NARRATIVE)
63. TURNED IMPROPERLY - CUT CORNER ON LEFT
64. TURNED IMPROPERLY - WIDE RIGHT
65. TURNED IMPROPERLY - WRONG LANE
66. TURNED INTO LEFT LANE
67. UNDER INFLUENCE - ALCOHOL
68. UNDER INFLUENCE - DRUG
69. WRONG SIDE - APPROACH OR IN INTERSECTION
70. WRONG SIDE - NOT PARKED
71. WRONG WAY - ONE WAY ROAD
72. DRIVER INATTENTION - (CELL/MOBILE PHONE USE)
73. ROAD RAGE
74. OTHER FACTOR (NOTE IN NARRATIVE BELOW)

ORIGINAL

TEXAS PEACE OFFICER'S ACCIDENT REPORT ST-3 (Eff. 9/1/01) MAIL TO: ACCIDENT RECORDS, TEXAS DEPARTMENT OF PUBLIC SAFETY, PO BOX 4087, AUSTIN TX 78773-0001

PLACE WHERE ACCIDENT OCCURRED
COUNTY HARRIS CITY OR TOWN
IF ACCIDENT WAS OUTSIDE CITY LIMITS, INDICATE DISTANCE FROM NEAREST TOWN 0.8 MILES NORTH S E W OF HOUSTON

LOC. NO 0309040750

DO NOT WRITE IN THIS SPACE
LOC.
CODE
SEVERITY
FAT. REC.
DR. REC.

DPS NO.

ROAD ON WHICH ACCIDENT OCCURRED 2000 Hwy 249
INTERSECTING STREET OR RR X'ING NUMBER
NOT AT INTERSECTION 0.1 FT. MI. N S E W OF Ella Blvd

CONSTR. ZONE YES NO SPEED LIMIT 55
CONSTR. ZONE YES NO SPEED LIMIT

DATE OF ACCIDENT 09/04/2003 DAY OF WEEK Thursday HOUR 07:50 A.M. P.M. IF EXACTLY NOON OR MIDNIGHT, SO STATE

UNIT NO. 3 - MOTOR VEHICLE VEH IDENT NO 2G1WF52E23[redacted]
IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY

YEAR MODEL 2003 COLOR & MAKE Silver Chevrolet MODEL NAME IMPALA BODY STYLE 4Dr Hardtop LICENCE PLATE 2004, TX[redacted]
DRIVER'S NAME [redacted] Houston, TX[redacted] PHONE NUMBER [redacted]
DRIVER'S LICENSE Texas[redacted] DOB [redacted] RACE Hispanic SEX M OCCUPATION FILE CLERK

SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS) 1-BREATH 2-BLOOD 3-OTHER 4-NONE 5-REFUSED 4 ALCOHOL/DRUG ANALYSIS RESULT PEACE OFFICER, EMS DRIVER FIRE FIGHTER ON EMERGENCY? YES NO
LESSEE
OWNER Same as Driver
LIABILITY INSURANCE YES NO VEHICLE DAMAGE RATING BD-3

UNIT NO. MOTOR VEHICLE TRAIN PEDALCYCLIST TOWED PEDESTRIAN OTHER VEH IDENT NO IF BODY STYLE = VAN OR BUS, INDICATE SEATING CAPACITY
YEAR MODEL COLOR & MAKE MODEL NAME BODY STYLE LICENCE PLATE
DRIVER'S NAME PHONE NUMBER
DRIVER'S LICENSE DOB RACE SEX OCCUPATION
SPECIMEN TAKEN (ALCOHOL/DRUG ANALYSIS) 1-BREATH 2-BLOOD 3-OTHER 4-NONE 5-REFUSED ALCOHOL/DRUG ANALYSIS RESULT PEACE OFFICER, EMS DRIVER FIRE FIGHTER ON EMERGENCY? YES NO
LESSEE
OWNER
LIABILITY INSURANCE YES NO VEHICLE DAMAGE RATING

DAMAGE TO PROPERTY OTHER THAN VEHICLES
OWNER NAME AND ADDRESS $

LIGHT CONDITION 1	WEATHER 1	SURFACE CONDITION 1	TYPE ROAD SURFACE 2	DESCRIBE ROAD CONDITIONS (INVESTIGATOR'S OPINION)
1-DAYLIGHT 2-DAWN 3-DARK-NOT LIGHTED 4-DARK-LIGHTED 5-DUSK	1-CLEAR/SUNNY 2-RAINING 3-SNOWING 4-FOG 5-BLOWING DUST 6-SMOKE 7-SLEETING 8-HIGH WINDS 9-OTHER	1-DRY 2-WET 3-MUDDY 4-SNOWY / ICY 6-OTHER	1-BLACKTOP 2-CONCRETE 3-GRAVEL 4-SHELL 5-DIRT 6-OTHER	Not a Factor

IN YOUR OPINION, DID THIS ACCIDENT RESULT IN AT LEAST $1000.00 DAMAGE TO ANY ONE PERSON'S PROPERTY? YES NO

CHARGES FILED
NAME CHARGE CITATION NUMBER
NAME CHARGE CITATION NUMBER

TIME NOTIFIED OF ACCIDENT 09/04/2003 08:01 AM HOW Dispatched TIME ARRIVED AT SCENE OF ACCIDENT 09/04/2003 08:04 AM
TYPED OR PRINTED NAME OF INVESTIGATOR Deputy Dennis Barker DATE REPORT MADE 09/04/2003 IS REPORT COMPLETE YES NO
SIGNATURE OF INVESTIGATOR ID NO. 1388 DEPARTMENT Harris SO DIST/AREA Dist 1

ORIGINAL

SOLICITATION (SOL)	EJECTED	CODE FOR TYPE RESTRAINT USED	AIRBAG CODE	HELMET USE	CODE FOR INJURY SEVERITY	ALCOHOL/DRUG ANALYSIS (COMPLETE IF CASUALTIES NOT IN MOTOR VEHICLE)
INDICATES PERSON'S CHOICE TO RECEIVE CONTACT FROM PERSONS SEEKING PROFESSIONAL EMPLOYMENT AS / FOR AN ATTORNEY, CHIROPRACTOR, PHYSICIAN, SURGEON, INSURANCE INVESTIGATOR, OR ANY OTHER PERSON HAVING TO DO WITH OR LICENSED BY A HEALTH CARE REGULATORY AGENCY. Y - O.K. TO SOLICIT N - NO SOLICITATION	A - NOT APPLICABLE Y - YES N - NO P - PARTIALLY U - UNK	A - SEATBELT & SHOULDER STRAP B - SEATBELT & NO SHOULDER STRAP C - CHILD RESTRAINT E - SHOULDER STRAP ONLY N - NONE	Y - DEPLOYED N - NO DEPLOYMENT U - UNK IF DEPLOYED	1 - WORN+CHANGED 2 - WORN-NOT CHANGED 3 - WORN-UNK IF CHANGED 4 - NOT WORN 5 - UNK IF WORN	K - KILLED A - INCAPACITATING INJURY B - NON INCAPACITATING C - POSSIBLE INJURY N - NOT INJURED	1 - BREATH 2 - BLOOD 3 - OTHER 4 - NONE 5 - REFUSED

UNIT NO. 3 | DAMAGE RATING BD-3 | TOWED DUE TO DAMAGE ☒ YES ☐ NO | VEHICLE REMOVED TO 9111 N. FREEWAY BY MILLER'S CHIP 509

COMPLETE ALL DATA ON ALL OCCUPANTS' NAMES, POSITIONS, RESTRAINTS USED, ETC. HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED.

