

EPA-460/3-76-031

March 1977

**EVALUATION
OF RESTORATIVE
MAINTENANCE
ON 1975 AND 1976
LIGHT-DUTY VEHICLES
IN WASHINGTON, D.C.**



**U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Mobile Source Air Pollution Control
Emission Control Technology Division
Ann Arbor, Michigan 48105**

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LIGHT-DUTY VEHICLES
IN WASHINGTON, D.C.**

by

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**Contract No. 68-03-2185
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Prepared for

**ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Waste Management
Office of Mobile Source Air Pollution Control
Emission Control Technology Division
Ann Arbor, Michigan 48105**

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Publication No. EPA-460/3-76-031

ABSTRACT

General Environments Corporation, under contract to the Environmental Protection Agency, conducted a comprehensive study of automobile exhaust emissions and the effects of restorative maintenance and selective engine parameter maladjustment on these emissions. This was a study of 100, 1975 and 1976 model-year consumer-owned vehicles from the Washington, D. C. area and was similar to a total surveillance program which had been conducted in three other major cities (Chicago, Detroit, and San Francisco).

Specifically, vehicles from the Washington, D. C. area were tested for fuel economy and the content of total hydrocarbons, carbon monoxide, carbon dioxide and nitrogen oxides in their exhaust emissions using the 1975 Federal Test Procedure (FTP), the Highway Fuel Economy Test, the Federal Short Cycle, the New York-New Jersey Acid Test, the Clayton Key Mode Test, the Two-Speed Idle Test, and the Federal Three Mode Test.

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SECTION 1

INTRODUCTION

Since the motor vehicle is still considered to be one of the major sources of air quality degradation, the need for a realistic assessment of emissions from light-duty vehicles in the hands of the motoring public has been continuously recognized by the Environmental Protection Agency (EPA). One of the responsibilities of EPA, as provided through the Clean Air Act, is to determine these emission factors and provide current data to quantify the automobile's contribution to atmospheric pollution. By conducting surveillance programs in major metropolitan areas, average emission factors for motor vehicles can be developed and supplied to the National Air Data Branch (NADB) and the Office of Transportation Land Use Policy (OTLUP) for their use in determining nationwide and metropolitan area emissions.

The EPA has recognized that maintenance and maladjustment of automobile engine parameters are important factors which affect automobile exhaust emissions. Therefore, in order to more fully carry out its responsibilities as defined by the Clean Air Act, the EPA contracted with General Environments Corporation to perform emissions tests on a sample of 100, 1975 and 1976 model-year automobiles from the Washington, D. C. area, performing deliberate engine parameter maladjustments and/or restorative maintenance for sequences of several tests on selected vehicles. This report describes the procedures which were used in carrying out these tests, and it summarizes the results of these tests.

SECTION 2

TECHNICAL DISCUSSION

2.1 PROGRAM OBJECTIVES

The objectives of this test program were as follows:

- o Select 100 consumer-owned 1975 and 1976 automobiles, made by the three major manufacturers, from the Washington, D. C. area and perform exhaust emissions and fuel economy tests on these vehicles in their as-received conditions.
- o Gather data on whether or not selected engine parameters, related to emission control, are found to be within the manufacturer's specifications on in-use vehicles.
- o Restore these selected engine parameters to the manufacturer's specifications and retest these vehicles to determine the effects of this restorative maintenance on exhaust emissions and fuel economy.
- o Deliberately maladjust or disable selected engine parameters for each of four additional tests to be performed on selected vehicles to determine the effects of these different maladjustments on exhaust emissions and fuel economy.

2.2 PROGRAM DESIGN

To support the objectives of this program, the tests were performed with an established methodology of well defined procedures and qualified, calibrated test equipment. This was accomplished using the constant volume sampling technique in accordance with the 1975 Federal Test Procedures (FTP).

The 100 vehicles selected were divided approximately equally among the three major manufacturers and each vehicle was tested in its as-received condition. Most of the 100 vehicles were then subjected to maintenance actions and subsequent retests in prescribed setups. Finally, selected vehicles were put through additional test sequences with a different selected set of engine parameters being deliberately maladjusted for each test sequence. In each case a qualified mechanic, under the guidance of factory representatives from the appropriate manufacturer, performed engine parameter adjustments as necessary to support the test program.

2.3 TEST VEHICLE PROCUREMENT

This program required obtaining 100 automobiles that were consumer-owned and typical in-use vehicles. The required number of each vehicle make for the Washington, D. C. area is shown in Figure 2-1.

A listing of the desired types of test vehicles was provided by EPA and this list supplied details as to the desired make, engine displacement, vehicle size, transmission type and number of carburetor venturis for each test vehicle (see figure 2-6 for this listing of EPA desired test vehicles). This section describes the methodology and procurement procedures used in obtaining the necessary vehicles to fit the specific requirements.

FIGURE 2-1 VEHICLE LISTING (BY MAKE)

<u>MAKE</u>	<u>TOTAL</u>
Chrysler Corporation	
a. Chrysler	4
b. Dodge	13
c. Plymouth	<u>16</u>
Subtotal	33
Ford Motor Company	
a. Ford	24
b. Mercury	7
c. Lincoln	<u>2</u>
Subtotal	33
General Motors Corporation	
a. Chevrolet	16
b. Buick	5
c. Cadillac	2
d. Oldsmobile	6
e. Pontiac	<u>5</u>
Subtotal	34
Total	100

2.3.1 Test Vehicle Selection

To select a vehicle for testing, several steps were required and these steps are depicted in Figure 2-2. The first step was to obtain a randomized registration listing of citizens owning vehicles of the appropriate make, model, and year of manufacture, and residing within 10 miles of the geographical boundary of the District of Columbia. This listing was obtained from R. L. Polk & Co. and it consisted of mailing labels, an example of which appears in Figure 2-3.

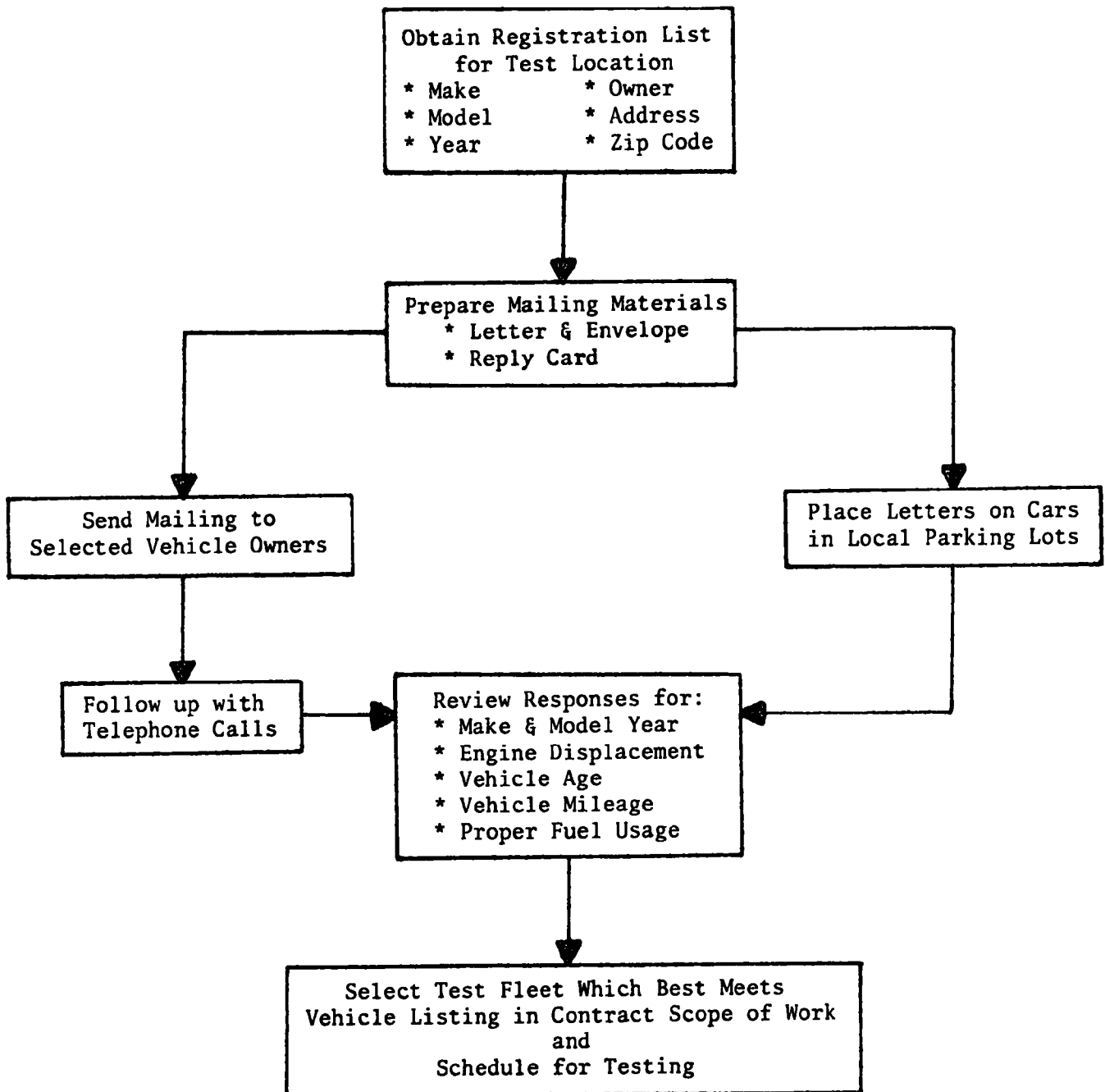


FIGURE 2-2 VEHICLE SELECTION PROCEDURE

MR RAY H LANCASTER
7614 CLIVE ST
SPRINGFIELD VA 22151

MR R U PRATT
5214 HEMING AV
SPRINGFIELD VA 22151

12 76
MR R F FRANCIS
7750 CARRLEIGH PKWY
SPRINGFIELD VA 22152

11 76
MR E J WILSON
8218 CARRLEIGH PKWY
SPRINGFIELD VA 22152

09 76
MR MICHAEL J VRABEL
8624 LANGPORT DR
SPRINGFIELD VA 22152

13 76
MR ROGER L THOMPSON
6802 DANTE CT
SPRINGFIELD VA 22152

10 75
MR WILLIAM F MARSHALL JR
8531 GREELEY BL
SPRINGFIELD VA 22152

14 75
MR JAMES M MORGAN
8352 DARLINGTON ST
SPRINGFIELD VA 22152

08 76
MR CLAYTON R KEEL
7930 CARRLEIGH PKWY
SPRINGFIELD VA 22152

09 75
MR JAMES L BURKE
5916 KINGSFORD RD
SPRINGFIELD VA 22152

16 76
MR THOMAS G ERDMAN
6108 LORCOM CT
SPRINGFIELD VA 22152

08 76
MR THOMAS J DEKAY
7926 HARWOOD PL
SPRINGFIELD VA 22152

FIGURE 2-3 TEST VEHICLE MAILING LABELS

A mass mailing of 2500 letters was sent out throughout the program to obtain a prospective candidate list that best fit the sample population profile. This introductory mailing contained:

- o GEC Introductory Letter - Figure 2-4
- o Response Card - Figure 2-5

In addition to the mass mailing, about 5% of the participants were found by placing letters on vehicles in local parking lots. Also, about 3% were obtained by contacting a local church group and a local rental agency.

Once the original contact was made, a file was established and maintained by year and make. Via the response cards, information was obtained from car owners regarding engine size, transmission, and number of carburetor venturis. If it appeared from this preliminary information that a particular vehicle might be suitable and needed for testing, the vehicle owner was contacted by telephone and requested to provide additional information to indicate whether or not the vehicle would meet the following acceptance criteria:

- o The vehicle must be less than one-year old.
- o The vehicle must have accumulated no more than 15,000 miles.
- o The vehicle must be free of any major engine modifications.
- o Vehicles requiring unleaded fuel had to have been driven on unleaded fuel.

If the vehicle fit the requirements and the owner agreed to participate, a tentative schedule was established for testing of that vehicle. The specific vehicle listing provided by EPA allowed some flexibility for substitutions. The list of test vehicles requested by EPA versus the vehicles actually tested is shown in Figure 2-6.

GENERAL

General Environments Corporation / 6840 Industrial Road, Springfield, Virginia 22151 / (703) 354-2000

OMB APPROVAL
158-R0106

Dear Vehicle Owner:

You may be able to make an important contribution toward solving our nation's air pollution problem, and receive \$50, \$75, or \$100 in U.S. Savings Bonds for your help.

As you may know, the U.S. Environmental Protection Agency is conducting an important testing program concerning air pollution caused by automotive exhaust emissions. Our organization has been selected by the Government to perform these tests in the Washington, D.C. area. We are writing to you because your vehicle has been randomly selected as a candidate for testing.

Enclosed is a postpaid card which we would like you to complete and return to us at your earliest convenience if you are willing to submit your car for testing. Vehicles tested under this program will be subjected to simulated normal driving conditions in our laboratory and will be fully insured while in our possession.

We have been authorized by the Environmental Protection Agency to award a U.S. Savings Bond, a full tank of fuel, and the use of a loan vehicle to each participant whose automobile is tested. The denomination of the awarded bond will be \$50, \$75, or \$100 depending upon how many tests are conducted on your vehicle and the time required to perform these tests. Normally, the test sequence will require one to three days although in some cases it may extend to a week or more.

We know that you will want to be a part of this important program which can lead to a cleaner atmosphere in which we all must live. Please complete and return the enclosed postcard today. If your vehicle meets the specific requirements of this project, we will contact you shortly to schedule the test.

Thank you for your help,

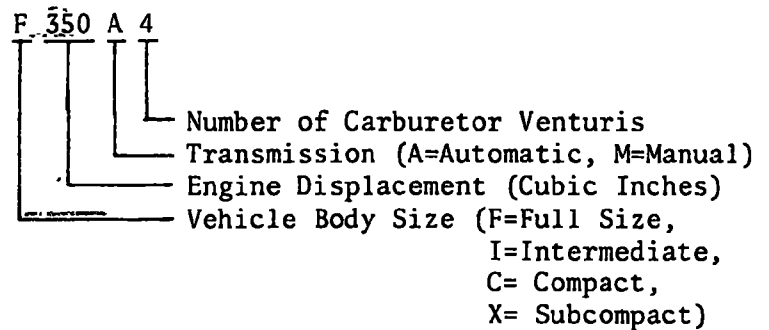
GENERAL ENVIRONMENTS CORPORATION

L. H. Washington

L. H. WASHINGTON

Enclosure

The absence of a vehicle identification in the column of vehicles actually tested indicates that the EPA requested vehicle was obtained and tested. An example of the vehicle identification is shown below.



The final step in the test vehicle selection process involved an inspection for extensive engine modifications and a lead content analysis of a sample of the fuel which was in the vehicle upon its receipt by GEC. This lead analysis was done to verify that unleaded fuel had been used in vehicles requiring unleaded fuel.

2.3.2 Test Incentives

Since this test program involved different amounts of testing for different vehicles, a three level incentive schedule was used. All qualified participants were given a full tank of fuel and offered the use of a loan vehicle while their vehicle was being tested. In addition, each qualified participant was awarded either a \$50, \$75 or \$100 Savings Bond, depending upon the extent of testing performed on his or her vehicle. The following is a description of the three level incentive schedule which was used.

- o Owners whose cars went through five or more test sequences received a \$100 Savings Bond.

CHRYSLER CORPORATION VEHICLES			FORD MOTOR CORPORATION VEHICLES			GENERAL MOTORS CORPORATION VEHICLES		
VEH. NO.	EPA REQUESTED TYPE	ACTUAL TYPE	VEH. NO.	EPA REQUESTED TYPE	ACTUAL TYPE	VEH. NO.	EPA REQUESTED TYPE	ACTUAL TYPE
6001	C225A1	C225A1	5034	X140M2	X140M2	6067	C231A2	I350A0
5002	C225A1		5035	X171A2		6068	I350A2	
6003	C225M1		6036	X140A2		6069	I350A4	
6004	C225A1		6037	X140A2		6070	F350A4	
5005	C225A1		6038	X171M2		6071	F455A4	
6006	C318A2		6039	C250A1		6072	F500A4	
5007	C318A2		6040	C250M1		6073	F500A4	
5008	I318A2		5041	C200A1		6074	X085M1	
6009	I318A2		5042	C250A1		6075	F400A4	
6010	I360A2		5043	C250A1		6076	X140A2	
6011	I318A2	*	6044	C302A2	C250A1	6077	C250A1	X140M2
6012	I360A2		6045	C302A2		6078	C305A2	
6013	F400A2		6046	C351A2		6079	C305A2	
6014	C225M1		6047	I351A2		6080	C350A4	
5015	C225A1		5048	I351A2		6081	I305A2	
6016	C225A1		6049	I351A2		6082	I305A2	
6017	C225A1		5050	I351A2		6083	I350A2	
6018	C225A1		6051	I351A2		6084	I350A2	
6019	C225A1		6052	I400A2		6085	I400A4	
6020	C318A2		6053	F351A2		6086	F350A2	
6021	C318A2	C225A1	5054	F351A2	F400A2	6087	F350A2	I350A2
6022	C225A1		6055	F400A2		6088	F350A4	
6023	I318A2		6056	F460A4		6089	F400A4	
6024	I318A2		6057	F460A4		6090	I260A2	
6025	I360A2		6058	C250A1		6091	I350A4	
5026	I400A2		5059	C302A2		6092	I350A4	
6027	C225A1		6060	C302A2		6093	F350A4	
6028	I360A2		6061	I351A2		6094	F455A4	
6029	C225A1		5062	I351A2		6095	F455A4	
6030	I400A2		6063	I400A2		6096	X140A2	
6031	I360A2	C225A1	6064	F400A2	I351A2	6097	C260A2	C250A1
5032	F400A2		6065	F460A4		6098	I350A2	
6033	F440A4		6066	F460A4		6099	I350A2	
						6100	F400A2	

* Vehicle actually tested had California emission control configuration.

FIGURE 2-6 TEST VEHICLE SUBSTITUTE LIST

- o Owners whose cars went through three or four test sequences received a \$75 Savings Bond.
- o Owners whose cars went through one or two test sequences received a \$50 Savings Bond.

2.3.3 Test Plan

Upon arrival at GEC each prospective test vehicle, which required unleaded fuel, had a fuel sample removed from it. Each fuel sample was analyzed for lead content and if it was found to contain greater than .05 grams of lead per gallon the prospective test vehicle was rejected and returned to the vehicle owner. If the vehicle was not rejected by the lead analysis an inspection was conducted for major engine modifications, obvious problems with the exhaust or emission control systems, and for verification of the desired engine, transmission, and carburetor combination. Each vehicle also received an inspection to evaluate its general condition, its driveability and its safety of operation.

Any replacements to be made due to aborted tests or non-compliance with the test requirements were contacted from a reserve file.

After the preliminary inspection was conducted, an exchange of vehicles and receipts (Figure 2-7) took place. The test vehicle was driven to the defueling area and the gas tank emptied. The gasoline was deposited into a storage tank. The specified volume of test fuel was pumped into the vehicle's gas tank.

GENERAL ENVIRONMENTS CORPORATION

Date _____

TO WHOM IT MAY CONCERN:

I certify that I have this date received from General Environments Corporation (GEC) the following Vehicle for my private use while my car is being tested for exhaust emissions.

Vehicle Make _____ Model _____ Year _____

License No. _____ Odometer Reading _____

I further understand that my car will be "in test" from approximately 48 hours to ten days and that I will be advised when to pick up my car.

(Signature of Owner)

General Environments Corporation hereby acknowledges receipt of the below described vehicle for the purpose of conducting an exhaust emissions test.

Vehicle Make _____ Model _____ Year _____

License No. _____ Odometer Reading _____

Remarks: _____

(GEC Representative)

FIGURE 2-7 LOAN VEHICLE RECEIPT

A 10 minute (3.8 mile) course was set up through the local area and each vehicle was driven over this course before being placed in the laboratory. The vehicles were driven into the laboratory and parked. At this point the date and time were posted on each vehicle's windshield. The owner's drive to the laboratory and the 10 minute purge run constituted the vehicle preconditioning.

The vehicle was hand pushed within the laboratory at all times and included hand pushing onto the dynamometer to start the test.

The fuel used was Texaco Indolene 30 for vehicles not equipped with catalytic converters. Converter equipped vehicles were fueled from a batch of commercially purchased Texaco unleaded gasoline. Certified analyses of the test fuels are included in Appendix L of this report.

A final inspection was performed after the vehicle was situated on the dynamometer before the actual test was begun.

After the test was completed, the ignition timing, idle speed and dwell were measured and recorded. A listing of measured values versus manufacturers' specifications is contained in Appendix A. The carbon monoxide and hydrocarbons in the exhaust were measured and recorded while the engine was idling.

At this point, if the calculated grams per mile of carbon monoxide, total hydrocarbons, and nitrogen oxides emitted by the test vehicle during the 1975 Federal Test Procedure (FTP) were found to be within the federal limits for this test, and the engine configuration and selected engine parameters related to emissions were found to be within the manufacturer's

specifications, the vehicle was returned to its owner without further testing. If however the test vehicle did not meet the 1975 FTP emissions standards, or its engine configuration or engine parameters related to emissions quality were not found to be within the manufacturer's specifications, the vehicle was prepared for an additional test sequence.

Each test sequence consisted of the following tests in the following order:

- o 1975 Federal Test Procedure (FTP)
- o Highway Fuel Economy Test
- o Federal Short Cycle
- o Composite New York/New Jersey Acid Test
- o Clayton Key-Mode Test
- o Two Speed Idle Test
- o Federal Three Mode Test

Each of these tests is described in detail in Section 2.6 of this report.

Upon completion of all test sequences to be performed on a test vehicle, its engine parameters were set to the manufacturer's specifications and the vehicle was returned to its owner with a full tank of fuel.

2.3.3.1 Restorative Maintenance Evaluation Portion

If it was determined, as described above, that a particular test vehicle required a second test sequence it entered a restorative maintenance loop in which it could possibly be put through three additional test sequences with a different set of engine parameters being adjusted, to meet the manufacturer's specifications, before each test sequence. Figure 2-8 shows the full range of test sequences which a particular test vehicle might experience. Test sequences 2 through 4 in Figure 2-8 constitute the full

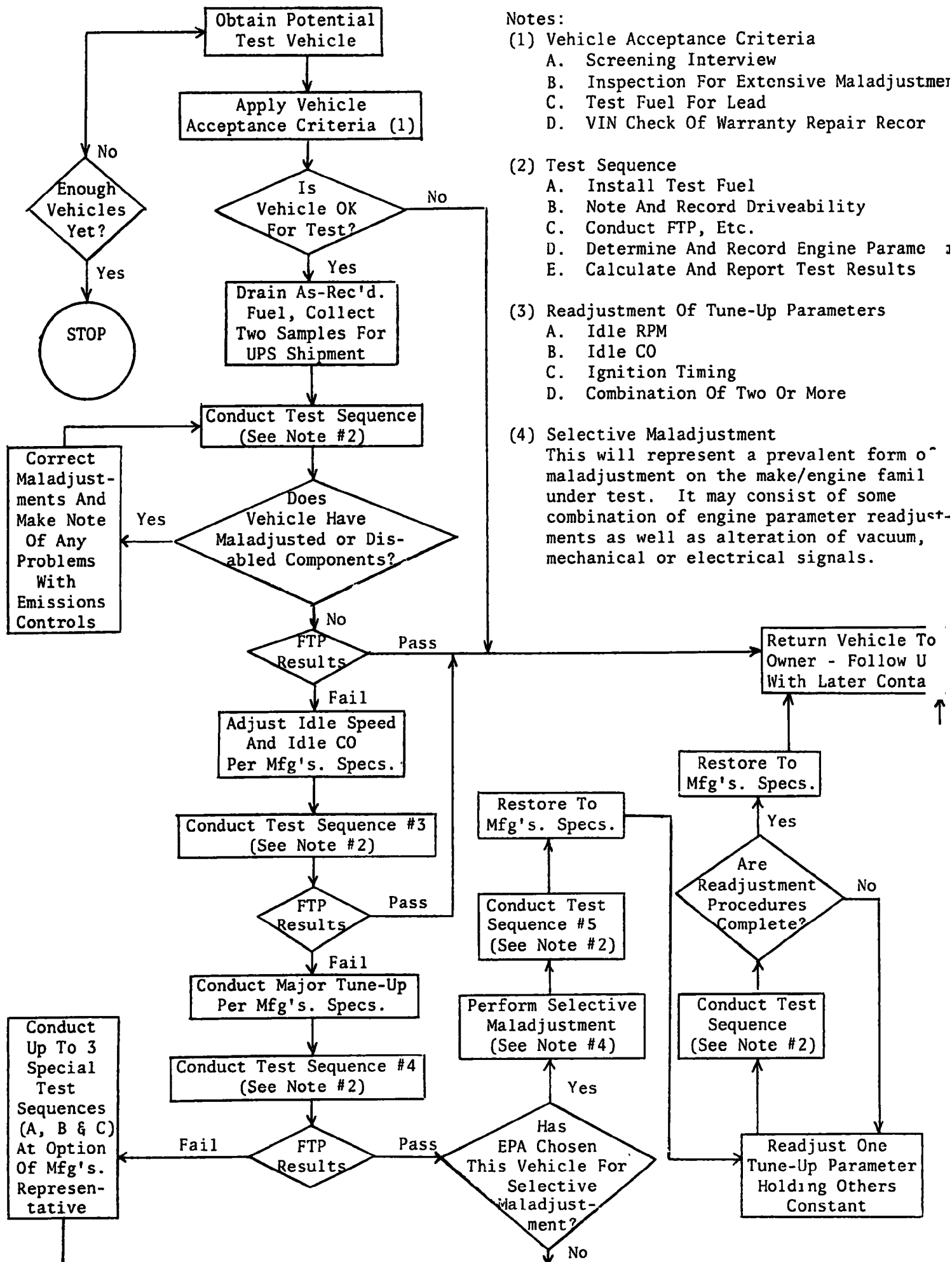


Figure 2-8 Vehicle Handling Procedure

extent of restorative maintenance testing which might be conducted on a particular vehicle. As can be seen from an examination of Figure 2-8, if a vehicle went through sequence #2 and/or sequence #3 without passing the 1975 FTP emissions standards it received a major tune-up in which all engine parameters related to emissions were set to the manufacturer's specifications and in which any defective emission control components were either repaired or replaced. (See Table 7 for a summary of emission component failures.) Each vehicle which received a major tune-up went through test sequence #4.

Table 8 summarizes the test results for each vehicle which experienced restorative maintenance testing.

2.3.3.2 Selective Maladjustment Evaluation Portion

As can be seen from Figure 2-8, the counsel of the manufacturer's representative was sought for those vehicles which failed to pass the 1975 FTP emissions standards after sequence #4. These vehicles received up to three additional test sequences, at the discretion of the manufacturer's representative, in an attempt to find a set of engine parameter adjustments or parts replacement which would result in the vehicle passing the 1975 FTP emissions standards. These test sequences were referred to as special sequences A, B and C and the engine parameter settings for each were selected by the manufacturer's representative. Table 9 summarizes the engine parameter adjustments and parts replacements which were deliberately made for vehicles which received special test sequences, and it also summarizes the results of these tests.

As shown by Figure 2-8, if a test vehicle passed the 1975 FTP emissions standards in test sequence #4, it entered a selective maladjust-

ment loop in which it could be put through up to five more test sequences. Seven of the vehicles tested in this test program were selected, by EPA, to go through test sequence #5. For this test sequence, EPA provided a set of engine parameter maladjustments and/or disablements which it considered to represent a prevalent form of maladjustment and/or disablement present in consumer-owned vehicles of that particular make and engine type. These engine parameter maladjustments and/or disablements were then performed on the test vehicle, and test sequence #5 was performed. Table 9 shows those vehicles which went through test sequence #5 and shows the test results.

Vehicles which entered the selective maladjustment loop were scheduled to go through test sequences 6 through 9 whether or not they went through test sequence #5. Of the 11 test vehicles which entered the selective maladjustment loop, eight actually went all the way through test sequence #9, and the other three did not make it all the way through sequence #9 due to requests by the vehicle owners to have these vehicles returned to them prior to completion of testing. Prior to each of test sequences 6 through 9, a single tune-up parameter was deliberately maladjusted while the others were held at their specification values. The parameters which were deliberately maladjusted, and the effects that these maladjustments had on emissions are summarized in Table 9.

2.4 FACILITIES AND EQUIPMENT

2.4.1 Test Location

All testing covered in this report was conducted at GEC's test facility at 6706 Industrial Road, Springfield, Virginia, located within ten miles of the metropolitan area of Washington, D. C. at an elevation of 400 feet above sea level. The facility contains 6,400 square feet of laboratory and soak space with adequate outside parking adjacent to the building. The average summer temperature is about 75 degrees Fahrenheit and winter temperatures average about 35 degrees Fahrenheit.

2.4.2 Constant Volume Sampler

The constant volume sampler utilized in the performance of this contract was the Horiba 45 G Constant Mass Flow Sampler and was equipped with a water cooled heat exchanger. The sampler was specifically designed and constructed to condition and collect exhaust gases as generated from a light-duty vehicle when operated over the Federal Test Cycle.

2.4.3 Emission Analysis Console

A Scott Emission Analysis Console, Model 119 contained analyzers for CO, CO₂, HC, and NOX. The major components used were:

- o Beckman Model 865 NDIR-CO analyzer with ranges of
0-0.6/0-6.0% CO
- o Horiba Model AIA-21-AS NDIR-CO analyzer with ranges of
0-100/0-800 ppm CO
- o Horiba Model FIA-21 hydrocarbon analyzer and a Beckman
Model 400 hydrocarbon analyzer with ranges of
0-50/0-100/0-300/0-1000/0-3000/0-10,000 ppm C
- o Thermo Electron Model 10A chemiluminescence analyzer with
ranges of 0-100/0-250/0-1000/0-2000 ppm NO

- o (2) Leeds & Northrup Speedomax Model XL-600 dual-pen strip-chart recorders

2.4.4 Laboratory Standard Calibration Gases

A complete set of laboratory standard calibration gases were used by GEC. The majority of these gases were analyzed by EPA while the remaining ones had analyses to within 1% accuracy and these analyses are traceable to the National Bureau of Standards (NBS). The number of various gases was of such a quantity as to provide a minimum of seven points per range (including zero) for the CO and CO₂ analyzers and three points per range (including zero) for the HC and NO_x analyzers. The standard gases and their nominal concentrations are shown in Figure 2-9. All working span gases used in the day-to-day calibration were analyzed against these standard gases for concentration determination.

All zero gases were analyzed by the specialty gas supplier and certified to meet the specifications contained in the Federal Register and were checked against a standard zero gas prior to use.

2.4.5 Chassis Dynamometer

A Clayton Model ECE-50 chassis dynamometer with direct-drive variable inertia flywheel assembly was used.

The dynamometer was equipped with 250 lb. increment inertia weights and a 0-50 horsepower absorption unit. Readout instrumentation included a speedometer and a roadload horsepower meter.

2.4.6 Miscellaneous Equipment

In addition to the major equipment described, various other support equipment was utilized. A data acquisition and control system using a Hewlett-Packard 2116A computer was used in conducting analysis of the test

FIGURE 2-9 LABORATORY STANDARD CALIBRATION CASES

HC-FID (ppm C in air) RANGE						CO ₂ -NDIR (% CO ₂ in N ₂) RANGE	
<u>0-50</u>	<u>0-100</u>	<u>0-300</u>	<u>0-1000</u>	<u>0-3000</u>	<u>0-10,000</u>	<u>0-4</u>	<u>0-12</u>
21.0	(43.8)	135.6	455.1	1381.8	4494	0.41	(1.46)
(43.8)	81.7	273.3	909.6	2866.8	9171	1.03	(2.92)
						(1.46)	(3.75)
						2.08	5.43
						(2.92)	7.53
						(3.75)	10.58

(ppm CO in N ₂) RANGE		CO-NDIR (% CO in N ₂) RANGE		NOX-CLU (ppm NO in N ₂) RANGE			
<u>0-100</u>	<u>0-800</u>	<u>0-0.6</u>	<u>0-6.0</u>	<u>0-100</u>	<u>0-250</u>	<u>0-1000</u>	<u>0-2000</u>
10.3	(89.5)	(0.0714)	(0.536)	48.0	117.0	504.0	(1052.0)
24.8	174.3	0.153	1.11	97.0	249.0	(1052.0)	1925
35.1	244.2	0.216	2.11				
48.9	352.4	0.275	2.73				
71.1	479.6	0.417	3.61				
(89.5)	(714.3)	(0.536)	5.39				

() means multiple range use

data. Software programs were developed and used for data reduction of: 1) mass emission calculations; 2) fuel economy calculations; 3) propane recovery results; 4) highway fuel economy calculations and 5) calibration curve development.

Further support is described below.

A Mettler analytical balance, Model H315 was used to weigh propane cylinders used during propane recovery tests of the CVS. The balance accuracy was 0.1 milligram and a range of 0-1000 grams.

A Varian Associates Model G-1000 Time/Speed Recorder was employed to provide a graphic record of the simulated vehicle speed versus the prescribed driving course using a preprinted time/speed listing. Prior to implementing the test schedule, the chart speed of the driver's aide was determined several times. The chart speed over the entire length of the FTP time/speed listing was determined to be within the ± 2 second tolerance allowed by the contract scope of work.

A Sun Electric Model #TUT 915 engine analyzer was employed to determine test vehicle engine timing, point dwell, idle r.p.m. and ignition quality in each cylinder.

Additional items of equipment included a Hartzel, Model N24-DUW, 5300 CFM cooling fan to move air through the test vehicle radiator, front wheel restraining blocks, vehicle restraining cables, tire pressure gauge (0-50 psi) and miscellaneous tools.

A Meriam Laminar Flow Element (LFE) Model 50MC2-6SF with a range of 0-1000 SCFM was employed to calibrate the constant volume sampler mass airflow. The LFE was used in conjunction with a Model 310EF10 inlet absolute pressure gauge and a Model 40HE35 differential pressure indicator.

A recording aneroid barometer was used to provide a local atmospheric pressure record for each day of testing. Barometric pressure readings during testing were accomplished with a mercurial barometer.

A Brown-Honeywell multi-channel temperature recorder was employed to monitor dry bulb and wet bulb temperatures at 30 second intervals during testing.

An Esterline-Angus Model A6010 temperature recorder was used to monitor and record soak area temperature.

A Sun Model EPA-75 HC/CO analyzer for measuring idle emissions.

2.5 EQUIPMENT QUALIFICATION, CALIBRATION AND CROSS-CHECK

Instrumentation and equipment were selected to meet the various types of exhaust emission tests. To insure the integrity of the test and validity of the data, a comprehensive quality control procedure was established jointly with EPA. In addition to daily and weekly routine calibrations, all equipment was qualified and approved by EPA prior to the start of testing and after the completion of the test program. Additionally, continuing cross-checks were made throughout the performance of the program. The specific compliance criteria for the analytical console, chassis dynamometer, constant volume sampler and other equipment are described in the following paragraphs.

2.5.1 Constant Volume Sampler

The constant volume sampler (CVS) was calibrated in accordance with established procedures specified in the Federal Register.

The mass airflow was determined by means of a Meriam Laminar Flow element at 10 increments of flow. Incremental flow changes were effected by means of a valve situated between the laminar flow element and the CVS.

The differential pressure across the mass pump was recorded for each increment of flow. The standard volume per revolution of the pump was calculated and plotted against the differential pressure in accordance with EPA's recommended procedures. The flow rate through the laminar flow element (LFE) was determined in accordance with the prescribed method set forth by the manufacturer. The LFE was calibrated prior to use by an independent laboratory with a method traceable to NBS.

The CVS calibration curve was checked by injecting known amounts of propane into the CVS and calculating the propane recovery based upon the total air volume moved by the CVS pump and the flame ionization instrument response as shown by the sample calculation sheet in Figure 2-10. This form was also used to verify computer data reduction.

2.5.2 Emission Analysis Console

A daily procedure followed by GEC incorporated a leak check of the CVS bags concurrently with the analytical system. A self-sealing quick disconnect fitting was used at the junction between the CVS bags and the sample port of the CVS. The leak check was first performed on the analytical system by sealing the sample inlet port. Observation of analyzer flow meters for zero flow would indicate no leaks were present. In turn each evacuated CVS bag was subjected to this verification to ensure a zero flow existed.

The calibration of the analytical instrumentation consisted of establishing the manufacturer's operational parameters and then introducing standard gases to determine instrument response. The following ranges were established.

Carbon Monoxide	0-100 ppm
	0-800 ppm
	0-0.6 percent
	0-6.0 percent
Carbon Dioxide	0-4 percent
	0-12 percent
Total Hydrocarbons	0-50 ppm carbon
	0-100 ppm carbon
	0-300 ppm carbon
	0-1000 ppm carbon
	0-3000 ppm carbon
Nitrogen Oxides	0-10,000 ppm carbon
	0-100 ppm NOX
	0-250 ppm NOX
	0-1000 ppm NOX
	0-2000 ppm NOX

Weekly analytical checks were conducted to assure calibration curve conformance.

EPA Propane Injection Calculation Sheet

$$V_{mix} = K_1 \times V_o \times N \times \frac{P_p}{T_p}$$

$$V_{mix} = .6947368 \times V_o \times N \times \frac{P_p}{T_p} =$$

$$HC_{mass} = V_{mix} \times 17.3 \times \frac{HC_{conc}}{1,000,000}$$

$$HC_{mass} = \times 17.3 \times =$$

$$Bar = \times 25.4 = \text{mmHG}$$

$$\text{Inlet Dep.} = \times 1.868 = \text{mmHG}$$

$$P_p = Bar - \text{inlet dep.}$$

$$T_p = 460 + \text{temp. of exhaust gas}$$

Cyl Wt. Before

Cyl Wt. After

△ Wt.

Calc. Wt.

% Diff.

FIGURE 2-10 PROPANE RECOVERY CALCULATION

The converter efficiency of the NO_x analyzer was checked daily.

The dual pen strip chart recorders complete the sample analytical system. One recorder monitored the output from the CO and CO₂ analyzers while the other monitored HC and NO/NO_x. Each channel of the recorders provided a full scale deflection with 100 millivolts of input signal.

2.5.3 Chassis Dynamometer

The chassis dynamometer met the specifications contained in the Federal Register and the contract scope of work. The dynamometer was calibrated both for speed and road load horsepower.

Speedometer calibration was accomplished by accelerating the dynamometer to 46.3 miles per hour and measuring roller revolutions with a Strobotach. At 46.3 miles per hour the roller rpm was 1800 as specified by the manufacturer.

Road load horsepower (RLHP) calibration consisted of warming the dynamometer for 15 minutes at 30 mph with a non-test vehicle. This vehicle was then employed to accelerate the dynamometer rollers to 50 mph. An indicated road load horsepower was set at 50 mph and was recorded. The vehicle was then accelerated to an indicated 60 mph and the drive wheels physically lifted from the rollers with a fork lift truck. The coast time from 55 to 45 mph was determined by means of a strobotach and stopwatch. Triplicate runs were conducted for several points over the working range. Also, a similar calibration was done with indicated road load horsepower being set at 30 mph, and with the coastdown taking place between 35 and 25 mph.

Monthly several points were rechecked to ensure no change in excess of 1.0 RLPH had occurred since the initial calibration.

2.6 TEST PROCEDURES

2.6.1 Vehicle Preparation

Upon arrival at the laboratory each test vehicle was carefully inspected for exhaust system continuity, model size, engine size, number of carburetor venturis, general condition, condition of the emission control systems, and general driveability including brake condition. Each item was checked on a list as completed. Also, upon arrival, a fuel sample was taken from each vehicle requiring unleaded fuel, and the fuel sample was tested for lead content. If the vehicle was found to be acceptable, it was then moved to the defuel/fuel area and the contents of the gas tank emptied into a labeled tank for waste gas by means of a high capacity fuel pump. Appropriate test fuel was then introduced to a level of 40 percent of tank capacity. Upon completion of the fueling each vehicle was driven over a prescribed 10 minute (3.8 mile) driving course to remove residual nontest fuel from the fuel lines, fuel pump, and carburetor. This run to the laboratory and the 10 minute (3.8 mile) driving course comprised the initial test vehicle preparation.

The test vehicles were then placed inside the laboratory with the time and date recorded for the start of the temperature soak period. Between 12 and 20 hours from the start of the temperature soak period the test vehicle was hand-pushed onto the chassis dynamometer. Just prior to test each vehicle was reinspected to ensure that no change had occurred since the initial inspection. The vehicle tires were inflated to 45 pounds per square inch, the Hartzell cooling fan positioned and turned on, the hood opened, the CVS inlet connector attached to the vehicle tail pipe, and the driver's aide positioned outside the test vehicle near the driver's window.