Item No.	OCCUPANT'S POSITION	NAME (LAST NAME FIRST)	ADDRESS (STREET, CITY, STATE, ZIP)	SOL	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE
13	DRIVER	SEE FRONT									
14			[redacted] Houston, TX [redacted]	N	N	A	N	N/A	[redacted]	M	N
15											
16											
17											

UNIT NO. (COMPLETE ONLY IF UNIT NO. 1 WAS A MOTOR VEHICLE) | DAMAGE RATING | TOWED DUE TO DAMAGE ☐ YES ☐ NO | VEHICLE REMOVED TO | BY

COMPLETE ALL DATA ON ALL OCCUPANTS' NAMES, POSITIONS, RESTRAINTS USED, ETC. HOWEVER, IT IS NOT NECESSARY TO SHOW ADDRESSES UNLESS KILLED OR INJURED.

	OCCUPANT'S POSITION	NAME (LAST NAME FIRST)	ADDRESS (STREET, CITY, STATE, ZIP)	SOL	EJECTED	TYPE RESTRAINT USED	AIRBAG	HELMET	AGE	SEX	INJURY CODE
18	DRIVER	SEE FRONT									
19											
20											
21											
22											

COMPLETE IF CASUALTIES NOT IN MOTOR VEHICLE

PEDESTRIAN, PEDALCYCLIST, ETC.	CASUALTY NAME (LAST NAME FIRST)	CASUALTY ADDRESS (STREET, CITY, STATE, ZIP)	SOL	TYPE SPECIMEN TAKEN	RESULT	HELMET	AGE	SEX	INJURY CODE

DISPOSITION OF KILLED AND INJURED

ITEM NUMBERS	TAKEN TO	BY	IF AMBULANCE USED, SHOW TIME NOTIFIED	TIME ARRIVED AT SCENE	NO. ATTENDANTS (INC. DRIVER)
07	Memorial Hermann	Life Flight	08:05 AM	08:30 AM	3

COMPLETE THIS SECTION IF PERSON KILLED

ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH	ITEM NUMBER	DATE OF DEATH	TIME OF DEATH

INVESTIGATOR'S NARRATIVE OPINION OF WHAT HAPPENED (ATTACH ADDITIONAL SHEETS IF NECESSARY)

DIAGRAM ☐ ONE WAY ☐ TWO WAY ☐ DIVIDED

NOTE NORTH

FACTORS AND CONDITIONS LISTED ARE THE INVESTIGATOR'S OPINION

FACTORS / CONDITIONS CONTRIBUTING

UNIT 3	1	2	3
UNIT	1	2	3

OTHER FACTORS / CONDITIONS MAY OR MAY NOT HAVE CONTRIBUTED

UNIT 3	1	1	
UNIT	1	2	

TRAFFIC CONTROL

0-NO CONTROL OR INOPERATIVE
1-OFFICER OR FLAGMAN
2-STOP AND GO SIGNAL
3-STOP SIGN
4-FLASHING RED LIGHT
5-TURN ARROW
6-WARNING SIGN
7-PAVEMENT MARKINGS OR SIGNALS
8-YIELD SIGN
9-CENTER STRIPE OR DIVIDER