2.6.2 Equipment Preparation

The dynamometer was warmed up prior to each day's testing. The CVS was turned on for a minimum of 20 minutes prior to use and the analytical instrumentation was turned on for at least 30 minutes prior to commencing leak checks and conducting the daily propane recovery test and NO_x converter efficiency test. Flow rates were established for each instrument and zero gas response verified. Prior to introducing test samples all instruments were zeroed and spanned to ensure accurate sample response.

2.6.3 Federal Exhaust Emission Test Procedure

Exhaust emission tests were performed in accordance with the procedures specified in the Federal Register.

2.6.3.1 Pretest Procedures

Prior to testing all analytical instruments were turned on and allowed to warm up. The analyzers were zeroed and spanned for the desired range. The span control settings were compared to previous settings. The NO_x to NO converter was checked for efficiency daily.

A propane recovery test was conducted daily prior to starting the vehicle tests. The propane recovery test consisted of injecting known amounts of instrument grade propane into the sample inlet of the CVS over a 10 minute-46 second period and collecting an aliquot of the diluted sample in a plastic (Tedlar) sample bag. Subsequent analysis of the diluted propane from the sample bag by flame ionization and a parallel sample from the air bag provided a means of calculating the recovery percent for the sampling system. A recovery within ± 2 percent of the weight of propane injected was experienced during the test phase of the program. At any time the 2% tolerance was exceeded, appropriate system checks were performed, the cause determined, and corrected. Two additional propane tests were then conducted to verify a recovery within 2 percent.

The analysis console and the sampling system (CVS) were leak checked daily to determine that the systems were airtight.

2.6.3.2 Federal Test Procedure

The vehicle was manually placed on the dynamometer with the drive wheels situated on the rollers. The engine compartment cover was opened and the cooling fan turned on. The CVS and dynamometer were in a warmed up condition with the CVS pump running but not sampling and the heat exchanger steady at 100°F. The sample flow rates were adjusted and the flexible exhaust tube connected to the tail pipe. At the beginning of the test, the pump revolution counter and sample collection were simultaneously started. After 15 seconds the vehicle was placed in gear and 20 seconds after the engine started the driving schedule commenced. At the 505 second point in the driving schedule the sample was directed into a second sample bag. At the conclusion of each portion of the test the sampling was stopped and the sample and air bags analyzed. Also, the tail pipe connector was disconnected, the engine compartment cover closed and the cooling fan turned off during the 10 minute $\pm$ 1 minute interval between the cold start test and the hot start test. The test procedure was repeated for the hot start test except only the hot transient portion was run.

2.6.4 Highway Fuel Economy Test Procedure

Exhaust emissions were collected during a 10.2 mile, 765 second driving schedule using a constant volume sampler (CVS). The collected emissions were analyzed and this data was used to compute the emissions of HC, CO, CO₂ and NO_x in grams per mile and the mile per gallon fuel economy during this simulated highway trip.

Each test was preceded by a soak period of not more than 20 minutes from the last period of cyclic operation. At the end of this soak period

the vehicle was driven on the chassis dynamometer at a speed of 50 miles per hour for a period of three minutes. Within one minute of the end of this 50 mile per hour cruise the Highway Fuel Economy test was started. A CVS bag sample of the dilute exhaust and a second bag sample of the dilution air was collected over the entire driving schedule. The dynamometer loadings and transmission shift points were the same for these tests as they were for the FTP.

2.6.5 Federal Short Cycle Test Procedure

Exhaust emissions were collected during a 0.7536 mile, 125 second driving schedule using a constant volume sampler (CVS). The collected emissions were analyzed and this data was used to compute the emissions of HC, CO, CO₂ and NO_x in grams per mile. The dynamometer loadings and transmission shift points were the same for these tests as they were for the FTP.

2.6.6 Composite New York/New Jersey Acid Test Procedure

Exhaust emissions were collected during a 0.2792 mile, 75 second driving schedule. The collected emissions were analyzed and this data was used to compute the emissions of HC, CO, CO₂ and NO_x in grams per mile. Shift points for manual transmission vehicles were the same as those used in the FTP.

Dynamometer settings of 3.5 indicated horsepower at 30 mph with an inertia weight setting of 3000 pounds were specified for all vehicles receiving this test. However, due to an unfortunate misunderstanding on the part of some of the test driver's, the horsepower was set with the vehicle running at 50 mph rather than at 30 mph for 170 of the 300 test sequences. Figure 2-11 lists those test sequences, by vehicle number, for

which these tests were invalidated due to this misunderstanding.

2.6.7 Clayton Key Mode Emission Test Procedure

This test consisted of three steady state operating conditions from which undiluted exhaust samples were analyzed for HC, CO and NO_x. The instruments used for measurement of undiluted exhaust emissions were a Sun EPA-75 which is capable of measuring HC in full-scale ranges of 0-500 and 0-2000 ppm (Hexane equivalent); and CO in full-scale ranges of 0-2.5 percent and 0-10 percent, and a Thermo-Electron Corporation (TECO) model 10A chemiluminescent NO/NO_x analyzer with full-scale ranges of 0-1000, 0-2500, and 0-10,000 ppm. (It should be noted here that early in this test program the NO/NO_x analyzer had not been set up hence there is no NO_x data for the undiluted exhaust type tests conducted on some of the test vehicles.)

The test was preceded by a soak period of less than 20 minutes from the last sustained period of operation. Prior to the start of the test the road load horsepower was set. The vehicle was driven at each speed for a maximum of three minutes each. At each speed exhaust gas was directed through the analyzers. Steady readings for HC, CO and NO_x were obtained for 30 seconds prior to recording the readings.

The test parameters for the Clayton Key Mode tests were as follows:

<u>Vehicle Weight (NADA)</u>	<u>Transmission Range/Gear</u>	<u>Indicated RLHP @ MPH</u>	<u>High Speed MPH</u>	<u>Low Speed MPH</u>	<u>Idle</u>
2000/2800	Drive/3rd	15 @ 38	36-38	22-25	Auto Trans. in Drive
2801/3800	Drive/High	24 @ 46	44-46	29-32	
3801/Up	Drive/High	30 @ 50	48-50	32-35	

Listing of Tests Invalidated Due to Errors

Vehicle No.	Sequence Number(s) of Invalidated Test(s)			Vehicle No.	Sequence Number(s) of Invalidated Test(s)		
	New York/ New Jersey Acid Test	Clayton Key Mode Test	Federal Three Mode Test		New York/ New Jersey Acid Test	Clayton Key Mode Test	Federal Three Mode Test
6001	3,8	1,3,4,6,7,8		5050	A	1	3,4
5002	2,3	1,2,3		6051	1		
6004	4			6052	1,6,7,8,9		6,7,8,9
5005	1,2,3	1,2,3		6053	1		
6006		1	1	5054	1		
5007	1,3	1,3,4,A		6055	1		
5008	3			6056			1
6009	1,3,4	1,3,4		6057	1		
6011	5			6058	1,2,3,5,6,7		5,6,7
6012	1,3			5059	2,3	1,4	1
6013	1,3,4			6060	3,6,8		
6014	1	1		6061	2,3,4,A,B,C		
5015	1,3	1,3		5062	1,4,A		
6016	1,3	1,3		6063	1,2,3,4		
6017		1,2,3		6064	1,3		
6018	2,3	1,2,3,4		6065	1,4,A		
6019			1,2,3	6066	1		
6020	1,2,3	1,2,3	1,2,3	6067	2		
6021	1	1		6069	1		
6022	3	3,4		6070	1		
6023	1			6071	1,2		
6024	2			6072	1		
5026	1,3,4,A	1,2,A		6073	1,4,5,8		
6027	1,3			6074	1		
6028	1,2,3			6076	1		
6029	1,4,9	1,4,6,7,8	9	6077	1		
6030	1,2,3			6078	1		
6031	3,4,7,8,9			6079	1		
6032	2			6080	1,4		
6033	1,3,4			6081	1,2,4		
5034	1			6082	3		
5035	1			6084	3		
6037	1			6085	1		
6038	1			6086	4,5,7,8		
6039		1		6087	1		
6040	1,2,3,4		1,2,3,4	6088	4		
6041	3			6089	1,3,4		
5042	1			6091	1		
5043	1			6093	1		1
6044	A	1,4	1,4	6094	1,2,3		
6045	1,A			6096	6,8,9		
6046		1,3,4	3,4	6097	1		
6047	1,2,A,B			6098	3,4		
5048	1		2	6099	1		
6049	1,5,6,7,8			6100	1,2,3		

FIGURE 2-11

In the data package review GEC discovered that 55 Clayton Key Mode Tests had been performed improperly due primarily to the use of the loaded vehicle weight or inertia weight instead of the NADA vehicle weight when entering the table above. Some of these 55 tests had been performed improperly due to erroneous reading of the dynamometer settings given in the table above. Figure 2-11 lists those test sequences, by vehicle number, for which Clayton Key Mode Tests were invalidated due to the errors discussed above.

2.6.8 Two Speed Idle Test

For this short test, undiluted exhaust emissions were sampled and analyzed using the same instrumentation as was used for the Clayton Key Mode Test. Emissions were sampled during two steady state operating conditions. The first mode consisted of running the engine at 2250 r.p.m. with the transmission in neutral. The second mode was a normal idle with the transmission in neutral.

This test was preceded by a soak period no longer than 20 minutes from the last sustained period of vehicle operation. During the test the vehicle was operated for a maximum of three minutes in each of the steady state conditions described above, and at each speed equilibrium of vehicle speed and of the readings for HC, CO and NO_x was maintained for a minimum of 30 seconds before readings were recorded.

2.6.9 Federal Three Mode Test

For this short test undiluted exhaust emissions were sampled and analyzed using the same instrumentation as was used for the Clayton Key Mode Test. Emissions were sampled during three steady state operating conditions with the dynamometer loads simulating the average power which

occurs at the appropriate speed on the FTP, and with all light duty vehicles being grouped into four weight classes, as shown in the table below:

Loaded Vehicle Weight	Transmission Range	High Speed Mode		Low Speed Mode		Idle Mode
		Speed mph	Load hp	Speed mph	Load hp	
up to 2500 lb.	In lower gear for 30 mph test (3rd gear)	50	21	30	9	Automatic Transmission in Neutral
2501 to 3500 lb.	Drive or high gear	50	26	30	12	
3501 to 4500 lb.	Drive or high gear	50	31	30	15	
above 4501 lb.	Drive or high gear	50	36	30	18	

Since actual rather than indicated horsepower settings are listed in the table above, an additional dynamometer calibration at 30 mph, and monthly checks of this calibration, were required.

During the data package review, G.E.C. discovered that 28 Federal Three Mode Tests had been performed improperly due to the use of incorrect vehicle weights when entering the above table or due to the incorrect interpretation of the actual horsepower values listed in the table above. Figure 2-11 lists those test sequences, by vehicle number, for which Federal Three Mode Tests were invalidated due to errors in dynamometer settings.

2.6.10 Vehicle Inspection, Adjustment, and Maintenance Procedures

Preceding, during and following the test sequences performed on vehicles tested in this program several inspections, adjustments and maintenance operations were performed on the vehicle depending upon the extent

of testing to which a particular vehicle was subjected and depending upon the condition of the particular vehicle. This section describes the full extent of these inspections, adjustments and maintenance operations which could be experienced by a test vehicle in this test program.

2.6.10.1 Maladjustment and Disablement Inspection

Upon arrival at the laboratory each vehicle underwent an inspection which, in conjunction with information obtained on a vehicle owner's questionnaire, could be used to establish whether or not that particular vehicle was suitable for testing in this program. During this inspection the engine configuration and each of the various engine parameters related to emissions were checked for excessive maladjustment, modification, or disablement. Also, fuel samples were drawn from vehicles requiring unleaded fuel and these samples were analyzed for lead content. If excessive maladjustment, modification or disablement of engine parts was discovered or if the fuel sample from a vehicle requiring unleaded fuel was found to contain greater than 0.05 grams of lead per gallon, the vehicle was deemed unsuitable for testing and returned to its owner with an explanation as to why it was not suitable for testing.

2.6.10.2 Driveability Evaluation

Following acceptance of a vehicle for testing, the fuel was drained from it, test fuel was added, and the vehicle was operated for a minimum of 10 minutes on city streets to purge its fuel system of any remaining non-test fuel and to evaluate the vehicle as to its overall driveability. This driveability test included evaluations of the responsiveness of the vehicle, its reliability during operation and factors related to its general safety. Also included in this driveability test

was an evaluation of the vehicle's response to a cold-start. Data for this portion of the driveability evaluation was gathered during the first laboratory test of the vehicle.

2.6.10.3 Emission Component Function Check

After the first test on any test vehicle, the vehicle was subjected to an emission component function check, to determine whether or not each of the emission control devices was operating per the manufacturer's specifications. Any discrepancies or lack of discrepancies was noted at this time, but any corrective actions which may have been found to be needed were performed if and when the vehicle reached the point in the test program where a major tune-up was called for.

2.6.10.4 Idle Speed and Idle CO Inspection/Adjustment

Prior to being subjected to test sequence #3 a test vehicle received an idle speed and idle CO inspection to determine whether or not these engine parameters were within the manufacturer's specifications. If these parameters were not found to be within the manufacturer's specifications they were adjusted to meet these specifications. If a malfunctioning emission control component precluded setting these parameters to the manufacturer's specifications, the malfunctioning component was either repaired or replaced at this time with an appropriate notation being made on the "Emission Component Function Check" worksheet.

2.6.10.5 Major Tune-Up and Emission Component Repair/Replacement

Prior to receiving test sequence #4 test vehicles received a major tune-up in which all of the manufacturer's recommended maintenance, for a vehicle having accumulated 15,000 miles (22,500 miles for General Motors vehicles) and/or for a vehicle being one year of age, was performed with the findings and actions taken being

recorded. Also, at this point any discrepancies concerning the emission control components, which may have been noted during the "Emission Component Function Check," were corrected by adjustment, repair, or replacement of the component(s) involved.

2.6.10.6 Selective Maladjustments

If a test vehicle entered either one of the selective maladjustment loops, which are described in section 2.3.3.2 of this report, it was subjected to deliberate maladjustment of different engine parameters related to emissions prior to each additional test sequence which it received. Depending on which selective maladjustment loop the vehicle entered, the particular maladjustments which were made were dictated by either EPA or the manufacturer's representatives.

2.6.10.7 Final Engine Restoration

Before being returned to its owner, each test vehicle which received selective maladjustment was readjusted to the manufacturer's specifications.

2.7 DATA HANDLING

2.7.1 Data Collection

All required data was collected in worksheet form prior to data review and final report tabulation. Initial vehicle data (i.e., vehicle weight, engine CID, transmission type, etc.) was recorded on the Light Duty Emissions Data Sheet, Figure 2-12. During each test, analytical and CVS data were entered on a Computer Input Form, Figure 2-13. These documents comprised the primary source of input for the computer data reduction.

RESTORATIVE MAINTENANCE PROGRAMEMISSIONS SHEET

Veh. No. _____ Date/Time into soak _____
 Run No. _____ Date/Time Tested _____
 C.V.S. Operator _____ Seq. # _____
 Analysis System Operator _____
 Test Driver _____

VEHICLE

Manufacturer _____ Model _____ Year _____

Transmission Type _____ Number of Speeds _____

Odometer Reading _____

Engine Displacement _____

Test Fuel Req'd. _____ Gal.

Fuel Tank Capacity _____

Air Cond. _____

Dwell _____

Veh. I.D. No. _____

Idle Timing _____

Idle R.P.M. _____

Carburetor Venturies _____

Types of Emission Controls _____

Condition of PCV System _____

DYNAMOMETER

Make Clayton Model ECE-50 (DDVIF) Serial No. DF-635R

Actual Road H.P. at 50 M.P.H. _____

Indicated Roadload Power Absorption at 50 M.P.H. _____

Drive Wheel Tire Pressure _____

Inertia _____ A/C Simulation Used (10% Add'l. Load) YES or NO

SAMPLING SYSTEM INFORMATION

Serial No. 12789 Model CVS-45G Manufacturer Horiba

Type Water cooled heat exchanger

Idle CO level _____ Idle HC level _____

FIGURE 2-12

TEST DATE____/____/____ VEH. NO.____ RUN NO.____ SEQ. NO.____

		DELTA P.	INDEP.	N.	TEMP.	BARO.	WB	DB
1. COLD START								
				HC	CO	CO ₂	NO _x	
EXHAUST	DIV.							
	CURVE							
AIR	DIV.							
	CURVE							

		DELTA P.	INDEP.	N.	TEMP.	BARO.	WB	DB
2. STABILIZED								
				HC	CO	CO ₂	NO _x	
EXHAUST	DIV.							
	CURVE							
AIR	DIV.							
	CURVE							

		DELTA P.	INDEP.	N.	TEMP.	BARO.	WB	DB
3. HOT START								
				HC	CO	CO ₂	NO _x	
EXHAUST	DIV.							
	CURVE							
AIR	DIV.							
	CURVE							

FIGURE 2-13

2.7.2 Data Processing

The test envelope for each vehicle was delivered to a data clerk who checked each data input form for accuracy and completeness. The on-site computer was then employed to calculate the data required for reporting. The computer output provided data which was recorded in a "data book" which became the source document for keypunching. A separate "data book" was generated for each vehicle tested. The data was keypunched and key verified from this input. The punched cards were checked against the source documents and keypunch errors and errors of entry were coded for immediate correction. Upon completion of this review, the punched cards were forwarded to EPA and the source documents placed in the test file. Errors attributable directly to the testing program were eliminated by retest of the vehicle. Erroneous data found relating to the short tests has been deleted.

2.7.3 Calculations of Results

Calculation of exhaust emissions was performed according to the requirements of the Federal Register and the Contract. These calculations were made using the Hewlett-Packard Model 2116A Computer. Test results for the Federal Test Procedure, Highway Fuel Economy Test, Federal Short Cycle and Composite New York-New Jersey Test were calculated in terms of mass emissions in grams per mile. The data derived from the Clayton Key Mode Test, Two Speed Idle Test and the Federal Three Mode test are presented in terms of raw exhaust concentrations.

:

2.7.3.1 Highway Fuel Economy

The Highway Fuel Economy in miles per gallon was calculated for each test vehicle by the following:

1. Calculation of total sample volume of the mixture

$$V_{mix} = V_o \times K_1 \times N \times \frac{P_p}{T_p}$$

where V_o = volume of gas pumped by the positive displacement pump in cubic feet/pump revolution

$$K_1 = \frac{528^\circ R}{760 \text{ mm Hg}} = .6947368$$

N = Revolutions of the pump during the test while samples are collected

P_p = Absolute Pressure of the dilute exhaust entering the pump in mm Hg

T_p = Average temperature of dilute exhaust entering the pump in degrees Rankine

HCconc, COconc, CO2conc, and NO_xconc were calculated as described in 2.7.3.1 Then the Highway Fuel Economy was calculated by:

$$MPG = \left(\frac{2423}{0.866 \text{ HCconc} + 0.429 \text{ COconc} + 0.273 \text{ CO2conc}} \right) // 10.242$$

where 10.242 = miles driven during test.

2.7.3.2 Federal Short Cycle and Composite New York/New Jersey Acid Tests

The computations for these tests were performed in the same manner as those done for the Highway Fuel Economy Test, except that for these tests, fuel economy was not computed.

2.7.3.3 Clayton Key Mode, Two Speed Idle, and Federal Three Mode Tests

No computations were performed on data gathered during these tests.

SECTION 3

DISCUSSION OF TEST RESULTS

3.1 FEDERAL TEST PROCEDURE (FTP) EMISSIONS AND FUEL ECONOMY BOTH BEFORE AND AFTER RESTORATIVE MAINTENANCE

A review of the data gathered in this Washington, D. C. portion of the test program indicates that only 30 percent of the 1975 and 1976 automobiles which have been manufactured by General Motors, Ford, and Chrysler collectively meet the federal emission standards when tested in their as-received condition. These results are shown in Table 2.

It is evident from an examination of Table 2 that cumulatively, 73 percent of the vehicles tested were able to meet the federal emission standards in their as-received conditions or after some stage of restorative maintenance. This clearly demonstrates that restorative maintenance has an important effect on emissions quality.

It is interesting to note from Table 2 that the largest percent increase (25 percent cumulative) in the number of vehicles passing the federal emissions standards took place at sequence number 3 after the idle CO and RPM were adjusted to the manufacturers' specifications. It is also interesting to note from Table 8 that the greatest percent improvements in fuel economy consistently took place at sequence number 3. These facts indicate that the proper setting of idle CO and RPM is very important to both emissions and fuel economy.

Table 2 shows that cumulatively, there was only a 4 percent increase in the number of vehicles able to meet the federal emissions standards when maladjustments and/or disablements were corrected.

However, as can be easily seen from Figure 3-1 below, 38 out of the 41 vehicles, which were found to have maladjustments and/or disablements in their emission controls, failed to meet the federal emissions standards when they were tested in their as-received condition. This constitutes a failure rate of 92.7 percent for these vehicles and this failure rate is considerably higher than the 30 out of 59 or 50.8 percent failure rate for vehicles having no maladjustments and/or disablements when tested in their as-received condition (see Figure 3-1 below).

FIGURE 3-1. PRESENCE OF MALADJUSTMENT AND/OR DISABLEMENT VERSUS EMISSION PERFORMANCE IN INITIAL TEST

	Met FTP Standards	Did Not Meet FTP Standards
Maladjustment and/or Disablement Present	3 vehicles	38 vehicles
No Maladjustment and/or Disablement Present	29 vehicles	30 vehicles

Table 2 also shows that cumulatively there was a 14 percent increase in the number of vehicles able to meet the federal emissions standards when repairs were made to any defective emission control components and a major tune-up was performed.

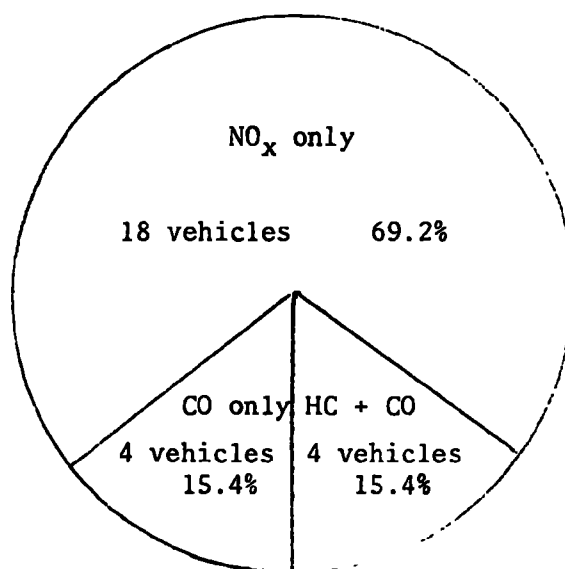
Vehicles tested in this test program most commonly failed their first test due to carbon monoxide (CO) levels which exceeded the 15 gram per mile federal standard. As can be seen from Table 3, the cumulative average CO level for the first test was 43.1 percent greater than the federal standard.

The pollutant which was reduced by the greatest amount, as a result of restorative maintenance, was CO. Cumulatively, CO levels went from an

average 143.1 percent of the federal standard to an average of only 56.2 percent of the federal standard. Table 3 also shows that levels of nitrogen oxides and hydrocarbon emissions were reduced by restorative maintenance. Specifically, hydrocarbon emissions went from a cumulative average of 89.3 percent of the federal standard down to a cumulative average of only 59.7 percent of the federal standard, and nitrogen oxides went from a cumulative average of 96.8 percent of the federal standard down to 87.3 percent of the federal standard.

One should note from the above that restorative maintenance only caused a minimal reduction in the cumulative average emissions of nitrogen oxides. Furthermore, even after restorative maintenance including repair or replacement of defective components and a major tune-up, vehicles usually passed the standard on nitrogen oxides only marginally (this is evidenced by the 87.3 percent of standard figure discussed above). Figure 3-2, below, graphically shows the failure modes of vehicles which received major tune-ups.

FIGURE 3-2. SUMMARY OF VEHICLE FAILURE MODES FOR VEHICLES FAILING TEST SEQUENCE NUMBER 4.



Restorative maintenance apparently had a slightly beneficial effect on fuel economy for the FTP. It is clear from Table 4 that a cumulative average improvement in fuel economy of 1.62 percent was observed to result from restorative maintenance. It can also be seen from Table 4 that vehicles manufactured by each of the three major manufacturers experienced a slight increase in FTP fuel economy as a result of restorative maintenance.

3.2 HIGHWAY FUEL ECONOMY TEST RESULTS

As can be seen from Table 4 restorative maintenance caused a slight increase in the highway fuel economy results. Cumulatively, restorative maintenance did not significantly change the fuel economy of the 100 vehicles tested when compared with the results of tests performed on them in their as-received conditions.

Although the complete restorative maintenance process had no significant effect on the cumulative average highway fuel economy when compared with the results of initial tests, it is interesting to note from Table 8 that the average highway economy, for vehicles made by each of the three major manufacturers, was consistently better in sequence number 3 than it was in sequence number 2. This suggests that the idle CO and RPM, which are adjusted to the manufacturers' specifications just before sequence number 3, are not only important to emissions and fuel economy measured during the FTP, but are also important to assuring good highway fuel economy.

3.3 EFFECTS OF DELIBERATE MALADJUSTMENT AND/OR DISABLEMENT ON EMISSIONS AND FUEL ECONOMY

A study of Table 9 yields indications of how particular types of deliberate maladjustment and/or disablement affect emissions and fuel economy. It is evident from Table 9 and Table 8 that sequence number 5 quite consistently results in the highest emissions noted for each particular vehicle which was subjected to sequence number 5. This shows that multiple maladjustments and/or disablements, such as were performed prior to sequence number 5, had a greater detrimental effect on emissions than did those relatively few maladjustments or disablements that were present during the initial test or during the tests subsequent to sequence number 5. On the average, the emissions performance of vehicles in sequence number 5 was such that hydrocarbon emissions were 92 percent higher than for the initial test, carbon monoxide emissions were 333 percent higher than for the initial test and emissions of nitrogen oxides were 146 percent higher than for the initial test. It also can be found from Table 9 that highway fuel economy was, on the average, 5.4 percent higher for sequence number 5 than for the initial test.

Table 9 shows that those tests in which the EGR valve was disabled, consistently resulted in higher levels of emissions of nitrogen oxides than those tests in which the EGR valve was functioning. However, it should be noted that, on the average, FTP fuel economy was 2.4 percent higher and Highway Fuel Economy was 2.6 percent higher during tests where just the EGR valve was disabled than it was during the initial test where the EGR valve was usually functional.

It is apparent from Table 9 that those tests for which the choke had been deliberately set to obtain a rich fuel-air mixture, resulted in generally higher levels of hydrocarbon and carbon monoxide emissions than resulted from initial tests. On the average, hydrocarbon emissions were 30.1 percent higher and carbon monoxide emissions were 56.4 percent higher when the only maladjustment was a choke that was set rich, than they were during the initial test. Also, an average increase in fuel economy of 2.75 percent over the initial test value, was observed for those tests where the only maladjustment was a choke that was set rich.

Of all of the individual maladjustments which were deliberately performed, advancing the timing had the greatest beneficial effect on fuel economy. As can be determined from Table 9, the average FTP fuel economy was 4.2 percent higher and the average highway fuel economy was 4.1 percent higher during those tests where the timing was deliberately advanced than it was during the initial tests. It also should be noted that for those tests where the timing was deliberately advanced beyond the manufacturers' specifications, the emissions of nitrogen oxides were an average of 19.3 percent greater than they were during the initial tests.

3.4 RESULTS OF INSPECTIONS PERFORMED ON THE TEST VEHICLES

An examination of Table 5 reveals that cumulatively, fuel systems had the highest incidence of maladjusted or disabled components--53 percent.

Ignition timing was found to have the next highest cumulative rate of maladjustment (i.e., 26 percent).

Table 5 shows that there was a particularly wide variation, in the frequency of EGR valve maladjustment or disablement, between vehicles made by different manufacturers.

Consistent with the results noted above, the average per vehicle restorative maintenance costs were \$50.95 per vehicle.

SECTION 4

ACKNOWLEDGLMENTS

The support of this program by the EPA , Division of Emission Control Technology, is acknowledged. A very special acknowledgement to Mr. John White III, EPA Project Manager, and Messrs. Tom Bejma, Project Officer, Matt Macocha and John Shelton for their prompt and courteous assistance. Appreciation is expressed to Mrs. Peggy Hale of GEC for her assistance in the preparation of tables and appendices contained in this report.

RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS

TABLE 1
LISTING OF VEHICLES ACTUALLY TESTED
TEST SITE: WASHINGTON, D.C.

CHRYSLER CORPORATION VEHICLES		FORD MOTOR CORPORATION VEHICLES		GENERAL MOTORS CORPORATION VEHICLES	
VEH. NO.	TYPE OF VEHICLE TESTED	VEH. NO.	TYPE OF VEHICLE TESTED	VEH. NO.	TYPE OF VEHICLE TESTED
6001	C225A1	5034	X140M2	6067	C231A2
5002	C225A1	5035	X140M2	6068	I350A2
6003	C225A1	6036	X140A2	6069	I350A4
6004	C225A1	6037	X171A2	6070	F350A4
5005	C225A1	6038	X171A2	6071	F455A4
6006	C318A2	6039	C302A2	6072	F500A4
5007	C318A2*	6040	C250M1	6073	I350A0
5008	I318A2	5041	C250A1	6074	X085M1
6009	I318A2	5042	C250A1	6075	X140M2
6010	I360A2	5043	C250A1	6076	X140A2
6011	I318A2	6044	C302A2	6077	C250A1
6012	I360A2	6045	C302A2	6078	C305A2
6013	F400A2	6046	C351A2	6079	C305A2
6014	C225M1	6047	I351A2	6080	C350A4
5015	C225A1	5048	I351A2	6081	I305A2
6016	C225A1	6049	I351A2	6082	I305A2
6017	C225A1	5050	I351A2	6083	I350A2
6018	C225A1	6051	I351A2	6084	I350A2
6019	C225A1	6052	I400A2	6085	I400A4
6020	C318A2	6053	F351A2	6086	I350A2
6021	C318A2	5054	F400A2	6087	F350A2
6022	C225A1	6055	F400A2	6088	F350A2
6023	I318A2	6056	F400A2	6089	F400A4
6024	I318A2	6057	F460A4	6090	I350A4
6025	I360A2	6058	C250A1	6091	I350A4
5026	C225A1	5059	C302A2	6092	I350A4
6027	C318A2	6060	C302A2	6093	F350A4
6028	I360A2	6061	I351A2	6094	F455A4
6029	C225A1	5062	I351A2	6095	F455A4
6030	I400A2	6063	I351A2	6096	C250A1
6031	I350A2	6064	I351A2	6097	C260A2
5032	F400A2	6065	F460A4	6098	I350A2
6033	I400A2	6066	F460A4	6099	I350A2
				6100	F400A2

*This vehicle had a California emission control configuration.

Key to Vehicle Description:

C 225 A 1

Number of Carburetor Venturis

Transmission (A=Automatic, M=Manual)

Engine Displacement (Cubic Inches)

Vehicle Body Size (F=Full Size, I=Intermediate, C= Compact, X=Subcompact)

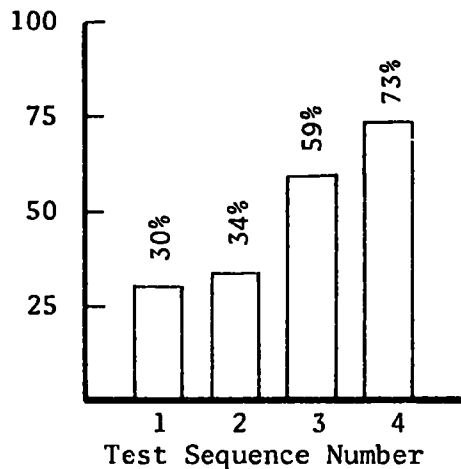
RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS

TABLE 2

Vehicles Meeting Federal Standards
1975 and 1976 Model Year Passenger Cars
Test Site: Washington, D.C.

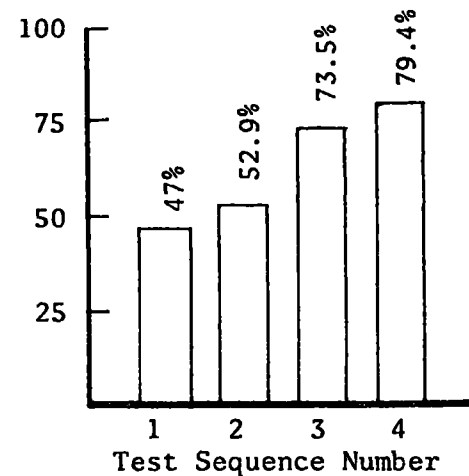
Cumulative Results
for All 100 Vehicles

Percent of
Vehicles
Meeting
1975/1976
Federal
Standards
(Cumulative)



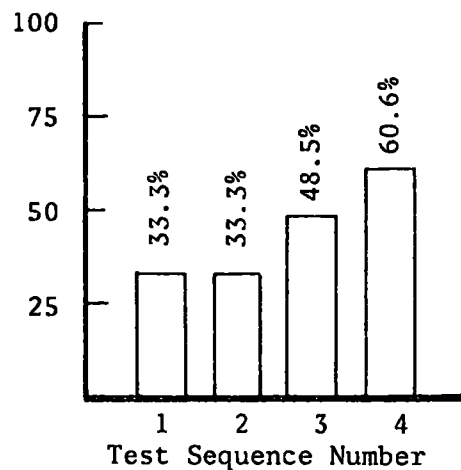
34 GM Vehicles

Percent of
Vehicles
Meeting
1975/1976
Federal
Standards
(Cumulative)



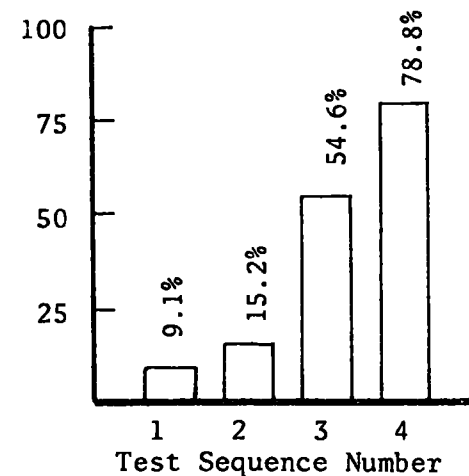
33 Ford Vehicles

Percent of
Vehicles
Meeting
1975/1976
Federal
Standards
(Cumulative)



33 Chrysler Vehicles

Percent of
Vehicles
Meeting
1975/1976
Federal
Standards
(Cumulative)

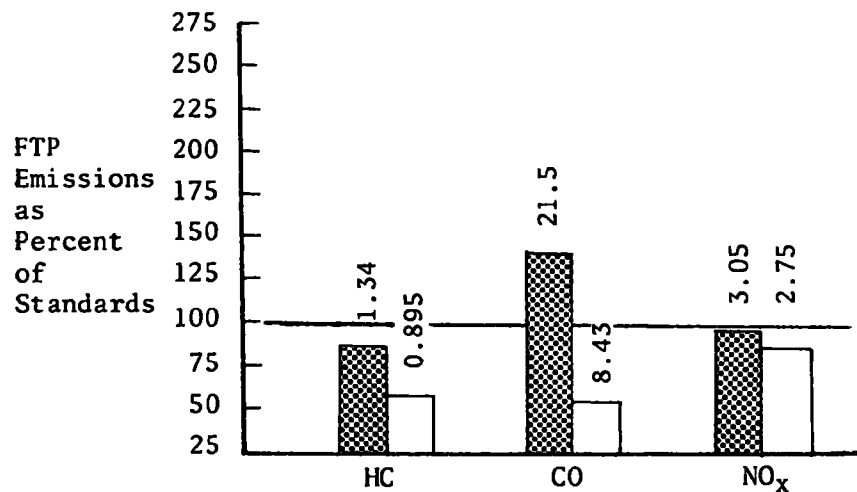


- 1-After initial test
- 2-After correction of maladjustment (exc. Idle CO and RPM adjustment)
- 3-After Idle CO and RPM are reset to specifications
- 4-After Emission Control Component Repair and Major Tune-Up

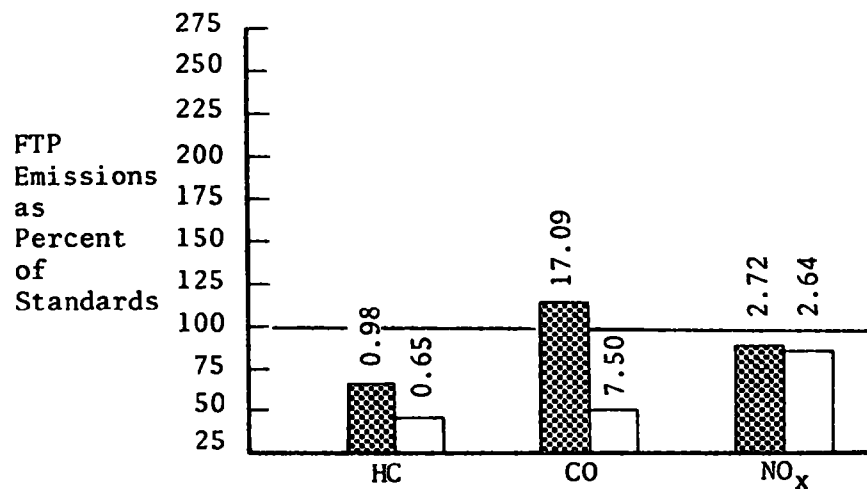
RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS

TABLE 3
SUMMARY OF FEDERAL TEST PROCEDURE RESULTS
TEST SITE: WASHINGTON, D.C.

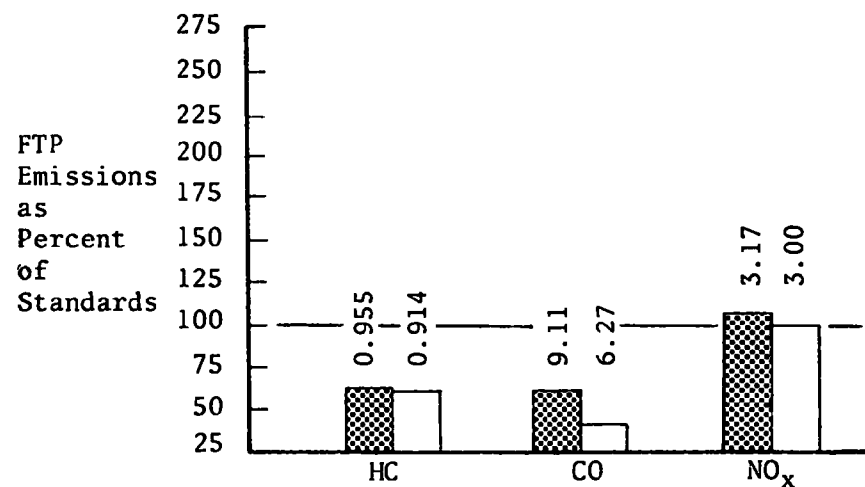
Cumulative Results for
All 100 Vehicles



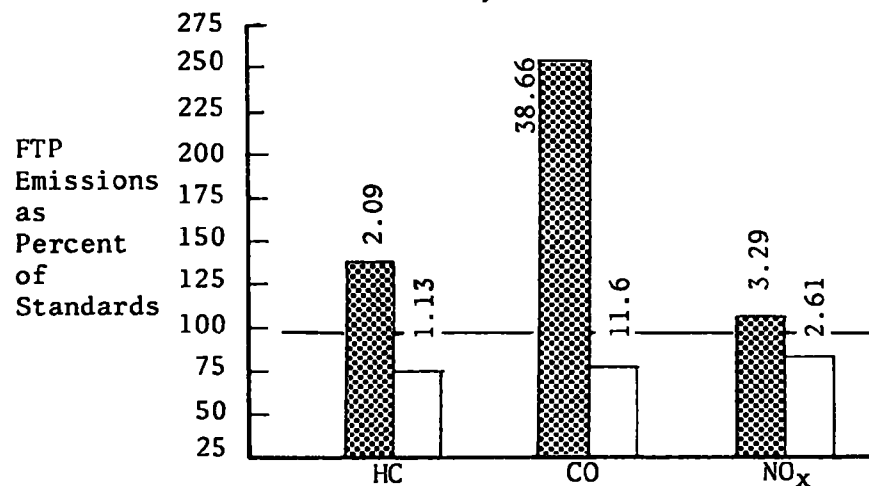
34 GM Vehicles



33 Ford Vehicles



33 Chrysler Vehicles



 Average of results of initial tests

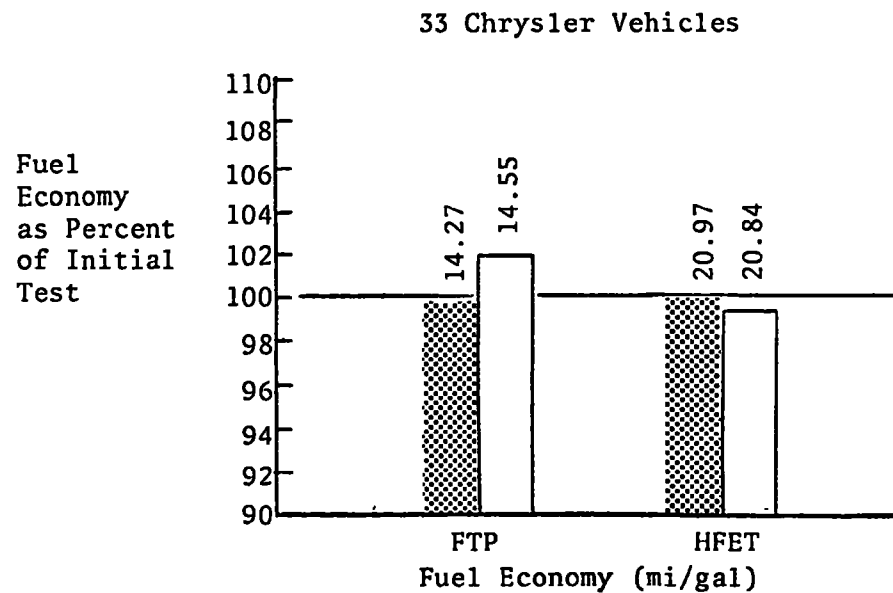
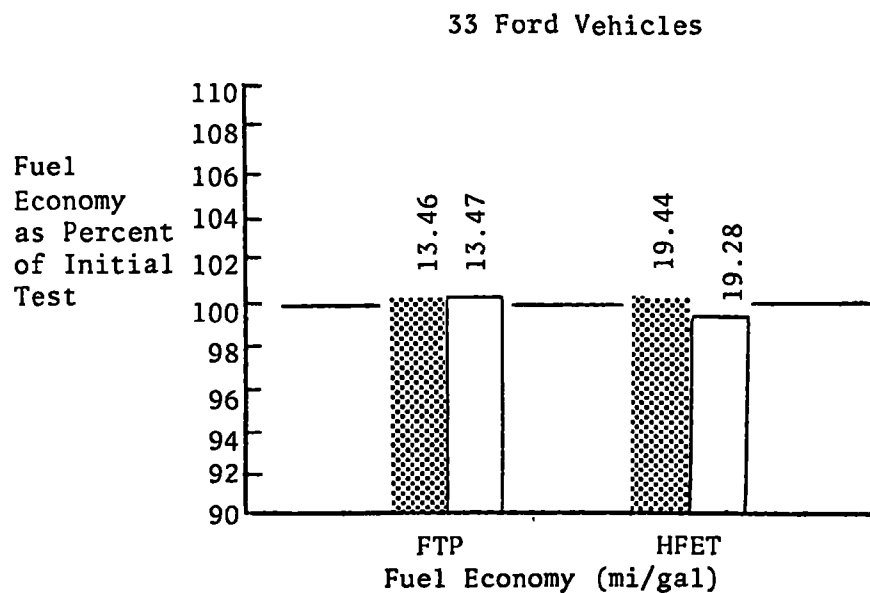
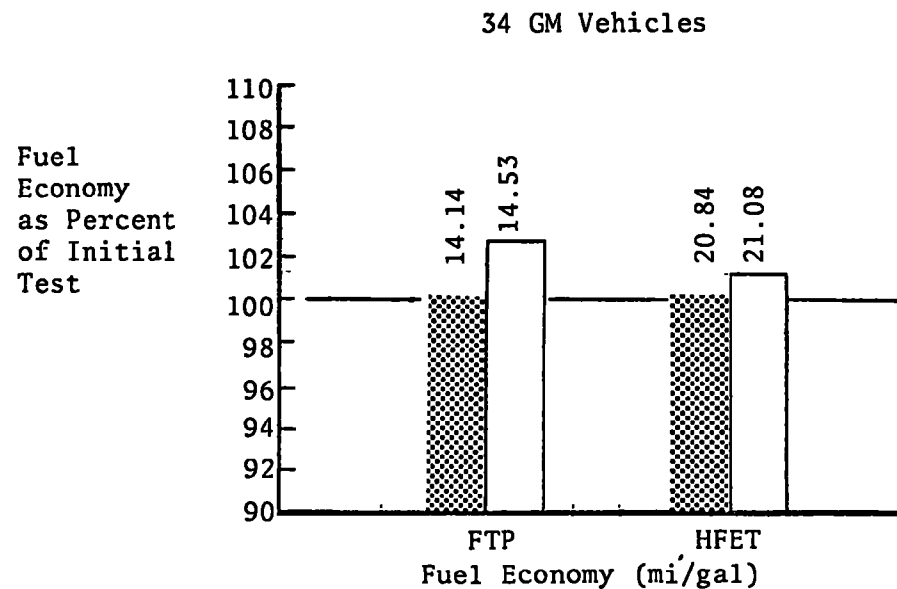
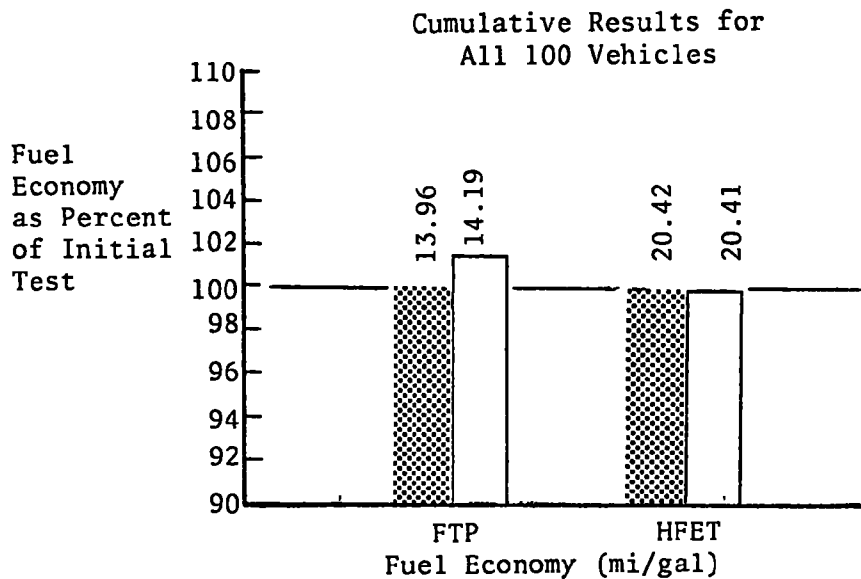
 Average of results at which each vehicle passed (or test #4 if it didn't)

RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS

TABLE 4

SUMMARY OF FUEL ECONOMY RESULTS

TEST SITE: WASHINGTON, D.C.



■ Average of results of initial tests

□ Average of results at which each vehicle passed (or test #4 if it didn't)

TABLE 5
 RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS
 SUMMARY OF NUMBER AND FREQUENCY OF DISABLED OR MALADJUSTED EMISSION CONTROL COMPONENTS
 TEST SITE: WASHINGTON, D.C.

Vehicle Manufacturer	Number of Vehicles	Induction System	Fuel System	Ignition System		EGR System	Air Pump	PCV System	Exhaust System	Other
				Initial Timing	Other					
General Motors Corporation	34	1 2.94%	12 35.3%	5 14.7%	0 0%	1 2.94%	0 0% Note: Only 1 of the 34 vehicles had air pumps, i.e., 2.94%	0 0%	0 0%	0 0% Note: Only 1 of the 34 vehicles had "other" emission components, i.e., 2.94%
Ford Motor Company	33	2 6.06%	19 57.6%	12 36.4%	1 2.94%	4 12.1%	0 0%	0 0%	0 0%	Note: Only 3 of the 33 vehicles had "other" emission components, i.e., 9.09%
Chrysler Corporation	33	4 12.1%	22 66.7%	9 27.3%	4 12.1%	7 21.2%	0 0% Note: Only 1 of the 33 vehicles had air pump, i.e., 3.03%	0 0%	0 0%	Note: Only 9 of the 33 vehicles had "other" emissions components, i.e., 27.3%
Composite of all Vehicles	100	7 7%	53 53%	26 26%	5 5%	12 12%	0 0% Note: Only 35 of the 100 vehicles had air pumps, i.e., 35%	0 0%	0 0%	Note: Only 13 of the 100 vehicles had "other" emissions components, i.e., 13%

TABLE 6
 RESTORATIVE MAINTENANCE EVALUATION OF 1975/1976 IN-USE PASSENGER CARS
 SUMMARY OF RESTORATIVE MAINTENANCE COSTS
 PER VEHICLE BY MANUFACTURER
 TEST SITE: WASHINGTON, D. C.

	<u>MALADJUSTMENT DISABLEMENT</u>			<u>EMISSION COMPONENT FUNCTION CHECK</u>			<u>IDLE SET</u>		<u>MAJOR TUNE-UP</u>		TOTAL LABOR	TOTAL PARTS	TOTAL COST
	INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	CORR. LABOR	PARTS COST			
CHRYSLERS	9.09	4.59	1.33	10.82	0.50	0.34	3.68	6.14	14.68	9.49	49.50	11.16	60.66
FORDS	9.41	2.05	2.11	14.32	0.23	0.53	1.55	3.09	8.05	12.83	38.68	15.46	54.14
GENERAL MOTORS	7.54	1.36	0.0	7.50	0.57	0.93	3.53	3.53	5.82	8.65	29.87	9.58	39.45
ALL VEHICLES (AVERAGE)	8.67	2.65	1.14	10.85	0.44	0.60	2.93	4.25	9.48	10.30	39.25	12.04	51.30

TABLE 7

EMISSION COMPONENT FAILURES
TEST SITE: WASHINGTON, D.C.

General Motors Vehicles	Vehicles Equipped	Number of Failures	Percent Failures
1.P.C.V.	34	0	0%
2.Heated Air Inlet	33	0	0%
3.E.F.E.	20	0	0%
4.E.F.E. TVV	17	0	0%
5.E.F.E. Check Valve	2	0	0%
6.E.G.R. Valve	34	0	0%
7.E.G.R. TCV	18	0	0%
8.E.G.R. Snap Disc Control Valve	1	0	0%
9.E.G.R. Backpressure Transducer	2	1	50%
10.E.G.R. TVV	8	0	0%
11.Air Injection Reactor	1	0	0%
12.Full Vacuum Advance System	24	0	0%
13.Ported Vacuum Advance System	9	0	0%
14.Distributor Advance Diaphragm	34	0	0%
15.Vacuum Spark Delay Valve	4	0	0%
16.Vacuum Advance TVV	2	0	0%
17.Vacuum Advance TVS	8	0	0%
18.Vacuum Advance Modulator Valve	1	0	0%
19.Idle Stop Solenoid	4	0	0%
20.Vacuum Break (primary)	1	0	0%
21.Vacuum Break (secondary)	17	0	0%
22.Electric Choke	2	1	50%
23.Spark Plugs, Wires, etc.	34	0	0%
24.Other	15	1	6.67%
Chrysler Corporation Vehicles	Vehicles Equipped	Number of Failures	Percent Failures
1.P.C.V. System	33	0	0%
2.Evaporative Control System	33	0	0%
3.Heated Air Inlet Diaphragm	33	1	3.03%
4.Heated Air Inlet Door	33	1	3.03%
5.Electric Choke Switch	33	2	6.06%
6.Electric Choke Heater	33	0	0%
7.C.C.I.E. Switch	21	0	0%
8.C.C.E.G.R. Switch	33	0	0%
9.Idle En richment Delay Solenoid	19	0	0%
10.Idle Enrichment Diaphragm	20	0	0%
11.OSAC Valve	13	1	7.69%
12.EGR Valve	33	1	3.03%
Continued on next page.			

TABLE 7 (con't.)

Chrysler Corporation Vehicles	Vehicles Equipped	Number of Failures	Percent Failures
13.EGR Time Delay Solenoid	15	1	6.67%
14.Vacuum Control Amplifier	30	0	0%
15.T.I.C. Valve	8	0	0%
16.Air Pump	1	0	0%
17.Throttle Stop Solenoid	1	1	100%
18.Catalyst Protect Switch	1	1	100%
19.Dashpot	0	0	---
20.Choke Kickdown Diaphragm	31	1	3.23%
21.Spark Plugs &Cables, Cap&Rotor	33	1	3.03%
22.Vacuum Advance Unit	31	0	0%
23.Other	1	0	0%
Ford Motor Company Vehicles	Vehicles Equipped	Number of Failures	Percent Failures
1.Exhaust Heat Control Valve	5	0	0%
2.P.C.V. System	33	0	0%
3.E.G.R. Valve	33	0	0%
4.E.G.R. P.V.S.	22	0	0%
5.High Speed Modulator	0	0	---
6.Venturi Vacuum Amplifier	5	0	0%
7.Vacuum Reservoir Check Valve	3	0	0%
8.Thermactor Air Pump	33	0	0%
9.By-pass Valve	33	0	0%
10.Thermactor Check-valves	33	0	0%
11.Vacuum Differential Control	4	0	0%
12.Electric P.V.S.	2	0	0%
13.Solenoid Vacuum Valve	6	0	0%
14.Floor Pan Thermal Switch	1	0	0%
15.Fuel Deceleration Valve Diaphragm	0	0	---
16.Fuel Deceleration Valve Time Rate	0	0	---
17.Fuel Deceleration Transmission Interlock	0	0	---
18.P.V.S. Fuel Deceleration Interlock	0	0	---
19.Speed Modulated Deceleration	0	0	---
20.Spark Delay Valves	7	0	0%
21.Spark Control System Distributor P.V.S.	10	0	0%
22.Cold Start P.V.S.	3	0	0%
23.Vacuum Check Valve	1	0	0%
24.Spark REtard Delay Valve	1	0	0%
25.Distributor Diaphragm	33	0	0%
26.Throttle Positioning Solenoid	13	0	0%
27.Electric Choke	32	0	0%
28.Choke Pull-off Diaphragm	33	0	0%
29.Air Cleaner Vacuum Motor	33	0	0%
Continued on next page.			

TABLE 7 (con't)

Ford Motor Company Vehicles	Vehicles Equipped	Number of Failures	Percent Failures
30.Air Cleaner Temperature Control, Duct Valve	33	0	0%
31.Cold Weather Modulator	32	0	0%
32.Cold Temperature Actuated Vacuum System	0	0	---
33.Air Cleaner Delay Valve	0	0	---
34.Spark Plugs and Wires	33	2	6.06%
35.Other	1	1	100%
36.EGR Backpressure Transducer	18	6	33.3%

TABLE 8
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
TEST SITE: WASHINGTON, D.C.
CHRYSLER CORPORATION VEHICLES

	NO. OF VEHICLES	-----25-EIE-----					FEET MPG
		HC	CO	CO2	NOXC	MPG	
TEST #1	017	2.32	43.91	568.5	3.54	14.13	20.72
TEST #2	017	2.32	45.39	585.6	2.49	13.84	20.48
% IMPR.		0%	- 3%	- 3%	30%	- 2%	- 1%
TEST #1	012	2.11	40.33	582.6	3.10	13.98	20.72
TEST #3	012	1.46	12.92	606.3	3.21	14.49	20.83
% IMPR.		31%	68%	- 4%	- 4%	4%	1%
TEST #1	001	.88	7.32	524.7	3.67	16.46	22.65
TEST #4	001	.98	7.48	551.1	2.66	15.68	21.42
% IMPR.		- 11%	- 2%	- 5%	28%	- 5%	- 5%
TEST #2	015	2.53	50.50	567.0	2.44	14.07	20.83
TEST #3	015	1.24	13.80	594.4	2.58	14.95	21.26
% IMPR.		51%	73%	- 5%	- 6%	6%	2%
TEST #3	014	1.88	17.76	619.3	3.03	14.10	20.12
TEST #4	014	1.54	15.78	639.4	2.57	13.69	19.63
% IMPR.		18%	11%	- 3%	15%	- 3%	- 2%

NO VEHICLES WERE SUBJECTED TO SEQUENCE 2 AND SEQUENCE 4:
THAT DID NOT HAVE SEQUENCE 3.

TABLE 8
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
TEST SITE: WASHINGTON, D.C.
FORD MOTOR COMPANY

	NO. OF VEHICLES	25 E.P.E.					HEEI MPG
		HC	CO	CO2	NOXC	MPG	
TEST #1	010	1.26	13.79	642.5	3.20	13.45	18.92
TEST #2	010	1.34	12.95	648.8	3.67	13.40	18.98
% IMPR.		- 6%	6%	- 1%	- 15%	- %	- %
TEST #1	009	.91	10.66	697.0	4.10	12.48	17.58
TEST #3	009	.93	6.14	693.3	5.15	12.66	17.70
% IMPR.		- 2%	42%	1%	- 26%	1%	1%
TEST #1	002	.54	2.05	717.6	3.58	12.45	17.96
TEST #4	002	.61	2.37	722.4	3.94	12.33	17.69
% IMPR.		- 13%	- 16%	- 1%	- 10%	- 1%	- 2%
TEST #2	008	1.36	14.13	622.2	3.61	13.86	19.62
TEST #3	008	1.15	9.38	619.3	3.89	14.16	19.73
% IMPR.		15%	34%	%	- 8%	2%	1%
TEST #2	002	1.25	8.25	754.9	3.90	11.54	16.44
TEST #4	002	1.31	7.60	742.6	3.89	11.70	16.70
% IMPR.		- 5%	8%	2%	%	1%	2%
TEST #3	012	1.17	8.35	654.1	5.44	13.41	19.10
TEST #4	012	1.14	7.90	668.9	3.43	13.21	18.72
% IMPR.		3%	5%	- 2%	37%	- 1%	- 2%

TABLE 8
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
TEST SITE: WASHINGTON, D.C.
GENERAL MOTORS CORPORATION

	NO. OF VEHICLES	25-EPI					WEEI MPG
		HC	CO	CO2	NOXC	MPG	
TEST #1	010	1.57	29.00	676.1	4.58	12.43	19.69
TEST #2	010	1.29	24.63	632.5	2.73	13.35	20.02
% IMPR.		18%	15%	6%	40%	7%	2%
TEST #1	008	1.35	24.25	656.4	2.91	13.04	18.69
TEST #3	008	.86	12.20	657.6	2.79	13.37	18.79
% IMPR.		36%	50%	%	4%	3%	1%
TEST #1	001	.63	9.66	702.8	2.66	12.32	19.13
TEST #4	001	.54	7.73	702.3	2.39	12.39	19.30
% IMPR.		14%	20%	%	10%	1%	1%
TEST #2	008	1.34	28.30	646.9	2.79	12.91	19.29
TEST #3	008	.68	6.80	655.7	2.83	13.49	19.77
% IMPR.		49%	76%	- 1%	- 1%	4%	2%
TEST #3	009	.89	12.60	688.6	3.14	12.68	18.34
TEST #4	009	.66	9.08	684.7	3.28	12.83	18.41
% IMPR.		26%	28%	1%	- 4%	1%	- %

NO VEHICLES WERE SUBJECTED TO SEQUENCE 2 AND SEQUENCE 4:
THAT DID NOT HAVE SEQUENCE 3.

TABLE 8
SUMMARY OF EXHAUST EMISSION AND FUEL ECONOMY
TEST SITE: WASHINGTON, D.C.

	NO. OF VEHICLES	25 EPI					HEEI MPG
		HC	CO	CO ₂	NOXC	MPG	
TEST #1	037	1.83	31.74	617.6	3.73	13.49	19.96
TEST #2	037	1.78	31.01	615.4	2.88	13.59	19.95
% IMPR.		3%	2%	%	23%	1%	- %
TEST #1	029	1.53	26.69	638.5	3.36	13.26	19.19
TEST #3	029	1.13	10.62	647.4	3.70	13.61	19.30
% IMPR.		26%	60%	- 1%	- 10%	3%	1%
TEST #1	004	.65	5.27	665.7	3.37	13.42	19.43
TEST #4	004	.68	4.99	674.5	3.23	13.18	19.03
% IMPR.		- 5%	5%	- 1%	4%	- 2%	- 2%
TEST #2	031	1.92	35.38	601.9	2.83	13.72	20.12
TEST #3	031	1.07	10.85	616.6	2.98	14.37	20.48
% IMPR.		44%	69%	- 2%	- 5%	5%	2%
TEST #2	002	1.25	8.25	754.9	3.90	11.54	16.44
TEST #4	002	1.31	7.60	742.6	3.89	11.70	16.70
% IMPR.		- 5%	8%	2%	%	1%	2%
TEST #3	035	1.38	13.21	649.0	3.88	13.50	19.31
TEST #4	035	1.18	11.36	661.2	3.05	13.31	19.00
% IMPR.		14%	14%	- 2%	21%	- 1%	- 2%

TABLE 9

SUMMARY OF RESULTS OF DELIBERATE
ENGINE PARAMETER MALADJUSTMENTS
TEST SITE: WASHINGTON, D.C.

Vehicle Number/ Sequence No.	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _{xc} g/mi.	MPG	
6001 Seq.#6	Base Test	0.93	9.78	2.27	15.45	20.08
	Idle CO=1.65%	1.02	12.06	2.44	17.16	22.90
	% Change	+9.68%	+23.3%	+7.49%	+11.1%	+14.0%
Seq.#7	Base Test	0.93	9.78	2.27	15.45	20.08
	Idle CO=5.5%	1.75	30.68	8.32	17.51	24.65
	EGR disabled % Change	+88.2%	+214%	+267%	+13.3%	+22.8%
Seq.#8	Base Test	0.93	9.78	2.27	15.45	20.08
	Idle CO=5.5%	1.51	28.76	2.47	15.57	23.71
	% Change	+62.4%	+194%	+8.81%	+0.78%	+18.1%
6011 Seq.#5	Base Test	1.46	7.37	2.94	13.71	18.78
	Enriched idle, Advanced timing 5°, Dis- connected choke wire, Disabled EGR	2.71	49.27	10.37	13.45	20.13
	% Change	+85.6%	+569%	+253%	-1.90%	+7.19%
Seq.#6	Base Test	1.46	7.37	2.94	13.71	18.78
	Enriched idle mix to smooth operation	2.38	29.46	2.93	13.94	20.13
	% Change	+63.0%	+300%	-0.34%	+1.68%	+6.76%
Seq.#7	Base Test	1.46	7.37	2.94	13.71	18.78
	Advanced timing 5°	2.34	13.96	3.93	14.21	20.43
	% Change	+60.3%	+89.4%	+33.7%	+3.65%	+8.79%
Seq.#8	Base Test	1.46	7.37	2.94	13.71	18.78
	Disconnected Choke heater wire	2.10	28.06	2.85	13.77	19.61
	% Change	+43.8%	+281%	-3.06%	+0.44%	+4.42%
Seq.#9	Base Test	1.46	7.37	2.94	13.71	18.78
	EGR disabled	1.68	13.80	10.98	14.40	20.02
	% Change	+15.1%	+87.2%	+273%	+5.03%	+6.60%
Continued on	next page.					

TABLE 9 (con't.)

Vehicle No./ Sequence No.	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _{xc} g/mi.	MPG	
6029 Seq. #6	Base Test	0.98	7.48	2.66	15.68	21.42
	Adjust idle mix for smoothest idle with A/C on. Tested with A/C off.	2.16	45.52	3.12	15.11	22.47
	% Change	+120%	+509%	+17.3%	=3.64%	+4.90%
Seq. #7	Base Test	0.98	7.48	2.66	15.68	21.42
	Disabled EGR valve	1.25	10.34	7.42	17.14	23.06
	% Change	+27.6%	+38.2%	+179%	+9.31%	+7.66%
Seq. #8	Base Test	0.98	7.48	2.66	15.68	21.42
	Disconnected choke heater	1.57	15.82	2.50	15.74	22.49
	% Change	+60.2%	+111%	-6.02%	+0.38%	+5.00%
Seq. #9	Base Test	0.98	7.48	2.66	15.68	21.42
	Advanced timing 10°	1.31	8.00	3.68	17.80	23.52
	% Change	+33.7%	+6.95%	+38.3%	+13.5%	+9.80%
6031 Seq. #6	Base Test	0.41	5.68	3.01	12.22	19.43
	EGR disabled	0.53	7.47	5.07	11.93	19.44
	% Change	+29.3%	+31.5%	+68.4%	-2.37%	-0.05%
Seq. #7	Base Test	0.41	5.68	3.01	12.22	19.43
	Choke heater wire discon- nected	0.74	17.72	3.24	11.81	19.08
	% Change	+80.5%	+212%	+7.64%	-3.36%	-1.80%
Seq. #8	Base Test	0.41	5.68	3.01	12.22	19.43
	Idle CO=1.8%	1.13	31.75	2.94	12.17	19.57
	% Change	+1.76%	+459%	-2.33%	-0.41%	+0.72%
Seq. #9	Base Test	0.41	5.68	3.01	12.22	19.43
	Idle CO=5.5%	1.85	62.10	2.14	11.51	17.39
	% Change	+351%	+993%	-28.9%	-5.81%	-10.5%

Continued on next page.

TABLE 9 (con't.)

Vehicle No/ Sequence No.	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _{xc} g/mi.	MPG	
6049	Seq. #5	1.12	6.74	2.98	13.12	19.19
	Base Test					
	Advanced					
	timing 5°					
	Plugged EGR,					
	Set choke to					
	3 notches					
	rich.	1.06	7.62	4.74	13.14	18.37
	% Change	-5.36%	+13.1%	+59.1%	+0.15%	-4.27%
	Seq. #6	1.12	6.74	2.98	13.12	19.19
	Base Test					
	Advanced					
	timing 5°	1.59	8.42	2.01	12.64	17.44
	% Change	+42.0%	+24.9%	-32.6%	-3.66%	-9.12%
	Seq. #7	1.12	6.74	2.98	13.12	19.19
	Base Test					
	Set choke 3					
	notches rich	1.09	5.92	2.82	13.22	19.89
	% Change	-2.68%	-12.2%	-5.37%	+0.76%	+3.65%
	Seq. #8	1.12	6.74	2.98	13.12	19.19
	Base Test					
	Plugged EGR					
	valve	1.24	7.65	6.37	13.33	18.82
	% Change	+10.7%	+13.5%	+114%	+1.60%	-1.93%
6052	Seq. #6	0.64	11.05	1.81	10.69	14.50
	Base Test					
	Disabled					
	EGR valve	0.42	2.99	7.09	11.86	16.86
	% Change	-34.4%	-72.9%	+292%	+10.9%	+16.3%
	Seq. #7	0.64	11.05	1.81	10.69	14.50
	Base Test					
	Disabled					
	air pump	0.68	15.25	2.06	11.22	15.65
	% Change	+6.25%	+38.0%	+13.8%	+4.96%	+7.93%
	Seq. #8	0.64	11.05	1.81	10.69	14.50
	Base Test					
	Set choke					
	3 notches rich	0.84	14.10	1.70	10.56	14.64
	% Change	+31.3%	+27.6%	-6.08%	-1.22%	+0.97%
	Seq. #9	0.64	11.05	1.81	10.69	14.50
	Base Test					
	Advanced					
	timing 5°	0.74	2.75	3.39	12.18	16.64
	% Change	+15.6%	-75.1%	+87.3%	+13.9%	+14.8%
Continued on next page.						

TABLE 9 (con't.)

Vehicle No./ Sequence No.	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _x g/mi.	MPG	
6058 Seq. #5	Base Test	0.50	1.06	3.07	15.31	19.54
	Advanced timing 5° plugged EGR, set choke 3 notches rich	0.49	2.02	9.94	15.65	19.48
	% Change	-2.00%	+90.6%	+224%	+2.22%	-0.31%
	Base Test	0.50	1.06	3.07	15.31	19.54
	Advanced timing 5°	0.51	0.81	2.88	15.64	19.36
	% Change	+2.00%	-23.6%	-6.19%	+2.16%	-0.92%
	Base Test	0.50	1.06	3.07	15.31	19.54
	Set choke 3 notches rich	0.53	2.38	2.68	16.02	20.72
	% Change	+6.00%	+125%	-12.7%	+4.64%	+6.04%
6060 Seq. #5	Base Test	1.08	2.99	3.06	15.42	21.24
	Advanced timing 5° Disabled EGR, Disabled thermactor, set choke 3 notches rich	2.95	35.49	6.65	14.09	24.20
	% Change	+173%	+1087%	+117%	-8.63%	+13.9%
	Base Test	1.08	2.99	3.06	15.42	21.24
	Advanced timing 5°	1.21	2.71	3.91	15.47	21.79
	% Change	+112%	-9.36%	+27.8%	+0.32%	+2.59%
	Base Test	1.08	2.99	3.06	15.42	21.24
	Disabled Thermactor	2.72	30.77	3.02	14.40	19.36
	% Change	+152%	+929%	-1.31%	-6.61%	-8.85%
	Base Test	1.08	2.99	3.06	15.42	21.24
Seq. #8	Disabled EGR	0.87	3.87	7.66	13.88	17.49
	% Change	-19.4%	+29.4%	+150%	-9.99%	-17.7%
Continued on	next page.					

TABLE 9 (con't.)

Vehicle No./ Sequence No. Vehicle	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _{xc} g/mi.	MPG	
6060 Seq.#9	Base Test	1.08	2.99	3.06	15.42	21.24
	Set choke 3 notches rich	1.07	3.51	4.17	14.91	20.88
	% Change	-0.93%	+17.4%	+36.3%	-3.31%	-1.69%
6073 Seq.#5	Base test	0.63	9.66	2.66	12.33	19.13
	EGR plugged, air pump disabled, full vacuum advance to distributor					
	Advanced timing 5°	0.97	13.51	7.51	13.32	20.61
Seq.#6	% Change	+54.0%	+39.9%	+182%	+8.03%	+7.74%
	Base Test	0.63	9.66	2.66	12.33	19.13
	Advanced timing 5°	0.76	9.85	2.82	12.63	19.50
Seq.#7	% Change	+20.6%	+1.97%	+6.02%	+2.43%	+1.93%
	Base Test	0.63	9.66	2.66	12.33	19.13
	Disabled EGR	0.87	13.08	5.49	12.67	20.11
Seq.#8	% Change	+38.1%	+35.4%	+106%	+2.76%	+5.12%
	Base Test	0.63	9.66	2.66	12.33	19.13
	Disabled air pump	0.86	13.65	2.38	12.71	19.95
Seq.#9	% Change	+36.5%	+41.3%	-10.5%	+3.08%	+4.29%
	Base Test	0.63	9.66	2.66	12.33	19.13
	Full manifold vacuum to distributor advance	0.87	10.41	3.66	13.06	19.26
6086 Seq.#5	% Change	+38.1%	+7.76%	+37.6%	+5.92%	+0.68%
	Base Test	0.52	13.01	2.17	12.76	18.14
	Advanced timing 5° plugged EGR, set choke 3 notches rich; Enriched idle mix for smooth idle	1.71	37.85	4.56	13.11	19.80
Continued on	% Change	+229%	+191%	+110%	+2.74%	+9.15%
	next page.					

TABLE 9 (con't)

Vehicle No./ Sequence No.	Test Condition	FTP Results				HFET MPG
		HC g/mi.	CO g/mi.	NO _{xc} g/mi.	MPG	
6086	Seq.#6 Base Test Adjusted idle mix for smoother idle (2.75 turns out) % Change	0.52	13.01	2.17	12.76	18.14
		1.30	28.83	1.95	12.57	18.48
		+150%	+122%	-10.1%	-1.49%	+1.87%
	Seq.#7 Base Test Advanced timing 5° % Change	0.52	13.01	2.17	12.76	18.14
		0.53	12.49	2.38	13.29	19.28
		0.52	13.01	2.17	12.76	18.14
	Seq.#8 Base Test Choke set 3 notches rich % Change	0.52	13.01	2.17	12.76	18.14
		1.13	29.15	2.00	12.56	19.19
		+117%	+124%	-7.83%	-1.57%	+5.79%
	Seq.#9 Base Test EGR disabled % Change	0.52	13.01	2.17	12.76	18.14
		0.79	19.52	3.83	13.36	19.18
		+51.9%	+50.0%	+76.5%	+4.70%	+5.73%
	Seq.#5 Base Test Enriched idle, 3.5 turns-- Disabled EGR, Advanced timing 5° Disabled EFE % Change	0.53	3.79	2.64	19.60	24.30
		1.12	16.73	4.66	17.36	25.30
		+111%	+341%	+76.5%	-1.36%	+4.12%
	Seq.#6 Base Test Advanced timing 5° % Change	0.53	3.79	2.64	17.60	24.30
		0.46	2.42	2.90	17.87	24.94
		-13.2%	-36.1%	+9.85%	+1.53%	+2.63%
	Seq.#7 Base Test Enriched idle mix by 3.5 turns % Change	0.53	3.79	2.64	17.60	24.30
		0.79	8.06	2.79	17.59	24.72
		+49.1%	+113%	+5.68%	- .057%	+1.73%
	Seq.#8 Base Test Disabled EGR % Change	0.53	3.79	2.64	17.60	24.30
		0.39	2.28	3.67	18.00	25.66
		-26.4%	-39.8%	+39.0%	+2.27%	+5.60%
	Seq.#9 Base Test Disabled EFE % Change	0.53	3.79	2.64	17.60	24.30
		0.57	4.38	2.94	17.91	25.28
		+7.55%	+15.6%	+11.4%	+1.76%	+4.03%

LEGEND FOR
APPENDIX A
LISTING OF VEHICLE AND TEST PARAMETERS

VEH = Vehicle Number
NO = Sequence Number
RUN = Run Number
TEST DATE = Date of Test (month, day, year)
YR = Model Year
MAKE = Vehicle Make
MODEL = Vehicle Model
C = Number of Cylinders and Rotors
CID = Engine Displacement in Cubic Inches
V = Number of Carburetor Venturis (0 = fuel injection)
T = Type of Transmission (1 = automatic, 2 = semi-automatic, 3 = 3-speed manual,
4 = 4-speed manual; 5 = 5-speed manual)
A = Air Conditioning? (1 = yes; 2 = no)
CT = Catalytic Converter Present? (1 = yes; 2 = no)
EF = Manufacturer's Engine Family Designation
FT = Fuel Tank Capacity in Gallons
IRPM = Idle RPM, actual
IRPMS = Idle RPM, specs.
IGN = Ignition Timing in Degrees, actual (+ indicates before top dead center,
- indicates after top dead center; 000 indicates top dead center)
IGNS = Ignition Timing in Degrees, Manufacturer's Specifications (+ indicates
before top dead center, - indicates after top dead center; 000 indicates
top dead center)
INRT = Dynamometer Inertia Weight Setting
RLHP = Road Load Horsepower Setting
L = Was 10% RLHP Added to Simulate Air Conditioner? (1 = yes; 2 = no)
DB = Average Dry Bulb Temperature During FTP (degrees Fahrenheit)
WB = Average Wet Bulb Temperature During FTP (degrees Fahrenheit)
BAROM = Average Barometric Pressure During FTP (inches Hg)
TEST = Sequence Number

APPENDIX A
LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BAROM	TEST
6001-1	007	7/21/76	76	DODG	ASPE	6	225	1	1	1	1	FD22515S	18	900	750	+00	+02	4000	13.2	1	80	67	29.28	1
6001-3	009													760	750	+02	+02				76	68	29.38	3
6001-4	012													750	750	+02	+02				72	62	30.01	4
6001-6	016													750	750	+02	+02				71	64	30.04	6
6001-7	021													750	750	+02	+02				74	65	29.86	7
6001-8	022													750	750	+02	+02				71	65	29.88	8
5002-1	040	8/18/76	75	DODG	DART	6	225	1	1	1	1	FRG5SS	16	700	750	+00	+00	3500	12.3	1	71	62	30.18	1
5002-2	047													700	750	+00	+00				77	66	29.91	2
5002-3	050													750	750	+00	+00				78	68	30.01	3
6003-1	070	9/01/76	76	DODG	ASPE	6	225	1	1	1	1	FD22515S	18	840	750	+02	+02	4000	13.2	1	75	63	30.05	1
6003-2	075													840	750	+02	+02				72	65	30.04	2
6003-3	081													750	750	+02	+02				72	63	30.18	3
6004-1	086	9/07/76	76	DODG	ASPE	6	225	1	1	1	1	FD22515S	18	600	750	+04	+02	4000	13.2	1	75	63	30.16	1
6004-3	093													750	750	+04	+02				79	65	29.98	3
6004-4	100													750	750	+02	+02				74	60	29.92	4
6004-A	115													750	750	+02	+02				75	68	29.85	6
5005-1	043	8/19/76	75	DODG	DART	6	225	1	1	1	1	FRG5SS	16	830	750	+03	+00	3500	12.3	1	70	61	30.19	1
5005-2	048													820	750	+00	+00				76	66	29.91	2
5005-3	049													760	750	+00	+00				78	67	30.01	3
6006-1	035	8/16/76	76	DODG	ASPE	8	318	2	1	1	1	FD31825S	18	860	750	+01	+02	4000	13.2	1	73	62	29.98	1
5007-1	068	8/31/76	75	DODG	DART	8	318	2	1	1	2	FLAZAP	16	940	900	+04	-02	4000	13.2	1	70	61	30.10	1
5007-2	077													480	900	-02	-02				72	63	30.03	2
5007-3	084													900	900	-02	-02				72	63	30.12	3
5007-4	085													900	900	-02	-02				73	59	30.18	4
5007-A	097													900	900	-02	-02				72	64	29.77	A
5008-1	065	8/31/76	75	DODG	CHAR	8	318	2	1	1	1	FLA2C6	26	1000	750	+07	+02	4000	13.2	1	72	59	30.21	1
5008-2	071													940	750	+02	+02				76	65	30.04	2
5008-3	078													750	750	+02	+02				75	65	30.05	3
6009-1	087	9/07/76	76	DODG	CORO	8	318	2	1	1	1	FD31825S	26	820	750	+02	+02	4500	14.0	1	76	61	30.15	1
6009-3	091													750	750	+02	+02				77	64	30.06	3
6009-4	095													750	750	+02	+02				73	63	29.84	4
6010-1	003	7/16/76	76	DODG	CHAR	8	360	2	1	1	1	FD36025S	26	775	700	+06	+06	4500	14.0	1	76	68	29.12	1
6010-3	005													700	700	+06	+06				77	67	29.44	3
6011-1	107	9/13/76	76	DODG	CHAR	8	318	2	1	2	1	FD31825S	26	750	750	+02	+02	4500	14.0	1	73	70	30.09	1
6011-3	116													750	750	+02	+02				75	69	29.85	3
6011-4	120													750	750	+02	+02				75	65	29.85	4
6011-5	125													750	750	+07	+02				73	65	29.57	5
6011-6	135													750	750	+02	+02				74	59	29.80	6
6011-7	139													750	750	+07	+02				72	61	30.07	7
6011-8	142													750	750	+02	+02				73	63	29.96	8
6011-9	144													750	750	+02	+02				74	64	30.07	9
6012-1	096	9/09/76	76	DODG	CHAR	8	360	2	1	1	1	FD36025S	26	780	700	+07	+06	4500	14.0	1	73	63	29.80	1
6012-3	101													710	700	+07	+06				72	60	29.90	3
6013-1	386	12/22/76	76	DODG	MONA	8	400	2	1	1	1	FD40025S	27	710	700	+14	+10	5500	15.3	1	76	53	29.80	1
6013-2	394													710	700	+10	+10				77	51	29.62	2
6013-3	402													700	700	+10	+10				77	55	29.32	3
6013-4	409													700	700	+10	+10				73	49	29.78	4