TOWED PARKING ZONE
11-OTHER CONTROL

9

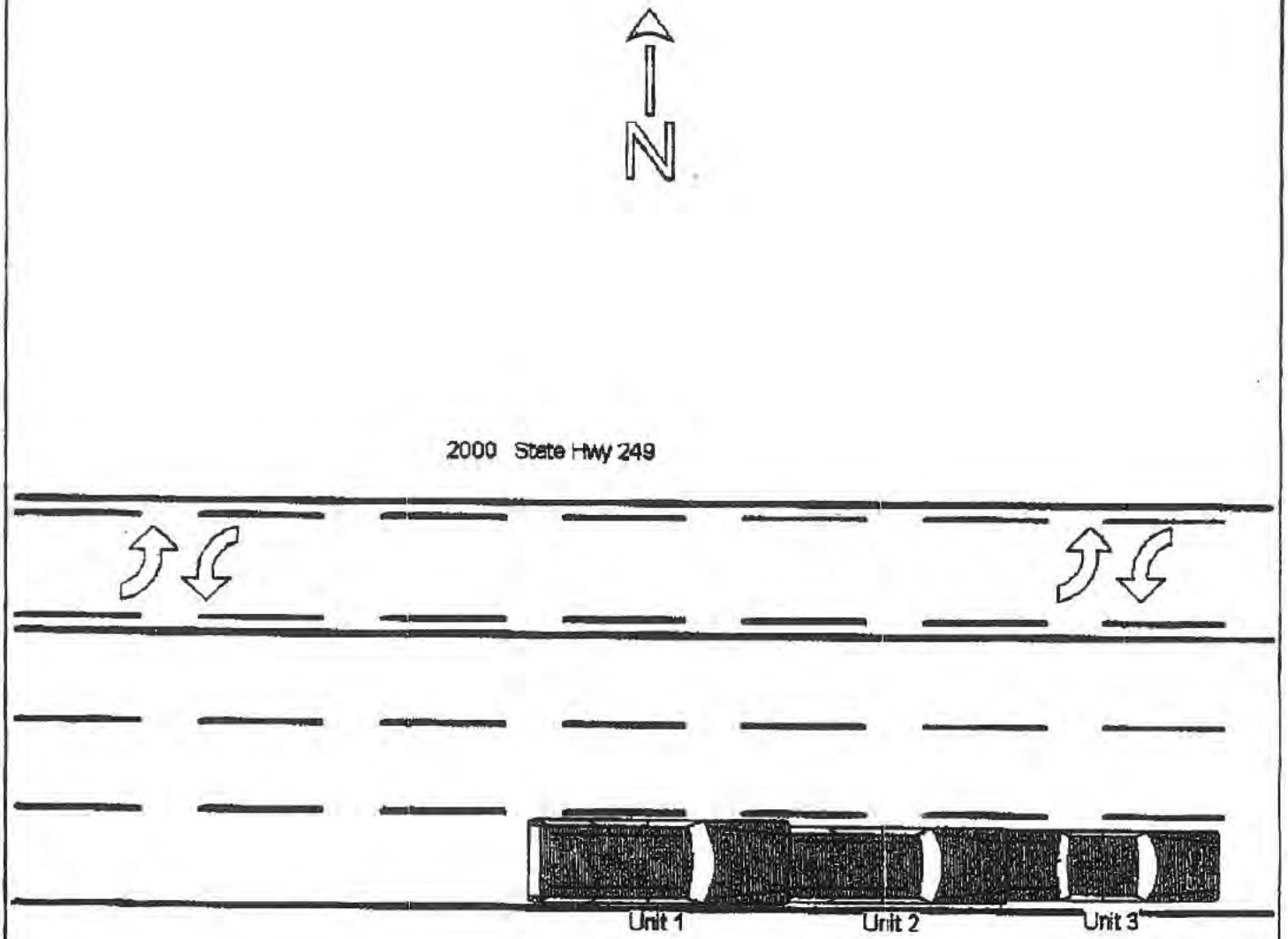
1. ANIMAL ON ROAD - DOMESTIC
2. ANIMAL ON ROAD - WILD
3. BACKED WITHOUT SAFETY
4. CHANGED LANE WHEN UNSAFE
5. DEFECTIVE OR NO HEADLAMPS
6. DEFECTIVE OR NO STOP LAMPS
7. DEFECTIVE OR NO TAIL LAMPS
8. DEFECTIVE OR NO TURN SIGNAL LAMPS
9. DEFECTIVE OR NO TRAILER BRAKES
10. DEFECTIVE OR NO VEHICLE BRAKES
11. DEFECTIVE STEERING MECHANISM
12. DEFECTIVE OR SLICK TIRES
13. DEFECTIVE TRAILER HITCH
14. DISABLED IN TRAFFIC LANE
15. DISREGARD STOP AND GO SIGNAL
16. DISREGARD STOP SIGN OR LIGHT
17. DISREGARD TURN SIGNS AT INTERSECTION
18. DISREGARD WARNING SIGN AT CONSTRUCTION
19. DISTRACTION IN VEHICLE
20. DRIVER INATTENTION
21. DRIVING WITHOUT HEADLIGHTS
22. FAILED TO CONTROL SPEED
23. FAILED TO DRIVE IN SINGLE LANE
24. FAILED TO GIVE HALF ON ROADWAY
25. FAILED TO HEED WARNING SIGN
26. FAILED TO PASS TO LEFT SAFELY
27. FAILED TO PASS TO RIGHT SAFELY
28. FAILED TO SIGNAL OR SIGNALED WRONG SIGNAL
29. FAILED TO STOP AT PROPER PLACE
30. FAILED TO STOP FOR SCHOOL BUS
31. FAILED TO STOP FOR SIGN
32. FAILED TO YIELD ROW - EMERGENCY VEHICLE
33. FAILED TO YIELD ROW - OPEN INTERSECTION
34. FAILED TO YIELD ROW - PRIVATE DRIVE
35. FAILED TO YIELD ROW - STOP SIGN
36. FAILED TO YIELD ROW - TO PEDESTRIAN
37. FAILED TO YIELD ROW - TURNING LEFT
38. FAILED TO YIELD ROW - TURN ON RED
39. FAILED TO YIELD ROW - YIELD SIGN
40. FATIGUED OR ASLEEP
41. FAULTY EVASIVE ACTION
42. FIRE IN VEHICLE
43. FLEEING OR EVADING POLICE
44. FOLLOWED TOO CLOSELY
45. HAD BEEN DRINKING
46. HANDICAPPED DRIVER (EXPLAIN IN NARRATIVE)
47. I.L. (EXPLAIN IN NARRATIVE)
48. IMPAIRED VISIBILITY (EXPLAIN IN NARRATIVE)
49. IMPROPER START FROM PARKED POSITION
50. LOAD NOT SECURED
51. OPENED DOOR INTO TRAFFIC LANE
52. OVERDRIVE VEHICLE OR LOAD
53. OVERSIZE AND INSUFFICIENT CLEARANCE
54. PARKED AND FAILED TO SET BRAKES
55. PARKED IN TRAFFIC LANE
56. PARKED WITHOUT LIGHTS
57. PARKED IN NO PARKING ZONE
58. PARKED ON RIGHT SHOULDER
59. PEDESTRIAN FAILED TO YIELD ROW TO VEHICLE
60. SPEEDING - UNSAFE (UNDER LIMIT)
61. SPEEDING - OVER LIMIT
62. TAKING MEDICATION (EXPLAIN IN NARRATIVE)
63. TURNED IMPROPERLY - CUT CORNER ON LEFT
64. TURNED IMPROPERLY - WIDE RIGHT
65. TURNED IMPROPERLY - WRONG LANE
66. TURNED WHEN UNSAFE
67. UNDER INFLUENCE - ALCOHOL
68. UNDER INFLUENCE - DRUG
69. WRONG SIDE - APPROACH OR IN INTERSECTION
70. WRONG SIDE - NOT PASSING
71. WRONG WAY - DIVIDED ROAD
72. DRIVER INATTENTION - (CELL/MOBILE PHONE USE)
73. ROAD RAGE
74. OTHER FACTOR (WRITE IN ON LINE BELOW)

ORIGINAL

FA12-005 Chrysler 012022

TEXAS PEACE OFFICER'S ACCIDENT REPORT ST-3 (Ex. 9/ /01) MAIL TO: ACCIDENT RECORDS, TEXAS DEPARTMENT OF PUBLIC SAFETY, PO BOX 4087, AUSTIN TX 78773-0001

DIAGRAM



NOT TO SCALE

ORIGINAL

Page 5 of 5

FA12-005- Chrysler -012023

Unit's 1, 2 & 3 S/B 2000 State Hwy 249. Unit 1 stated that she looked down for a moment and when she looked back up she noticed that the vehicles in front of her had stopped. She then applied her brakes but left only 15 feet of skid marks and the FD of Unit 1 struck the BD of Unit 2 pushing the FD of Unit 2 into the BD of Unit 3.

Unit 2 stated that he was stopped behind Unit 3 due to traffic. As he was waiting to proceed he was struck in the BD by the FD of Unit 1 who failed to control her speed to avoid an accident. Due to this impact Unit 2 was pushed forward and the FI of Unit 2 struck the BD of Unit 3. Unit 3 stated that he was stopped due to traffic. As he was waiting to proceed he looked in his rearview mirror and observed Unit 2 approaching pretty fast. Then Unit 2 stopped before hitting Unit 3. Then Unit 1 who was behind Unit 2 struck Unit 2 pushing Unit 2 into the back of Unit 3.

Witness [redacted] stated that he was going approximatley 30 miles per hour in the center lane east bound. He observed the traffic in all lanes slowing. Then he observed Unit 1 pass him in the outside lane goir approximatley 50 miles per hour. Then the front of Unit 1 struck the back of Unit 2 pushing Unit 2 into Unit 3. Then Unit 2 caught fire and the fire spread to Unit 1. Mr. [redacted] stated that he does not remember seeing any brake lights on Unit 1 prior to impact. Ms. [redacted] and Mr. [redacted] both stated that they observed Unit 1 strike the back of Unit 2 pushing Unit 2 into the back of Unit 3.