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST	DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRFM	IRFMS	IGN	IGNS	INRT	RLHP	L	DB	WB	.BAROM	TEST
6014-1	033		8/13/76	76	PLYM	VALI	6	225	1	3	2	1	FD22515S	16	850	750	+06	+06	3500	12.3	1	77	70	29.89	1
5015-1	026		8/10/76	75	PLYM	DUST	6	225	1	1	1	1	FR6C2	16	820	750	+00	+00	3500	8.2	1	73	65	29.98	1
5015-3	030														760	750	+00	+00				71	66	30.10	3
6016-1	032		8/12/76	76	PLYM	VOLA	6	225	1	1	1	1	FD22515S	18	940	750	+00	+02	4000	13.2	1	74	69	29.91	1
6016-3	034														740	750	+00	+02				72	62	29.98	3
6017-1	036		8/16/76	76	PLYM	VALI	6	225	1	1	2	1	FD22515S	16	910	750	+03	+02	3500	12.3	1	71	61	30.10	1
6017-2	039														910	750	+03	+02				73	60	30.02	2
6017-3	052														750	750	+03	+02				77	68	30.18	3
6018-1	037		8/16/76	76	PLYM	VOLA	6	225	1	1	1	1	FD22515S	18	840	750	+09	+02	4000	13.2	1	72	60	30.10	1
6018-2	039														870	750	+02	+02				74	61	30.19	2
6018-3	046														750	750	+02	+02				80	65	29.92	3
6018-4	054														750	750	+02	+02				73	65	30.10	4
6019-1	102		9/13/76	76	PLYM	VALI	6	225	1	1	1	1	FD22515S	16	830	750	+12	+02	4000	13.2	1	72	64	30.22	1
6019-2	106														750	750	+02	+02				72	68	30.09	2
6019-3	111														750	750	+02	+02				73	68	29.97	3
6020-1	074		9/01/76	76	PLYM	VOLA	8	318	2	1	1	1	FD31825S	18	820	750	+02	+02	4000	13.2	1	72	62	29.99	1
6020-2	079														980	750	+02	+02				72	64	30.05	2
6020-3	083														760	750	+02	+02				72	62	30.13	3
6021-1	060		8/26/76	76	PLYM	VOLA	8	318	2	1	1	1	FD31825S	18	880	750	+02	+02	4000	13.2	1	79	67	30.05	1
6022-1	103		9/14/76	76	PLYM	VOLA	6	225	1	1	1	1	FD22515S	16	1020	750	+09	+02	4000	13.2	1	73	64	30.21	1
6022-2	105														860	750	+02	+02				73	67	30.10	2
6022-3	114														750	750	+02	+02				74	68	29.89	3
6022-4	121														750	750	+02	+02				74	65	29.77	4
6023-1	062		8/27/76	76	PLYM	FURY	8	318	2	1	1	1	FD31825S	26	890	750	+00	+02	4500	14.0	1	73	58	30.13	1
6023-3	076														750	750	+02	+02				73	65	30.04	3
6023-4	082														750	750	+02	+02				74	62	30.14	4
6023-A	098														800	750	+02	+02				72	63	29.77	A
6024-1	088		9/07/76	76	PLYM	FURY	8	318	2	1	1	1	FD31825S	26	870	750	+02	+02	4500	14.0	1	73	62	30.14	1
6024-2	094														870	750	+02	+02				73	63	29.90	2
6025-1	089		9/08/76	76	PLYM	FURY	8	360	2	1	1	1	FD36025S	26	790	700	+06	+06	4500	14.0	1	75	62	30.10	1
6025-3	092														700	700	+06	+06				74	63	29.98	3
6025-4	099														700	700	+06	+06				72	61	29.78	4
5026-1	118		9/16/76	75	PLYM	VALI	6	225	1	1	1	1	FR65SS	16	710	750	+02	+00	3500	12.3	1	75	67	29.89	1
5026-2	122														700	750	+02	+00				74	65	29.72	2
5026-3	126														750	750	+02	+00				72	64	29.54	3
5026-4	130														750	750	+00	+00				72	59	29.56	4
5026-A	148														750	750	+00	+00				72	67	29.78	A
6027-1	387		12/22/76	76	PLYM	VOLA	8	318	2	1	1	1	FD31825S	18	1050	750	+02	+02	4000	13.2	1	77	53	29.77	1
6027-3	391														750	750	+02	+02				77	50	29.89	3
6027-4	399														750	750	+02	+02				79	54	29.16	4
6028-1	131		9/21/76	76	PLYM	FURY	8	360	2	1	1	1	FD36025S	26	740	700	+08	+06	5000	14.7	1	73	60	29.58	1
6028-2	136														750	700	+08	+06				72	60	29.88	2
6028-3	140														700	700	+08	+06				72	63	29.96	3
6029-1	108		9/14/76	76	PLYM	VOLA	6	225	1	1	1	1	FD22515S	16	780	750	+02	+02	4000	13.2	1	74	70	30.09	1
6029-4	117														750	750	+02	+02				75	69	29.89	4
6029-6	123														800	750	+02	+02				76	73	29.68	6
6029-7	128														750	750	+02	+02				73	64	29.54	7

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST	DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BAROM	TEST
6029-8	132														750	750	+02	+02				73	58	29.78	8
6029-9	137														750	750	+12	+02				71	59	29.91	9
6030-1	011		7/23/76	76	CHRY	CORD	8	400	2	1	1	1	FD40025S	26	780	700	+15	+10	4500	14.0	1	75	68	29.39	1
6030-2	014														710	700	+10	+10				74	65	30.11	2
6030-3	029														700	700	+10	+10				78	68	30.11	3
6031-1	010		7/16/76	76	CHRY	CORD	8	360	2	1	1	1	FD36025S	26	850	700	+08	+06	4500	14.0	1	73	67	29.38	1
6031-3	013														700	700	+08	+06				75	64	30.20	3
6031-4	018														700	700	+06	+06				76	66	29.97	4
6031-6	020														700	700	+06	+06				73	65	29.86	6
6031-7	023														700	700	+06	+06				72	64	29.80	7
6031-8	025														700	700	+06	+06				72	65	29.95	8
6031-9	028														700	700	+06	+06				74	67	30.10	9
5032-1	006		7/12/76	75	CHRY	NEWP	8	400	2	1	1	1	FB2CII	27	730	700	+13	+10	5000	14.7	1	76	67	29.44	1
5032-2	008														700	700	+10	+10				74	67	29.35	2
6033-1	041		8/17/76	76	CHRY	CORD	8	400	2	1	1	1	FD40025S	26	840	700	+10	+10	4500	14.0	1	73	61	30.17	1
6033-2	057														840	700	+10	+10				74	65	30.05	2
6033-3	061														700	700	+10	+10				72	57	30.15	3
6033-4	080														700	700	+10	+10				72	64	30.05	4
5034-1	226		10/20/76	75	FORD	PINT	4	140	2	4	1	2	23CATEGR	11	950	850	+10	+12	3000	10.3	2	75	53	30.12	1
5035-1	233		10/25/76	75	FORD	MUST	4	140	2	4	2	1	231CEPCA	13	850	850	+10	+12	3000	10.3	2	74	57	29.58	1
6036-1	214		10/19/76	76	FORD	MUST	4	140	2	1	2	1	23CATEGR	13	920	750	+18	+20	3000	11.3	1	74	62	29.79	1
6037-1	412		12/30/76	76	FORD	MUST	6	171	2	1	1	1	2CEP2.8C	13	910	700	+12	+12	3500	12.3	1	73	51	29.45	1
6038-1	248		11/02/76	76	FORD	PINT	6	171	2	1	1	1	28CATEGR	13	830	700	+12	+12	3000	11.3	1	74	54	29.96	1
6039-1	136		6/24/77	76	FORD	GRAN	8	302	2	1	1	1	302A1CEF	19	680	500	+06	+06	4000	13.2	2	76	65	29.83	1
6039-2	136														680	500	+06	+06				76	69	29.67	2
6039-4	136														680	500	+06	+06				82	74	29.83	4
6040-1	188		10/12/76	76	FORD	GRAN	6	250	1	3	2	1	2501CEF	19	530	750	+02	+08	4000	13.2	1	71	63	30.11	1
6040-2	190														570	850	+08	+08				71	65	30.07	2
6040-3	174														850	850	+08	+08				73	65	29.55	3
6040-4	201														850	850	+08	+08				73	64	29.94	4
5041-1	240		10/29/76	75	FORD	MAVE	6	250	1	1	1	2	250EGRA1	19	680	600	+06	+06	3000	11.3	1	73	54	30.15	1
5041-3	247														600	600	+06	+06				71	51	30.15	3
5042-1	204		10/15/76	75	FORD	MAVE	6	250	1	1	2	2	250EGRA1	19	620	600	+13	+06	3500	12.3	1	74	67	29.97	1
5042-2	211														680	600	+06	+06				75	55	30.23	2
5042-3	212														600	600	+06	+06				75	59	29.96	3
5043-1	195		10/13/76	75	FORD	GRAN	6	250	1	1	2	1	2501CEF	19	700	600	+06	+06	4000	13.2	1	75	66	29.55	1
6044-1	193		10/13/76	76	FORD	GRAN	8	302	2	1	1	1	302A1CEF	19	620	650	+08	+08	4000	13.2	1	76	70	29.74	1
6044-4	200														650	650	+08	+08				75	69	29.95	3
6044-A	207														650	650	+08	+08				75	55	30.22	A
6045-1	215		10/19/76	76	FORD	GRAN	8	302	2	1	1	1	302A1CEF	19	620	650	+08	+08	4000	13.2	1	74	57	29.50	1
6045-3	223														650	650	+08	+08				74	54	30.03	3
6045-4	235														650	650	+08	+08				74	53	30.06	4
6045-A	242														650	650	+08	+08				76	55	30.10	A
6046-1	185		10/08/76	76	FORD	GRAN	8	351	2	1	1	1	1CEF351W	19	625	625	+10	+11	4000	13.2	1	73	66	30.09	1
6046-3	189														625	625	+10	+11				72	64	30.21	3
6046-4	191														630	625	+10	+11				72	66	29.93	4
6047-1	147		9/27/76	76	FORD	ELIT	8	351	2	1	1	1	351M400	24	800	650	+02	+12	4500	14.0	1	72	68	29.79	1

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BARDM	TEST
6047-2	151													1020	650	+12	+12				73	64	29.83	2
6047-3	160													650	650	+12	+12				74	66	30.00	3
6047-4	165													650	650	+12	+12				72	66	30.04	4
6047-A	173													650	650	+12	+12				74	69	29.91	A
6047-B	179													650	650	+12	+12				74	68	29.92	B
5048-1	202	10/15/76	75	FORD	TORI	8	351	2	1	1	1	351M4001	27	450	650	+04	+08	5000	14.7	1	74	65	29.96	1
5048-2	208													490	650	+08	+08				74	55	30.31	2
5048-4	230													650	650	+08	+08				77	62	29.67	4
5048-A	238													650	650	+08	+08				76	55	30.01	A
6049-1	232	10/24/76	76	FORD	ELIT	8	351	2	1	1	1	351B1CET	24	670	650	+12	+12	4500	14.0	1	75	60	29.57	1
6049-3	237													650	650	+12	+12				72	53	30.27	3
6049-4	244													650	650	+12	+12				72	52	30.14	4
6049-5	253													690	650	+17	+12				75	54	29.80	5
6049-6	254													690	650	+17	+12				73	52	29.93	6
6049-7	255													650	650	+12	+12				72	50	29.97	7
6049-8	256													650	650	+12	+12				73	51	29.62	8
5050-1	146	9/25/76	75	FORD	TORI	8	351	2	1	1	1	351M1CET	21	760	650	+10	+08	5000	14.7	1	73	68	29.79	1
5050-3	161													650	650	+08	+08				76	68	30.02	3
5050-4	170													650	650	+08	+08				74	68	30.00	4
5050-A	181													650	650	+08	+08				75	71	29.75	A
6051-1	413	1/03/77	76	FORD	TORI	8	351	2	1	1	1	351M400C	21	640	650	+04	+04	5000	14.7	1	74	50	29.48	1
6051-3	416													650	650	+07	+08				75	52	29.91	3
6052-1	152	9/29/76	76	FORD	ELIT	8	400	2	1	1	1	351M4002	24	530	650	+17	+16	5000	14.7	1	73	65	29.81	1
6052-3	163													650	650	+17	+16				74	66	30.01	3
6052-4	168													650	650	+17	+16				73	66	30.00	4
6052-6	172													650	650	+17	+16				73	69	29.91	6
6052-7	177													650	650	+17	+16				74	68	29.93	7
6052-8	182													650	650	+17	+16				74	70	29.71	8
6052-9	187													650	650	+21	+16				72	64	30.11	9
6053-1	250	11/04/76	76	FORD	LTD	8	351	2	1	1	1	351M2CET	24	620	650	+13	+12	5000	14.7	1	75	57	29.84	1
5054-1	249	11/02/76	75	FORD	LTD	8	400	2	1	1	1	351M1CET	24	740	700	+16	+08	5000	13.4	1	76	55	29.95	1
6055-1	145	9/24/76	76	FORD	LTD	8	400	2	1	1	1	3512CETM	24	600	650	+13	+16	5000	14.7	1	73	63	30.01	1
6055-2	150													600	650	+16	+16				72	63	29.92	2
6055-4	154													650	650	+16	+16				73	65	29.73	4
6055-A	157													650	650	+16	+16				73	65	29.64	A
6056-1	206	10/18/76	76	FORD	LTD	8	400	2	1	1	1	351M2CET	24	680	650	+16	+16	5000	14.7	1	74	54	30.21	1
6057-1	407	12/28/76	76	FORD	THUN	8	460	4	1	1	1	460A2CMT	27	700	650	+07	+08	5500	15.3	1	72	49	29.71	1
6058-1	260	11/10/76	76	MERC	MONA	6	250	1	1	1	1	250C1CEF	19	690	600	+08	+12	4000	13.2	1	74	53	29.73	1
6058-2	263													700	600	+12	+12				73	54	30.01	2
6058-3	266													600	600	+12	+12				74	52	30.09	3
6058-5	270													590	600	+17	+12				77	53	30.17	5
6058-6	274													600	600	+17	+12				73	52	29.68	6
6058-7	276													600	600	+12	+12				74	52	29.60	7
5059-1	192	10/13/76	75	MERC	MONA	8	302	2	1	1	1	302A1CEF	19	620	650	+16	+08	4000	13.2	1	74	66	29.78	1
5059-2	197													580	650	+08	+08				75	69	29.73	2
5059-3	203													650	650	+08	+08				74	66	29.97	3
5059-4	209													650	650	+08	+08				75	55	30.31	4

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BAROM	TEST
6060-1	349	12/10/76	76	MERC	MONA	8	302	2	1	1	1	302A1CEF	19	820	650	+00	+06	4000	13.2	1	75	56	30.23	1
6060-2	353													830	650	+06	+06				77	53	30.13	2
6060-3	362													650	650	+06	+06				74	51	29.99	3
6060-4	377													650	650	+06	+06				74	55	29.52	4
6060-5	389													650	650	+11	+06				74	50	29.72	5
6060-6	392													650	650	+11	+06				77	50	29.98	6
6060-7	396													650	650	+06	+06				76	51	29.25	7
6060-8	401													650	650	+06	+06				75	53	29.32	8
6060-9	411													650	650	+06	+06				75	50	29.62	9
6061-1	153	9/29/76	76	MERC	COUG	8	351	2	1	1	1	351WB1CE	27	780	650	+16	+12	4500	14.0	1	72	64	29.74	1
6061-2	156													520	650	+12	+12				73	66	29.71	2
6061-3	159													660	650	+12	+12				72	65	29.78	3
6061-4	164													650	650	+12	+12				72	65	29.98	4
6061-A	166													650	650	+12	+12				73	67	30.00	A
6061-B	184													650	650	+12	+12				74	69	29.55	B
6061-C	186													650	650	+12	+12				72	61	30.10	C
5062-1	155	9/30/76	75	MERC	MONG	8	351	2	1	1	1	351M4001	21	610	650	+08	+08	5000	14.7	1	72	65	29.71	1
5062-3	162													650	650	+08	+08				76	67	30.01	3
5062-4	178													650	650	+08	+08				74	68	29.93	4
5062-A	183													650	650	+08	+08				74	70	29.64	A
6063-1	257	11/09/76	76	MERC	MONG	8	351	2	1	1	1	351B1CEF	27	610	650	+1	+12	4500	14.0	1	73	51	29.58	1
6063-2	262													590	650	+12	+12				74	54	29.97	2
6063-3	267													650	650	+12	+12				74	51	30.09	3
6063-4	269													650	650	+12	+12				73	52	29.93	4
6063-A	272													650	650	+12	+12				73	52	29.63	A
6064-1	268	11/15/76	76	MERC	MONA	8	351	2	1	1	1	351W1CEF	19	610	625	+08	+08	4000	13.2	1	75	52	29.92	1
6064-3	271													625	625	+08	+08				74	53	29.61	3
6065-1	258	11/09/76	76	LINC	CONT	8	460	4	1	1	1	460C2CMT	24	670	650	+07	+08	5500	15.3	1	75	52	29.57	1
6065-4	261													650	650	+07	+08				74	53	29.74	4
6065-A	273													650	650	+07	+08				73	52	29.70	A
6066-1	265	11/11/76	76	LINC	CONT	8	460	4	1	1	1	460C2CMT	24	620	650	+06	+08	5500	15.3	1	76	53	30.07	1
6067-1	312	12/03/76	76	BUIC	SKYL	6	231	2	1	1	1	40E27	21	680	600	+11	+12	4000	13.2	1	74	51	29.89	1
6067-2	324													680	600	+11	+12				74	55	29.83	2
6067-3	333													600	600	+11	+12				73	52	29.64	3
6068-1	398	12/27/76	76	BUIC	REGA	8	350	2	1	1	1	40J2	22	620	600	+10	+12	4500	14.0	1	75	52	29.25	1
6069-1	348	12/11/76	76	BUIC	REGA	8	350	4	1	1	1	40J4	22	530	600	+11	+12	4500	14.0	1	76	55	30.05	1
6070-1	414	1/03/77	76	BUIC	LESA	8	350	4	1	1	1	40J4	26	560	600	+11	+12	5000	14.7	1	75	50	29.48	1
6071-1	320	12/03/76	76	BUIC	ELEC	8	455	4	1	1	1	40S4	26	550	600	+09	+12	5500	15.3	1	75	51	30.20	1
6071-2	326													560	600	+12	+12				74	57	29.70	2
6071-3	335													600	600	+12	+12				77	54	29.83	3
6071-4	341													600	600	+12	+12				76	52	30.43	4
6072-1	417	1/05/77	76	CADI	ELDO	8	500	4	1	1	1	60V4	28	600	600	+04	+06	5500	15.3	1	74	52	29.90	1
6072-3	421													600	600	+04	+06				74	53	29.08	3
6072-4	423													600	600	+06	+06				74	50	30.08	4
6073-1	427	1/12/77	76	CADI	SEVI	8	350	0	1	1	1	60J0	21	560	600	+08	+10	4500	14.0	1	72	50	30.38	1
6073-4	433													600	600	+10	+10				77	55	29.59	4
6073-5	434													600	600	+15	+10				74	50	29.73	5

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BAROM	TEST
6073-6	436													620	600	+15	+10				73	49	29.68	6
6073-8	441													600	600	+10	+10				74	50	29.69	8
6073-9	442													680	600	+10	+10				77	51	29.71	9
6074-1	299	11/24/76	76	CHEV	CHET	4	085	1	4	2	1	10W1	13	1020	800	+09	+10	2250	8.8	2	73	50	30.07	1
6075-1	364	12/14/76	76	CHEV	VEGA	4	140	2	3	2	1	10C2	16	770	700	+09	+10	3000	11.3	1	73	51	29.95	1
6076-1	354	12/13/76	76	CHEV	VEGA	4	140	2	1	2	1	10C2	16	660	750	+12	+12	3000	11.3	1	73	50	30.37	1
6077-1	277	11/18/76	76	CHEV	NOVA	6	250	1	1	2	1	10F1	21	630	550	+10	+10	3500	12.3	1	72	51	29.60	1
6077-2	283													630	550	+10	+10				74	51	29.81	2
6078-1	373	12/15/76	76	CHEV	MALI	8	305	2	1	1	1	10G2	22	630	600	+08	+08	4500	14.0	1	75	52	29.85	1
6079-1	281	11/19/76	76	CHEV	CAMA	8	305	2	1	1	1	10G2	21	550	600	+06	+08	4000	13.2	1	71	50	29.94	1
6080-1	345	12/10/76	76	CHEV	CAMA	8	350	4	1	1	1	10N4J	21	550	600	+08	+08	4000	13.2	1	73	52	30.39	1
6080-3	350													600	600	+08	+08				75	56	30.23	3
6080-4	355													600	600	+08	+08				73	50	30.37	4
6081-1	315	12/01/76	76	CHEV	MALI	8	305	2	1	1	1	10G2	22	600	600	+06	+08	4500	14.0	1	71	49	30.20	1
6081-2	325													600	600	+06	+08				74	56	29.78	2
6081-3	337													600	600	+06	+08				73	50	29.89	3
6081-4	344													600	600	+08	+08				73	51	30.36	4
6082-1	305	12/01/76	76	CHEV	MALI	8	305	2	1	1	1	10G2	22	640	600	+06	+08	4500	14.0	1	72	49	30.38	1
6082-3	310													600	600	+06	+08				74	50	30.04	3
6082-4	332													600	600	+08	+08				75	53	29.64	4
6083-1	279	11/17/76	76	CHEV	MONT	8	350	2	1	1	1	10J2	22	680	600	+06	+06	4500	14.0	1	76	53	29.64	1
6084-1	278	11/17/76	76	CHEV	MONT	8	350	2	1	1	1	10JC	22	720	600	+06	+06	4500	14.0	1	75	54	29.62	1
6084-2	288													720	600	+06	+06				74	50	29.99	2
6084-3	292													600	600	+06	+06				72	50	30.03	3
6085-1	374	12/17/76	76	CHEV	IMPA	8	400	4	1	1	1	10N4J	22	525	600	+08	+08	5500	15.3	1	75	52	29.94	1
6086-1	331	12/07/76	76	CHEV	MALI	8	350	2	1	1	1	10J2	22	720	600	+06	+06	4500	14.0	1	75	54	29.64	1
6086-3	339													600	600	+06	+06				73	50	30.10	3
6086-4	343													600	600	+06	+06				74	51	30.37	4
6086-5	347													600	600	+11	+06				76	55	30.05	5
6086-6	351													600	600	+06	+06				76	51	30.13	6
6086-7	356													600	600	+11	+06				74	51	30.37	7
6086-8	361													600	600	+06	+06				74	50	30.00	8
6086-9	368													600	600	+06	+06				76	57	29.60	9
6087-1	371	12/16/76	76	CHEV	IMPA	8	350	2	1	1	1	10J2	26	520	600	+06	+06	5000	14.7	1	75	52	29.79	1
6088-1	368	12/16/76	76	CHEV	CAPR	8	350	2	1	1	1	10J2	26	590	600	+06	+06	5000	14.7	1	77	56	29.48	1
6088-3	378													600	600	+06	+06				74	57	29.35	3
6088-4	388													600	600	+06	+06				74	51	29.76	4
6089-1	280	11/19/76	76	CHEV	IMPA	8	400	4	1	1	1	10N4J	22	620	600	+06	+08	5500	15.3	1	77	53	29.56	1
6089-3	293													600	600	+06	+08				74	51	30.10	3
6089-4	298													600	600	+08	+08				72	50	30.03	4
6090-1	393	12/27/76	76	OLDS	CUTL	8	350	4	1	1	1	30J4	22	640	550	+21	+22	4500	14.0	1	75	50	29.67	1
6091-1	282	11/19/76	76	OLDS	CUTL	8	350	4	1	1	1	30J4	22	460	550	+22	+22	4500	14.0	1	74	52	29.60	1
6091-3	285													550	550	+22	+22				74	51	29.80	3
6092-1	323	12/06/76	76	OLDS	CUTL	8	350	4	1	1	1	30J4	22	590	550	+21	+22	4500	14.0	1	76	54	30.26	1
6092-2	340													590	550	+21	+22				73	50	30.15	2
6093-1	390	12/23/76	76	OLDS	DELT	8	350	4	1	1	1	30J4	26	590	550	+22	+33	5000	14.7	1	73	50	29.86	1
6093-2	400													620	550	+20	+20				76	54	29.18	2

APPENDIX A

LISTING OF VEHICLE AND TEST PARAMETERS

TEST SITE: WASHINGTON, D.C.

VEH NO	RUN	TEST DATE	YR	MAKE	MODEL	C	CID	V	T	A	CT	EF	FT	IRPM	IRPMS	IGN	IGNS	INRT	RLHP	L	DB	WB	BAROM	TEST
6093-3	405													550	550	+20	+20				74	52	29.33	3
6094-1	304	11/29/76	76	OLDS	CUST	B	455	4	1	1	1	30S4	22	650	550	+10	+16	5500	15.3	1	73	50	30.29	1
6094-2	314													675	550	+16	+16				71	49	30.13	2
6094-3	319													550	550	+16	+16				74	51	30.20	3
6095-1	297	11/24/76	76	OLDS	REGE	B	455	4	1	1	1	30S4	26	640	550	+16	+18	5000	14.7	1	73	53	29.75	1
6096-1	422	1/07/77	76	PONT	FIRE	6	250	1	1	1	1	10F1	21	625	550	+11	+12	4000	13.2	1	74	54	29.12	1
6096-3	424													550	550	+11	+12				75	50	30.04	3
6096-5	425													600	550	+17	+12				73	50	30.08	5
6096-6	426													550	550	+17	+12				74	49	30.39	6
6096-7	428													600	550	+12	+12				74	50	30.30	7
6096-8	430													550	550	+12	+12				74	50	30.02	8
6096-9	432													550	550	+12	+12				75	53	29.58	9
6097-1	322	11/30/76	76	PONT	VENT	B	260	2	1	1	1	30H2J	21	560	550	+17	+18	4000	13.2	1	73	48	30.20	1
6098-1	359	12/14/76	76	PONT	LEMA	B	350	2	1	1	1	20K2	22	690	550	+12	+16	4500	14.0	1	75	51	30.25	1
6098-2	370													690	550	+16	+16				77	55	29.59	2
6098-3	376													550	550	+16	+16				75	52	30.03	3
6098-4	380													550	550	+16	+16				77	53	29.42	4
6099-1	291	11/24/76	76	PONT	GRNP	B	350	2	1	1	1	20K2	25	540	550	+16	+16	4500	14.0	1	71	50	30.03	1
6100-1	303	11/25/76	76	PONT	BONN	B	400	2	1	1	1	20K2	22	680	550	+13	+16	5000	14.7	1	71	50	30.29	1
6100-2	308													690	550	+16	+16				73	50	30.10	2
6100-3	316													550	550	+16	+16				74	50	30.22	3

LEGEND FOR
APPENDIX B
LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

VEH NO = Vehicle Number

YR = Model Year

MAKE = Vehicle Make

MODEL = Vehicle Model

VIN = Vehicle Identification Number

ODOM = True Mileage

N = Purchased New or Used? (1 = new; 2 = used)

Y = Yearly Vehicle Miles Traveled (1 = 0-5,000; 2 = 5,001-10,000;
3 = 10,001-15,000; 4 = 15,001-20,000; 5 = 20,001-30,000; 6 = over 30,000)

MD = Altered Engine and/or Exhaust Components (1 = yes; 2 = no; 3 = don't know)

C = Major City Street Driving (1 = all; 2 = most; 3 = some; 4 = little/none)

S = Rural Road Driving (1 = all; 2 = most; 3 = some; 4 = little/none)

E = Rural Expressway Driving (1 = all; 2 = most; 3 = some; 4 = little/none)

W = Driving To and From Work (1 = all; 2 = most; 3 = some; 4 = little/none)

G = Shopping (1 = all; 2 = most; 3 = some; 4 = little/none)

B = Business Not To and From Work (1 = all; 2 = most; 3 = some;
4 = little/none)

V = Social, Vacation, etc. (1 = all; 2 = most; 3 = some; 4 = little/none)

TD = Number of Trips Made On A Typical Day (One Trip is Defined as Starting
the Engine, Traveling Some Distance and Stopping the Engine)

WT = Number of Wide Open Throttle Accelerations Used Per Week

U = Vehicle Operated 50% of the Time on Unpaved Roads, in Competitive Events,
or in Hauling or Transporting Loads Heavier than for which it was
Designed? (1 = yes; 2 = no; 3 = don't know)

H = Hard Starting (1 = yes; 2 = no)

ST = Stalling (1 = yes; 2 = no)

R = Rough Idle (1 = yes; 2 = no)

M = Engine Misfiring (1 = yes; 2 = no)

A = Poor Acceleration (1 = yes; 2 = no)

SB = Engine Performance Problems - Stumbling (1 = yes; 2 = no)

DS = Engine Performance Problem - Dieseling (1 = yes; 2 = no)

D = Has Vehicle ever had Major Damage to: a) cooling system;
b) engine; c) fuel tank; d) exhaust system; e) no damage.
(1 = yes; 2 = no; 3 = don't know)

LO = Date of last oil change (1 = 0-6 mos; 2 = 6-12 mos; 3 = over 1 yr;
4 = don't know)

LEGEND FOR

APPENDIX B (cont'd)

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

LT = Last Tune-Up (1 = 0-6 mos; 2 = 6-12 mos; 3 = over 1 yr;
4 = don't know)

MAR = Vehicle maintained to manufacturer's recommended specifications
(1 = yes; 2 = no; 3 = don't know)

NW = Number of warranty repairs

PP = Was vehicle returned for performance problems (1 = No Warranty;
2 = Never Returned; 3 = yes; 4 = no)

UL = Unleaded Fuel Required (1 = yes; 2 = no)

L = Number of times leaded fuel was used (1 = Not required; 2 = Never;
3 = Seldom; 4 = Occasionally; 5 = Frequently; 6 = don't know)

H2S = Have you or others noticed a Hydrogen Sulfide (rotten eggs) odor
in this vehicle's exhaust? (1 = never; 2 = rarely; 3 = occasionally
4 = regularly; 5 = don't know)

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

TEST SITE: WASHINGTON, D.C.

VEH	NO.	YR	MAKE	MODEL	VIN	ODOM	N	Y	MD	C	S	E	W	G	B	V	TD	WT	U	H	ST	R	M	A	SB	DS	D	LO	LT	MAR	NW	PP	UL	L	H2S
6001	76	DODG	ASPE	NH45C6B273584	2007	1	3	2	4	4	4	3	2	4	3	02	3	2	2	2	2	2	2	2	2	2	222222	1	1	1	3	4	1	2	3
5002	75	DODG	DART	LH41C5F182660	9470	1	3	2	3	4	3	4	3	4	1	02	1	2	2	2	2	2	1	1	1	222212	3	3	1	5	3	1	2	4	
6003	76	DODG	ASPE	NL45C6B245345	10603	1	3	2	2	4	3	4	3	4	2	02	2	2	2	2	2	2	2	2	2	222212	3	3	1	4	3	1	2	1	
6004	76	DODG	ASPE	NL45C6B213450	11543	1	4	2	2	4	4	2	3	4	3	04	2	2	1	1	1	2	2	2	2	222212	2	1	1	5	3	1	2	4	
5005	75	DODG	DART	LH41C5F195535	3795	1	1	2	2	4	4	3	3	2	3	02	2	2	2	1	2	2	1	2	1	222212	3	3	1	5	3	1	2	1	
6006	76	DODG	ASPE	NP41G6F180821	5303	1	4	2	3	2	4	2	3	4	4	04	1	2	2	2	2	2	2	2	2	222212	3	1	1	3	4	1	2	1	
5007	75	DODG	DART	LP23G5B166898	9940	1	3	2	3	3	4	2	3	4	3	04	1	2	2	1	2	2	1	2	2	222212	3	3	3	5	3	2	1	1	
5008	75	DODG	CHAR	XS22G5R332805	10960	1	2	2	2	4	4	2	3	4	3	04	1	2	2	2	2	2	1	2	2	222212	4	1	1	3	4	1	2	3	
6009	76	DODG	CORO	WL41G6A113868	10133	1	3	2	2	4	4	2	3	4	4	02	1	2	2	1	2	2	1	1	2	222212	3	3	1	4	3	1	2	1	
6010	76	DODG	CHAR	XS22K6R214370	7114	1	4	2	3	3	3	2	3	4	3	04	1	2	2	2	2	2	2	2	2	222212	3	1	1	4	3	1	2	1	
6011	76	DODG	CHAR	WL23G6G156546	4894	1	2	2	1	4	4	2	3	4	3	02	2	2	2	2	1	2	1	2	2	222212	3	1	1	5	3	1	2	2	
6012	76	DODG	CHAR	XS22K6R162409	11499	1	3	2	2	4	4	3	3	4	2	06	1	2	2	2	2	2	2	2	2	222212	3	3	1	3	4	1	2	3	
6013	76	DODG	MONA	DH46M6D206492	3152	1	3	2	3	3	3	4	2	4	2	03	1	2	2	2	2	2	2	2	2	222212	1	1	1	5	4	1	2	4	
6014	76	FLYM	VALI	VL41C6F139009	14334	1	4	2	3	2	4	1	3	4	3	03	1	2	2	2	2	2	2	2	2	222212	3	2	1	3	4	1	3	1	
5015	75	FLYM	DUST	VH29C5B183065008/89		1	3	2	2	4	4	3	3	4	2	02	1	2	2	2	2	2	1	1	1	222212	3	1	1	4	4	1	2	1	
6016	76	FLYM	VOLA	HH45C6B112935	5352	1	2	2	3	3	1	4	2	4	3	02	1	2	2	2	2	2	2	2	2	222212	2	1	1	5	4	1	2	4	
6017	76	FLYM	VALI	VL41C6F104443	12430	1	3	2	1	4	3	2	3	3	3	03	1	2	2	1	2	2	2	1	1	222212	6	3	1	5	4	1	2	1	
6018	76	FLYM	VOLA	HL45C6B241136	8707	1	3	2	3	4	3	4	3	4	2	02	2	2	2	2	2	2	2	2	2	222212	3	1	1	5	3	1	2	1	
6019	76	FLYM	VALI	VL41C6F129082	10917	1	3	2	2	4	4	2	3	3	3	04	1	2	1	2	2	2	2	2	2	222212	3	1	1	5	3	1	2	3	
6020	76	FLYM	VOLA	HF41G6F155976003/42		1	2	2	2	4	4	2	3	4	3	02	1	2	2	2	1	2	2	1	2	222212	3	1	1	5	3	1	2	1	
6021	76	FLYM	VOLA	HH45G6B238568	2726	1	2	2	1	4	4	4	1	4	3	02	1	2	2	2	2	2	2	1	2	222212	1	1	1	2	2	1	2	1	
6022	76	FLYM	VOLA	HF29C6B178059	6819	1	3	2	2	4	4	1	3	4	4	04	1	2	2	2	2	2	2	2	2	222212	2	1	1	4	4	1	2	2	
6023	76	FLYM	FURY	RH23G6A121123	11039	1	4	2	1	3	4	1	3	4	4	04	1	2	2	2	2	2	2	2	2	222212	3	3	1	5	4	1	2	1	
6024	76	FLYM	FURY	RH23G6A121133	8747	1	4	2	3	4	4	3	4	2	4	04	1	2	2	2	2	2	2	2	2	222212	3	1	1	2	2	1	2	1	
6025	76	FLYM	FURY	RH23K6A143191	9972	1	3	2	2	4	3	3	4	1	4	09	1	2	2	2	2	2	2	2	2	222212	3	1	1	5	4	1	2	4	

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

TEST SITE: WASHINGTON, D.C.

VEH NO.	YR	MAKE	MODEL	VIN	ODOM	N	Y	MD	C	S	E	W	G	B	V	TD	WT	U	H	ST	R	M	A	SB	DS	D	LO	LT	MAR	NW	PP	UL	L	H2S
5026	75	FLYM	VALI	VH41C5B345588	8637	1	2	2	2	4	4	4	2	4	3	04	1	2	2	1	1	2	2	1	1	222212	3	1	1	5	3	1	2	1
6027	76	FLYM	VDLA	HP29G6F278286	3341	1	3	2	2	4	3	4	3	4	2	05	2	2	2	2	2	2	2	2	2	222212	1	1	1	3	4	1	2	1
6028	76	FLYM	FURY	PH41N6D107888	5875	1	3	2	2	4	4	2	3	3	3	05	3	2	2	2	1	2	2	2	1	222212	3	1	1	4	3	1	2	3
6029	76	FLYM	VDLA	HL41C6B11406B	5670	1	2	2	2	4	4	2	3	4	4	04	1	2	2	1	1	2	1	1	2	222212	6	6	1	5	3	1	2	1
6030	76	CHRY	CORD	SS22M6R136420	10291	1	5	2	2	4	3	2	3	4	3	05	3	2	1	1	1	2	1	2	2	222212	3	1	1	5	3	1	2	4
6031	76	CHRY	CORD	SS22N6R111937	8780	1	3	2	2	3	4	1	3	4	3	04	3	2	2	2	2	2	2	2	2	222212	3	1	1	3	4	1	2	4
5032	75	CHRY	NEWP	CL41M5C192204	11574	1	3	2	3	3	3	3	3	4	3	06	2	2	2	2	2	2	2	2	2	222212	3	1	1	4	4	1	2	1
6033	76	CHRY	CORD	SS22M6R111964	7637	1	3	2	1	4	4	1	3	4	3	02	1	2	2	2	2	2	2	2	2	222212	3	3	1	4	3	1	2	3
5034	75	FORD	PINT	5T11Y194164	13947	1	3	2	2	3	3	3	3	3	3	05	1	2	2	2	2	2	2	2	2	222212	3	3	1	4	4	1	2	1
5035	75	FORD	MUST	5F02Y232231	13354	1	3	2	3	3	3	2	4	4	3	04	2	2	2	2	2	2	2	2	2	222212	3	3	1	3	3	1	2	1
6036	76	FORD	MUST	6F02Y108491	13302	1	3	2	3	2	3	1	4	4	3	04	3	1	2	2	2	2	2	2	2	222212	3	3	1	3	4	1	2	1
6037	76	FORD	MUST	6F02Z258070	9018	1	3	2	2	4	3	3	2	4	1	02	2	2	2	1	1	2	1	2	1	222212	1	1	1	2	2	1	2	1
6038	76	FORD	PINT	6T11Z185745	2610	1	2	2	2	4	4	1	3	4	4	04	1	2	2	2	2	2	2	2	1	222212	3	1	1	5	4	1	2	1
6039	76	FORD	GRAN	6E82F291174007730		1	2	2	2	4	4	1	4	3	4	10	1	2	2	1	2	2	2	2	1	222212	3	3	1	2	2	1	2	1
6040	76	FORD	GRAN	6E81L140175	13575	1	3	2	3	4	4	1	3	4	4	02	1	2	2	2	1	1	2	2	2	222212	3	1	1	5	3	1	2	4
5041	75	FORD	MAVE	5X92L176735	13551	1	3	2	3	4	4	1	3	4	3	04	1	2	2	2	2	2	2	1	1	222212	3	3	1	3	4	1	2	1
5042	75	FORD	MAVE	5X91L159091	6434	1	2	2	1	4	4	1	3	4	4	02	1	2	2	1	2	2	2	2	2	222212	3	1	1	4	3	1	2	1
5043	75	FORD	GRAN	5WB1L251669	10698	1	2	2	2	4	4	4	2	3	3	02	1	2	2	2	2	2	2	2	2	222212	3	3	1	3	4	1	2	1
6044	76	FORD	GRAN	6E82F116461	6982	1	2	2	3	4	4	4	2	3	3	02	1	2	2	2	2	2	1	2	2	222212	2	1	1	5	3	1	2	1
6045	76	FORD	GRAN	6E84F109519	12790	1	3	2	2	4	4	1	4	4	4	02	2	2	2	2	2	2	2	2	2	222212	3	2	1	2	2	1	2	1
6046	76	FORD	GRAN	6E81H153413	13862	1	3	2	2	3	3	1	3	4	3	02	2	2	2	2	1	2	2	2	2	222212	2	3	3	5	3	1	2	1
6047	76	FORD	ELIT	6G21H125420	14235	1	3	2	1	4	4	1	4	4	4	03	1	2	2	2	1	2	2	2	2	222212	3	1	1	3	3	1	2	1
5048	75	FORD	TORI	5A33H162201	13135	1	3	2	2	4	4	1	3	4	3	03	2	2	2	2	2	2	2	2	2	222212	3	2	1	5	3	1	2	1
6049	76	FORD	ELIT	6G21H159177	9203	1	3	2	3	4	3	1	4	4	3	04	1	2	2	2	2	2	2	1	1	222212	3	1	1	4	4	1	2	1
5050	75	FORD	TORI	5H42H221574	13942	1	3	2	2	4	4	2	3	4	3	02	1	2	2	2	2	2	2	2	2	222212	3	2	3	4	3	1	2	1

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

TEST SITE: WASHINGTON, D.C.

VEH NO.	YR	MAKE	MODEL	VIN	ODOM	N	Y	MD	C	S	E	W	G	B	V	TD	WT	U	H	ST	F	M	A	SB	DS	D	LO	LT	MAR	NW	PP	UL	L	H2S
6051	76	FORD	TORI	6A43H168046	5436	1	3	2	2	4	3	2	3	4	3	04	1	2	2	2	2	2	2	1	222212	3	1	1	3	4	1	2	1	
6052	76	FORD	ELIT	6G21S116054	7774	1	2	2	2	4	4	2	3	4	4	02	1	2	2	2	2	2	1	2	222212	3	1	1	4	4	1	2	3	
6053	76	FORD	LTD	6B62H100936	13699	1	3	2	2	4	4	2	3	4	3	02	1	2	2	1	2	2	1	2	222212	3	2	1	3	3	1	2	2	
5054	75	FORD	LTD	5B68S167381	14668	1	3	2	3	3	3	3	4	4	3	02	1	2	2	2	1	2	2	1	2	222212	3	3	1	5	4	1	2	1
6055	76	FORD	LTD	6B65S119564	5998	1	2	2	2	4	4	2	3	4	4	02	1	2	2	2	2	2	2	2	222212	3	1	1	5	4	1	2	1	
6056	76	FORD	LTD	6B64S122560	12878	1	3	2	1	4	4	2	3	4	3	02	1	2	2	2	2	2	2	2	222212	3	2	1	5	3	1	2	1	
6057	76	FORD	THUN	6Y87A132481	5075	1	3	2	2	4	4	2	3	4	3	03	1	2	2	2	2	2	2	2	222212	3	1	1	2	2	1	2	1	
6058	76	MERC	MONA	6E34L528283	3344	1	3	2	3	3	3	2	3	4	3	04	1	2	2	1	2	2	2	1	222213	1	1	1	5	3	1	2	1	
5059	75	MERC	MONA	5E37F543498	11509	1	1	2	3	4	4	4	1	3	4	04	1	2	2	2	2	2	2	2	222212	3	4	1	4	3	1	2	1	
6060	76	MERC	MONA	6E37F547774	8994	1	3	2	4	3	2	2	3	3	4	03	2	2	2	2	2	1	2	1	222212	2	2	1	2	2	1	2	5	
6061	76	MERC	COUG	6A93H515096	14050	1	3	2	2	4	4	2	3	4	3	04	1	2	2	2	2	2	2	2	222212	3	2	1	3	3	1	2	2	
5062	75	MERC	MONG	5H18H563206	12374	1	3	2	2	4	4	1	3	4	3	02	1	2	2	1	2	2	1	2	222212	3	1	3	3	4	1	2	1	
6063	76	MERC	MONG	6H10H517388	6054	1	3	2	3	4	4	2	3	4	3	02	1	2	2	2	2	2	2	2	222212	3	1	1	3	3	1	2	1	
6064	76	MERC	MONA	6W37H571675	5370	1	3	2	2	4	3	3	3	2	3	07	2	2	2	2	2	2	2	2	222212	3	1	1	3	4	1	2	2	
6065	76	LINC	CONT	6Y82A907307	2470	1	3	2	4	4	3	3	2	4	3	02	1	2	2	2	2	2	2	2	222212	1	1	1	3	4	1	2	1	
6066	76	LINC	CONT	6Y82A890697	4868	1	3	2	3	4	4	1	3	4	4	02	1	2	2	2	2	2	2	2	222212	3	1	1	2	2	1	2	1	
6067	76	BUIC	SKYL	4B69C6T102255	10748	1	3	2	3	3	3	4	2	4	2	02	1	2	2	1	1	2	2	1	2	222212	3	1	1	5	3	1	2	3
6068	76	BUIC	REGA	4J57H6G144061	11928	1	5	2	2	4	3	2	3	4	3	06	1	2	2	2	2	2	2	1	222212	3	3	1	3	4	1	2	1	
6069	76	BUIC	REGA	4J57J6H130661	9741	1	2	2	2	4	4	4	1	4	3	04	1	2	2	2	2	2	1	2	2	222212	3	1	1	2	2	1	2	1
6070	76	BUIC	LESA	4F39L6H586312	9688	1	3	2	2	4	4	2	3	4	3	04	1	2	2	2	2	2	2	2	222212	3	1	1	3	4	1	2	1	
6071	76	BUIC	ELEC	4V39Y6E108436	13411	1	3	2	2	4	4	2	3	4	3	02	1	2	2	2	2	2	1	1	2	222212	3	2	1	5	3	1	2	1
6072	76	CADI	ELDO	6L67S6Q250458	8475	1	3	2	3	4	4	3	4	1	4	10	1	2	2	2	2	2	2	2	222212	6	6	1	6	4	1	2	1	
6073	76	CADI	SEVI	6S69R6Q462154	2222	1	3	2	3	4	4	4	4	1	4	10	1	2	2	2	2	2	2	2	222212	1	1	1	6	4	1	2	1	
6074	76	CHEV	CHET	1B0816Y165519	5084	1	2	2	2	4	4	1	3	4	4	02	1	2	2	2	1	2	2	2	222212	3	1	1	3	4	1	2	4	
6075	76	CHEV	VEGA	1V77B6U173410	5602	1	2	2	2	4	3	1	3	4	3	02	4	2	2	2	2	2	2	2	222212	4	1	1	4	4	1	2	1	

APPENDIX B

LISTING OF TEST VEHICLE USE AND MAINTENANCE DATA

TEST SITE: WASHINGTON, D.C.

VEH	NO.	YR	MAKE	MODEL	VIN	ODOM	N	Y	M	C	S	E	W	G	B	V	T	D	U	H	S	T	R	M	A	S	B	D	D	LO	LT	MAR	NW	FP	UL	L	H2S		
6076		76	CHEV	VEGA	1V11B6U105726	7785	1	2	2	3	4	3	2	3	3	4	06	1	2	1	1	1	2	2	2	2	2	2	2	2	2	3	2	1	3	3	1	2	1
6077		76	CHEV	NOVA	1X69D6T114480	14518	1	3	2	3	4	4	3	2	4	4	02	1	2	1	2	2	2	2	2	2	2	2	2	2	2	3	3	1	5	3	1	2	4
6078		76	CHEV	MALI	1C29Q6B613240	1412	1	3	2	2	4	4	1	3	4	3	04	4	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2	1	2	1
6079		76	CHEV	CAMA	1Q87Q6N550147	7169	1	2	2	3	4	4	4	3	4	2	02	1	2	2	2	2	2	2	2	1	2	2	2	2	3	2	1	3	4	1	2	1	
6080		76	CHEV	CAMA	1S87L6N612918	5401	1	3	2	4	4	3	4	2	4	4	04	1	2	2	2	2	2	2	2	2	2	2	2	2	3	2	1	5	4	1	2	1	
6081		76	CHEV	MALI	1D37Q6B463416	8361	1	2	2	2	4	3	2	3	4	3	02	1	2	2	2	2	2	2	1	2	2	2	2	3	1	1	3	4	1	2	1		
6082		76	CHEV	MALI	1D29Q6B621000	1514	1	2	2	2	4	4	3	2	4	4	02	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	4	4	1	2	1	
6083		76	CHEV	MONT	1H57V6B574863	12710	1	4	2	3	3	2	1	3	4	3	04	3	2	2	1	2	1	1	2	2	2	2	2	3	3	1	4	3	1	2	2		
6084		76	CHEV	MONT	1H57V6B454955	7401	1	2	2	3	4	4	2	3	4	4	03	1	2	2	2	2	2	2	2	2	2	2	2	3	1	1	4	3	1	2	1		
6085		76	CHEV	IMPA	1L35U61132863	6133	1	2	2	3	4	4	1	3	4	3	02	2	2	2	1	2	2	2	2	1	2	2	2	3	1	1	5	4	1	2	4		
6086		76	CHEV	MALI	1C29V6B552151	14640	1	4	2	3	4	3	1	3	4	3	04	1	2	2	2	2	2	2	2	1	2	2	2	3	1	1	5	4	1	2	1		
6087		76	CHEV	IMPA	1L69V61105456	3251	2	2	2	3	4	4	4	2	4	4	04	1	2	2	1	2	2	2	2	2	2	2	2	2	1	1	1	1	4	1	2	1	
6088		76	CHEV	CAPR	1N69V61151393	7115	1	3	2	3	3	3	3	3	4	3	04	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	3	4	1	2	1	
6089		76	CHEV	IMPA	1L45U61173857	10567	1	3	2	4	4	4	4	1	4	3	04	2	2	2	2	2	2	2	2	2	2	2	2	3	3	1	4	4	1	2	1		
6090		76	OLDS	CUTL	3N57R6D204627	4163	1	2	2	3	4	4	2	3	4	4	03	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	4	4	1	2	1
6091		76	OLDS	CUTL	3G37R6M352212	8070	1	3	2	3	3	3	2	3	4	3	03	3	2	2	2	2	2	2	2	2	2	2	2	3	1	1	3	4	1	2	4		
6092		76	OLDS	CUTL	3J57R6D190346	7403	1	3	2	3	3	2	3	3	4	1	06	1	2	2	2	1	2	1	1	1	1	2	2	3	1	1	5	3	1	2	4		
6093		76	OLDS	DELT	3N39R6M291474	11543	1	3	2	2	3	3	4	3	4	2	02	1	2	2	1	1	1	1	1	2	2	2	2	3	1	1	5	4	1	2	1		
6094		76	OLDS	CUST	3R35T6X126906	7882	1	2	2	3	4	4	3	3	3	3	02	1	2	2	2	2	2	2	1	2	2	2	2	3	1	1	5	4	1	2	4		
6095		76	OLDS	REGE	3X37T6E106212	8183	1	2	2	3	4	3	2	3	4	4	03	1	2	2	2	2	2	1	2	2	2	2	2	3	2	1	5	3	1	2	1		
6096		76	PONT	FIKE	2T87D6N580470	9644	1	3	2	3	4	4	2	3	4	3	03	3	2	2	2	2	2	2	2	1	2	2	2	3	1	1	5	4	1	2	5		
6097		76	PONT	VENT	2Z17F6T114883	9270	1	2	2	1	3	3	1	3	4	3	02	1	2	2	2	2	2	2	2	2	2	2	2	3	1	1	4	4	1	2	1		
6098		76	PONT	LEMA	2F37M6G110810	9725	1	3	2	3	4	3	3	3	4	2	02	2	2	2	2	1	2	1	2	2	2	2	2	3	2	1	2	2	1	2	3		
6099		76	PONT	GRNF	2J57M6F124533	14280	1	2	1	2	4	4	2	3	4	3	02	1	2	2	1	2	2	1	1	2	2	2	2	3	1	1	2	2	1	2	1		
6100		76	PONT	BORN	2F49N6F101150	11173	1	3	2	3	4	2	4	3	4	2	06	1	2	2	2	1	2	2	1	2	2	2	2	3	1	1	5	4	1	2	1		

APPENDIX C

MALADJUSTMENT & DISABLEMENT INSPECTION FORM

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	INDUCTION SYSTEM INSE____ACI	CARBURETOR & FUEL SYS INSE____ACI	IGNITION SYSTEM INSE____ACI	EGR SYSTEM INSE____ACI	AIR PUMP SYSTEM INSE____ACI	PCV SYSTEM INSE____ACI	EXHAUST SYSTEM INSE____ACI	EVAP CONTROL SYSTEM INSE____ACI	OTHER EMISSION RELATED COMPONENTS INSE____ACI	MAN HRS. FOR INSP -----	MAN HRS. FOR ACT. -----
6001	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
5002	PASS	FAIL ADJ	FAIL RFR	FAIL RFL		PASS	PASS	PASS		.8	2.0
6003	PASS	FAIL RFR	PASS	PASS		PASS	PASS	PASS		.6	.1
6004	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.6	.0
5005	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.6	.3
6006	PASS	FAIL	FAIL	PASS		PASS	PASS	PASS		.6	.0
5007	PASS	FAIL RFR	FAIL RFR	FAIL RFR	PASS	PASS	PASS	PASS		1.0	3.5
5008	PASS	PASS	FAIL ADJ	PASS		PASS	PASS	PASS		.7	.2
6009	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.7	.0
6010	FAIL	FAIL	PASS	PASS		PASS	PASS	PASS	PASS	.7	.0
6011	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.6	.0
6012	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.7	.0
6013	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.5	.3
6014	PASS	FAIL	PASS	PASS		PASS	PASS	PASS	PASS	.6	.0
5015	PASS	PASS	PASS	PASS		PASS	PASS	PASS	PASS	.5	.0
6016	PASS	FAIL	PASS	PASS		PASS	PASS	PASS	PASS	.5	.0
6017	PASS	FAIL	PASS	FAIL RFR		PASS	PASS	PASS	PASS	.6	.2
6018	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.6	.3
6019	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.5	.3
6020	FAIL RFR	FAIL	PASS	PASS		PASS	PASS	PASS	PASS	.7	.2
6021	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.7	.0
6022	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.6	.3
6023	PASS	FAIL ADJ	PASS	PASS		PASS	PASS	PASS		.6	.5
6024	PASS	PASS	PASS	FAIL RFL		PASS	PASS	PASS		.7	.3

INSPECTION COLUMN:

PASS

FAIL

BLANK = NOT APPLICABLE

ACTION COLUMN:

BLANK = NO ACTION

ADJ = ADJUST

RFR = REPAIR

RFL = REPLACE

APPENDIX C

MALADJUSTMENT & DISABLEMENT INSPECTION FORM

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	INDUCTION SYSTEM INSE__ACI	CARBURETOR & FUEL SYS INSE__ACI	IGNITION SYSTEM INSE__ACI	EGR. SYSTEM INSE__ACI	AIR PUMP SYSTEM INSE__ACI	FCV SYSTEM INSE__ACI	EXHAUST SYSTEM INSE__ACI	EVAP CONTROL SYSTEM INSE__ACI	OTHER EMISSION RELATED COMPONENTS INSE__ACI	MAN HRS. FOR INSP	MAN HRS. FOR ACT.
6025	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.7	.0
5026	PASS	FAIL	PASS	FAIL RPR		PASS	PASS	PASS		.5	.2
6027	PASS	PASS	PASS	PASS		PASS	PASS	PASS	PASS	.5	.0
6028	PASS	FAIL	PASS	FAIL RPR		PASS	PASS	PASS		.5	.2
6029	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6030	FAIL RPR	FAIL RPL	FAIL ADJ	FAIL RPR		PASS	PASS	PASS		.5	1.0
6031	PASS	FAIL	PASS	PASS		PASS	PASS	PASS	PASS	.5	.0
5032	PASS	PASS	FAIL	PASS		PASS	PASS	PASS	PASS	.5	.0
6033	FAIL RPL	FAIL	PASS	PASS		PASS	PASS	PASS		.6	.2
5034	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.7	.0
5035	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS	PASS	.5	.0
6036	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6037	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.5	.0
6038	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6039	PASS	PASS	PASS	FAIL RPR	PASS	PASS	PASS	PASS		1.0	.0
6040	PASS	PASS	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.7	.3
5041	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS	PASS	.6	.0
5042	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.5	.3
5043	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6044	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.7	.0
6045	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.7	.0
6046	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		1.0	.0
6047	FAIL RPR	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		1.0	.4
5048	PASS	PASS	FAIL ADJ	FAIL	PASS	PASS	PASS	PASS		.5	.3

INSPECTION COLUMN:

PASS

FAIL

BLANK = NOT APPLICABLE

ACTION COLUMN:

BLANK = NO ACTION

ADJ = ADJUST

RPR = REPAIR

RPL = REPLACE

APPENDIX C

MALADJUSTMENT & DISABLEMENT INSPECTION FORM

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	INDUCTION SYSTEM INSE___ACI	CARBURETOR & FUEL SYS INSE___ACI	IGNITION SYSTEM INSE___ACI	EGR. SYSTEM INSE___ACI	AIR PUMP SYSTEM INSE___ACI	PCV SYSTEM INSE___ACI	EXHAUST SYSTEM INSE___ACI	EVAP CONTROL SYSTEM INSE___ACI	OTHER EMISSION RELATED COMPONENTS INSE_____ACI	MAN HRS. FOR INSP -----	MAN HRS. FOR ACT. -----
6049	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
5050	PASS	FAIL	PASS	FAIL RPL	PASS	PASS	PASS	PASS		.5	.6
6051	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.5	.0
6052	PASS	PASS	PASS	FAIL RPL	PASS		PASS	PASS		.8	.6
6053	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
5054	PASS	FAIL	FAIL	PASS	PASS	PASS	PASS	PASS	PASS	.6	.0
6055	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.6	.3
6056	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6057	PASS	FAIL	PASS	PASS	PASS	PASS	PASS	PASS		.5	.0
6058	PASS	PASS	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.6	.3
5059	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.6	.3
6060	PASS	PASS	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.5	.3
6061	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.6	.3
5062	PASS	PASS	PASS	FAIL	PASS	PASS	PASS	PASS		.6	.0
6063	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.6	.3
6064	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6065	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.6	.0
6066	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.5	.0
6067	PASS	FAIL ADJ	PASS	FAIL RPL		PASS	PASS	PASS		.5	.4
6068	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6069	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6070	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6071	PASS	PASS	FAIL ADJ	PASS		PASS	PASS	PASS		.5	.3
6072	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0

INSPECTION COLUMN:

PASS

FAIL

BL NOT REPLICATED

ACTION COLUMN:

BLANK= NO ACTION

ADJ= ADJUST

RE= REPAIR

REF= REFUSE

APPENDIX C

MALADJUSTMENT & DISABLEMENT INSPECTION FORM

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	INDUCTION SYSTEM INSE--ACI	CARBURETOR & FUEL SYS INSE--ACI	IGNITION SYSTEM INSE--ACI	EGR. SYSTEM INSE--ACI	AIR PUMP SYSTEM INSE--ACI	PCV SYSTEM INSE--ACI	EXHAUST SYSTEM INSE--ACI	EVAP CONTROL SYSTEM INSE--ACI	OTHER EMISSION RELATED COMPONENTS INSE-----ACI	MAN HRS. FOR INSP -----	MAN HRS. FOR ACT. -----
6073	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS		.5	.0
6074	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6075	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6076	PASS	PASS	PASS	PASS		PASS	PASS	PASS	PASS	.5	.0
6077	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.5	.0
6078	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6079	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6080	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.5	.0
6081	FAIL ADJ	PASS	PASS	PASS		PASS	PASS	PASS		.5	.1
6082	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.5	.0
6083	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6084	PASS	FAIL ADJ	PASS	PASS		PASS	PASS	PASS		.5	.5
6085	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6086	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.5	.0
6087	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6088	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6089	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6090	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6091	PASS	FAIL	PASS	PASS		PASS	PASS	PASS		.5	.0
6092	PASS	FAIL ADJ	PASS	PASS		PASS	PASS	PASS		.5	.3
6093	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.6	.3
6094	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.5	.3
6095	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6096	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0

INSPECTION COLUMN:
PASS
FAIL
BLANK= NOT APPLICABLE

ACTION COLUMN:
BLANK= NO ACTION
ADJ= ADJUST
RFR= REPAIR
RPL= REPLACE

APPENDIX C

MALADJUSTMENT & DISABLEMENT INSPECTION FORM

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	INDUCTION SYSTEM INSE--ACI	CARBURETOR & FUEL SYS INSE---ACI	IGNITION SYSTEM INSE--ACI	EGR. SYSTEM INSE-ACI	AIR PUMP SYSTEM INSE-ACI	PCV SYSTEM INSE-ACI	EXHAUST SYSTEM INSE-ACI	EVAP CONTROL SYSTEM INSE---ACI	OTHER EMISSION RELATED COMPONENTS INSE-----ACI	MAN HRS. FOR INSP -----	MAN HRS. FOR ACT. -----
6097	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6098	PASS	FAIL	FAIL ADJ	PASS	PASS	PASS	PASS	PASS		.5	.3
6099	PASS	PASS	PASS	PASS		PASS	PASS	PASS		.5	.0
6100	PASS	FAIL	FAIL ADJ	PASS		PASS	PASS	PASS		.5	.3

INSPECTION COLUMN:

PASS

FAIL

BLANK= NOT APPLICABLE

ACTION COLUMN:

BLANK= NO ACTION

ADJ= ADJUST

RPR= REPAIR

RPL= REPLACE

LEGEND FOR

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK
CHRYSLER MOTOR COMPANY

- 1 = P.C.V. System
- 2 = Evaporative Control System
- 3 = Heated Air Inlet Diaphragm
- 4 = Heated Air Inlet Door
- 5 = Electric Choke Switch
- 6 = Electric Choke Heater
- 7 = C.C.I.E. Switch
- 8 = C.C.E.G.R. Switch
- 9 = Idle Enrichment Delay Solenoid
- 10 = Idle Enrichment Diaphragm
- 11 = O.S.A.C. Valve
- 12 = E.G.R. Valve
- 13 = E.G.R. Time Delay Solenoid
- 14 = Vacuum Control Amplifier
- 15 = T.I.C. Valve
- 16 = Air Pump
- 17 = Throttle Stop Solenoid
- 18 = Catalyst Protect Switch
- 19 = Dashpot
- 20 = Choke Kickdown Diaphragm
- 21 = Spark Plugs & Cables, Cap & Rotor
- 22 = Vacuum Advance Unit
- 23 = Other
- 24 = Other

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

APPENDIX D
EMISSION COMPONENT FUNCTION CHECK
CHRYSLER CORPORATION CARS
TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	MAN HRS FOR INSP	MAN HRS FOR ACTION
6001	1	1	1	1	1	1	3	1	3	3	3	23	3	1	3	3	3	3	3	22	1	1	3	3	.8	1.0
5002	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	3	1	3	3	3	.8	.0
6003	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.6	.0
6004	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.5	.0
5005	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	3	1	3	3	3	.6	.0
6006	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	1	1	1	3	3	1.0	.0
5007	1	1	1	1	1	1	1	1	1	1	1	1	3	1	3	1	3	3	3	1	1	1	3	3	.7	.0
5008	1	1	1	1	1	1	1	1	3	1	1	1	3	1	1	3	3	3	3	1	1	1	3	3	.7	.0
6009	1	1	1	1	1	1	1	1	1	1	3	1	1	1	3	3	3	3	3	1	1	1	3	3	.7	.0
6010	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	1	1	1	3	3	.7	.0
6011	1	1	1	1	1	1	1	1	1	1	3	1	1	1	3	3	3	3	3	1	1	1	3	3	.6	.0
6012	1	1	1	1	1	1	1	1	1	1	1	1	3	1	3	3	3	3	3	1	1	1	3	3	.8	.0
6013	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	3	3	3	3	1	1	1	3	3	.7	.0
6014	1	1	1	1	1	1	1	1	3	3	1	1	3	1	3	3	3	3	3	1	1	1	3	3	.6	.0
5015	1	1	1	1	1	1	1	1	1	1	3	1	1	1	3	3	3	3	3	1	1	1	3	3	1.0	.1
6016	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.8	.0
6017	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.7	.0
6018	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.8	.0
6019	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.5	.0
6020	1	1	1	1	1	1	1	1	1	1	3	1	1	1	3	3	3	3	3	1	1	1	3	3	.7	.0
6021	1	1	1	1	1	1	1	1	1	1	3	1	1	1	3	3	3	3	3	1	1	1	3	3	.8	.0
6022	1	1	1	2	2	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.5	.0
6023	1	1	1	1	1	1	1	1	1	1	3	23	1	1	3	3	3	3	3	1	1	1	3	3	.9	.0
6024	1	1	1	1	1	1	1	1	1	1	3	1	1	3	3	3	3	3	3	1	1	1	3	3	.7	.0

I=INSPECTION COLUMN: A=ACTION COLUMN:
1=PASS BLANK=NO ACTION
2=FAIL 1=ADJUST
=NO 2=REPAIR

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK

CHRYSLER CORPORATION CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	MAN HRS FOR INSP	MAN HRS FOR ACTION
6025	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	3	3	3	3	1	1	1	3	3	.7	.0
5026	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.5	.0
6027	1	1	1	1	1	1	1	1	1	1	3	1	1	3	3	3	3	3	3	1	2	1	3	3	.7	.0
6028	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	3	3	3	3	1	1	1	3	3	.6	.0
6029	1	1	1	1	1	1	3	1	3	3	3	1	3	1	3	3	3	3	3	1	1	1	3	3	.5	.0
6030	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	3	3	1.0	.0
6031	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	3	3	.8	.0
5032	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	3	3	.5	.0
6033	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	1	1	1	3	3	1.3	.0

I=INSPECTION COLUMN:

1=PASS

2=FAIL

3=NOT APPLICABLE

A=ACTION COLUMN:

BLANK=NO ACTION

1=ADJUST

2=REPAIR

3=REPLACE

LEGEND FOR

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK
FORD MOTOR COMPANY

- 1 = Exhaust Heat Control Valve
- 2 = P.C.V. System
- 3 = E.G.R. Valve
- 4 = E.G.R. P.V.S.
- 5 = High Speed Modulator
- 6 = Venturi Vacuum Amplifier
- 7 = Vacuum Reservoir Check Valve
- 8 = Thermactor Air Pump
- 9 = By-Pass Valve
- 10 = Thermactor Check-Valves
- 11 = Vacuum Difference Control
- 12 = Electric P.V.S.
- 13 = Solenoid Vacuum Valve
- 14 = Floor Pan Thermal Switch
- 15 = Fuel Deceleration Valve Diaphragm
- 16 = Fuel Deceleration Valve Time Rate
- 17 = Fuel Decel. Transmission Interlock
- 18 = P.V.S. Fuel Decel. Interlock
- 19 = Speed Modulated Decel.
- 20 = Spark Delay Valves
- 21 = Spark Control System Distributor P.V.S.
- 22 = Cold Start P.V.S.
- 23 = Vacuum Check Valve
- 24 = Spark Retard Delay Valve
- 25 = Distributor Diaphragm
- 26 = Throttle Positioning Solenoid
- 27 = Electric Choke
- 28 = Choke Pull-Off Diaphragm
- 29 = Air Cleaner Vacuum Motor
- 30 = Air Cleaner Temperature Control, Duct Valve
- 31 = Cold Weather Modulator
- 32 = Cold Temperature Actuated Vacuum System
- 33 = Air Cleaner Delay Valve
- 34 = Spark Plugs & Wires
- 35 = Other
- 36 = Other

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

EMISSION COMPONENT FUNCTION CHECK

FORD MOTOR COMPANY CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	25 IA	26 IA	27 IA	28 IA	29 IA	30 IA	31 IA	32 IA	33 IA	34 IA	35 IA	36 IA	MAN HOURS FOR INSP	FOR ACT
5034	3	1	1	1	3	1	1	1	1	1	3	1	1	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	.7	.0
5035	1	1	1	1	3	1	3	1	1	1	3	3	1	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	.7	.0
6036	3	1	1	3	3	3	3	1	1	1	3	3	1	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	2.0	.0
6037	3	1	1	1	3	3	3	1	1	1	1	3	3	3	3	3	3	3	3	3	1	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.8	.0
6038	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	1	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.8	.0
6039	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	1.0	.0
6040	3	1	1	3	3	3	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	3	1	1	1	1	1	3	3	1	3	3	.8	.0
5041	3	1	1	1	3	1	3	1	1	1	3	3	1	3	3	3	3	3	3	1	1	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	.8	.0
5042	3	1	1	1	3	1	3	1	1	1	3	1	3	3	3	3	3	3	3	1	3	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	1.0	.0
5043	3	1	1	1	3	1	3	1	1	1	1	3	1	1	3	3	3	3	3	1	3	3	1	3	1	1	1	1	1	1	1	3	3	1	3	3	1.4	.0
6044	1	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	1	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	1.0	.0
6045	1	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	1	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	1.0	.0
6046	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	23	23	3	1.3	.5
6047	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	1	1	1	1	3	3	1	3	3	2.0	.0
5048	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	1	1	1	3	3	1	1	1	1	1	1	1	3	3	1	3	3	1.0	.0
6049	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.7	.0
5050	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	1	1	3	3	3	1	1	1	1	1	3	1	3	3	1	3	3	1.5	.0
6051	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.6	.0
6052	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	2.0	.0
6053	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.6	.0
5054	3	1	1	1	3	3	3	1	1	1	1	3	3	3	3	3	3	3	3	3	1	3	3	3	1	1	1	1	1	1	1	3	3	1	3	3	.7	.0
6055	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	1.0	.0
6056	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.8	.0
6057	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.7	.0

I=INSPECTION COLUMN:
 1=PASS
 2=FAIL
 3=NOT APPLICABLE

A=ACTION COLUMN:
 BLANK=NO ACTION
 1=ADJUST
 2=REPAIR
 3=REPLACE

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK

FORD MOTOR COMPANY CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	25 IA	26 IA	27 IA	28 IA	29 IA	30 IA	31 IA	32 IA	33 IA	34 IA	35 IA	36 IA	MAN HOURS FOR INSP	FOR ACT
6058	3	1	1	3	3	3	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	3	3	3	1	3	3	.5	.0
5059	1	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	1	1	3	3	1	1	1	1	1	1	1	3	3	1	3	3	1.0	.0
6060	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.5	.0
6061	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	1.0	.0
5062	3	1	1	3	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	1	1	1	3	3	1	1	1	1	1	1	1	3	3	23	3	3	1.0	2.0
6063	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.7	.0
6064	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.6	.0
6065	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.7	.0
6066	3	1	1	1	3	3	3	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	1	1	1	1	1	3	3	1	3	3	.6	.0

I=INSPECTION COLUMN:

1=PASS

2=FAIL

3=NOT APPLICABLE

A=ACTION COLUMN:

BLANK=NO ACTION

1=ADJUST

2=REPAIR

3=REPLACE

LEGEND FOR

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK
GENERAL MOTORS CORPORATION

- 1 = P.C.V.
- 2 = Heated Air Inlet
- 3 = E.F.E.
- 4 = E.F.E. TVV
- 5 = E.F.E. Check Valve
- 6 = E.G.R. Valve
- 7 = E.G.R. TCV
- 8 = E.G.R. Snap Disc Control Valve
- 9 = E.G.R. Backpressure Transducer
- 10 = E.G.R. TVV
- 11 = Air Injection Reactor
- 12 = Full Vacuum Advance System
- 13 = Ported Vacuum Advance System
- 14 = Distributor Advance Diaphragm
- 15 = Vacuum Spark Delay Valve
- 16 = Vacuum Advance TVV
- 17 = Vacuum Advance TVS
- 18 = Vacuum Advance Modulator Valve
- 19 = Idle Stop Solenoid
- 20 = Vacuum Break (Primary)
- 21 = Vacuum Break (Secondary)
- 22 = Electric Choke
- 23 = Spark Plugs, Wires, etc.
- 24 = Others

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

APPENDIX D
EMISSION COMPONENT FUNCTION CHECK
GENERAL MOTORS CORPORATION CARS
TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	MAN HOURS INSPECTION	SPENT FOR ACTION
6067	1	1	1	1	3	1	3	3	3	1	3	3	1	1	3	3	3	3	3	1	1	3	1	3	.5	.0
6068	1	1	1	3	3	1	3	3	3	3	3	3	1	1	3	3	1	3	3	1	1	3	1	1	.5	.0
6069	1	1	1	1	3	1	3	3	3	1	3	3	1	1	3	3	3	3	3	1	1	3	1	1	.5	.0
6070	1	1	1	1	3	1	3	3	3	1	3	3	1	1	3	3	1	3	3	1	1	3	1	3	.5	.0
6071	1	1	1	1	3	1	3	3	3	1	3	3	1	1	3	3	3	3	3	1	1	3	1	3	.5	.0
6072	1	1	1	1	3	1	3	3	3	1	3	1	3	1	3	3	3	3	3	1	1	23	1	3	.5	.3
6073	1	3	3	3	3	1	3	3	23	3	1	3	1	1	3	3	1	3	3	3	3	3	1	1	.5	.5
6074	1	1	3	3	3	1	3	3	3	3	3	3	1	1	3	3	3	3	1	1	3	1	1	3	.5	.0
6075	1	1	3	3	3	1	3	3	3	3	3	3	1	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6076	1	1	3	3	3	1	3	3	3	3	3	3	1	1	3	3	3	3	1	1	3	3	1	1	.5	.0
6077	1	1	1	1	3	1	3	3	3	3	3	1	3	1	3	3	3	3	1	1	11	3	1	3	.5	.3
6078	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6079	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6080	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6081	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6082	1	1	1	1	3	1	3	3	3	1	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6083	1	1	1	3	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	1	.5	.0
6084	1	1	1	3	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6085	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6086	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6087	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6088	1	1	1	1	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	3	.5	.0
6089	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	3	3	3	1	3	3	1	22	.5	.2
6090	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	1	3	3	1	1	3	1	1	.5	.0

I=INSPECTION COLUMN: A=ACTION COLUMN:
1=PASS BLANK=NO ACTION
2=FAIL 1=ADJUST
3= APPR 4LE 5= AIR
6= REPLACE

APPENDIX D

EMISSION COMPONENT FUNCTION CHECK

GENERAL MOTORS CORPORATION CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 IA	2 IA	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	MAN HOURS INSPECTION	SPENT FOR ACTION
6091	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	1	3	3	1	1	3	1	1	.5	.0
6092	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	1	3	3	1	1	3	1	1	.5	.0
6093	1	1	3	3	3	1	3	3	3	3	3	1	3	1	3	3	3	3	3	1	1	3	1	1	.5	.0
6094	1	1	3	3	3	1	1	3	3	3	3	1	3	1	3	3	1	3	3	1	1	3	1	1	.5	.0
6095	1	1	3	3	3	1	1	3	3	3	3	1	3	1	1	3	1	3	3	1	1	3	1	1	.5	.0
6096	1	1	1	1	3	1	3	3	3	3	3	1	3	1	3	3	3	3	1	1	1	3	1	3	.5	.0
6097	1	1	3	3	3	1	1	3	1	3	3	3	3	1	3	3	3	1	3	1	3	3	1	3	.5	.0
6098	1	1	1	1	1	1	3	3	3	1	3	1	3	1	1	1	3	3	3	1	1	3	1	1	.5	.0
6099	1	1	1	1	1	1	1	3	3	3	3	1	3	1	1	3	3	3	3	1	1	3	1	1	.5	.0
6100	1	1	1	1	3	1	3	1	3	1	3	1	3	1	1	1	3	3	3	1	1	3	1	1	.5	.0

I=INSPECTION COLUMN:

1=PASS

2=FAIL

3=NOT APPLICABLE

A=ACTION COLUMN:

BLANK=NO ACTION

1=ADJUST

2=REPAIR

3=REPLACE

APPENDIX E

IDLE CO AND RPM INSPECTIONS

CHRYSLER CORPORATION CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	IDLE QUALITY BEFORE ADJ.	MEAS IDLE SPEED	IDLE SPD. SPEC.	IDLE RPM ADJ.	SPECIFIED IDLE CO	MEASURED IDLE CO	ADJ. CURB IDLE SPEED	ADJUSTED IDLE CO	NUMBER OF 1/8 TURNS	WAS ADJUST. WITHIN RANGE	FINAL IDLE QUALITY
6001	EXCELLENT	900	750	760	.30	5.60	760	.25	15	NO CAPS	SLIGHTLY WORSE
5002	EXCELLENT	710	750	750	.30	6.60	750	.28	18	NO CAPS	MUCH WORSE
6003	EXCELLENT	840	750	750	.30	2.80	750	.25	4	YES	NO DIFFERENT
6004	EXCELLENT	680	750	750	.30	1.00	750	.30	8	NO CAPS	SLIGHTLY WORSE
5005	EXCELLENT	800	750	760	.30	3.80	760	.26	7	NO CAPS	MUCH WORSE
5007	FAIR	500	900	900	.50	1.00	900	.50	3	NO CAPS	SLIGHTLY BETTER
5008	FAIR	920	750	750	.30	.90	750	.30	3	YES	SLIGHTLY WORSE
6009	EXCELLENT	750	750	750	.30	1.00	750	.30	6	NO CAPS	MUCH WORSE
6010	EXCELLENT	750	700	700	.30	2.00	700	.25	8	NO CAPS	SLIGHTLY WORSE
6011	FAIR	760	750	750	.30	5.80	750	.20	6	NO CAPS	SLIGHTLY WORSE
6012	EXCELLENT	770	700	710	.30	3.40	710	.30	9	NO CAPS	SLIGHTLY WORSE
6013	EXCELLENT	630	700	700	.30	7.60	700	.30	28	NO CAPS	SLIGHTLY WORSE
5015	FAIR	825	750	760	.30	2.35	760	.25	7	YES	SLIGHTLY WORSE
6016	FAIR	820	750	740	.30	7.00	740	.20	22	NO CAPS	SLIGHTLY WORSE
6017	FAIR	890	750	750	.30	.45	750	.30	1	NO CAPS	SLIGHTLY WORSE
6018	EXCELLENT	840	750	750	.30	9.60	750	.30	20	NO CAPS	SLIGHTLY WORSE
6019	EXCELLENT	700	750	750	.30	8.50	750	.30	12	NO CAPS	SLIGHTLY WORSE
6020	EXCELLENT	980	750	750	.30	3.00	760	.30	12	NO CAPS	MUCH WORSE
6022	EXCELLENT	840	750	750	.30	7.20	750	.30	14	NO CAPS	SLIGHTLY WORSE
6023	EXCELLENT	900	750	750	.30	4.20	750	.25	8	NO CAPS	MUCH WORSE
6025	EXCELLENT	820	700	700	.30	1.50	700	.30	8	NO CAPS	SLIGHTLY WORSE
5026	EXCELLENT	710	750	750	.30	10.00	750	.30	12	NO CAPS	SLIGHTLY WORSE
6027	FAIR	1050	750	750	.30	2.20	750	.30	7	YES	MUCH WORSE
6028	EXCELLENT	740	700	700	.30	2.40	700	.30	4	NO CAPS	SLIGHTLY WORSE

IDLE QUALITY BEFORE ADJ:

POOR=(STEADY MISFIRE)

=(C INT TEL UGH
FUEL SYSTEMS FULLY OPEN)

APPENDIX E

IDLE CO AND RPM INSPECTIONS

CHRYSLER CORPORATION CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	IDLE QUALITY BEFORE ADJ.	MEAS IDLE SPEED	IDLE SPD. SPEC.	IDLE RPM ADJ.	SPECIFIED IDLE CO	MEASURED IDLE CO	ADJ. CURB IDLE SPEED	ADJUSTED IDLE CO	NUMBER OF 1/8 TURNS	WAS ADJUST. WITHIN RANGE	FINAL IDLE QUALITY
6030	FAIR	710	700	700	.30	5.20	700	.25	8	NO CAPS	SLIGHTLY WORSE
6031	EXCELLENT	850	700	700	.30	6.70	700	.30	12	NO CAPS	NO DIFFERENT
6033	FAIR	730	700	700	.30	.70	700	.30	4	NO CAPS	SLIGHTLY WORSE

IDLE QUALITY BEFORE ADJ:

FOUR=(STEADY MISFIRE)

FAIR=(ONLY INTERMITTENT ROUGHNESS)

EXCELLENT=(SMOOTH, EVEN IDLE)

APPENDIX E

IDLE CO AND RPM INSPECTIONS

FORD MOTOR COMPANY CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	IDLE QUALITY BEFORE ADJ.	MEAS. IDLE SPEED	IDLE RPM SPEC.	RPM ADJ.	ALLOW. RANGE OF IDLE SPD FROM TO	MEAS. IDLE SPD INCR	FINAL IDLE SPEED	RESET RANGE FOR INCREASE FROM TO	FINAL SPEED INCREASE	NO. OF 1/4 TURN	WAS ADJ IN RANGE	FINAL IDLE
6040	FAIR	570	850	850	0 20	0	850	10 0	10	3	YES	S B
5041	EXCELLENT	680	600	600	40 80	0	600	0 60	60	4	NO CAPS	M W
5042	FAIR	650	600	600	40 60	0	600	0 60	60	8	NO CAPS	S W
6045	FAIR	680	650	650	0 100	0	650	0 100	10	2	YES	N D
6046	EXCELLENT	625	625	625	20 100	0	625	30 80	40	1	NO CAPS	M W
6047	EXCELLENT	900	650	650	0 100	0	650	40 60	40	4	NO CAPS	S W
6049	EXCELLENT	700	650	650	30 90	0	650	20 50	25	4	NO CAPS	S W
5050	EXCELLENT	720	650	650	0 30	0	650	50 70	60	3	NO CAPS	S W
6052	FAIR	520	650	650	0 60	0	650	20 40	30	2	YES	B B
6057	EXCELLENT	710	650	650	0 60	0	650	30 50	40	8	NO CAPS	M W
6058	FAIR	700	600	600	0 20	100	600	0 10	10	4	NO	N D
5059	EXCELLENT	590	650	650	0 100	0	650	0 100	10	2	NO CAPS	N D
6060	EXCELLENT	830	650	650	10 50	0	650	10 50	20	1	YES	N D
6061	FAIR	510	650	660	30 90	0	660	20 50	40	2	NO CAPS	S W
5062	FAIR	620	650	650	30 30	20	650	50 70	60	1	YES	N D
6063	EXCELLENT	570	650	650	30 90	0	650	20 50	50	4	NO CAPS	N D
6064	FAIR	610	625	625	20 100	180	625	30 60	30	6	NO	S B