ADDITIONAL CRASH INFORMATION

WITNESS INFORMATION

WITNESS 1: NAME [redacted] DOB: , RACE: White, SEX: F
HOME ADDRESS: [redacted]

WITNESS 2: NAME [redacted] DOB: , RACE: Hispanic, SEX: M
HOME ADDRESS: [redacted]

WITNESS 3: NAME: [redacted] DOB: , RACE: , SEX:
HOME ADDRESS: [redacted]

ACCIDENT INVESTIGATION REPORT

[redacted] vs DAIMLER CHRYSLER

I. Introduction

I was requested by the law firm Christopher Bradshaw-Hull to conduct an independent investigation into the crashworthiness of the 1989 Jeep Pioneer under the conditions of this accident. The rear collision resulted in a post collision fire that seriously injured Mr. and Mrs. [redacted]

II. - Background

This accident involves a three vehicle highway collision that occurred on September 4, 2003 in Houston, Texas. According to the accident report and witness statements and testimony, Mr. [redacted] was the seat belted driver of a 2003 GM Impala and had stopped for traffic on eastbound State Highway 249. Mr. [redacted] was driving a 1989 Jeep Pioneer (VIN 1J4FT38L4KL[redacted] 4 dr SUV eastbound on SH 249 in the same lane as the 2003 Impala. Ms. [redacted] was the right front passenger of the 1989 Jeep and was not wearing her seat belt. Mr [redacted] braked for the stopped 2003 Impala and stopped behind the Impala. Ms. [redacted] was driving a 2000 Chevy Tahoe 4 dr SUV eastbound in the same lane of travel as the stopped 1989 Jeep and failed to stop impacting the rear of the 1989 Jeep. The collision forced the front of the 1989 Jeep into the rear of the 2003 Impala. A fire started in the 1989 Jeep Pioneer and severely burned the right front passenger and the driver received burn injuries who were both trapped within the vehicle.

I inspected the subject vehicle on April 17, 2004 at the warehouse of Watts in Corpus Christi, Texas. A subsequent teardown of the fuel tank system was conducted on August 20, 2004 to remove the fuel tank and filler neck for examination. I was provided with a preliminary accident reconstruction report from The Thomas M. Grubbs Corporation on October 12, 2004 which stated the delta - V of the Jeep was 20 - 34 mph.

Stilson Consulting was also informed by Bush Investigative Services that the post collision fire started in the rear of the vehicle due to the ignition of flammable gasoline that leaked out of the compromised aft- of- axle fuel tank.

EA12-005- Chrysler -012564

III. Inspection Findings, Observations, and Conclusions

The following findings and observations are based upon visual inspection of the subject vehicle, vehicle fuel system teardown, the information available, my education, training, and experience. To date, there has been no substantial discovery, and these findings and conclusions are subject to amendment pending additional information that may be forth coming:

A. April 17, 2004 Vehicle Visual Inspection

At the time of the April 17, 2004 inspection the rear axle was rotated forward from its original position shown in earlier photographs and was on a trailer.

1. The rear of the Jeep Pioneer was impacted by the front of the Tahoe.
2. The rear impact by the Tahoe crushed the rear bumper and D-Pillar/ Rear Panels forward with override of the rear axle. The vertical crush profile is non-uniform.
3. The complete vehicle occupant compartment was fire gutted.
4. Hood cut by Jaws to get to the hood latch release.
5. Front grille was broken and damaged.
6. Left and right front fenders crushed slightly.
7. Rear axle assembly was severed at the rear spring anchorage and loose.
8. Rear bumper was crushed forward fairly uniformly.
9. Left and right rear shocks were fractured.
10. Rear top of roof was underrode in the collision.
11. Rear bumper was crushed to about the rear axle centerline.
12. D-Pillars were crushed forward at approx 45 degree angle to roof.
13. Roof appears pulled down on right side.

14. Left C-Pillar crushed forward at front wheel well.

15. Left C-Pillar crushed into rear passenger door at rear.

16. Left rear passenger door crushed so front seam overlaps the rear of drivers door.

17. Right C-Pillar crushed forward.

18. Right rear passenger door crushed outward and buckled from rear forces.

19. Right rear passenger door crushed forward so front seam overlaps right passenger door.

20. Both drivers and right front pass doors were jammed by crush.

21. Right rear wheel well weld seams split open.

22. Left rear floor panel to left wheel well weld seam split open.

23. Rear floor pan folded upward at rear sills and frame kick up area.

24. Left rear fuel filler door is about 2 inches forward of the rear tail light and crushed forward with D-Pillar and rear left quarter panel.

25. A ¾-of-axle fuel tank crushed upward and over rear axle with under carriage crush.

26. Right strap loose as received.

27. No obvious holes visible in fuel tank (no lift visual examination).

28. Filler neck rubber connections were consumed in fire.

29. Fuel tank was fire damaged and crushed at rear, bottom, and front.

B. <u>August 20, 2004 Vehicle Fuel Tank Removal</u>

1. Fuel tank left strap was cut off due to corroded bolt.

2. Removed trailer hitch to facilitate fuel tank removal.

3. The fuel tank was removed.

4. A longitudinal shape slit about 2.5 inches in length was observable on the bottom right side of the fuel tank outboard of the right tank strap formed depression.

5. There is visible localized longitudinal shaped deformation on the bottom right side of the tank that appears to enter at the rear bottom tank right side edge and extends forward and inward. The deformation pattern is distinct and leads into the tank slit that is adjacent, outboard, and near the end of the crush pattern in the tank.

6. There are three manufactured holes in the top of the fuel tank for the filler neck and vent tube connections and vent tube connections.

7. The sending unit was in place and un-compromised.

8. The remnant rubber filler neck hose connection was clamped to the tank spud and the vent tube connection was consumed on the left side of the fuel tank.

9. Filler neck removed from fuel tank spud connection.

IV. Preliminary Conclusions

The following conclusions are preliminary since additional information and investigative work is incomplete. They are subject to amendment and supplement pending receipt of additional discovery and investigative work and are based upon the information provided, vehicle inspection, vehicle teardown, my education, training, and experience:

A. The subject 1989 Jeep Pioneer is defective and unreasonably dangerous due to defects in the design of the fuel system.

B. The unreasonably dangerous defective condition is a proximate cause of the failure of the fuel tank that resulted in a post collision fuel fed fire.

C. The specific vehicle system defects are as follows:

1. Location of the fuel tank in a vulnerable position without adequate and proper retention and guarding.

2. Inadequate rear structural design to prevent entrapment of the passengers.

3. Failure to conduct a proper design validation.

4. Failure to conduct a proper FMEA.

5. Body seam weld structural failures leading to fire entry locations into the occupant compartment and increased rear crush levels.

D. The defective and unreasonably dangerous condition existed at the time the subject vehicle left the control of the manufacturer.

E. Daimler Chrysler violated the Industrial Safety Standard of Hazard Prevention.

F. Daimler Chrysler was aware of the hazard of a post collision fire prior to the production of the subject vehicle.

G. The rear underslung fuel tank was compromised by a component of the subject vehicle during the dynamic rear crush phase.

H. Chrysler was aware that the plastic partial tank guard was insufficient to prevent the fuel tank puncture prior to the production of the subject vehicle.

I. There were readily available and economically feasible design alternatives to reduce, or effectively eliminate the hazard of a post collision fire prior to the production of the subject vehicle including, but not limited to, steel full fuel tank guard and/or relocation to the forward of axle between frame mid ship position.

V. Discussion

A. Hazard Analysis

Hazard prevention is the primary objective of safety to meet occupant protection in crashes. The subject vehicle rear collision is a readily foreseeable event that occurs

frequently on public highways. In 1966, the Congress of the USA charged the secretary of the DOT with establishing a safety agency to address public safety due to the large increase in fatal accidents on US highways. The NHTSA (National Highway Traffic Safety Administration) was established and promulgated what have become known as the FMVSS (Federal Motor Vehicle Safety Standards). The FMVSS were issued as mandatory minimum safety standards for manufacturer's of motor vehicles to sell a vehicle to the public. The purpose of these standards is to provide a minimum level of safety by issuing mandatory design and manufacturing performance requirements that prevent unreasonable risks of injury from reaching the public. One safety area that developed out of the FMVSS regulations is called crashworthiness. Crashworthiness of a motor vehicle requires that the vehicle and its system provide occupant protection against identified and readily foreseeable hazards in vehicles. NHTSA issued FMVSS 301 that establishes performance objectives for a fuel system under conditions of a frontal 30 mph impact into a full width rigid barrier and 30 mph full width rear moving barrier impact. One performance requirement of FMVSS 301 is that following the 30 mph frontal and rear impact there is to be no leakage of gasoline in excess of 3 ounces by weight within 5 minutes. The NHTSA sets forth a minimum safety standard that identifies leakage of 3 ounces of gasoline as a hazardous condition. Hazard prevention recognizes the catastrophic consequence of a post collision gasoline fire. In addition, hazard prevention obligates industry to meet a safety standard called by practicing consultants as the Standard of Good Engineering Safety Practice (now called the Hazard Prevention Standard) and is stated as follows:

1. Identify all hazards associated with the intended use, foreseeable use and foreseeable misuse of a product.

2. Eliminate the identified hazards prior to release of the product into the consumer market.

3. Guard and protect the user of the product from the hazard.

4. Warn and instruct the user of the hazards.

The hazard in this case is the leakage of flammable gasoline from its containment within the fuel tank that when ignited results in a post collision fire. Chrysler Corporation and its Engineering and Safety organizations were aware of the hazard of post collision fires back in the early 1960 period. There are several SAE publications covering the time frame 1964 to the 1980's along with Department of Transportation

(NHTSA) technical publications that discuss the hazard of post collision fires with design recommendations to minimize the leakage of gasoline from the fuel tank system. The primary conflict over occupant protection from the hazard of a post collision is the decision by Chrysler Corporation to design its vehicle to meet the minimum FMVSS in the design of their fuel systems rather than meeting the Industrial Standard of Good Engineering Practice. In this specific rear end collision, both Mr. and Mrs [redacted] survived the collision, but were exposed to a post collision gasoline initiated fire due to a defective and unreasonably dangerous condition of the fuel system design. The hazard prevention safety standard requires that all hazards be identified and eliminated in order to protect the user from the leakage of dangerous flammable gasoline that can initiate a post collision fire that exposes them to an unreasonable risk of serious injury.

B. Fuel System Failure Mode Analysis

The subject 1989 Jeep was designed by Chrysler with an aft-of-axle fuel tank located within a known vehicle crush zone. At this time, I have not been given the information of how much gasoline was in the fuel tank at the time of the collision. However, Chrysler designed the subject vehicle fuel tank as the storage system for several gallons of gasoline. Chrysler designed the subject vehicle with a left side fuel filler system consisting of a metal filler neck, rubber hose extension to the left side fuel tank spud, and a overflow/vent tube with a rubber hose connection to a metal tank tube forward of the spud. There are two pierced holes on the top of the tank for vapor emission venting purposes and a sending unit on the rear upper tank for delivery of gasoline through fuel lines forward to the engine. The fuel tank is made of a ductile steel material capable of being deformed in a crash. In addition, Chrysler Engineering added a plastic guard that covers the lower tank front, rear, and bottom areas. The fuel tank and lower plastic shield are nested between the left and right frame rail and mounted between two lateral frame rear cross members using two steel straps anchored front to rear. Measurements were taken on an exemplar 1989 Jeep of the distance from the rear bumper and rear cross member to the rear fuel tank upper surface with the results:

1. Distance from front of rear cross member to tank = about 3 inches
2. Distance from front of rear bumper lower edge to tank = about 7 inches.

These measurements reveal a critical design issue with the location of the aft-of- axle location based upon review of Chrysler's crash reports for FMVSS 301 30 mph rear moving barrier impacts that report rear end crush depths of over 20 inches in less than 100 ms of the crush pulse duration. What the data means is that the design location

selected by Chrysler Engineering for the subject vehicle fuel tank places the rear of the fuel tank within the crush zone in a rear readily foreseeable rear collision.

According to the Chrysler Engineering's Fuel system Design Guidelines the fuel system components will ensure that the system will:

1. Safely supply and store fuel.
2. Be a weight and cost effective design.
3. Comply with Federal impact regulations FMVSS 581 and 301.
4. Give customer satisfaction.

Under the guidelines for the basic fuel tank configuration it states:

1. The tank should be located in a manner that avoids known impact areas and provides isolation from the passenger compartment.

2. The design of the fuel tank and fuel supply system should not be compromised for bumper or platform hitches.

Under Detail Design and Performance it states:

"Tank Location- Lateral and longitudinal location to be provided by body formations (such as seat formations in L Body)."

Under Fuel Tank it states:

1. Spring Clearance- the minimum clearance to the tank or tank flange is 2.0 inches static and 0.75 under dynamic sway deflection.

2. Exhaust Clearance- Steel tanks: A minimum of 1.5 inches between exhaust component and tank, and 1.0 inch to tank flange. ...Tanks must be shielded to exhaust system to protect against continual temp's exceeding 175 degrees F.

3. Axle, Bumper, Shock, Strut and **Unfriendly Surfaces** (emphasis added)- **This clearance to be determined by Advance Chassis Design crush analysis and verified by vehicle impact testing. No contact should occur between these components and the tank during the impact event.**

Based upon my review of the Chrysler Fuel System Design Guidelines, Chrysler Engineering was aware of the "unfriendly environment" potential for vehicle components designed around and near the fuel tank. The selected method to evaluate the performance of the fuel system design and surrounding systems for the subject vehicle was to conduct minimum FMVSS 301 level crash testing under the imposed safety objectives and directives of Chrysler Upper Management. From previous materials that I have reviewed in other investigations, Chrysler also imposes an internal safety objective to meet the New Car Assessment Program (NCAP) performance of an 35 mph RMB impact for the design of their vehicles. All crashworthiness is dependant upon a principle used in the automotive industry called Energy Management. The essential difference between the RMB rear crash test and real world crashes is the RMB height covers the entire rear structure of the Jeep and thus distributes the crash forces to the complete structural assembly. In contrast, the front end of a vehicle, such as the Tahoe, has a smaller area of crush impact which changes the force distribution to structural members that must manage the energy. The crush profile on the rear of the subject 1989 Jeep reveals that the impact was concentrated below the belt line requiring energy management principles that take into account real world accidents. In addition, frontal impact requirements of FMVSS 301 require a 30-35 mph impact into a full width rigid barrier which increases the energy absorption level of the body structure and chassis components. The overall effect of only applying the RMB FMVSS 301 as the performance criteria for body structure and chassis is that the rear underslung tank is directly in the crush zone and must consider the influence of real world crashes on the fuel system performance. The relative consequences and performance comparison between crashing a vehicle into a rigid barrier compared to RMB at 30 mph was the subject of crash studies conducted by Chrysler (American Motors) well before the production of the subject vehicle.