IDLE QUALITY BEFORE ADJ:
 POOR-(STEADY MISFIRE)
 FAIR=(ONLY INTERMITTENT ROUGHNESS)
 EXCELLENT=(SMOOTH EVEN IDLE)

FINAL IDLE QUALITY:
 M W=MUCH WORSE
 S W=SLIGHTLY WORSE
 N D=NO DIFFERENT
 S B=SLIGHTLY BETTER
 M B=MUCH BETTER

APPENDIX E
IDLE CO AND RPM INSPECTIONS
GENERAL MOTORS CORPORATION CARS
TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	IDLE QUALITY BEFORE ADJ.	MEAS IDLE SPEED	NO. OF 1/4 TURNS (R)	NO. OF 1/4 TURNS (L)	SPEC. BEFORE LEAN IDLE SPEED	SPEC.FINAL IDLE SPEED	NO. OF 1/4 TURNS	FINAL NO. OF 1/4 TURNS(R)	FINAL NO. OF 1/4 TURNS(L)	FINAL IDLE QUALITY
6067	FAIR	680	17	15	680	600	7	6	6	S W
6071	EXCELLENT	580	11	11	680	600	6	9	9	N D
6072	EXCELLENT	600	9	9	650	600	10	10	10	N D
6080	EXCELLENT	550	7	8	650	600	4	7	7	N D
6081	EXCELLENT	590	8	8	630	600	2	8	8	N D
6082	EXCELLENT	640	14	12	650	600	5	7	7	S W
6084	EXCELLENT	720	13	13	650	600	4	9	9	S W
6086	EXCELLENT	720	10	9	650	600	3	10	10	N D
6088	EXCELLENT	590	8	9	650	600	5	10	10	N D
6089	EXCELLENT	620	8	8	650	600	4	8	8	N D
6091	EXCELLENT	460	15	15	580	550	2	10	10	S W
6093	EXCELLENT	480	20	20	580	550	1	9	9	S W
6094	EXCELLENT	650	20	17	580	550	1	11	11	S W
6096	FAIR	625		11	580	550	10		10	S W
6098	EXCELLENT	680	10	10	640	550	11	9	9	M W
6100	EXCELLENT	610	17	17	640	550	6	9	9	S W

IDLE QUALITY
BEFORE ADJ:
POOR=(STEADY MISFIRE)
FAIR=(ONLY INTERMITTENT ROUGHNESS)
EXCELLENT=(SMOOTH, EVEN IDLE)

FINAL IDLE
QUALITY:
M W=MUCH WORSE
S W=SLIGHTLY WORSE
N D=NO DIFFERENT
S B=SLIGHTLY BETTER
M B=MUCH BETTER

LEGEND FOR

APPENDIX F

ONE YEAR/15,000 MILE MAINTENANCE
CHRYSLER MOTOR CORPORATION

- 1 = Replace Engine Oil & Filter
- 2 = Check Cooling System
- 3 = Check EGR System
- 4 = Check Ignition Cables, Cap, Rotor
- 5 = Check PCV System
- 6 = Replace Spark Plugs
- 7 = Adjust Tappets (6 cylinder)
- 8 = Inspect Hoses & Grommets
- 9 = Replace Canister Filter
- 10 = Check & Lube Carb. Choke Shaft
- 11 = Check & Lube Fast Idle Cam Pivot
- 12 = Adjust Idle Speed and Mixture
- 13 = Other

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

APPENDIX F
ONE YEAR/15,000 MILE REQUIRED MAINTENANCE

CHRYSLER CORPORATION VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 A *	2 I A *	3 I A *	4 I A *	5 I A *	6 I A *	7 I A *	8 I A *	9 A *	10 I A *	11 I A *	12 A *	13 I A *	MAN HOURS REQUIRED	TOTAL COST FOR PARTS
6001	3	1 0	1 3	1 0	1 0	3 0	1 0	1 0	3	10	10	1	12	4.0	16.00
6004	3	1 0	1 0	1 0	1 3	3 0	1 1	1 0	3	12	12	1	30	3.1	21.04
5007	3	1 0	1 0	1 0	1 3	1 3	3 0	1 0	3	12	12	1	10	1.5	32.34
6007	3	1 0	1 0	1 0	1 3	3 0	3 0	1 0	3	12	12	1	30	1.0	14.50
6011	3	1 0	1 0	1 0	1 3	1 3	3 0	1 0	3	12	12	1	30	2.0	34.62
6013	3	1 0	1 0	1 0	1 0	3 0	3 0	1 0	3	10	10	1	30	.5	13.15
6018	3	1 0	1 0	1 0	1 0	3 0	1 1	1 0	1	11	11	0	30	3.5	14.20
6022	3	1 0	1 0	1 0	1 3	3 0	1 2	1 0	3	12	12	1	30	3.0	18.28
6023	3	1 0	1 0	1 0	1 3	3 0	3 0	1 0	3	12	12	1	30	2.0	19.32
6025	3	1 0	1 0	1 0	1 0	1 3	3 0	1 0	3	12	12	1	30	1.4	27.94
6026	3	1 0	1 0	1 0	1 0	3 0	1 2	1 0	3	12	12	1	23	3.5	15.49
6027	3	1 0	1 0	1 3	1 0	1 3	3 0	1 0	3	10	10	0	30	1.3	38.25
6029	3	1 0	1 0	1 0	1 0	3 0	1 1	1 0	3	12	12	1	30	2.5	15.64
6031	3	1 0	1 0	1 0	1 0	3 0	3 0	1 0	2	10	10	1	10	1.0	12.17
6033	3	1 1	1 0	1 0	1 3	3 0	3 0	1 0	3	10	10	1	30	2.0	20.24

I=INSPECTION COLUMN: A=ACTION COLUMN:
1=PASS 0=NO ACTION
2=FAIL 1=ADJUST
3=NOT APPLICABLE 2=REPAIR
 3=REPLACE

LEGEND FOR

APPENDIX F

ONE YEAR/15,000 MILE MAINTENANCE
FORD MOTOR COMPANY

- 1 = Change Engine Oil
- 2 = Replace Oil Filter
- 3 = Torque Intake Man. Bolts
- 4 = Lube/Check Ech. Control Valve
- 5 = Check Coolant
- 6 = Check Belt Tensions
- 7 = Inspect Thermactor System
- 8 = Check/Adj. Fuel Decel Valve
- 9 = Check Ignition System
- 10 = Replace Spark Plugs
- 11 = Inspect/Test Spark Plug Wires
- 12 = Check Initial Timing
- 13 = Check Spark Control/Delay System
- 14 = Check Idle Fuel Mixture
- 15 = Check Fast Idle Speed
- 16 = Check Curb Idle Speed
- 17 = Check Choke System
- 18 = Check Air Cleaner Temp. Control/Delay Valve
- 19 = Replace Fuel Filter
- 20 = Adjust Valve Clearance
- 21 = Check/Torque All Belt Securing Bolts
- 22 = Inspect Distributor Cap-Rotor
- 23 = Inspect Air Filter Element
- 24 = Inspect PCV Hoses
- 25 = Check Throttle Solenoid "Off" Speed
- 26 = Other

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

APPENDIX F
ONE YEAR/15,000 MILE REQUIRED MAINTENANCE
FORD MOTOR COMPANY CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 A	2 A	3 A	4 IA	5 IA	6 IA	7 IA	8 IA	9 I	10 IA	11 IA	12 IA	13 IA	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	20 IA	21 IA	22 IA	23 IA	24 IA	25 IA	26 IA	MAN HRS. REQUIRED	TOTAL COST FOR PARTS
6039	3	3	0	30	10	10	10	30	1	23	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	1.5	.00
6040	3	3	0	10	10	10	10	30	1	13	10	10	10	10	10	10	10	10	30	30	30	10	13	10	30	30	1.0	29.48
6044	3	3	1	10	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	.5	11.65
6045	3	3	0	10	11	10	10	30	1	30	10	10	30	10	10	10	10	10	30	30	30	10	10	10	10	30	.7	11.65
6046	3	3	0	30	10	10	10	30	1	13	10	10	10	10	10	10	10	10	30	30	30	10	13	10	30	30	1.3	27.25
6047	3	3	0	10	11	10	10	30	1	13	10	10	10	10	11	10	10	10	30	30	30	10	13	10	30	30	1.0	34.55
5048	3	3	0	10	11	10	10	30	1	13	10	10	10	11	10	10	10	10	30	30	30	10	13	10	10	30	1.0	33.28
6049	3	3	0	10	10	10	10	30	1	13	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	1.0	28.17
5050	3	3	0	10	10	10	10	30	1	13	10	10	30	11	11	11	10	10	30	30	30	10	10	10	10	10	1.0	34.14
6052	3	3	0	10	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	1.0	11.65
6055	3	3	0	30	10	10	10	30	1	23	10	10	30	11	10	11	11	30	30	30	30	10	12	10	30	30	1.5	27.25
5059	3	3	0	10	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	10	10	.8	12.17
6060	3	3	0	30	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	.7	11.65
6061	3	3	0	30	10	10	10	30	1	13	10	10	10	11	11	11	10	10	30	30	30	10	13	10	30	30	1.5	33.28
5062	3	3	0	10	10	10	10	30	1	13	10	10	11	11	11	10	10	10	30	30	30	10	10	10	10	30	2.0	27.25
6063	3	3	0	30	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	.7	12.17
6065	3	3	0	10	10	10	10	30	1	30	10	10	10	10	10	10	10	10	30	30	30	10	10	10	30	30	.5	11.65

I=INSPECTION COLUMN:	A=ACTION COLUMN
1=PASS	0=NO ACTION
2=FAIL	1=ADJUST
3=NOT APPLICABLE	2=REPAIR
	3=REPLACE

LEGEND FOR

APPENDIX F

ONE YEAR/22,500 MILE MAINTENANCE
GENERAL MOTORS CORPORATION

- 1 = Change Engine Oil
- 2 = Change Oil Filter
- 3 = Check Cooling System
- 4 = Check Exhaust System
- 5 = Inspect Drive Belts
- 6 = Check Throttle Linkage
- 7 = Therm. Air Cleaner Check
- 8 = Carb. and Choke Inspection
- 9 = Check & Adjust Idle Speed
- 10 = Check E.F.E. Valve
- 11 = Torque Carb. Mounting Bolts
- 12 = Check Vac. Advance Hoses
- 13 = Replace Fuel Filter
- 14 = Check P.C.V. System
- 15 = Check Ignition Timing
- 16 = Check & Adjust Mech. Valve Lifters
- 17 = Check Vac. Delay & Separator Valve
- 18 = Other
- 19 = Other

INSPECTION COLUMN

- 1 = PASS
- 2 = FAIL
- 3 = NOT APPLICABLE

ACTION COLUMN

- 0 = NO ACTION
- 1 = ADJUST
- 2 = REPAIR
- 3 = REPLACE

APPENDIX F
ONE YEAR/22,500 MILE REQUIRED MAINTENANCE

GENERAL MOTORS CORPORATION CARS

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	1 A	2 A	3 IA	4 IA	5 IA	6 IA	7 IA	8 IA	9 IA	10 IA	11 A	12 IA	13 A	14 IA	15 IA	16 IA	17 IA	18 IA	19 IA	MAN HOURS REQUIRED	TOTAL COST FOR PARTS
6071	3	3	10	10	10	10	10	10	10	10	1	10	3	10	10	30	30	13	11	3.0	29.69
6072	3	3	23	10	10	10	10	10	11	10	1	10	0	10	11	30	30	13	10	1.3	28.55
6073	3	3	10	10	10	10	30	30	11	30	1	10	0	10	11	30	30	30	30	1.0	35.13
6080	3	3	11	10	10	10	10	11	10	10	1	10	3	10	10	30	30	13	11	1.3	30.03
6081	3	3	10	10	10	10	10	10	11	10	1	10	3	10	11	30	30	13	11	1.0	25.00
6082	3	3	10	10	10	10	10	10	11	10	0	10	3	10	11	30	30	13	10	1.5	27.77
6086	3	3	10	10	10	10	10	10	10	10	1	10	3	10	10	30	30	13	11	1.0	30.02
6088	3	3	10	10	10	10	10	10	10	10	1	10	3	10	10	30	30	13	11	1.0	30.02
6089	3	3	10	10	10	10	10	10	11	10	1	10	3	10	11	30	30	30	12	.6	23.01
6098	3	3	10	10	10	10	10	10	10	10	0	10	3	10	10	30	30	13	22	1.5	34.82

I=INSPECTION COLUMN:
1=PASS
2=FAIL
3=NOT APPLICABLE

A=ACTION COLUMN:
0=NO ACTION
1=ADJUST
2=REPAIR
3=REPLACE

APPENDIX G

LISTING OF RESTORATIVE MAINTENANCE COSTS
ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEH NO	MODEL YEAR	MALADJUSTMENT-DISABLEMENT			EMISSION COMPONENT			IDLE-SET		MAJOR-TUNE-UP		TOTAL LABOR	TOTAL PARTS	TOTAL COST
		INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	CORR. LABOR	PARTS COST			
CHRYSLER CORPORATION														
6001	1976	7.50	.00	.00	12.00	15.00	11.25	4.50	7.50	60.00	16.00	106.50	27.25	133.75
5002	1975	12.00	30.00	11.25	12.00	.00	.00	4.50	7.50	.00	.00	66.00	11.25	77.25
6003	1976	9.00	1.50	.00	9.00	.00	.00	4.50	7.50	.00	.00	31.50	.00	31.50
6004	1976	9.00	.00	.00	7.50	.00	.00	4.50	7.50	46.50	21.04	75.00	21.04	96.04
5005	1975	9.00	4.50	.00	9.00	.00	.00	4.50	7.50	.00	.00	34.50	.00	34.50
6006	1976	9.00	.00	.00	15.00	.00	.00	.00	.00	.00	.00	24.00	.00	24.00
5007	1975	15.00	52.50	.00	10.50	.00	.00	4.50	7.50	22.50	32.34	112.50	32.34	144.84
5008	1975	10.50	3.00	.00	10.50	.00	.00	4.50	7.50	.00	.00	36.00	.00	36.00
6009	1976	10.50	.00	.00	10.50	.00	.00	4.50	7.50	15.00	14.50	48.00	14.50	62.50
6010	1976	10.50	.00	.00	10.50	.00	.00	4.50	7.50	.00	.00	33.00	.00	33.00
6011	1976	9.00	.00	.00	9.00	.00	.00	4.50	7.50	30.00	34.62	60.00	34.62	94.62
6012	1976	10.50	.00	.00	12.00	.00	.00	4.50	7.50	.00	.00	34.50	.00	34.50
6013	1976	7.50	4.50	.00	10.50	.00	.00	4.50	7.50	7.50	13.15	42.00	13.15	55.15
6014	1976	9.00	.00	.00	9.00	.00	.00	.00	.00	.00	.00	18.00	.00	18.00
5015	1975	7.50	.00	.00	15.00	1.50	.00	4.50	7.50	.00	.00	36.00	.00	36.00
6016	1976	7.50	.00	.00	12.00	.00	.00	4.50	7.50	.00	.00	31.50	.00	31.50
6017	1976	9.00	3.00	.00	10.50	.00	.00	4.50	7.50	.00	.00	34.50	.00	34.50
6018	1976	9.00	4.50	.00	12.00	.00	.00	4.50	7.50	52.50	14.20	90.00	14.20	104.20
6019	1976	7.50	4.50	.00	7.50	.00	.00	4.50	7.50	.00	.00	31.50	.00	31.50
6020	1976	10.50	3.00	.00	10.50	.00	.00	4.50	7.50	.00	.00	36.00	.00	36.00
6021	1976	10.50	.00	.00	12.00	.00	.00	.00	.00	.00	.00	22.50	.00	22.50
6022	1976	9.00	4.50	.00	7.50	.00	.00	4.50	7.50	45.00	18.28	78.00	18.28	96.28
6023	1976	9.00	7.50	.00	13.50	.00	.00	4.50	7.50	30.00	19.32	72.00	19.32	91.32
6024	1976	10.50	4.50	8.35	10.50	.00	.00	.00	.00	.00	.00	25.50	8.35	33.85
6025	1976	10.50	.00	.00	10.50	.00	.00	4.50	7.50	21.00	27.94	54.00	27.94	81.94
5026	1975	7.50	3.00	.00	7.50	.00	.00	4.50	7.50	52.50	15.49	82.50	15.49	97.99
6027	1976	7.50	.00	.00	10.50	.00	.00	4.50	7.50	19.50	38.25	49.50	38.25	87.75
6028	1976	7.50	3.00	.00	9.00	.00	.00	4.50	7.50	.00	.00	31.50	.00	31.50
6029	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	37.50	15.64	52.50	15.64	68.14
6030	1976	7.50	15.00	22.00	15.00	.00	.00	4.50	7.50	.00	.00	49.50	22.00	71.50
6031	1976	7.50	.00	.00	12.00	.00	.00	4.50	7.50	15.00	12.17	46.50	12.17	58.67
5032	1975	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6033	1976	9.00	3.00	2.40	19.50	.00	.00	4.50	7.50	30.00	20.24	73.50	22.64	96.14
CHRYSLER TOTALS:		300.00	151.50	44.00	357.00	16.50	11.25	121.50	202.50	484.50	313.18	1,633.50	368.43	2,001.93

LABOR COST BASED ON \$15.00 PER HOUR

APPENDIX G

LISTING OF RESTORATIVE MAINTENANCE COSTS
ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEH NO	MODEL YEAR	MALADJUSTMENT INSP. LABOR	DISABLEMENT CORR. LABOR	PARTS COST	EMISSION COMPONENT FUNCTIONS CHECK			IDLE SET		MAJOR TUNE-UP		TOTAL LABOR	TOTAL PARTS	TOTAL COST	
					INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	CORR. LABOR	PARTS COST				
FORD	MOTOR	COMPANY													
5034	1975		10.50	.00	.00	10.50	.00	.00	.00	.00	.00	21.00	.00	21.00	
5035	1975		7.50	.00	.00	10.50	.00	.00	.00	.00	.00	18.00	.00	18.00	
6036	1976		9.00	.00	.00	30.00	.00	.00	.00	.00	.00	39.00	.00	39.00	
6037	1976		7.50	.00	.00	12.00	.00	.00	.00	.00	.00	19.50	.00	19.50	
6038	1976		9.00	.00	.00	12.00	.00	.00	.00	.00	.00	21.00	.00	21.00	
6039	1976		15.00	3.00	.00	15.00	.00	.00	.00	22.50	11.65	55.50	11.65	67.15	
6040	1976		10.50	4.50	.00	12.00	.00	.00	3.00	6.00	29.48	51.00	29.48	80.48	
5041	1975		9.00	.00	.00	12.00	.00	.00	3.00	6.00	.00	30.00	.00	30.00	
5042	1975		7.50	4.50	.00	15.00	.00	.00	3.00	6.00	.00	36.00	.00	36.00	
5043	1975		9.00	.00	.00	21.00	.00	.00	.00	.00	.00	30.00	.00	30.00	
6044	1976		10.50	.00	.00	15.00	.00	.00	.00	7.50	11.65	33.00	11.65	44.65	
6045	1976		10.50	.00	.00	15.00	.00	.00	3.00	6.00	10.50	45.00	11.65	56.65	
6046	1976		15.00	.00	.00	19.50	7.50	17.40	3.00	6.00	19.50	27.25	70.50	44.65	115.15
6047	1976		15.00	6.00	17.40	30.00	.00	.00	3.00	6.00	15.00	34.55	75.00	51.95	126.95
5048	1975		7.50	4.50	17.40	15.00	.00	.00	.00	15.00	33.28	42.00	50.68	92.68	
6049	1976		9.00	.00	.00	10.50	.00	.00	3.00	6.00	15.00	28.17	43.50	28.17	71.67
5050	1975		7.50	9.00	17.40	22.50	.00	.00	3.00	6.00	15.00	34.14	63.00	51.54	114.54
6051	1976		7.50	.00	.00	9.00	.00	.00	.00	.00	.00	16.50	.00	16.50	
6052	1976		12.00	9.00	17.40	30.00	.00	.00	3.00	6.00	15.00	11.65	75.00	29.05	104.05
6053	1976		9.00	.00	.00	9.00	.00	.00	.00	.00	.00	18.00	.00	18.00	
5054	1975		9.00	.00	.00	10.50	.00	.00	.00	.00	.00	19.50	.00	19.50	
6055	1976		9.00	4.50	.00	15.00	.00	.00	.00	.00	22.50	27.25	51.00	27.25	78.25
6056	1976		9.00	.00	.00	12.00	.00	.00	.00	.00	.00	21.00	.00	21.00	
6057	1976		7.50	.00	.00	10.50	.00	.00	3.00	6.00	.00	27.00	.00	27.00	
6058	1976		9.00	4.50	.00	7.50	.00	.00	3.00	6.00	.00	30.00	.00	30.00	
5059	1975		9.00	4.50	.00	15.00	.00	.00	3.00	6.00	12.00	66.57	49.50	66.57	116.07
6060	1976		7.50	4.50	.00	7.50	.00	.00	3.00	6.00	10.50	11.65	39.00	11.65	50.65
6061	1976		9.00	4.50	.00	15.00	.00	.00	3.00	6.00	22.50	33.28	60.00	33.28	93.28
5062	1975		9.00	.00	.00	15.00	.00	.00	3.00	6.00	30.00	27.25	63.00	27.25	90.25
6063	1976		9.00	4.50	.00	10.50	.00	.00	3.00	6.00	10.50	12.17	43.50	12.17	55.67
6064	1976		9.00	.00	.00	9.00	.00	.00	3.00	6.00	.00	27.00	.00	27.00	
6065	1976		9.00	.00	.00	10.50	.00	.00	.00	.00	7.50	11.65	27.00	11.65	38.65
6066	1976		7.50	.00	.00	9.00	.00	.00	.00	.00	.00	16.50	.00	16.50	
FORD TOTALS:		310.50	67.50	69.60	472.50	7.50	17.40	51.00	102.00	265.50	423.29	1,276.50	510.29	1,786.79	

LABOR COST BASED ON \$15.00 PER HOUR

APPENDIX G

LISTING OF RESTORATIVE MAINTENANCE COSTS
ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEH NO	MODEL YEAR	MALADJUSTMENT-DISABLEMENT			MISSION COMPONENT FUNCTIONS CHECK			IDLE-SEI		MAJOR-TUNE-UE		TOTAL LABOR	TOTAL PARTS	TOTAL COST
		INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	PARTS COST	INSP. LABOR	CORR. LABOR	CORR. LABOR	PARTS COST			
GENERAL MOTORS														
6067	1976	7.50	6.00	.00	7.50	.00	.00	7.50	7.50	.00	.00	36.00	.00	36.00
6068	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6069	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6070	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6071	1976	7.50	4.50	.00	7.50	.00	.00	7.50	7.50	45.00	29.69	79.50	29.69	109.19
6072	1976	7.50	.00	.00	7.50	4.50	14.30	7.50	7.50	19.50	28.55	54.00	42.85	96.85
6073	1976	7.50	.00	.00	7.50	7.50	17.40	.00	.00	15.00	35.13	37.50	52.53	90.03
6074	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6075	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6076	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6077	1976	7.50	4.50	.00	7.50	4.50	.00	.00	.00	.00	.00	24.00	.00	24.00
6078	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6079	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6080	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	19.50	30.03	42.50	30.03	79.53
6081	1976	7.50	1.50	.00	7.50	.00	.00	7.50	7.50	15.00	25.00	46.50	25.00	71.50
6082	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	22.50	27.77	52.50	27.77	80.27
6083	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6084	1976	7.50	7.50	.00	7.50	.00	.00	7.50	7.50	.00	.00	37.50	.00	37.50
6085	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6086	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	15.00	30.02	45.00	30.02	75.02
6087	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6088	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	15.00	30.02	45.00	30.02	75.02
6089	1976	7.50	.00	.00	7.50	3.00	.00	7.50	7.50	9.00	23.01	42.00	23.01	65.01
6090	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6091	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	.00	.00	30.00	.00	30.00
6092	1976	7.50	4.50	.00	7.50	.00	.00	.00	.00	.00	.00	19.50	.00	19.50
6093	1976	9.00	4.50	.00	7.50	.00	.00	7.50	7.50	.00	.00	36.00	.00	36.00
6094	1976	7.50	4.50	.00	7.50	.00	.00	7.50	7.50	.00	.00	34.50	.00	34.50
6095	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6096	1976	7.50	.00	.00	7.50	.00	.00	7.50	7.50	.00	.00	30.00	.00	30.00
6097	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6098	1976	7.50	4.50	.00	7.50	.00	.00	7.50	7.50	22.50	34.82	57.00	34.82	91.82
6099	1976	7.50	.00	.00	7.50	.00	.00	.00	.00	.00	.00	15.00	.00	15.00
6100	1976	7.50	4.50	.00	7.50	.00	.00	7.50	7.50	.00	.00	34.50	.00	34.50
G M TOTALS:		256.50	46.50	.00	255.00	19.50	31.70	120.00	120.00	198.00	294.04	1,015.50	325.74	1,341.24
GRAND TOTALS:		867.00	265.50	113.60	1,084.50	43.50	60.35	292.50	424.50	948.00	1,030.51	3,925.50	1,204.46	5,129.96

LABOR COST BASED ON \$15.00 PER HOUR

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6001 1	76	DODG	ASPE	225	1	COLD TRANSIENT	1.69	28.41	517.0	9.74	15.65			
						COLD STABILIZED	1.13	28.93	469.3	7.03	17.12			
						HOT TRANSIENT	1.28	17.60	463.2	9.98	17.94			
						75 FEDERAL TEST PROCEDURE	1.28	25.73	477.4	8.39	17.01			
						EPA HIGHWAY FUEL ECONOMY	.26	2.29	377.3	6.76	23.25			
						FEDERAL SHORT CYCLE	1.50	32.69	344.2	3.80	22.18			
						COMPOSITE N.Y. N.J.	2.03	62.52	446.9	3.91	16.09			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.02	19	
						IDLE NEUTRAL						.61	38	
						FEDERAL 3 MODE HIGH SPEED						.01	11	
						LOW SPEED						.04	11	
						IDLE IN DRIVE						.03	11	
						IDLE IN NEUTRAL						.68	25	
6001 3	76	DODG	ASPE	225	3	COLD TRANSIENT	1.75	19.00	535.3	9.70	15.55			
						COLD STABILIZED	.64	6.11	472.6	8.32	18.33			
						HOT TRANSIENT	.87	5.91	452.9	9.55	19.09			
						75 FEDERAL TEST PROCEDURE	.93	8.71	480.1	8.94	17.87			
						EPA HIGHWAY FUEL ECONOMY	.13	.42	391.9	9.69	22.59			
						FEDERAL SHORT CYCLE	.59	5.45	367.1	6.89	23.51			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.01	12	
						IDLE NEUTRAL						.14	35	
						FEDERAL 3 MODE HIGH SPEED						.02	15	
						LOW SPEED						.02	15	
						IDLE IN DRIVE						.30	30	
						IDLE IN NEUTRAL						.32	31	
6001 4	76	DODG	ASPE	225	4	COLD TRANSIENT	1.59	21.59	607.8	2.06	13.72			
						COLD STABILIZED	.61	5.47	553.8	1.78	15.73			
						HOT TRANSIENT	1.05	9.10	522.2	3.37	16.44			
						75 FEDERAL TEST PROCEDURE	.93	9.78	556.3	2.27	15.45			
						EPA HIGHWAY FUEL ECONOMY	.19	.77	440.1	3.15	20.08			
						FEDERAL SHORT CYCLE	.60	2.88	414.5	1.31	21.09			
						COMPOSITE N.Y. N.J.	.87	5.55	544.3	1.48	15.97			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	25	
						IDLE NEUTRAL						.65	110	
						FEDERAL 3 MODE HIGH SPEED						.04	5	
						LOW SPEED						.08	20	
						IDLE IN DRIVE						1.90	130	
						IDLE IN NEUTRAL						1.50	135	

IIR = 275 PPM/HEXANE

ICU (ACT) = 5.60 % CO

ICU (SPEC) = .30 % CO

EGR VALVE BENT NOT FUNCTION
 AT CHOKE KICK LOOSE LIM CAP
 & MISSING

IIR = 35 PPM/HEXANE

ICU (ACT) = .14 % CO

ICU (SPEC) = .30 % CO

ADJUSTED IDLE CO AND SPEED

IIR = 220 PPM/HEXANE

ICU (ACT) = .23 % CO

ICU (SPEC) = .30 % CO

MAJOR TO REPLACE EGR VALVE
 REPAIR CHOKE KICK ADJ TAP
 LETS OIL FIL

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6001-6	76	DODG	ASPE	225	6	COLD TRANSIENT	1.72	22.84	541.6	3.81	15.22			
						COLD STABILIZED	.78	10.43	487.3	1.53	17.54			
						HOT TRANSIENT	.94	7.05	474.2	3.13	18.18			
						75 FEDERAL TEST PROCEDURE	1.02	12.06	494.9	2.44	17.16			
						EPA HIGHWAY FUEL ECONOMY	.18	.79	385.8	2.84	22.90			
						FEDERAL SHORT CYCLE	.64	6.31	378.3	1.36	22.76			
						COMPOSITE N.Y. N.J.	1.21	14.20	483.3	1.46	17.42			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	47	
						IDLE NEUTRAL						1.15	120	
						FEDERAL 3 MODE HIGH SPEED						.04	18	
						LOW SPEED						.02	21	
						IDLE IN DRIVE						1.65	120	
						IDLE IN NEUTRAL						1.80	140	
6001-7	76	DODG	ASPE	225	7	COLD TRANSIENT	2.89	35.78	498.5	9.41	15.74			
						COLD STABILIZED	1.39	35.47	447.2	7.20	17.50			
						HOT TRANSIENT	1.57	17.68	431.0	9.63	19.14			
						75 FEDERAL TEST PROCEDURE	1.75	30.68	453.3	8.32	17.51			
						EPA HIGHWAY FUEL ECONOMY	.24	1.60	356.8	8.14	24.65			
						FEDERAL SHORT CYCLE	1.58	27.59	332.0	4.79	23.34			
						COMPOSITE N.Y. N.J.	1.96	48.54	435.3	4.29	17.14			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.03	21	
						IDLE NEUTRAL						3.15	175	
						FEDERAL 3 MODE HIGH SPEED						.02	25	
						LOW SPEED						.02	28	
						IDLE IN DRIVE						3.25	139	
						IDLE IN NEUTRAL						3.20	177	
6001-8	76	DODG	ASPE	225	8	COLD TRANSIENT	2.39	37.52	531.3	4.00	14.83			
						COLD STABILIZED	1.31	31.86	462.5	1.56	17.18			
						HOT TRANSIENT	1.22	16.25	621.0	3.06	13.64			
						75 FEDERAL TEST PROCEDURE	1.51	28.76	520.0	2.47	15.57			
						EPA HIGHWAY FUEL ECONOMY	.26	1.72	370.9	2.49	23.71			
						FEDERAL SHORT CYCLE	1.20	22.10	372.0	1.39	21.63			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.01	37	
						IDLE NEUTRAL						1.20	235	
						FEDERAL 3 MODE HIGH SPEED						.01	20	
						LOW SPEED						.01	25	
						IDLE IN DRIVE						1.32	185	
						IDLE IN NEUTRAL						1.22	239	

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)			HC	NOX	
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL	CO2	PPM/HEX	PPM
NUMBER												ECONOMY			
5002-1	75	DODG	DART	225	1	COLD TRANSIENT		3.84	61.62	624.5	3.93	12.10			
						COLD STABILIZED		2.02	63.85	497.7	1.49	14.69			
						HOT TRANSIENT		2.11	31.34	466.2	2.52	17.00			
						75 FEDERAL TEST PROCEDURE		2.42	54.52	515.2	2.27	14.59			
						EPA HIGHWAY FUEL ECONOMY		.21	3.08	385.		22.70			
						FEDERAL SHORT CYCLE		1.99	50.12	357.5	1.05	20.07			
						COMPOSITE N.Y. N.J.		2.89	107.62	452.5	1.19	14.07			
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE	2250 RPM				.02	15			
						IDLE NEUTRAL					3.40	85			
						FEDERAL 3 MODE	HIGH SPEED				.02	18			
						LOW SPEED					.02	18			
						IDLE IN DRIVE					3.70	95			
						IDLE IN NEUTRAL					3.90	100			
						5002-2	75	DODG	DART	225	2	COLD TRANSIENT		3.22	73.97
COLD STABILIZED		2.48	74.00	413.2	2.23							16.40			
HOT TRANSIENT		1.72	40.92	411.1	2.87							18.46			
75 FEDERAL TEST PROCEDURE		2.42	65.38	423.8	2.55							16.62			
EPA HIGHWAY FUEL ECONOMY		.37	3.73	333.3	2.33							26.08			
FEDERAL SHORT CYCLE		1.97	50.88	313.2	1.82							22.22			
COMPOSITE N.Y. N.J.															
CLAYTON KEY MODE (HIGH CRUISE)															
(LOW CRUISE)															
IDLE															
TWO SPEED IDLE	2250 RPM				.04							25			
IDLE NEUTRAL					3.15							94			
FEDERAL 3 MODE	HIGH SPEED				.04							29			
LOW SPEED					.05							32			
IDLE IN DRIVE					3.30							105			
IDLE IN NEUTRAL					3.20							100			
5002-3	75	DODG	DART	225	3							COLD TRANSIENT		2.42	47.08
						COLD STABILIZED		.22	1.00	487.7	2.71	18.12			
						HOT TRANSIENT		.67	3.77	444.1	2.98	19.63			
						75 FEDERAL TEST PROCEDURE		.79	11.24	481.6	2.86	17.69			
						EPA HIGHWAY FUEL ECONOMY		.11	.21	345.0	2.73	25.67			
						FEDERAL SHORT CYCLE		.27	2.43	364.6	2.22	24.04			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE	2250 RPM				.04	15			
						IDLE NEUTRAL					.04	12			
						FEDERAL 3 MODE	HIGH SPEED				.05	15			
						LOW SPEED					.05	17			
						IDLE IN DRIVE					.04	12			
						IDLE IN NEUTRAL					.05	13			

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

(TEST SITE: WASHINGTON, D.C.)

						-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HCX	NO _x PPM
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SCR	TEST TYPE	HC	CO	CO ₂	NO _x C			
APP-1	76	DODG	ASPE	225	1	COLD TRANSIENT	4.68	80.55	541.8	3.31	12.97		
						COLD STABILIZED	1.44	26.43	514.2	1.78	15.85		
						HOT TRANSIENT	1.67	16.62	499.9	3.17	16.71		
						75 FEDERAL TEST PROCEDURE	2.17	34.89	516.0	2.47	15.37		
						EPA HIGHWAY FUEL ECONOMY	.30	2.66	407.4	2.59	21.52		
						FEDERAL SHORT CYCLE	1.34	21.33	380.0	1.21	21.55		
						COMPOSITE N.Y., N.J.	2.14	39.43	487.5	1.34	15.96		
						CLAYTON KEY HOLE (HIGH CRUISE)						.03	25
						CLAYTON KEY HOLE (LOW CRUISE)						.02	20
						IDLE						2.90	135
						TWO SPEED IDLE						.05	20
						2250 RPM						2.40	125
						IDLE NEUTRAL						.02	11
						FEDERAL 3 MODC						.03	25
APP-2	76	DODG	ASPE	225	2	COLD TRANSIENT	5.00	58.62	592.7	3.76	12.66		
						COLD STABILIZED	1.37	24.83	523.8	1.84	15.65		
						HOT TRANSIENT	1.63	15.93	502.0	3.12	16.68		
						75 FEDERAL TEST PROCEDURE	2.19	29.35	532.0	2.58	15.17		
						EPA HIGHWAY FUEL ECONOMY	.30	2.47	411.6	2.78	21.31		
						FEDERAL SHORT CYCLE	1.34	18.53	387.0	1.24	21.12		
						COMPOSITE N.Y., N.J.	2.33	28.29	521.4	1.45	15.48		
						CLAYTON KEY HOLE (HIGH CRUISE)						.02	15
						CLAYTON KEY HOLE (LOW CRUISE)						.02	19
						IDLE						1.00	50
						TWO SPEED IDLE						.02	17
						2250 RPM						.85	45
						IDLE NEUTRAL						.02	11
						FEDERAL 3 MODF						.02	11
APP-3	76	DODG	ASPE	225	3	COLD TRANSIENT	3.67	44.51	581.0	3.72	13.39		
						COLD STABILIZED	.42	2.46	540.2	2.06	16.27		
						HOT TRANSIENT	1.13	5.98	506.1	3.18	17.10		
						75 FEDERAL TEST PROCEDURE	1.32	12.07	539.3	2.70	15.78		
						EPA HIGHWAY FUEL ECONOMY	.23	1.20	419.0	3.00	21.05		
						FEDERAL SHORT CYCLE	.41	1.25	408.4	1.58	21.57		
						COMPOSITE N.Y., N.J.	.45	.74	533.0	1.76	16.57		
						CLAYTON KEY HOLE (HIGH CRUISE)						.02	11
						CLAYTON KEY HOLE (LOW CRUISE)						.02	9
						IDLE						.02	9
						TWO SPEED IDLE						.01	8
						2250 RPM						.01	7
						IDLE NEUTRAL						.02	7
						FEDERAL 3 MODC						.01	5
APP-4	76	DODG	ASPE	225	4	COLD TRANSIENT	3.67	44.51	581.0	3.72	13.39		
						COLD STABILIZED	.42	2.46	540.2	2.06	16.27		
						HOT TRANSIENT	1.13	5.98	506.1	3.18	17.10		
						75 FEDERAL TEST PROCEDURE	1.32	12.07	539.3	2.70	15.78		
						EPA HIGHWAY FUEL ECONOMY	.23	1.20	419.0	3.00	21.05		
						FEDERAL SHORT CYCLE	.41	1.25	408.4	1.58	21.57		
						COMPOSITE N.Y., N.J.	.45	.74	533.0	1.76	16.57		
						CLAYTON KEY HOLE (HIGH CRUISE)						.02	11
						CLAYTON KEY HOLE (LOW CRUISE)						.02	9
						IDLE						.02	9
						TWO SPEED IDLE						.01	8
						2250 RPM						.01	7
						IDLE NEUTRAL						.02	7
						FEDERAL 3 MODC						.01	5