I was provided with limited discovery materials in this case that report in early 1971 Chrysler (American Motors) was conducting 20 and 30 mph rear fixed barrier crash testing in anticipation of the proposed FMVSS 301 performance requirements under the provisions of Docket 70-20. These reports state the following:

1. Tank location under the trunk floor pan is very vulnerable due to vehicle crush, even at 20 mph. At the 30 mph proposed for the following year, the complete trunk area of a 7085 (Test #490) is destroyed.... It appears to the writer that a location at the kick up area and above the rear axle would be the most likely to survive rear and front crashes. It is recognized that a location similar to this has been proposed for the 7X80.

2. Rear axle movement during crash presently damages all tanks as installed. It is not necessary to pierce the tank with sharp projections. A blow with a differential cover or similar rounded object to a seamed or sharply ribbed area is sufficient to invert ribs and split the tank at thinned and hardened sections occasioned in manufacture. In order to assure that damage from this source does not puncture the tank, the tank will have to be located out of the range of the axle or extensive shielding provided.

3. On each car some part of the tank hold-up system failed, either through strap front brackets pulling loose from the body, bolt breakage, or pulling the bolts through the strap end.

4. Essentially, the report of Mr. [redacted] says that any fuel tank regardless of shape, which has its lower end extended downward and behind the rear axle, will be punctured in any fixed barrier rear-end collision at 20 mph.

In at least the 1971 time frame, Chrysler Engineering was made aware of the consequences to the fuel tank system in a vehicle rear collision level of a 20 mph fixed barrier where the fuel tank was compromised by the surrounding systems and/or the fuel tank straps.

I conducted a failure mode analysis on the subject vehicle. This was done by evaluating the subject vehicle damage, using an exemplar vehicle, analyzing the design drawings provided, examining the subject vehicle fuel tank photographs and inspection notes, reviewing early photographs taken of the subject vehicle post collision, and using the overall crush profile for the subject vehicle. The design of the subject vehicle fuel aft-of-axle fuel tank locates the bottom of the tank below the rear bumper and rear frame cross member in the vulnerable rear crush zone. The top of the tank is located to the floor pan longitudinal reinforcements with clearance areas below the underbody. Early photographs of the subject vehicle show that rear bumper of the vehicle was crushed to about the center line of the rear axle. This means that the fuel tank had to move forward above and over the rear axle during the crush pulse. In fact, the early photographs show the residual position of the rear of the fuel tank is forward of the rear axle differential housing and axle tubes. The right side fuel tank strap was dislodged from it anchorage and both rear springs were fractured away from their rear frame rail mounting. Since the right front bottom area of the fuel tank was torn open outboard of the right strap depression, there are several "culprits" in the surrounding tank area that are suspect as causing the tear in the fuel tank. Post accident photos show the right upper rear leaf

spring sticking upward and extending rearward of the body rear crush. The right rear shock absorber was separated from its upper mount by the tank forward movement. The exhaust pipe routing is on the right side of the fuel tank and bends inward and upward forward in front of the fuel tank. Photographs show the exhaust pipe was separated from the metal bar body anchorage and the muffler, and was shifted leftward under the loose right tank strap. Since the existing damage to the vehicle is post collision residual, the dynamic crush sequence would involve four vehicle components capable of compromising the fuel tank and plastic shield as the tank was forced forward. These components include:

1. The crushed exhaust pipe and its connections.

2. The right shock absorber.

3. The right fuel tank strap.

4. The fractured rear axle leaf spring assembly and axle U-bolt mount.

At this point in my investigation all of these components are equally suspect pending additional analysis of the parts and tank deformation pattern. However, the loose strap anchor of the fuel tank is prominent because it failed at the front anchor, assuming it matches the tank deformation. It is unlikely that a part of the impacting Tahoe caused the right side fuel tank failure, however I reserve any final conclusions pending further analysis.

C. Leakage of Gasoline Discussion

The gasoline tank on the subject vehicle was removed in the presence of the defendant representatives on August 20, 2004 along with the fuel filler neck. There was no measured gasoline remaining in the fuel tank. The right side bottom fuel slit in the tank is 2.5 inches fore and aft and would have opened up further during the dynamic force stage of the collision releasing gasoline from the fuel tank. The dynamic compression of the fuel tank would have forced gasoline out of the opening. Based upon the information I have received, there was sufficient leakage of gasoline to create and immediate post collision fire. There were three catastrophic effects caused by the left and right rear floor pan weld seams splitting:

1. Increased crush depth of the rear body structure. (Crash Severity Reduction)

2. Creation of a fire entry area into the occupant compartment.

3. Forward crushing of the rear passenger door front seams over the front passenger doors entrapping the occupants.

Based upon the findings of the fire investigator, the leakage of gasoline caused the post collision fire, and fire entry through the gapping splits in the body seams and entrapment meant that the rescue attempts to get the occupants out of the vehicle would be impaired. Chrysler Engineering selected a design process for the subject vehicle design that does not evaluate real world collision conditions. It is extremely important that this collision represents a real world "crash test" of the performance of the subject vehicle design. The objective of the design process and Failure Mode Effects Analysis (FMEA) is to consider any potential failure mode that would put the user at an unreasonable risk of serious injury. Once the hazards have been identified it is the obligation of the manufacture to eliminate and otherwise guard/protect the user from the hazard. In particular, the hazard of a post collision fuel fire caused by refuge gasoline that leaks from a defectively designed fuel tank is an unreasonably dangerous condition. One reason for the defective and unreasonably dangerous condition of the subject vehicle is the safety policy selected by Chrysler Corporation to design the subject vehicle. Basically, the imposed safety policy and objectives of Chrysler Corporation means that the design process used to meet the them is flawed. This flaw results from the following selected design process provisions:

1. Lack of real world crash test safety objectives for design validation.

2. Lack of a proper design FMEA.

The incorporation of a partial lower tank plastic shield is insufficient to protect the metal tank from objects surrounding the fuel tank and its anchorage to the vehicle. General Motors and Ford Motor Corporation have internal safety objectives that require vehicle to vehicle rear crash testing at 50 mph under full rear and 50% offset modes. These are voluntary internal safety objectives that consider real world crashes in the design of the fuel system and have uncovered several deficiencies in the fuel system design of their aft-of-axle fuel tank designs on cars and trucks. Vehicle to vehicle dynamic crash testing is considered as a close approximation for real world collisions and was originally studied by Derwyn Severy in the early 1960's. The overall safety research has shown that location of the fuel tank behind the rear axle in the rear crush zone requires protective steel guarding of the steel fuel tank to prevent compromise during a rear collision. The

steel guard acts as a deflector and parasite to fail before the fuel tank.

VI. Design Alternative Discussion

Entrapment along with intensity of the fire thwarted rescue efforts to remove Mr. and Ms. [redacted] from the vehicle. It is well known to the automotive industry that post collision fuel fed fires are dangerous hazards to occupants involved in a readily foreseeable collision such as occurred in this accident. The design of a rear, underslung fuel tank is a known hazard due to its vulnerability when improperly guarded in this location. Although this type of design is capable of passing FMVSS 301, several automotive manufacturers have incorporated an industrial safety standard using a 50 mph rear offset, and full rear collision test. This test does not resolve rear collision levels that approach a 30 mph rigid barrier equivalent for fuel systems designed to FMVSS 301 RMB performance requirements, supported by the rigid barrier tests conducted in the 1960 period. Real world rear collisions have uncovered the vulnerability of a rear, underslung fuel tank to be compromised by puncture and tearing during the dynamic crash. The consequence is leakage of gasoline that when ignited results in a post collision fuel fed fire imperiling the survivors due to the rapid propagation and intensity of escaping gasoline vapors. The tear in the right bottom of the fuel tank would have resulted in the release of gasoline exposed to several ignition sources in the collision. Fire entry through the rear floor pan openings, backlite, and side glass openings would have propagated the fire into the interior occupant compartment.

Daimler Chrysler had the knowledge, technology, and capability to design the subject vehicle with safer design alternatives. These design alternatives include a steel full tank guard/skid plate and/or relocation to between frame mid ship position to prevent puncture and tears in the fuel tank in a rear crash. These design alternatives were readily available and technologically feasible to Chrysler prior to the production of the subject vehicle. For example, the majority of automotive manufacturers use heavy gauge (.060 - .10 inch) steel skid plates on their 4 x 4 off road models to guard and protect the fuel tank. These skid plates serve to provide superior fuel tank protection during a rear collision demonstrated in testing that I have performed using a pendulum impact procedure and full scale crash test. These tests are of a type reasonably relied upon by experts who practice in my field, are accepted by the scientific community, have a known error rate, and have been published in technical papers. In addition, the pre-1983 Jeep models had a between frame mid ship fuel tank location that was changed to aft-of-axle in the 1984 time frame. Had these design alternatives been incorporated into the 1989 Jeep Model, it is more probable than not, that the fuel tank would not have been

compromised in this, and several other types of collisions.

I reserve my final opinions concerning the fuel system integrity, body structural integrity, and design alternatives pending further discovery and investigation.

Respectfully submitted,

10-12-04
Date

John M. Stilson
Safety and Automotive Consultant

2003-64519

NO. _____

TARSHA RANDLE	*	IN THE DISTRICT COURT
VS.	*	
DAIMLER-CHRYSLER MOTORS COMPANY, L.L.C., AND KELLY J. O'DONNELL	*	HARRIS COUNTY, TEXAS
	*	55 JUDICIAL DISTRICT

CHARLES BACARISSE
FILED
DISTRICT CLERK
HARRIS COUNTY, TEXAS
2003 NOV 25 PM 3:30
DEPUTY

PLAINTIFF'S ORIGINAL PETITION

TO THE HONORABLE JUDGE OF SAID COURT:

COMES NOW, TARSHA RANDLE, hereinafter referred to as Plaintiff, and files this her Original Petition complaining of DAIMLER-CHRYSLER MOTORS COMPANY, L.L.C., AND KELLY J. O'DONNELL, hereinafter referred to as Defendants.

I.

Plaintiff is a resident citizen of Houston, Harris County, Texas.

Defendant, DAIMLER-CHRYSLER MOTORS COMPANY, L.L.C., is a corporation duly authorized to do business in the State of Texas and may be located for service of process through their registered agent, C.T. Corporation Systems, 350 N. St. Paul Street, Dallas, Texas 75201.

Defendant, KELLY J. O'DONNELL, is a resident citizen of Spring, Harris County, and may be located for service of process at 9210 Willingham Drive, Spring, Texas 77379.

II.

On September 4, 2002, '03 per policereport - confirmed by T.C. Plaintiff was a passenger in a 1989 Jeep Pioneer designed, manufactured and/or sold by Daimler-Chrysler or it predecessor in interest American

Motors Corporation. Plaintiff was injured when the vehicle caught fire and the passenger doors were jammed after frontal and rear collisions negligently caused by Defendant, KELLY J. O'DONNELL.

III.

Written notices of the claims made herein have been given in the manner and form required by law.

IV.

When in this Petition it is alleged that Defendant, Daimler-Chrysler Motor Company, L.L.P. did any act or thing, it is meant that its officers, agents, servants, employees, predecessors and/or representatives did such act or thing and that at the time such act or thing was done, it was done with the full authorization or ratification of Daimler-Chrysler Motor Company, L.L.P or was done in the normal and routine course and scope of employment of Daimler-Chrysler Motor Company, L.L.P.'s officers, agents, servants, employees and/or representatives.

V.

The vehicle was manufactured, designed and/or marketed by Daimler-Chrysler Motor Company, L.L.P. Daimler-Chrysler Motor Company, L.L.P. is engaged in the marketing and/or sale of Jeep vehicles in the State of Texas for distribution to the general public as consumers.

VI.

Plaintiff alleges that the negligence of Daimler-Chrysler Motor Company, L.L.P. in the design, manufacture and/or marketing of the vehicle was gross negligence and was a proximate and/or producing cause of Plaintiff's damages.

VII.

Plaintiff would also show that under the doctrine of strict liability the 1989 Jeep Cherokee Pioneer, at the time it left the control of Daimler-Chrysler Motor Company, L.L.P., was defective and unsafe for its intended purpose and constituted an unreasonable risk of harm to the public including Plaintiff. The defective condition of the 1989 Jeep Cherokee Pioneer was a producing cause of Plaintiff's injuries and damages as prayed for herein. At the time of the incident the 1989 Jeep Cherokee Pioneer was in substantially the same condition as when it left the control of Daimler-Chrysler Motor Company, L.L.P. pertaining to the defects alleged herein.

VIII.

In addition, Daimler-Chrysler Motor Company, L.L.P. breached it's warranty that the vehicle was merchantable and fit for the ordinary purposes for which they are used.

IX.

Daimler-Chrysler Motor Company, L.L.P.'s acts and/or omissions and the negligence of KELLY O'DONNELL were a direct, proximate and/or producing cause of the following damages to TARSHA RANDLE:

1. Physical and mental anguish in the past;
2. Physical pain and mental anguish which in reasonably probability she will suffer for the balance of her natural life.
3. Loss of earnings and earning capacity in the past and which in reasonable probability she will sustain in the future;
4. Loss of physical ability in the past and which in reasonable probability she will sustain in the future;
5. Disfigurement in the past and which in reasonable probability she will sustain in the future;

6. Physical impairment in the past, and which in reasonable probability she will sustain in the future;

7. Reasonable expenses for necessary medical care received in the past for treatment of her injuries resulting from the occurrence in question; and

8. Reasonable expenses for necessary medical care which she will in reasonable medical probability, require in the future for treatment of her injuries resulting from the occurrence in question.