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6004-1	76	DODG	ASPE	225	1	COLD TRANSIENT	3.56	43.06	526.3	6.07	14.66			
						COLD STABILIZED	1.62	32.05	451.4	3.15	17.51			
						HOT TRANSIENT	1.64	16.44	454.8	4.34	18.27			
						75 FEDERAL TEST PROCEDURE	2.02	30.05	467.8	4.08	17.07			
						EPA HIGHWAY FUEL ECONOMY	.30	1.84	379.4	3.77	23.16			
						FEDERAL SHORT CYCLE	1.47	19.89	349.5	2.50	23.03			
						COMPOSITE N.Y. N.J.	2.43	52.02	382.6	2.28	18.81			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	19	
						(LOW CRUISE)						.03	25	
						IDLE						2.20	95	
						TWO SPEED IDLE						.03	20	
						2250 RPM						1.55	105	
						IDLE NEUTRAL						.03	22	
						FEDERAL 3 MODE						.02	25	
						HIGH SPEED						2.90	125	
						LOW SPEED						2.50	150	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6004-3	76	DODG	ASPE	225	3	COLD TRANSIENT	1.98	24.35	533.7	2.17	15.35			
						COLD STABILIZED	.88	6.36	471.6	3.37	18.33			
						HOT TRANSIENT	2.30	8.36	454.4	3.84	18.70			
						75 FEDERAL TEST PROCEDURE	1.47	10.61	479.7	3.22	17.71			
						EPA HIGHWAY FUEL ECONOMY	.29	2.32	357.7	2.81	24.50			
						FEDERAL SHORT CYCLE	1.20	12.67	346.9	2.44	23.95			
						COMPOSITE N.Y. N.J.	1.56	21.44	440.7	2.98	18.51			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	22	
						(LOW CRUISE)						.08	30	
						IDLE						1.30	80	
						TWO SPEED IDLE						.03	20	
						2250 RPM						.60	75	
						IDLE NEUTRAL						.03	21	
						FEDERAL 3 MODE						.06	29	
						HIGH SPEED						1.40	79	
						LOW SPEED						1.30	95	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6004-4	76	DODG	ASPE	225	4	COLD TRANSIENT	3.69	29.05	575.0	4.86	14.10			
						COLD STABILIZED	.33	1.92	498.7	2.72	17.66			
						HOT TRANSIENT	1.02	4.06	485.0	3.69	17.94			
						75 FEDERAL TEST PROCEDURE	1.00	8.09	510.6	3.42	18.86			
						EPA HIGHWAY FUEL ECONOMY	.15	.77	399.6	3.58	22.12			
						FEDERAL SHORT CYCLE	.46	3.20	381.7	2.23	22.86			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	15	
						(LOW CRUISE)						.02	17	
						IDLE						.35	47	
						TWO SPEED IDLE						.02	15	
						2250 RPM						.02	20	
						IDLE NEUTRAL						.02	10	
						FEDERAL 3 MODE						.02	13	
						HIGH SPEED						.30	13	
						LOW SPEED						.29	37	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)		HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL	CO2	PPM/100X	PPM
6004-A	76	DODG	ASPE	318A		COLD TRANSIENT	3.98	31.37	574.0	4.38	13.95			
						COLD STABILIZED	.64	3.61	495.8	2.56	17.63			
						HOT TRANSIENT	1.00	4.90	479.2	3.41	18.11			
						75 FEDERAL TEST PROCEDURE	1.42	9.67	507.4	3.17	16.84			
						EPA HIGHWAY FUEL ECONOMY	.21	1.05	389.1	1.29	22.68			
						FEDERAL SHORT CYCLE	.87	6.34	375.1	1.73	22.68			
						COMPOSITE N.Y. N.J.	1.24	10.51	486.3	2.47	17.52			
CASSET FOR EGR VALVE													.03	15
REPLACED													.03	20
												1.00	84	
						TWO SPEED IDLE						.04	19	
						2250 RPM						.45	72	
						IDLE NEUTRAL						.04	12	
						FEDERAL 3 MODE						.04	21	
						HIGH SPEED						.90	90	
						LOW SPEED						1.00	80	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6005-B	75	DODG	DART	225	1	COLD TRANSIENT	5.08	119.10	461.5	3.35	13.35			
						COLD STABILIZED	1.40	35.87	451.3	3.32	17.33			
						HOT TRANSIENT	.91	15.29	431.0	3.02	19.39			
						75 FEDERAL TEST PROCEDURE	2.02	47.39	447.8	3.46	16.77			
						EPA HIGHWAY FUEL ECONOMY	.15	1.79	340.3	3.30	25.83			
						FEDERAL SHORT CYCLE	.76	16.69	373.9	3.14	22.06			
						COMPOSITE N.Y. N.J.								
LIFTED CAPS MISSING TIMING														
PISTON DEGREES ADVANCED OUT														
OF 31LL														
													.03	18
						TWO SPEED IDLE						1.47	57	
						2250 RPM						.02	19	
						IDLE NEUTRAL						.03	17	
						FEDERAL 3 MODE						2.03	67	
						HIGH SPEED						1.75	62	
						LOW SPEED								
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
5905-C	75	DODG	DART	225	2	COLD TRANSIENT	2.27	45.85	476.4	3.85	15.97			
						COLD STABILIZED	1.30	33.15	443.7	2.88	17.75			
						HOT TRANSIENT	.85	14.59	421.0	3.39	19.88			
						75 FEDERAL TEST PROCEDURE	1.38	30.70	444.2	3.22	17.07			
						EPA HIGHWAY FUEL ECONOMY	.15	1.89	338.5	3.37	25.96			
						FEDERAL SHORT CYCLE	1.08	24.23	340.1	2.59	23.27			
						COMPOSITE N.Y. N.J.								
RESET TIMING TO SPEC														
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.03	17	
						2250 RPM						1.43	50	
						IDLE NEUTRAL						.04	13	
						FEDERAL 3 MODE						.04	13	
						HIGH SPEED						1.60	54	
						LOW SPEED						1.60	50	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC			
5005-3	75	DODG	DART	225	3	COLD TRANSIENT	1.97	35.64	500.8	3.74			15.76
						COLD STABILIZED	.51	4.96	476.5	2.72			18.27
						HOT TRANSIENT	.38	2.18	436.0	3.34			20.14
						75 FEDERAL TEST PROCEDURE	.78	10.51	470.4	3.10			18.14
						EPA HIGHWAY FUEL ECONOMY	.10	.45	332.4	3.17			26.62
						FEDERAL SHORT CYCLE	.39	4.07	363.4	2.70			23.92
						COMPOSITE N.Y. N.J.							
						CLAYTON KEY MODE (HIGH CRUISE)							
						(LOW CRUISE)							
						IDLE							
						TWO SPEED IDLE 2250 RPM					.04		27
						IDLE NEUTRAL					.20		43
						FEDERAL 3 MODE HIGH SPEED					.04		18
						LOW SPEED					.04		20
						IDLE IN DRIVE					1.05		55
						IDLE IN NEUTRAL					1.00		50
6006-1	76	DODG	ASPE	318	1	COLD TRANSIENT	2.28	28.20	616.6	2.65			13.25
						COLD STABILIZED	.82	1.07	588.1	1.88			14.90
						HOT TRANSIENT	1.17	2.06	539.8	2.36			16.24
						75 FEDERAL TEST PROCEDURE	1.22	6.92	580.8	2.17			14.90
						EPA HIGHWAY FUEL ECONOMY	.32	.79	407.5	1.54			21.66
						FEDERAL SHORT CYCLE	.66	1.62	428.4	1.43			20.50
						COMPOSITE N.Y. N.J.	.81	.82	580.3	2.14			15.19
						CLAYTON KEY MODE (HIGH CRUISE)							
						(LOW CRUISE)							
						IDLE							
						TWO SPEED IDLE 2250 RPM					.05		85
						IDLE NEUTRAL					.03		95
						FEDERAL 3 MODE HIGH SPEED					.04		18
						LOW SPEED					.04		20
						IDLE IN DRIVE					1.05		55
						IDLE IN NEUTRAL					1.00		50
5007-1	75	DODG	DART	318	1	COLD TRANSIENT	3.47	29.53	613.0	5.84			13.22
						COLD STABILIZED	2.57	10.76	576.4	3.97			14.76
						HOT TRANSIENT	2.76	6.19	502.9	6.28			17.03
						75 FEDERAL TEST PROCEDURE	2.80	13.38	564.0	4.99			14.95
						EPA HIGHWAY FUEL ECONOMY	1.74	3.03	388.2	5.91			22.27
						FEDERAL SHORT CYCLE	1.99	4.99	445.3	3.36			19.32
						COMPOSITE N.Y. N.J.							
						CLAYTON KEY MODE (HIGH CRUISE)							
						(LOW CRUISE)							
						IDLE							
						TWO SPEED IDLE 2250 RPM					.08		75
						IDLE NEUTRAL					.13		28
						FEDERAL 3 MODE HIGH SPEED					.04		18
						LOW SPEED					.04		20
						IDLE IN DRIVE					1.05		55
						IDLE IN NEUTRAL					1.00		50

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM	
5007-2	75	DODG	DART	318	2	COLD TRANSIENT	9.87	98.69	791.6	2.31	9.07				
						COLD STABILIZED	1.73	16.29	799.0	2.14	10.60				
						HOT TRANSIENT	1.61	16.80	670.0	2.59	12.65				
						75 FEDERAL TEST PROCEDURE	3.37	33.39	762.7	2.30	10.74				
						EPA HIGHWAY FUEL ECONOMY	1.05	4.84	504.9	3.35	17.21				
						FEDERAL SHORT CYCLE	1.69	6.93	593.0	1.99	14.54				
						COMPOSITE N.Y. N.J.	1.73	12.81	787.8	2.09	10.91				
						CLAYTON KEY MODE (HIGH CRUISE)						.10	5		
						(LOW CRUISE)						.07	5		
						IDLE						.35	9		
						TWO SPEED IDLE 2250 RPM						.07	5		
						IDLE NEUTRAL						.25	8		
						FEDERAL 3 MODE HIGH SPEED						.09	18		
						LOW SPEED						.06	20		
						IDLE IN DRIVE						.36	29		
						IDLE IN NEUTRAL						.25	31		
5007-3	75	DODG	DART	318	3	COLD TRANSIENT	7.52	81.98	846.2	2.42	8.80				
						COLD STABILIZED	1.21	9.19	867.4	2.24	10.02				
						HOT TRANSIENT	1.47	13.00	695.8	2.60	12.31				
						75 FEDERAL TEST PROCEDURE	2.50	25.21	816.2	2.38	10.27				
						EPA HIGHWAY FUEL ECONOMY	.93	4.73	516.9	2.67	16.83				
						FEDERAL SHORT CYCLE	1.56	5.48	600.0	2.56	14.20				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE 2250 RPM						.06	15		
						IDLE NEUTRAL						.07	13		
						FEDERAL 3 MODE HIGH SPEED						.06	10		
						LOW SPEED						.05	12		
						IDLE IN DRIVE						.08	13		
						IDLE IN NEUTRAL						.07	14		
5007-4	75	DODG	DART	318	4	COLD TRANSIENT	10.58	104.66	878.5	2.59	8.24				
						COLD STABILIZED	.95	8.93	889.7	2.41	9.79				
						HOT TRANSIENT	1.43	13.22	726.8	2.71	11.80				
						75 FEDERAL TEST PROCEDURE	3.06	29.80	843.0	2.53	9.86				
						EPA HIGHWAY FUEL ECONOMY	.96	4.47	513.7	2.90	16.95				
						FEDERAL SHORT CYCLE	.82	4.47	646.7	2.06	13.52				
						COMPOSITE N.Y. N.J.	1.17	6.75	917.1	2.39	9.53				
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE 2250 RPM						.09	35		
						IDLE NEUTRAL						.09	25		
						FEDERAL 3 MODE HIGH SPEED						.09	15		
						LOW SPEED						.08	15		
						IDLE IN DRIVE						.11	19		
						IDLE IN NEUTRAL						.08	19		

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	HC	CO	CO2	NOXC	(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
5007-A	75	DODG	DART	318	A	COLD TRANSIENT	3.60	47.91	851.6	2.40	9.45			
						COLD STABILIZED	.55	8.27	866.7	2.18	10.07			
						HOT TRANSIENT	1.17	14.70	694.8	2.37	12.30			
						75 FEDERAL TEST PROCEDURE	1.35	18.10	816.7	2.70	10.45			
						EPA HIGHWAY FUEL ECONOMY	.71	3.63	475.7	2.69	18.35			
						FEDERAL SHORT CYCLE	.53	6.22	632.8	1.76	13.70			
						COMPOSITE N.Y. N.J.	.67	10.25	870.9	2.29	9.89			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.08	18	
						IDLE NEUTRAL						.15	13	
						FEDERAL 3 MODE HIGH SPEED						.07	13	
						LOW SPEED						.08	13	
IDLE IN DRIVE						.25	17							
IDLE IN NEUTRAL						.15	13							
5008-A	75	DODG	CHAR	318	J	COLD TRANSIENT	3.96	131.68	570.0	1.72	11.24			
						COLD STABILIZED	.73	16.48	681.5	1.35	12.50			
						HOT TRANSIENT	.54	4.63	568.6	2.60	15.37			
						75 FEDERAL TEST PROCEDURE	1.34	36.96	627.7	1.77	12.86			
						EPA HIGHWAY FUEL ECONOMY	.07	.41	415.9	2.60	21.30			
						FEDERAL SHORT CYCLE	.27	2.85	506.3	1.98	17.35			
						COMPOSITE N.Y. N.J.	.51	6.72	756.7	1.57	11.54			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	16	
						(LOW CRUISE)						.02	12	
						IDLE						.18	26	
						TWO SPEED IDLE 2250 RPM						.02	10	
						IDLE NEUTRAL						.04	10	
						FEDERAL 3 MODE HIGH SPEED						.03	11	
						LOW SPEED						.02	11	
IDLE IN DRIVE						.02	10							
IDLE IN NEUTRAL						.20	23							
5008-B	75	DODG	CHAR	318	2	COLD TRANSIENT	1.86	37.00	669.5	2.84	12.09			
						COLD STABILIZED	.60	17.16	719.1	1.53	11.66			
						HOT TRANSIENT	.64	6.25	623.5	2.84	13.97			
						75 FEDERAL TEST PROCEDURE	.87	18.27	682.8	2.16	12.42			
						EPA HIGHWAY FUEL ECONOMY	.07	.41	462.6	3.33	19.15			
						FEDERAL SHORT CYCLE	.12	1.56	541.4	2.29	16.30			
						COMPOSITE N.Y. N.J.	.33	4.56	764.7	1.84	11.48			
						CLAYTON KEY MODE (HIGH CRUISE)						.01	18	
						(LOW CRUISE)						.02	11	
						IDLE						.12	15	
						TWO SPEED IDLE 2250 RPM						.01	9	
						IDLE NEUTRAL						.01	10	
						FEDERAL 3 MODE HIGH SPEED						.01	10	
						LOW SPEED						.01	10	
IDLE IN DRIVE						.20	14							
IDLE IN NEUTRAL						.02	7							

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
7008 J	75	DODG	CHAR	318	3	COLD TRANSIENT	1.68	30.08	697.1	2.63	11.83			
						COLD STABILIZED	.09	.56	735.7	1.44	12.04			
						HOT TRANSIENT	.33	1.42	617.6	2.78	14.29			
						75 FEDERAL TEST PROCEDURE	.48	6.87	695.5	2.05	12.54			
						EPA HIGHWAY FUEL ECONOMY	.05	.08	458.3	2.70	12.35			
						FEDERAL SHORT CYCLE	.08	.27	503.1	2.49	12.62			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	
						(LOW CRUISE)						.03	23	
						IDLE						.03	18	
						TWO SPEED IDLE 2250 RPM						.02	18	
						IDLE NEUTRAL						.03	20	
						FEDERAL 3 MODE HIGH SPEED						.03	18	
						LOW SPEED						.03	20	
						IDLE IN DRIVE						.03	18	
						IDLE IN NEUTRAL						.03	20	
4002 F	76	DODG	CORD	318	J	COLD TRANSIENT	3.13	43.00	666.7	4.22	11.92			
						COLD STABILIZED	2.15	21.03	679.5	2.33	12.33			
						HOT TRANSIENT	1.86	10.80	601.9	3.72	14.20			
						75 FEDERAL TEST PROCEDURE	2.27	22.76	655.7	3.10	12.70			
						EPA HIGHWAY FUEL ECONOMY	.39	1.32	482.8	3.74	18.26			
						FEDERAL SHORT CYCLE	1.29	11.93	532.5	2.14	15.99			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	100	
						IDLE NEUTRAL						.05	110	
						FEDERAL 3 MODE HIGH SPEED						.04	25	
						LOW SPEED						.04	28	
						IDLE IN DRIVE						1.55	112	
						IDLE IN NEUTRAL						.05	120	
6009 J	76	DODG	CORD	318	3	COLD TRANSIENT	3.01	35.53	688.5	4.54	11.77			
						COLD STABILIZED	.67	1.79	657.1	2.63	13.41			
						HOT TRANSIENT	1.20	2.77	597.6	3.80	14.65			
						75 FEDERAL TEST PROCEDURE	1.31	9.00	647.3	3.34	13.33			
						EPA HIGHWAY FUEL ECONOMY	.28	.38	475.9	3.29	18.59			
						FEDERAL SHORT CYCLE	.42	.66	485.5	2.28	18.19			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	60	
						IDLE NEUTRAL						.05	20	
						FEDERAL 3 MODE HIGH SPEED						.05	13	
						LOW SPEED						.05	18	
						IDLE IN DRIVE						.05	18	
						IDLE IN NEUTRAL						.05	20	

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

-----GRAMS PER MILE-----

VEHICLE						-----GRAMS PER MILE-----					(MPG)			
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6005	4	76	DODG	CORO	318	4	COLD TRANSIENT	3.18	31.06	646.4	3.82	12.56		
						COLD STABILIZED	1.55	8.79	625.5	2.58	13.78			
						HOT TRANSIENT	1.44	4.39	575.8	3.51	15.12			
						75 FEDERAL TEST PROCEDURE	1.85	12.34	616.2	3.09	13.83			
						EPA HIGHWAY FUEL ECONOMY	.42	.58	459.8	3.40	19.21			
						FEDERAL SHORT CYCLE	1.08	3.89	483.4	2.51	18.01			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.04	135	
						IDLE NEUTRAL						.18	58	
						FEDERAL 3 MODE HIGH SPEED						.04	20	
						LOW SPEED						.03	28	
						IDLE IN DRIVE						.35	72	
						IDLE IN NEUTRAL						.18	58	
6010-1	76	DODG	CHAR	360	1	COLD TRANSIENT	2.10	38.18	671.4	2.71	12.02			
						COLD STABILIZED	.76	24.53	714.8	1.70	11.74			
						HOT TRANSIENT	1.15	16.08	637.2	3.42	13.32			
						75 FEDERAL TEST PROCEDURE	1.14	25.03	684.7	2.37	12.19			
						EPA HIGHWAY FUEL ECONOMY	.17	4.74	457.1	3.43	19.08			
						FEDERAL SHORT CYCLE	.59	18.92	502.1	2.94	16.63			
						COMPOSITE N.Y. N.J.	1.82	67.30	641.6	1.22	11.78			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	10	
						(LOW CRUISE)						.03	10	
						IDLE						1.45	60	
						TWO SPEED IDLE 2250 RPM						.02	15	
						IDLE NEUTRAL						1.53	49	
						FEDERAL 3 MODE HIGH SPEED						.03	20	
						LOW SPEED						.03	17	
						IDLE IN DRIVE						1.42	63	
						IDLE IN NEUTRAL						1.58	58	
6010-3	76	DODG	CHAR	360	3	COLD TRANSIENT	1.13	24.12	671.3	3.54	12.11			
						COLD STABILIZED	.07	.40	736.8	2.14	12.03			
						HOT TRANSIENT	.44	2.78	622.6	3.90	14.13			
						75 FEDERAL TEST PROCEDURE	.39	5.93	676.3	2.91	12.56			
						EPA HIGHWAY FUEL ECONOMY	.07	1.79	469.8	3.97	18.77			
						FEDERAL SHORT CYCLE	.28	10.61	529.2	1.95	16.24			
						COMPOSITE N.Y. N.J.	.49	10.20	761.1	.80	11.40			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	30	
						(LOW CRUISE)						.01	35	
						IDLE						.01	35	
						TWO SPEED IDLE 2250 RPM						.05	40	
						IDLE NEUTRAL						.04	35	
						FEDERAL 3 MODE HIGH SPEED						.05	30	
						LOW SPEED						.05	35	
						IDLE IN DRIVE						.04	30	
						IDLE IN NEUTRAL						.04	30	

-----GRAMS PER MILE-----																				
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM					
6011-1	76	DODG	CHAR	318	1	COLD TRANSIENT		3.04	33.17	625.7	3.44	12.91								
						COLD STABILIZED		2.09	27.66	606.3	2.49	13.52								
						HOT TRANSIENT		1.98	13.18	569.2	3.96	14.89								
						75 FEDERAL TEST PROCEDURE		2.25	24.84	600.2	3.09	13.73								
						EPA HIGHWAY FUEL ECONOMY		.33	1.28	453.7	3.59	19.43								
						FEDERAL SHORT CYCLE		1.58	16.93	462.5	2.09	17.97								
						COMPOSITE N.Y. N.J.		2.65	35.19	578.8	2.30	13.81								
						LIMITER CAPS BROKEN														
						CLAYTON KEY MODE (HIGH CRUISE)										.02	20			
						(LOW CRUISE)										.02	20			
						IDLE										1.10	65			
						TWO SPEED IDLE		2250 RPM								.03	37			
						IDLE NEUTRAL										.80	30			
						FEDERAL 3 MODE		HIGH SPEED								.02	15			
						LOW SPEED										.02	20			
IDLE IN DRIVE										1.00	65									
IDLE IN NEUTRAL										.90	85									
6011-2	76	DODG	CHAR	318	2	COLD TRANSIENT		3.06	29.54	633.0	3.14	12.88								
						COLD STABILIZED		1.72	13.44	608.4	2.25	13.98								
						HOT TRANSIENT		1.83	6.81	567.8	3.54	15.19								
						75 FEDERAL TEST PROCEDURE		2.02	14.94	602.4	2.78	14.04								
						EPA HIGHWAY FUEL ECONOMY		.31	.74	439.6	2.78	20.09								
						FEDERAL SHORT CYCLE		1.03	5.07	462.6	1.97	18.74								
						COMPOSITE N.Y. N.J.		2.15	17.60	614.8	1.64	13.66								
						ADJUSTED ICD AND SPEED TO 5										.03	19			
						MPH										.03	25			
						(LOW CRUISE)										1.15	99			
						IDLE										.03	75			
						TWO SPEED IDLE		2250 RPM								.15	95			
						IDLE NEUTRAL										.03	17			
						FEDERAL 3 MODE		HIGH SPEED								.03	27			
						LOW SPEED										.75	95			
IDLE IN DRIVE										.50	160									
IDLE IN NEUTRAL																				
6011-3	76	DODG	CHAR	318	3	COLD TRANSIENT		3.14	27.46	656.7	3.41	12.50								
						COLD STABILIZED		.80	1.30	640.9	2.41	13.75								
						HOT TRANSIENT		1.45	3.81	594.7	3.59	14.66								
						75 FEDERAL TEST PROCEDURE		1.46	7.37	631.5	2.74	13.71								
						EPA HIGHWAY FUEL ECONOMY		.25	.29	471.4	3.16	18.78								
						FEDERAL SHORT CYCLE		.45	.43	482.5	2.13	18.31								
						COMPOSITE N.Y. N.J.		.41	.54	628.2	2.65	14.08								
						MAJOR TO NEW PLUGS AND AIR										.03	15			
						FILTER										.03	29			
						CLAYTON KEY MODE (HIGH CRUISE)										.07	15			
						(LOW CRUISE)										.02	65			
						IDLE										.03	19			
						TWO SPEED IDLE		2250 RPM								.02	10			
						IDLE NEUTRAL										.02	15			
						FEDERAL 3 MODE		HIGH SPEED								.03	11			
LOW SPEED										.02	10									
IDLE IN DRIVE																				
IDLE IN NEUTRAL																				

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MFG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6011-5	76	DODG	CHAR	318	5	COLD TRANSIENT	4.41	121.84	571.8	7.27	11.42			
						COLD STABILIZED	2.49	37.58	584.9	10.58	13.57			
						HOT TRANSIENT	1.87	16.89	550.0	12.32	15.24			
						75 FEDERAL TEST PROCEDURE	2.71	49.27	573.7	10.37	13.45			
						EPA HIGHWAY FUEL ECONOMY	.41	1.71	437.0	10.27	20.13			
						FEDERAL SHORT CYCLE	1.79	22.25	447.9	9.01	18.17			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	40	
						(LOW CRUISE)						.02	32	
						IDLE						2.40	120	
						TWO SPEED IDLE						.02	20	
						2250 RPM						1.85	180	
						IDLE NEUTRAL						.02	10	
						FEDERAL 3 MODE						.02	35	
						HIGH SPEED						2.10	165	
						LOW SPEED						1.90	170	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6011-6	76	DODG	CHAR	318	6	COLD TRANSIENT	3.41	42.71	603.6	3.06	13.02			
						COLD STABILIZED	2.19	31.17	590.7	2.35	13.73			
						HOT TRANSIENT	1.96	16.20	552.8	3.93	15.10			
						75 FEDERAL TEST PROCEDURE	2.38	27.46	583.0	2.93	13.94			
						EPA HIGHWAY FUEL ECONOMY	.35	1.65	438.9	3.43	20.05			
						FEDERAL SHORT CYCLE	1.67	21.23	444.8	1.85	18.36			
						COMPOSITE N.Y. N.J.	2.60	46.55	576.5	2.01	13.49			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	26	
						(LOW CRUISE)						.04	40	
						IDLE						2.40	115	
						TWO SPEED IDLE						.05	70	
						2250 RPM						2.00	160	
						IDLE NEUTRAL						.05	30	
						FEDERAL 3 MODE						.05	33	
						HIGH SPEED						2.35	160	
						LOW SPEED						1.95	170	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6011-7	76	DODG	CHAR	318	7	COLD TRANSIENT	3.18	31.44	620.3	4.33	13.05			
						COLD STABILIZED	2.07	11.38	611.1	3.17	13.76			
						HOT TRANSIENT	2.21	5.71	547.6	5.03	15.75			
						75 FEDERAL TEST PROCEDURE	2.34	13.96	595.6	3.93	14.21			
						EPA HIGHWAY FUEL ECONOMY	.41	.61	432.1	3.99	20.43			
						FEDERAL SHORT CYCLE	1.26	4.93	464.6	2.67	18.63			
						COMPOSITE N.Y. N.J.	1.99	14.78	577.8	3.39	14.61			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	30	
						(LOW CRUISE)						.04	65	
						IDLE						1.10	145	
						TWO SPEED IDLE						.05	130	
						2250 RPM						.40	150	
						IDLE NEUTRAL						.05	27	
						FEDERAL 3 MODE						.05	30	
						HIGH SPEED						.75	130	
						LOW SPEED						.40	175	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

TIMING ADVANCED 5
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APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6011-8	76	DODG	CHAR 318	8		COLD TRANSIENT	3.76	101.80	577.2	2.26	11.81			
						COLD STABILIZED	1.63	10.92	611.6	2.60	14.00			
						HOT TRANSIENT	1.75	5.16	570.3	3.76	15.20			
						75 FEDERAL TEST PROCEDURE	2.19	28.06	573.6	2.85	13.77			
						EPA HIGHWAY FUEL ECONOMY	.34	.65	450.4	3.45	17.61			
						FEDERAL SHORT CYCLE	1.00	5.01	473.1	2.25	18.34			
						COMPOSITE N.Y. N.J.	1.60	14.34	598.3	2.41	14.18			
						CHOKE HEATER WIRE DISCONNECTED						.03	22	
						CLAYTON KEY MODE (HIGH CRUISE)						.03	45	
						(LOW CRUISE)						1.20	117	
						IDLE						.03	100	
						TWO SPEED IDLE 2250 RPM						.65	110	
						IDLE NEUTRAL						.02	30	
						FEDERAL 3 MODE HIGH SPEED						.03	35	
						LOW SPEED						1.20	120	
						IDLE IN DRIVE						.80	125	
						IDLE IN NEUTRAL								
6011-7	76	DODG	CHAR 318	9		COLD TRANSIENT	2.70	31.35	601.7	11.80	13.45			
						COLD STABILIZED	1.30	10.94	577.4	8.87	14.27			
						HOT TRANSIENT	1.49	6.05	557.9	14.40	15.46			
						75 FEDERAL TEST PROCEDURE	1.68	13.80	589.1	10.98	14.40			
						EPA HIGHWAY FUEL ECONOMY	.29	.82	441.2	13.23	20.02			
						FEDERAL SHORT CYCLE	1.07	6.55	456.9	7.78	18.84			
						COMPOSITE N.Y. N.J.	1.48	17.20	587.7	6.34	14.27			
						LOG DISABLED						.04	27	
						CLAYTON KEY MODE (HIGH CRUISE)						.04	23	
						(LOW CRUISE)						1.10	117	
						IDLE						.04	14	
						TWO SPEED IDLE 2250 RPM						.50	100	
						IDLE NEUTRAL						.04	25	
						FEDERAL 3 MODE HIGH SPEED						.04	23	
						LOW SPEED						1.20	115	
						IDLE IN DRIVE						.80	110	
						IDLE IN NEUTRAL								
6012-1	76	DODG	CHAR 360	1		COLD TRANSIENT	2.27	60.09	629.3	3.13	12.14			
						COLD STABILIZED	2.36	87.50	635.9	1.21	11.36			
						HOT TRANSIENT	2.16	54.81	555.7	2.76	13.68			
						75 FEDERAL TEST PROCEDURE	2.29	72.94	612.7	2.03	12.08			
						EPA HIGHWAY FUEL ECONOMY	.58	15.42	444.4	3.76	18.86			
						FEDERAL SHORT CYCLE	3.53	95.52	458.4	1.68	14.37			
						COMPOSITE N.Y. N.J.								
						LIMITED CAPS MISSING						.35	25	
						CLAYTON KEY MODE (HIGH CRUISE)						.40	40	
						(LOW CRUISE)						3.00	118	
						IDLE						.35	50	
						TWO SPEED IDLE 2250 RPM						2.80	105	
						IDLE NEUTRAL						.35	32	
						FEDERAL 3 MODE HIGH SPEED						.45	48	
						LOW SPEED						2.90	90	
						IDLE IN DRIVE						3.20	105	
						IDLE IN NEUTRAL								

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM	PPM
6012-3	76	DODG	CHRG	360	3	COLD TRANSIENT	1.34	27.15	645.8	3.50	12.81				
						COLD STABILIZED	.16	3.98	714.4	1.58	12.31				
						HOT TRANSIENT	.66	9.14	587.9	3.02	14.69				
						75 FEDERAL TEST PROCEDURE	.54	10.16	665.8	2.37	12.99				
						EPA HIGHWAY FUEL ECONOMY	.15	3.73	431.3	4.06	20.28				
						FEDERAL SHORT CYCLE	.90	20.85	520.9	2.06	15.95				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.25	17		
						(LOW CRUISE)						.30	25		
						IDLE						.50	25		
						TWO SPEED IDLE 2250 RPM						.30	26		
						IDLE NEUTRAL						.80	25		
						FEDERAL 3 MODE HIGH SPEED						.10	22		
						LOW SPEED						.02	12		
						IDLE IN DRIVE						.40	21		
						IDLE IN NEUTRAL						.60	22		
6013-1	76	DODG	MONA	400	1	COLD TRANSIENT	4.31	92.28	687.1	2.74	10.47				
						COLD STABILIZED	3.61	104.08	699.0	1.90	10.15				
						HOT TRANSIENT	2.71	59.69	637.1	2.85	12.00				
						75 FEDERAL TEST PROCEDURE	3.51	87.54	679.6	2.33	10.67				
						EPA HIGHWAY FUEL ECONOMY	.73	14.96	482.9	3.43	17.45				
						FEDERAL SHORT CYCLE	3.24	86.77	509.5	2.33	13.53				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.20	35	1,000	
						(LOW CRUISE)						.03	27	1,050	
						IDLE						6.90	255	35	
						TWO SPEED IDLE 2250 RPM						.75	95	260	
						IDLE NEUTRAL						7.00	215	45	
						FEDERAL 3 MODE HIGH SPEED						.25	35	1,150	
						LOW SPEED						.03	28	2,000	
						IDLE IN DRIVE						6.50	230	40	
						IDLE IN NEUTRAL						7.40	270	30	
6013-2	76	DODG	MONA	400	2	COLD TRANSIENT	4.98	96.57	697.9	1.95	10.25				
						COLD STABILIZED	3.18	99.55	710.6	1.45	10.12				
						HOT TRANSIENT	2.37	53.47	635.8	2.25	12.20				
						75 FEDERAL TEST PROCEDURE	3.33	86.36	687.6	1.77	10.64				
						EPA HIGHWAY FUEL ECONOMY	.58	11.39	482.8	2.74	17.66				
						FEDERAL SHORT CYCLE	2.37	65.84	510.9	1.76	14.27				
						COMPOSITE N.Y. N.J.	4.21	143.87	626.3	.89	10.25				
						CLAYTON KEY MODE (HIGH CRUISE)						.08	20	1,150	
						(LOW CRUISE)						.05	20	1,400	
						IDLE						5.80	185	35	
						TWO SPEED IDLE 2250 RPM						.06	18	210	
						IDLE NEUTRAL						5.80	170	20	
						FEDERAL 3 MODE HIGH SPEED						.20	21	1,100	
						LOW SPEED						.04	17	1,400	
						IDLE IN DRIVE						5.20	165	40	
						IDLE IN NEUTRAL						5.80	200	35	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)				
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6013 3	76	DDIG	MONA 400	400	3	COLD TRANSIENT	3.41	69.00	781.1	2.15	9.85			
						COLD STABILIZED	.26	3.26	833.0	1.75	10.50			
TRC-			35 PPM/HEXANE			HOT TRANSIENT	.57	8.75	696.6	2.50	12.46			
TCU (ACT)			.30 % CO			75 FEDERAL TEST PROCEDURE	.99	18.34	785.1	2.14	10.86			
TCU(SPEC)-			.30 % CO			EPA HIGHWAY FUEL ECONOMY	.10	1.67	502.8	3.15	17.55			
						FEDERAL SHORT CYCLE	.25	.62	605.8	2.25	14.61			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.15	19	910
						(LOW CRUISE)						.03	17	1,100
						IDLE						.03	20	80
						TWO SPEED IDLE						.03	22	250
						2250 RPM						.03	40	55
						IDLE NEUTRAL						.12	15	1,125
						FEDERAL 3 MODE						.03	12	1,200
						HIGH SPEED						.03	13	80
						LOW SPEED						.03	35	50
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6017-4	76	DDIG	MONA 400	400	4	COLD TRANSIENT	3.09	56.34	777.1	2.60	10.13			
						COLD STABILIZED	.31	1.33	841.6	2.16	10.51			
TRC-			45 PPM/HEXANE			HOT TRANSIENT	.54	5.72	706.6	2.63	12.37			
TCU (ACT)			.30 % CO			75 FEDERAL TEST PROCEDURE	.94	13.85	791.5	2.38	10.87			
TCU(SPEC)-			.30 % CO			EPA HIGHWAY FUEL ECONOMY	.13	3.12	513.7	3.31	17.10			
						FEDERAL SHORT CYCLE	.20	3.03	622.4	2.40	14.13			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.06	27	1,560
						(LOW CRUISE)						.02	12	1,100
						IDLE						.02	35	100
						TWO SPEED IDLE						.02	21	340
						2250 RPM						.02	50	65
						IDLE NEUTRAL						.12	17	1,100
						FEDERAL 3 MODE						.03	15	1,350
						HIGH SPEED						.02	20	115
						LOW SPEED						.02	45	60
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6014 J	76	FLYM	VALI 225	225	1	COLD TRANSIENT	2.80	31.00	439.8	2.81	17.84			
						COLD STABILIZED	.31	1.57	477.0	1.74	18.47			
TRC-			40 PPM/HEXANE			HOT TRANSIENT	.73	5.46	398.6	2.53	21.67			
TCU (ACT)			.40 % CO			75 FEDERAL TEST PROCEDURE	.94	8.69	447.9	2.18	19.11			
TCU(SPEC)-			.30 % CO			EPA HIGHWAY FUEL ECONOMY	.12	.22	314.8	2.44	28.13			
						FEDERAL SHORT CYCLE	.25	.08	340.4	1.83	26.01			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.03	24	
						2250 RPM						.03	16	
						IDLE NEUTRAL						.05	21	
						FEDERAL 3 MODE						.04	24	
						HIGH SPEED						.00	0	
						LOW SPEED						.03	15	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

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APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL	CO2	PPM/HEX	PPM	
5015-1	75	PLYM	DUST	225	1	COLD TRANSIENT	1.17	16.85	496.2	2.84	16.86				
						COLD STABILIZED	.06	.27	471.6	3.20	18.80				
						HOT TRANSIENT	.22	1.05	426.6	3.31	20.70				
						75 FEDERAL TEST PROCEDURE	.33	3.87	464.3	3.16	18.83				
						EPA HIGHWAY FUEL ECONOMY	.04	.16	324.7	2.88	27.30				
						FEDERAL SHORT CYCLE	.06	.64	369.2	3.37	23.90				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE 2250 RPM						.01		11	
						IDLE NEUTRAL						.01		9	
						FEDERAL 3 MODE HIGH SPEED						.02		14	
						LOW SPEED						.01		11	
						IDLE IN DRIVE						.01		15	
						IDLE IN NEUTRAL						.01		18	
5015-3	75	PLYM	DUST	225	3	COLD TRANSIENT	2.25	24.69	507.2	2.87	16.04				
						COLD STABILIZED	.08	.11	464.2	2.86	17.10				
						HOT TRANSIENT	.18	1.05	424.2	2.99	20.81				
						75 FEDERAL TEST PROCEDURE	.55	5.42	462.1	2.89	18.79				
						EPA HIGHWAY FUEL ECONOMY	.04	.07	323.3	2.18	27.44				
						FEDERAL SHORT CYCLE	.06	.44	348.3	2.43	25.44				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE 2250 RPM						.03		14	
						IDLE NEUTRAL						.03		13	
						FEDERAL 3 MODE HIGH SPEED						.04		19	
						LOW SPEED						.03		17	
						IDLE IN DRIVE						.03		15	
						IDLE IN NEUTRAL						.03		16	
5016-1	76	PLYM	VOLV	225	1	COLD TRANSIENT	3.91	63.04	520.4	3.98	14.04				
						COLD STABILIZED	2.95	74.84	436.0	1.90	15.76				
						HOT TRANSIENT	2.25	36.99	442.5	3.05	17.48				
						75 FEDERAL TEST PROCEDURE	2.96	62.09	455.1	2.64	15.79				
						EPA HIGHWAY FUEL ECONOMY	.39	4.40	357.3	2.38	24.29				
						FEDERAL SHORT CYCLE	2.79	57.00	323.9	1.26	21.02				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE 2250 RPM						.05		35	
						IDLE NEUTRAL						6.20		320	
						FEDERAL 3 MODE HIGH SPEED						.05		22	
						LOW SPEED						.32		45	
						IDLE IN DRIVE						7.50		270	
						IDLE IN NEUTRAL						6.80		330	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6017-3	76	PLYM	VOLA	225	3	COLD TRANSIENT	1.97	31.10	544.6	3.69	14.80			
						COLD STABILIZED	.20	.73	487.1	2.07	18.16			
						HOT TRANSIENT	.61	3.94	470.3	2.93	18.56			
						75 FEDERAL TEST PROCEDURE	.67	7.85	474.4	2.65	17.40			
						EPA HIGHWAY FUEL ECONOMY	.09	.31	359.2	2.63	24.65			
						FEDERAL SHORT CYCLE	.17	.87	362.8	1.44	24.34			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.02	26	
						IDLE NEUTRAL						.01	25	
						FEDERAL 3 MODE HIGH SPEED						.04	23	
						LOW SPEED						.04	26	
6017-1	76	PLYM	VALI	225	1	COLD TRANSIENT	1.39	17.02	490.7	7.71	17.00			
						COLD STABILIZED	.29	.47	448.2	5.60	19.73			
						HOT TRANSIENT	.45	1.10	410.7	8.20	21.45			
						75 FEDERAL TEST PROCEDURE	.56	4.05	446.7	6.75	19.50			
						EPA HIGHWAY FUEL ECONOMY	.11	.11	326.8	1.59	27.12			
						FEDERAL SHORT CYCLE	.22	.42	343.8	5.02	25.73			
						COMPOSITE N.Y. N.J.	.61	4.24	486.4	5.52	17.74			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.03	32	
						IDLE NEUTRAL						.03	36	
						FEDERAL 3 MODE HIGH SPEED						.04	39	
						LOW SPEED						.03	30	
6017-2	76	PLYM	VALI	225	2	COLD TRANSIENT	1.15	13.92	499.9	3.65	16.89			
						COLD STABILIZED	.26	.51	450.8	3.08	19.63			
						HOT TRANSIENT	.85	1.66	431.4	2.94	20.33			
						75 FEDERAL TEST PROCEDURE	.60	3.59	455.6	3.16	19.17			
						EPA HIGHWAY FUEL ECONOMY	.15	.15	338.4	2.28	26.18			
						FEDERAL SHORT CYCLE	.28	.51	326.8	2.48	27.02			
						COMPOSITE N.Y. N.J.	.28	.43	484.1	3.00	18.28			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.02	20	
						IDLE NEUTRAL						.02	20	
						FEDERAL 3 MODE HIGH SPEED						.02	20	
						LOW SPEED						.02	20	
6017-3	76	PLYM	VALI	225	2	COLD TRANSIENT	1.15	13.92	499.9	3.65	16.89			
						COLD STABILIZED	.26	.51	450.8	3.08	19.63			
						HOT TRANSIENT	.85	1.66	431.4	2.94	20.33			
						75 FEDERAL TEST PROCEDURE	.60	3.59	455.6	3.16	19.17			
						EPA HIGHWAY FUEL ECONOMY	.15	.15	338.4	2.28	26.18			
						FEDERAL SHORT CYCLE	.28	.51	326.8	2.48	27.02			
						COMPOSITE N.Y. N.J.	.28	.43	484.1	3.00	18.28			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.02	20	
						IDLE NEUTRAL						.02	20	
						FEDERAL 3 MODE HIGH SPEED						.02	20	
						LOW SPEED						.02	20	
						IDLE IN DRIVE						.02	24	
						IDLE IN NEUTRAL						.02	22	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)		HC	NOX	
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HIC	CO	CO2	NOXC	FUEL	CO2	PPM/HEX	PPM
6014-3	76	PLYM	VALI	225	3	COLD TRANSIENT	1.50	13.88	486.8	3.52	17.29			
						COLD STABILIZED	.25	.30	437.1	2.67	20.25			
THL=	90	PPM/HEXANE				HOT TRANSIENT	.69	1.66	417.2	2.74	21.05			
ICU (ACT)	.30	% CO				75 FEDERAL TEST PROCEDURE	.63	3.47	441.9	2.86	19.76			
ICU (SPEC)	.30	% CO				EPA HIGHWAY FUEL ECONOMY	.15	.16	331.1	1.95	26.74			
						FEDERAL SHORT CYCLE	.25	.13	334.6	2.83	26.46			
						COMPOSITE N.Y. N.J.	.22	.15	449.2	2.65	19.72			
RESET ICU AND SPEED TO SPEC						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE	2250 RPM					.03	67	
							IDLE NEUTRAL					.03	19	
						FEDERAL 3 MODE	HIGH SPEED					.05	23	
							LOW SPEED					.04	21	
							IDLE IN DRIVE					.05	22	
							IDLE IN NEUTRAL					.04	25	
6018-1	76	PLYM	VOLA	225	1	COLD TRANSIENT	4.75	81.02	480.8	5.50	14.24			
						COLD STABILIZED	4.56	93.55	414.2	3.04	15.42			
THL=	240	PPM/HEXANE				HOT TRANSIENT	3.67	58.96	403.2	3.54	17.49			
ICU (ACT)	0.60	% CO				75 FEDERAL TEST PROCEDURE	4.35	81.53	424.9	3.68	15.66			
ICU (SPEC)	.30	% CO				EPA HIGHWAY FUEL ECONOMY	1.87	35.04	332.1	3.24	22.58			
						FEDERAL SHORT CYCLE	3.90	70.53	310.5	2.11	20.47			
						COMPOSITE N.Y. N.J.	5.47	133.94	378.3	2.17	14.65			
LIMITED LAP BROKEN TIMING A						CLAYTON KEY MODE (HIGH CRUISE)								
ND 7 IN GIGES						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE	2250 RPM					.70	70	
							IDLE NEUTRAL					3.60	240	
						FEDERAL 3 MODE	HIGH SPEED					1.30	60	
							LOW SPEED					.90	70	
							IDLE IN DRIVE					3.70	180	
							IDLE IN NEUTRAL					3.40	245	
6018-2	76	PLYM	VOLA	225	2	COLD TRANSIENT	4.76	88.10	450.9	3.64	14.49			
						COLD STABILIZED	4.39	96.24	409.5	2.19	15.45			
THL=	190	PPM/HEXANE				HOT TRANSIENT	3.49	61.55	411.9	2.79	17.08			
ICU (ACT)	0.60	% CO				75 FEDERAL TEST PROCEDURE	4.22	85.10	420.3	2.65	15.64			
ICU (SPEC)	.30	% CO				EPA HIGHWAY FUEL ECONOMY	1.69	34.47	347.9	2.65	21.79			
						FEDERAL SHORT CYCLE	2.93	62.12	334.0	1.85	20.14			
						COMPOSITE N.Y. N.J.								
RESET TIMING TO SPEC						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE	2250 RPM					.63	52	
							IDLE NEUTRAL					3.00	185	
						FEDERAL 3 MODE	HIGH SPEED					1.05	57	
							LOW SPEED					.48	60	
							IDLE IN DRIVE					3.20	150	
							IDLE IN NEUTRAL					3.10	195	