Plaintiff also requests an award of prejudgment and post-judgment interest, and punitive damages.

Because of all of the above your Plaintiff has been damaged in an amount in excess of the minimum jurisdictional limits of this Court. At such time as the full nature and extent of her injuries may be determined, she will amend and specifically plead the exact amount of her damages.

WHEREFORE, PREMISES CONSIDERED, Plaintiff prays that the Defendants be cited to appear and answer herein; that upon final trial and hearing hereof, Plaintiff, TARSHA RANDLE, have judgment against the Defendants, jointly and severally, as above alleged; for punitive damages, attorneys fees, treble damages, prejudgment and post judgment interest, costs of court, and such other and further relief, both at law and in equity, to which Plaintiff may be entitled and to which she is deserving and for which she will ever pray.

Respectfully submitted,
ORIGINAL SIGNED BY
CHRIS BRADSHAW-HULL

CHRISTOPHER BRADSHAW-HULL
State Bar No. 02841300
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Houston, Texas 77006
713-523-0818
713-523-0814-facsimile
ATTORNEY FOR PLAINTIFF

MATTER #	1136817
FILE TYPE	Lawsuit
FILE NAME	[redacted]
CAIR #	
DATE OF INCIDENT	09/04/2003
DATE OF NOTICE	11/14/2003
MODEL/MODEL YEAR	1989 Jeep Cherokee (XJ)
VIN	1J4FT38L4KL[redacted]
MILEAGE	
OWNER	[redacted] [redacted] Houston, TX
COURT	District Court, Harris County, TX
DOCKET #	200364519
FIRE ALLEGED	Yes
DESCRIPTION	On September 4, 2003, a 1989 Jeep Cherokee (XJ), operated by [redacted], was travelling southbound on SH 249 near Houston, Texas. The posted speed limit at the site of the accident was 55 mph. According to the police accident report, the Jeep Cherokee (XJ) was stopped because of traffic, when a 2000 Chevrolet Tahoe, operated by [redacted] southbound on SH 249, failed to observe the traffic stopped ahead of her and struck the rear of the Jeep Cherokee (XJ) at a high rate of speed. The police accident report reflects that there were only 15 feet of braking skid marks prior to the impact indicating that the driver of the Chevrolet Tahoe braked at the last instant before striking the Jeep Cherokee (XJ). The driver of the Chevrolet Tahoe also told the investigating officer that "she looked down for a moment and when she looked back up she noticed that the vehicles in front of her had stopped." According to a witness statement contained in the police accident report, the Chevrolet Tahoe was travelling approximately 50 mph when it passed him just before the accident occurred. The impact pushed the front end of the Jeep Cherokee (XJ) into the rear of a 2003 Chevrolet Impala, which was also stopped in traffic. A fire ensued after the impact.
PROPERTY DAMAGE ALLEGED	No
INJURIES	3
FATALITIES	0
ANALYSIS	Based on an inspection of the Jeep Cherokee (XJ) and other available information, including the police accident report, witness statements

and vehicle photographs, Chrysler Group concludes that the initial impact of the Chevrolet Tahoe with the rear of the Jeep Cherokee (XJ) occurred at a relative velocity of approximately 50 mph. This is based on the statement of an accident witness that the Chevrolet Tahoe was travelling approximately 50 mph at the time of the accident, the posted speed limit of 55 mph and the indication that the driver of the Chevrolet Tahoe only braked at the last instant before the impact. An inspection of photographs of the Jeep Cherokee (XJ) revealed that this extremely severe, high-energy impact crushed the body and frame of the Jeep Cherokee (XJ) forward to or beyond the rear axle. The interposition of the Jeep Cherokee (XJ) between the Chevrolet Tahoe and the Chevrolet Impala during the impact likely increased the crash forces acting on the rear of the Jeep Cherokee (XJ). The damage to the rear of the Jeep Cherokee (XJ) is depicted in the photographs in Enclosure 3 Public, Bates page numbers EA12-005 – Chrysler – 012039 and 012042.

EA12-005- Chrysler -012112
8

EA12-005- Chrysler -012113

EA12-005- Chrysler -012114

Jeep
EA12-005- Chrysler -012115

EA12-005- Chrysler -012116

[redacted]

EA12-005- Chrysler -012119

EA12-005- Chrysler -012120

EA12-005- Chrysler -012121

EA12-005- Chrysler -012122

EA12-005- Chrysler -012123

EA12-005- Chrysler -012124
89

EA12-005 Chrysler -012126

9027
Cherokee
Pioneer

EA12-005 Chrysler -012130

EA12-005- Chrysler -012132

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Jeep

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EA12-005- Chrysler-012135

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Cherokee
Pioneer
Jeep

EA12-005- Chrysler -012139

EA12-005

EA12-005- Chrysler -012141

[redacted] V. DAIMLERCHRYSLER

VEHICLE INSPECTION

CORPUS CHRISTI, TEXAS

JUNE 29, 2004

ROLL 1 2 3 4 5

6 7 8 9

EA12-005- Chrysler

EA12-005- Chrysler -012149

EA12-005- Chrysler -012151

EA12-005- Chrysler -012152

EA12-005- Chrysler -012153

EA12-005- Chrysler -012155

EA12-005- Chrysler -012158

EA12-005- Chrysler -012161

EA12-005- Chrysler -012163

[redacted] V. DAIMLERCHRYSLER

VEHICLE INSPECTION

CORPUS CHRISTI, TEXAS

JUNE 29, 2004

ROLL 1 2 3 4 5

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EA12-005- Chrysler -012166

EA12-005- Chrysler -012167

EA12-005- Chrysler -012168

EA12-005- Chrysler -012169

EA12-005 Chrysler -012170

EA12-005- C ys r 01 7

EA12-005- Chrysler -012172

jeep
EA12-005- Chrysler -012174

EA12-005- Chrysler-012177

EA12-005- Chrysler -012178

EA12 005 Chrysler-012181

EA12-005- Chrysler -012182

EA12-005- Chrysler -012183

EA12-005- Chrysler 012186

EA12-005- Chrysler -012187

EA12-005- Chrysler -012188

EA12-005- Chrysler -012189

EA12-005- Chrysler -012190

RADIAL

EA12-005- Chr[illegible] 012193

EA12-005- Chrysler -012194

EA12-005- Chrysler -012195

EA12-005- Chrysler -012196

EA12-005- Chrysler -012198

[redacted] V. DAIMLERCHRYSLER

VEHICLE INSPECTION

CORPUS CHRISTI, TEXAS

JUNE 29, 2004

ROLL 1 2 3 4 5

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EA12-005- Chrysler -012203

EA1

EA12-005- Chrysler -012206

EA12-005- Chrysler -012208

EA12-005- Chrysler -012209

EA12-005- Chrysler -012210

EA12-005- C -012211

EA12-005- Chrysler -012212

EA12-005- Chrysler -012213

EA12-005- Chrysler -012214

EA12-005- Chrysler -012216

EA12-005- Chrysler -012217

EA12-005- Chrysler -012220