VEHICLE				-----GRAMS PER MILE-----				(MPG)	HC		NOX				
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6018-3	76	PLYM	VOLA	225	3	COLD TRANSIENT		2.52	43.71	478.2	3.61	15.99			
						COLD STABILIZED		.92	8.32	453.7	2.02	18.90			
						HOT TRANSIENT		1.92	25.64	424.6	2.54	18.84			
						75 FEDERAL TEST PROCEDURE		1.52	20.33	450.8	2.49	18.21			
						EPA HIGHWAY FUEL ECONOMY		1.30	29.53	337.5	2.08	22.88			
						FEDERAL SHORT CYCLE		.97	11.33	352.5	1.60	23.77			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE	2250 RPM						.29	33	
							IDLE NEUTRAL						.05	28	
						FEDERAL 3 MODE	HIGH SPEED						1.29	63	
							LOW SPEED						.45	47	
							IDLE IN DRIVE						.27	80	
							IDLE IN NEUTRAL						.25	80	
6018-4	76	PLYM	VOLA	225	4	COLD TRANSIENT		3.27	46.16	516.0	4.03	14.82			
						COLD STABILIZED		.63	4.64	484.4	2.12	17.98			
						HOT TRANSIENT		1.54	18.62	447.6	2.67	18.43			
						75 FEDERAL TEST PROCEDURE		1.42	17.00	480.9	2.66	17.34			
						EPA HIGHWAY FUEL ECONOMY		1.02	21.84	348.5	2.19	22.99			
						FEDERAL SHORT CYCLE		.57	2.63	335.4	1.19	26.02			
						COMPOSITE N.Y. N.J.		.60	3.62	477.2	1.73	18.31			
						CLAYTON KEY MODE (HIGH CRUISE)									
						(LOW CRUISE)									
						IDLE									
						TWO SPEED IDLE	2250 RPM						.18	25	
							IDLE NEUTRAL						.05	22	
						FEDERAL 3 MODE	HIGH SPEED						1.10	45	
							LOW SPEED						.23	35	
							IDLE IN DRIVE						.07	45	
							IDLE IN NEUTRAL						.13	55	
6019-1	76	PLYM	VALI	225	1	COLD TRANSIENT		3.88	55.56	447.5	4.79	16.22			
						COLD STABILIZED		4.15	80.66	385.7	2.48	16.89			
						HOT TRANSIENT		3.23	38.12	382.6	3.20	19.61			
						75 FEDERAL TEST PROCEDURE		3.84</							

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HCX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6019-2	76	PLYM	VALI	225	2	COLD TRANSIENT	4.14	59.22	497.9	3.53	14.69			
						COLD STABILIZED	3.83	76.21	427.1	1.96	15.80			
						HOT TRANSIENT	3.30	39.77	435.4	2.76	17.46			
						75 FEDERAL TEST PROCEDURE	3.75	62.77	443.9	2.50	16.01			
						EPA HIGHWAY FUEL ECONOMY	.60	6.47	363.7	1.93	23.62			
						FEDERAL SHORT CYCLE	4.43	63.59	314.7	1.36	20.70			
						COMPOSITE N.Y. N.J.	6.42	126.81	385.7	1.22	14.67			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	20	
						(LOW CRUISE)						.32	55	
						IDLE						3.70	195	
						TWO SPEED IDLE 2250 RPM						.36	35	
						IDLE NEUTRAL						3.50	100	
						FEDERAL 3 MODE HIGH SPEED						1.10	45	
						LOW SPEED						.23	35	
						IDLE IN DRIVE						.07	45	
						IDLE IN NEUTRAL						.13	55	
6019-3	76	PLYM	VALI	225	3	COLD TRANSIENT	3.24	38.11	549.5	3.77	14.32			
						COLD STABILIZED	.46	4.40	493.5	1.93	17.69			
						HOT TRANSIENT	1.34	9.76	474.7	2.70	17.96			
						75 FEDERAL TEST PROCEDURE	1.27	12.80	499.9	1.52	16.74			
						EPA HIGHWAY FUEL ECONOMY	.22	16.27	378.7	1.95	21.91			
						FEDERAL SHORT CYCLE	.57	4.71	375.1	1.34	23.09			
						COMPOSITE N.Y. N.J.	1.02	8.62	493.0	1.69	17.42			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	10	
						(LOW CRUISE)						.50	55	
						IDLE						.85	90	
						TWO SPEED IDLE 2250 RPM						.13	19	
						IDLE NEUTRAL						.50	60	
						FEDERAL 3 MODE HIGH SPEED						1.10	45	
						LOW SPEED						.23	35	
						IDLE IN DRIVE						.07	45	
						IDLE IN NEUTRAL						.13	55	
6020-1	76	PLYM	VOLA	310	1	COLD TRANSIENT	2.46	49.78	716.8	2.33	11.05			
						COLD STABILIZED	1.51	50.51	687.5	1.20	11.50			
						HOT TRANSIENT	1.02	21.61	632.8	2.11	13.25			
						75 FEDERAL TEST PROCEDURE	1.57	42.47	678.6	1.68	11.83			
						EPA HIGHWAY FUEL ECONOMY	.12	2.32	518.5	1.41	16.97			
						FEDERAL SHORT CYCLE	.98	31.05	514.5	1.08	15.67			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.04	23	
						IDLE NEUTRAL						2.20	70	
						FEDERAL 3 MODE HIGH SPEED						1.10	45	
						LOW SPEED						.23	35	
						IDLE IN DRIVE						.07	45	
						IDLE IN NEUTRAL						.13	55	

CLAYTON KEY MODE MISSING DIST
VAL ADVANCE HOSE
DISCONNECTED

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOx				
6020-2	76	PLYM	VOLA	318	2	COLD TRANSIENT	4.66	61.20	604.1	3.08	12.41			
						COLD STABILIZED	3.77	77.13	553.7	2.18	12.92			
						HOT TRANSIENT	2.25	33.10	532.3	2.93	15.00			
						75 FEDERAL TEST PROCEDURE	3.54	61.84	558.2	2.57	13.32			
						EPA HIGHWAY FUEL ECONOMY	.45	3.41	423.6	2.16	20.62			
						FEDERAL SHORT CYCLE	2.51	44.63	437.6	2.60	17.21			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.04	38	
						2250 RPM						1.80	140	
						IDLE NEUTRAL						1.10	45	
						FEDERAL 3 MODE						.23	35	
						HIGH SPEED						.07	45	
						LOW SPEED						.13	55	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6020-3	76	PLYM	VOLA	318	3	COLD TRANSIENT	3.01	30.10	628.6	3.04	12.94			
						COLD STABILIZED	.77	.90	597.7	2.40	14.76			
						HOT TRANSIENT	1.05	1.57	543.7	2.86	16.15			
						75 FEDERAL TEST PROCEDURE	1.28	7.09	589.3	2.66	14.69			
						EPA HIGHWAY FUEL ECONOMY	.34	.31	424.2	1.98	20.85			
						FEDERAL SHORT CYCLE	.61	.50	455.1	2.25	19.37			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.04	40	
						2250 RPM						.04	43	
						IDLE NEUTRAL						1.10	45	
						FEDERAL 3 MODE						.23	35	
						HIGH SPEED						.07	45	
						LOW SPEED						.13	55	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6021-1	76	PLYM	VOLA	318	1	COLD TRANSIENT	2.17	28.45	669.2	2.65	12.31			
						COLD STABILIZED	.67	4.75	627.5	2.10	13.93			
						HOT TRANSIENT	.76	2.37	594.7	2.49	14.77			
						75 FEDERAL TEST PROCEDURE	1.00	8.98	627.2	2.32	13.77			
						EPA HIGHWAY FUEL ECONOMY	.17	.39	475.3	1.78	18.63			
						FEDERAL SHORT CYCLE	.40	1.97	464.1	2.33	18.96			
						COMPOSITE N.Y. N.J.	.46	2.90	611.3	2.00	14.38			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.04	33	
						2250 RPM						.08	50	
						IDLE NEUTRAL						.03	15	
						FEDERAL 3 MODE						.03	20	
						HIGH SPEED						.13	25	
						LOW SPEED						.08	73	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

RECONNECTED VAC DIST
ADVANCED HOSE

ADJUSTED IDLE AND SPEED TO
SPEC

LEFT LINTER CAP BROKEN
RIGHT CAP OK

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE						-----GRAMS PER MILE-----				(MPG)		HC	NOX	
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6022 1	76	PLYM	VOLA	225	1	COLD TRANSIENT	2.00	55.50	532.9	3.08	14.11			
						COLD STABILIZED	2.46	61.76	469.9	2.25	15.45			
						HOT TRANSIENT	2.37	40.64	458.7	2.59	16.74			
						75 FEDERAL TEST PROCEDURE	2.51	54.71	479.8	2.60	15.47			
						EPA HIGHWAY FUEL ECONOMY	.53	9.68	371.2	1.00	22.87			
						FEDERAL SHORT CYCLE	2.51	51.91	353.9	2.37	20.01			
						COMPOSITE N.Y. N.J.	3.67	101.68	461.7	2.74	14.02			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	30	
						(LOW CRUISE)						.12	29	
						IDLE						2.10	82	
						TWO SPEED IDLE 2250 RPM						.02	15	
						IDLE NEUTRAL						1.65	95	
						FEDERAL 3 MODE HIGH SPEED						.18	25	
						LOW SPEED						.45	55	
						IDLE IN DRIVE						3.00	120	
						IDLE IN NEUTRAL						2.80	175	
6022 2	76	PLYM	VOLA	225	2	COLD TRANSIENT	3.44	65.64	537.9	2.90	13.61			
						COLD STABILIZED	2.82	67.25	461.4	1.69	15.41			
						HOT TRANSIENT	2.44	44.55	460.6	1.96	16.49			
						75 FEDERAL TEST PROCEDURE	2.84	60.72	476.9	2.03	15.27			
						EPA HIGHWAY FUEL ECONOMY	.58	11.75	378.5	1.37	22.25			
						FEDERAL SHORT CYCLE	2.40	45.57	354.7	1.60	20.46			
						COMPOSITE N.Y. N.J.	3.71	103.50	425.4	1.88	14.80			
						CLAYTON KEY MODE (HIGH CRUISE)						.28	29	
						(LOW CRUISE)						.35	50	
						IDLE						4.10	180	
						TWO SPEED IDLE 2250 RPM						.03	14	
						IDLE NEUTRAL						3.40	180	
						FEDERAL 3 MODE HIGH SPEED						.12	22	
						LOW SPEED						.45	50	
						IDLE IN DRIVE						3.90	150	
						IDLE IN NEUTRAL						3.80	210	
6022 3	76	PLYM	VOLA	225	3	COLD TRANSIENT	2.09	43.39	562.2	3.35	13.93			
						COLD STABILIZED	4.00	6.56	499.0	1.86	17.00			
						HOT TRANSIENT	1.70	22.12	467.5	2.08	17.48			
						75 FEDERAL TEST PROCEDURE	2.98	18.38	503.4	2.23	16.30			
						EPA HIGHWAY FUEL ECONOMY	.36	7.85	376.1	1.37	22.78			
						FEDERAL SHORT CYCLE	.77	11.86	371.4	1.50	22.63			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.07	18	
						IDLE NEUTRAL						.03	22	
						FEDERAL 3 MODE HIGH SPEED						.13	23	
						LOW SPEED						.46	50	
						IDLE IN DRIVE						.04	20	
						IDLE IN NEUTRAL						.03	22	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX					
VEHICLE	NUMBRL	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL	ECONOMY	CO2	PPM/HEX	PPM			
6022-4	76	PLYM	VOLA	225	4		COLD TRANSIENT		2.04	73.95	639.1	1.08	11.61							
							COLD STABILIZED		.54	9.41	511.2	2.25	16.62							
							HOT TRANSIENT		1.75	26.61	474.4	1.88	17.01							
							75 FEDERAL TEST PROCEDURE		1.34	27.38	527.5	2.07	15.44							
							EPA HIGHWAY FUEL ECONOMY		.43	11.53	396.9	1.31	21.31							
							FEDERAL SHORT CYCLE		.91	18.16	382.0	1.25	21.48							
							COMPOSITE N.Y. N.J.		.77	16.30	333.0	1.63	24.58							
							CLAYTON KEY MODE (HIGH CRUISE)													
							(LOW CRUISE)													
							IDLE													
							TWO SPEED IDLE 2250 RPM							.05	18					
							IDLE NEUTRAL							.03	24					
							FEDERAL 3 MODE HIGH SPEED							.25	22					
							LOW SPEED							.80	58					
6023-1	76	PLYM	FURY	318	1		COLD TRANSIENT		6.51	74.06	672.4	1.38	10.94							
							COLD STABILIZED		4.75	54.81	640.6	.73	11.97							
							HOT TRANSIENT		3.19	23.15	596.1	1.39	13.81							
							75 FEDERAL TEST PROCEDURE		4.69	50.30	635.0	1.04	12.10							
							EPA HIGHWAY FUEL ECONOMY		1.18	2.37	480.7	.78	18.18							
							FEDERAL SHORT CYCLE		3.06	29.60	493.5	.61	16.15							
							COMPOSITE N.Y. N.J.													
							CLAYTON KEY MODE (HIGH CRUISE)							.03	13					
							(LOW CRUISE)							.03	53					
							IDLE							1.72	100					
							TWO SPEED IDLE 2250 RPM							.03	190					
							IDLE NEUTRAL							1.10	115					
							FEDERAL 3 MODE HIGH SPEED							.03	20					
							LOW SPEED							.03	45					
6023-3	76	PLYM	FURY	318	3		COLD TRANSIENT		15.22	175.66	677.2	1.21	8.86							
							COLD STABILIZED		2.37	5.27	722.0	1.91	12.03							
							HOT TRANSIENT		2.74	15.23	653.8	1.79	12.93							
							75 FEDERAL TEST PROCEDURE		5.12	43.06	694.1	1.26	11.41							
							EPA HIGHWAY FUEL ECONOMY		1.28	1.77	539.2	1.11	16.25							
							FEDERAL SHORT CYCLE		1.95	7.16	513.7	.70	16.72							
							COMPOSITE N.Y. N.J.		1.59	4.45	650.2	1.04	13.40							
							CLAYTON KEY MODE (HIGH CRUISE)							.03	11					
							(LOW CRUISE)							.03	20					
							IDLE							.02	20					
							TWO SPEED IDLE 2250 RPM							.03	100					
							IDLE NEUTRAL							.02	21					
							FEDERAL 3 MODE HIGH SPEED							.03	11					
							LOW SPEED							.03	27					
6023-4	76	PLYM	FURY	318	4		IDLE IN DRIVE								.02	12				
							IDLE IN NEUTRAL								.02	20				
							ADJUSTED IDLE AND SPEED													
							CLAYTON KEY MODE (HIGH CRUISE)							.03	11					
							(LOW CRUISE)							.03	20					
							IDLE							.02	20					
							TWO SPEED IDLE 2250 RPM							.03	100					
							IDLE NEUTRAL							.02	21					
							FEDERAL 3 MODE HIGH SPEED							.03	11					
							LOW SPEED							.03	27					
							IDLE IN DRIVE							.02	12					
							IDLE IN NEUTRAL							.02	20					

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6023-4	76	PLYM	FURY	318	4	COLD TRANSIENT	11.17	159.05	637.4	1.15	9.61			
						COLD STABILIZED	3.62	11.10	695.9	.92	12.25			
						HOT TRANSIENT	2.72	8.96	639.4	1.82	13.40			
						75 FEDERAL TEST PROCEDURE	4.93	40.97	660.4	1.21	11.86			
						EPA HIGHWAY FUEL ECONOMY	1.08	1.26	522.7	1.08	16.81			
						FEDERAL SHORT CYCLE	1.24	1.38	530.0	.82	16.56			
						COMPOSITE N.Y. N.J.	1.02	1.68	667.5	1.05	13.14			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	13	
						(LOW CRUISE)						.03	15	
						IDLE						.02	14	
						TWO SPEED IDLE 2250 RPM						.03	110	
						IDLE NEUTRAL						.02	17	
						FEDERAL 3 MODE HIGH SPEED						.02	13	
						LOW SPEED						.03	25	
						IDLE IN DRIVE						.02	17	
						IDLE IN NEUTRAL						.02	20	
6023-0	76	PLYM	FURY	318	0	COLD TRANSIENT	4.69	33.69	648.4	3.81	12.37			
						COLD STABILIZED	1.29	2.78	627.3	2.81	13.95			
						HOT TRANSIENT	1.53	2.38	580.1	3.89	15.08			
						75 FEDERAL TEST PROCEDURE	2.06	9.14	618.7	3.31	13.87			
						EPA HIGHWAY FUEL ECONOMY	.33	.21	450.2	3.30	19.66			
						FEDERAL SHORT CYCLE	.69	.40	472.2	1.92	18.60			
						COMPOSITE N.Y. N.J.	.41	.14	604.3	2.66	14.65			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	19	
						(LOW CRUISE)						.02	22	
						IDLE						.01	13	
						TWO SPEED IDLE 2250 RPM						.03	85	
						IDLE NEUTRAL						.02	35	
						FEDERAL 3 MODE HIGH SPEED						.03	26	
						LOW SPEED						.02	27	
						IDLE IN DRIVE						.02	20	
						IDLE IN NEUTRAL						.02	30	
6024-1	76	PLYM	FURY	318	1	COLD TRANSIENT	2.24	27.03	659.8	8.80	12.51			
						COLD STABILIZED	.38	1.09	672.6	8.22	13.14			
						HOT TRANSIENT	.95	1.84	600.0	9.58	14.64			
						75 FEDERAL TEST PROCEDURE	.92	6.64	650.1	8.71	13.30			
						EPA HIGHWAY FUEL ECONOMY	.14	.15	475.5	8.86	18.64			
						FEDERAL SHORT CYCLE	.30	.46	511.3	7.31	17.31			
						COMPOSITE N.Y. N.J.	.31	.66	687.1	6.39	12.84			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	30	
						(LOW CRUISE)						.03	20	
						IDLE						.05	20	
						TWO SPEED IDLE 2250 RPM						.02	16	
						IDLE NEUTRAL						.03	25	
						FEDERAL 3 MODE HIGH SPEED						.03	20	
						LOW SPEED						.02	18	
						IDLE IN DRIVE						.30	50	
						IDLE IN NEUTRAL						.08	30	

IHC = 600 PPM/HEXANE
 ICD (ACT) = .30 % CO
 ICD (SPEC) = .30 % CO

MAJOR TUNE UP

NEW IGP VALVE AND
 CARBURETOR INSTALLED

LIMITER CAPS OK CCEGR VALVE
 NITRILE BROKEN LINE PLUGGED
 WITH GLUE

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

-----GRAMS PER MILE-----

VEHICLE					GRAMS PER MILE					(MPG)	HC		NOX		
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6024-2	76	FLYM	FURY	318	2	COLD TRANSIENT		2.29	27.77	600.6	3.10	12.13			
						COLD STABILIZED		.48	.76	678.7	2.26	13.03			
		THC =	240 PPM/HEXANE			HOT TRANSIENT		1.01	2.57	618.2	3.63	14.19			
		ICD (ALT)	.80 % CO			75 FEDERAL TEST PROCEDURE		.99	6.81	662.6	2.81	13.12			
		ICU (SPFC)	.30 % CO			EPA HIGHWAY FUEL ECONOMY		.18	.16	476.8	2.06	18.58			
						FEDERAL SHORT CYCLE		.32	.23	515.5	2.16	17.17			
						COMPOSITE N.Y. N.J.									
		REPLACED COCK VALVE AND				CLAYTON KEY MODE (HIGH CRUISE)							.04	18	
		UNPLUGGED LINE				(LOW CRUISE)							.03	22	
						IDLE							.04	19	
						TWO SPEED IDLE 2250 RPM							.04	33	
						IDLE NEUTRAL							.04	25	
						FEDERAL 3 MODE HIGH SPEED							.04	15	
						LOW SPEED							.03	20	
						IDLE IN DRIVE							.04	20	
						IDLE IN NEUTRAL							.04	28	
6025-1	76	FLYM	FURY	360	1	COLD TRANSIENT		3.49	59.99	680.2	4.18	11.18			
						COLD STABILIZED		1.88	88.40	700.8	1.61	10.47			
		THC =	160 PPM/HEXANE			HOT TRANSIENT		1.92	50.53	606.7	3.11	12.82			
		ICD (ALT)	1.20 % CO			75 FEDERAL TEST PROCEDURE		2.22	72.22	672.5	2.55	11.19			
		ICU (SPFC)	.30 % CO			EPA HIGHWAY FUEL ECONOMY		.84	24.15	449.6	3.86	18.10			
						FEDERAL SHORT CYCLE		4.25	125.10	465.4	2.19	13.14			
						COMPOSITE N.Y. N.J.		5.35	204.70	601.2	1.36	9.44			
		LIMITED FANS BROKEN				CLAYTON KEY MODE (HIGH CRUISE)							1.10	50	
						(LOW CRUISE)							1.50	60	
						IDLE							4.00	110	
						TWO SPEED IDLE 2250 RPM							2.70	59	
						IDLE NEUTRAL							4.40	140	
						FEDERAL 3 MODE HIGH SPEED							1.00	47	
						LOW SPEED							1.00	55	
						IDLE IN DRIVE							4.10	170	
						IDLE IN NEUTRAL							4.40	160	
6025-3	76	FLYM	FURY	360	3	COLD TRANSIENT		4.51	64.88	673.2	3.44	11.24			
						COLD STABILIZED		.43	10.88	764.6	1.73	11.33			
		THC =	40 PPM/HEXANE			HOT TRANSIENT		1.05	10.48	646.4	3.20	13.32			
		ICD (ALT)	.30 % CO			75 FEDERAL TEST PROCEDURE		1.43	21.80	713.5	2.48	11.80			
		ICU (SPFC)	.30 % CO			EPA HIGHWAY FUEL ECONOMY		.31	10.27	463.2	3.43	18.48			
						FEDERAL SHORT CYCLE		1.41	46.45	530.3	2.07	14.61			
						COMPOSITE N.Y. N.J.		2.58	95.12	737.2	1.51	9.92			
		ADJUSTED ICD AND SPEED				CLAYTON KEY MODE (HIGH CRUISE)							1.00	16	
						(LOW CRUISE)							.02	12	
						IDLE							1.40	42	
						TWO SPEED IDLE 2250 RPM							1.50	10	
						IDLE NEUTRAL							1.50	30	
						FEDERAL 3 MODE HIGH SPEED							.40	20	
						LOW SPEED							.04	15	
						IDLE IN DRIVE							1.40	35	
						IDLE IN NEUTRAL							1.40	40	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HCX	NOX PPM
							HC	CO	CO ₂	NOXC				
4025-4	76	PLYM	FURY	360	4	COLD TRANSIENT	3.34	38.55	1,124.0	5.55	7.42			
						COLD STABILIZED	.17	5.46	787.3	1.96	11.14			
						HOT TRANSIENT	1.07	8.36	663.4	3.62	13.05			
						75 FEDERAL TEST PROCEDURE	1.07	13.06	822.8	3.15	10.48			
						EPA HIGHWAY FUEL ECONOMY	.18	6.11	493.3	4.23	17.63			
						FEDERAL SHORT CYCLE	1.00	32.13	567.0	2.64	14.30			
						COMPOSITE N.Y. N.J.	1.53	43.28	772.5	1.39	10.50			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	17	
						(LOW CRUISE)						.03	15	
						IDLE						1.00	35	
						TWO SPEED IDLE 2250 RPM						.02	13	
						IDLE NEUTRAL						1.00	35	
						FEDERAL 3 MODE HIGH SPEED						.20	18	
						LOW SPEED						.03	18	
5026-1	75	PLYM	VALI	225	1	COLD TRANSIENT	5.38	105.17	480.6	4.23	13.38			
						COLD STABILIZED	3.99	105.84	442.9	3.04	14.27			
						HOT TRANSIENT	3.32	61.30	425.7	4.13	16.66			
						75 FEDERAL TEST PROCEDURE	4.09	93.55	446.0	3.58	14.65			
						EPA HIGHWAY FUEL ECONOMY	1.63	31.15	351.9	4.21	21.86			
						FEDERAL SHORT CYCLE	3.95	96.99	325.0	1.48	18.11			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.45	50	
						IDLE NEUTRAL						4.35	197	
						FEDERAL 3 MODE HIGH SPEED						.55	43	
						LOW SPEED						1.05	55	
5026-2	75	PLYM	VALI	225	2	COLD TRANSIENT	5.29	103.94	495.2	2.62	13.14			
						COLD STABILIZED	3.95	104.68	449.0	1.38	14.18			
						HOT TRANSIENT	3.72	62.46	430.9	1.99	16.41			
						75 FEDERAL TEST PROCEDURE	4.16	93.01	453.6	1.80	14.48			
						EPA HIGHWAY FUEL ECONOMY	1.58	31.80	361.7	1.51	21.30			
						FEDERAL SHORT CYCLE	3.55	92.08	341.8	.96	17.83			
						COMPOSITE N.Y. N.J.	5.08	150.48	450.6	1.02	12.62			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.41	55	
						IDLE NEUTRAL						4.55	153	
						FEDERAL 3 MODE HIGH SPEED						1.05	58	
						LOW SPEED						1.10	75	
5026-3	75	PLYM	VALI	225	3	IDLE IN DRIVE						4.95	165	
						IDLE IN NEUTRAL						4.90	185	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

					-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC		
5026-3	75	PLYM	VALI	225	3	COLD TRANSIENT	3.78	65.07	483.7	3.60	14.84	
						COLD STABILIZED	.77	7.97	487.2	2.84	17.67	
						HOT TRANSIENT	1.73	18.51	442.7	2.87	18.60	
						75 FEDERAL TEST PROCEDURE	1.65	22.60	474.3	3.00	17.24	
						EPA HIGHWAY FUEL ECONOMY	.96	17.30	346.4	2.59	23.56	
						FEDERAL SHORT CYCLE	1.04	16.27	372.9	2.13	22.09	
						COMPOSITE N.Y. N.J.						
						CLAYTON KEY MODE (HIGH CRUISE)					.37	32
						(LOW CRUISE)					.30	42
						IDLE					.02	12
						TWO SPEED IDLE 2250 RPM					.25	25
						IDLE NEUTRAL					.02	11
						FEDERAL 3 MODE HIGH SPEED					.60	50
						LOW SPEED					.35	51
						IDLE IN DRIVE					.02	18
						IDLE IN NEUTRAL					.02	15
5026-4	75	PLYM	VALI	225	4	COLD TRANSIENT	3.40	60.20	497.6	3.16	14.72	
						COLD STABILIZED	.59	7.56	497.4	2.33	17.37	
						HOT TRANSIENT	1.30	16.60	446.9	2.44	18.60	
						75 FEDERAL TEST PROCEDURE	1.36	20.86	483.6	2.53	17.05	
						EPA HIGHWAY FUEL ECONOMY	.58	11.38	351.2	1.77	23.93	
						FEDERAL SHORT CYCLE	1.11	20.44	368.7	1.48	21.96	
						COMPOSITE N.Y. N.J.						
						CLAYTON KEY MODE (HIGH CRUISE)					.70	60
						(LOW CRUISE)					.30	50
						IDLE					.02	20
						TWO SPEED IDLE 2250 RPM					.20	25
						IDLE NEUTRAL					.02	21
						FEDERAL 3 MODE HIGH SPEED					.90	62
						LOW SPEED					.65	72
						IDLE IN DRIVE					.03	20
						IDLE IN NEUTRAL					.02	18
5026-5	75	PLYM	VALI	225	A	COLD TRANSIENT	2.57	32.87	541.4	3.86	14.76	
						COLD STABILIZED	.28	1.95	521.4	2.28	16.90	
						HOT TRANSIENT	.84	8.53	471.0	2.75	18.23	
						75 FEDERAL TEST PROCEDURE	.70	10.12	511.7	2.73	16.74	
						EPA HIGHWAY FUEL ECONOMY	.13	.64	371.9	2.74	23.78	
						FEDERAL SHORT CYCLE	.29	4.44	392.5	1.71	22.17	
						COMPOSITE N.Y. N.J.						
						CLAYTON KEY MODE (HIGH CRUISE)						
						(LOW CRUISE)						
						IDLE					.04	17
						TWO SPEED IDLE 2250 RPM					.04	18
						IDLE NEUTRAL					.05	20
						FEDERAL 3 MODE HIGH SPEED					.05	23
						LOW SPEED					.53	68
						IDLE IN DRIVE					.05	70
						IDLE IN NEUTRAL						

NEW CARBURETOR INSTALLED
ULTIMATELY DISCOVERED ENLARGED
MAIN METERING JET

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPH
							HC	CO	CO2	NOXC				
6027-1	76	PLYM	VOLA	318	1	COLD TRANSIENT	3.28	39.52	603.6	2.58	13.12			
						COLD STABILIZED	1.35	21.30	627.0	1.72	13.35			
						HOT TRANSIENT	1.36	9.64	566.4	2.25	15.15			
						75 FEDERAL TEST PROCEDURE	1.75	21.87	605.6	2.04	13.75			
						EPA HIGHWAY FUEL ECONOMY	.27	.72	432.7	1.51	20.42			
						FEDERAL SHORT CYCLE	.79	6.85	474.1	1.28	18.21			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	28	760
						(LOW CRUISE)						.04	50	350
						IDLE						1.20	90	130
						TWO SPEED IDLE 2250 RPM						.06	290	140
						IDLE NEUTRAL						.32	160	55
						FEDERAL 3 MODE HIGH SPEED						.03	25	920
						LOW SPEED						.03	29	520
						IDLE IN DRIVE						1.50	100	160
						IDLE IN NEUTRAL						.55	220	45
6027-3	76	PLYM	VOLA	318	3	COLD TRANSIENT	3.80	22.65	623.3	2.54	13.22			
						COLD STABILIZED	1.90	1.48	641.7	1.98	13.66			
						HOT TRANSIENT	2.70	2.01	553.4	2.41	15.71			
						75 FEDERAL TEST PROCEDURE	2.50	5.98	613.8	2.21	14.06			
						EPA HIGHWAY FUEL ECONOMY	.58	.41	431.0	1.89	20.40			
						FEDERAL SHORT CYCLE	1.38	.70	470.7	1.64	18.63			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	33	800
						(LOW CRUISE)						.04	150	440
						IDLE						.06	130	340
						TWO SPEED IDLE 2250 RPM						.08	400	190
						IDLE NEUTRAL						.07	220	195
						FEDERAL 3 MODE HIGH SPEED						.03	38	780
						LOW SPEED						.03	52	580
						IDLE IN DRIVE						.06	83	350
						IDLE IN NEUTRAL						.07	260	165
6027-4	76	PLYM	VOLA	318	4	COLD TRANSIENT	2.45	26.69	623.3	2.54	13.18			
						COLD STABILIZED	.56	.56	613.0	1.73	14.42			
						HOT TRANSIENT	1.40	2.41	562.1	2.29	15.56			
						75 FEDERAL TEST PROCEDURE	1.18	6.44	601.2	2.05	14.43			
						EPA HIGHWAY FUEL ECONOMY	.20	.27	437.3	1.59	20.25			
						FEDERAL SHORT CYCLE	.56	.33	465.7	1.24	18.97			
						COMPOSITE N.Y. N.J.	.43	.42	627.8	2.20	14.09			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	20	800
						(LOW CRUISE)						.04	25	245
						IDLE						.04	22	240
						TWO SPEED IDLE 2250 RPM						.05	65	100
						IDLE NEUTRAL						.04	80	110
						FEDERAL 3 MODE HIGH SPEED						.04	20	960
						LOW SPEED						.03	22	420
						IDLE IN DRIVE						.04	30	240
						IDLE IN NEUTRAL						.05	115	105

MAJOR TU REPLACED PLUGS NEW
DISTRIBUTOR CAP NEW PLUG
WIRE

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6028 1	76	PLYM	FURY	360	1	COLD TRANSIENT	2.93	62.24	719.9	5.58	10.73			
						COLD STABILIZED	.51	9.60	734.0	3.28	11.81			
						HOT TRANSIENT	1.00	15.11	667.1	5.36	12.79			
						75 FEDERAL TEST PROCEDURE	1.14	21.94	713.3	4.32	11.81			
						EPA HIGHWAY FUEL ECONOMY	.53	21.05	545.3	5.17	15.30			
						FEDERAL SHORT CYCLE	1.52	43.93	530.8	2.78	14.49			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.65	32	
						(LOW CRUISE)						.03	20	
						IDLE						.80	55	
						TWO SPEED IDLE 2250 RPM						.40	35	
						IDLE NEUTRAL						1.50	50	
						FEDERAL 3 MODE HIGH SPEED						.35	20	
						LOW SPEED						.03	19	
						IDLE IN DRIVE						.75	40	
						IDLE IN NEUTRAL						1.00	40	
6028 2	76	PLYM	FURY	360	2	COLD TRANSIENT	2.04	51.55	744.5	3.16	10.66			
						COLD STABILIZED	.31	6.45	751.3	2.34	11.64			
						HOT TRANSIENT	.97	12.30	671.8	3.18	12.70			
						75 FEDERAL TEST PROCEDURE	.85	17.33	728.2	2.74	11.71			
						EPA HIGHWAY FUEL ECONOMY	.39	15.46	530.7	3.31	15.96			
						FEDERAL SHORT CYCLE	1.44	38.74	546.3	2.46	14.51			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.50	30	
						(LOW CRUISE)						.03	20	
						IDLE						.65	50	
						TWO SPEED IDLE 2250 RPM						.30	28	
						IDLE NEUTRAL						1.00	45	
						FEDERAL 3 MODE HIGH SPEED						.45	26	
						LOW SPEED						.07	20	
						IDLE IN DRIVE						1.00	45	
						IDLE IN NEUTRAL						1.30	43	
6028 3	76	PLYM	FURY	360	3	COLD TRANSIENT	1.87	49.53	739.8	3.29	10.77			
						COLD STABILIZED	.16	2.17	743.1	2.69	11.80			
						HOT TRANSIENT	.79	9.74	676.6	3.32	12.78			
						75 FEDERAL TEST PROCEDURE	.68	13.98	724.2	2.99	11.86			
						EPA HIGHWAY FUEL ECONOMY	.44	16.17	541.2	3.52	15.63			
						FEDERAL SHORT CYCLE	1.10	23.06	564.3	2.44	14.69			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.95	43	
						(LOW CRUISE)						.03	20	
						IDLE						.04	30	
						TWO SPEED IDLE 2250 RPM						.40	20	
						IDLE NEUTRAL						.50	37	
						FEDERAL 3 MODE HIGH SPEED						.62	27	
						LOW SPEED						.05	20	
						IDLE IN DRIVE						.04	19	
						IDLE IN NEUTRAL						.70	32	

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6029-1	76	PLYM	VOLA	225	1	COLD TRANSIENT	1.97	25.26	571.9	5.56	14.36			
						COLD STABILIZED	.25	1.36	526.1	2.03	16.77			
						HOT TRANSIENT	1.27	4.79	486.5	3.85	17.82			
						75 FEDERAL TEST PROCEDURE	.88	7.32	524.7	3.67	16.47			
						EPA HIGHWAY FUEL ECONOMY	.15	1.19	309.5	3.56	22.65			
						FEDERAL SHORT CYCLE	.24	1.18	392.3	2.06	22.49			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.03	33	
						IDLE NEUTRAL						.02	13	
						FEDERAL 3 MODE HIGH SPEED						.03	13	
						LOW SPEED						.03	15	
						IDLE IN DRIVE						.03	15	
						IDLE IN NEUTRAL						.03	13	
6029-4	76	PLYM	VOLA	225	4	COLD TRANSIENT	2.29	27.32	585.0	4.12	13.97			
						COLD STABILIZED	.35	3.06	562.4	1.80	15.62			
						HOT TRANSIENT	1.21	.97	503.0	3.18	17.43			
						75 FEDERAL TEST PROCEDURE	.98	7.48	551.1	2.66	15.60			
						EPA HIGHWAY FUEL ECONOMY	.15	1.15	412.1	2.79	21.42			
						FEDERAL SHORT CYCLE	.34	2.73	399.4	1.30	21.93			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	55	
						IDLE NEUTRAL						.04	24	
						FEDERAL 3 MODE HIGH SPEED						.05	22	
						LOW SPEED						.04	22	
						IDLE IN DRIVE						.70	90	
						IDLE IN NEUTRAL						.05	35	
6029-6	76	PLYM	VOLA	225	6	COLD TRANSIENT	3.01	50.16	560.4	4.72	13.68			
						COLD STABILIZED	1.72	52.32	506.5	2.27	14.94			
						HOT TRANSIENT	2.35	29.04	474.4	3.51	16.82			
						75 FEDERAL TEST PROCEDURE	2.16	45.52	508.8	3.12	15.11			
						EPA HIGHWAY FUEL ECONOMY	.38	4.89	386.1	2.79	22.47			
						FEDERAL SHORT CYCLE	1.89	41.57	370.7	1.04	20.00			
						COMPOSITE N.Y. N.J.	2.10	69.76	514.7	1.78	14.06			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	22	
						IDLE NEUTRAL						3.50	165	
						FEDERAL 3 MODE HIGH SPEED						.07	15	
						LOW SPEED						.50	40	
						IDLE IN DRIVE						4.40	175	
						IDLE IN NEUTRAL						3.60	180	

ADJUSTED IDLE MIXTURE FOR 5
MINUTES IDLE WITH AC ON TE
STEADY AND OFF

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6027-7	76	PLYM	VOLA	225	7	COLD TRANSIENT	3.04	31.15	552.9	7.85	14.51			
						COLD STABILIZED	.64	4.40	471.0	6.71	17.76			
						HOT TRANSIENT	1.09	6.00	468.5	8.44	18.43			
						75 FEDERAL TEST PROCEDURE	1.25	10.34	477.6	7.42	17.14			
						EPA HIGHWAY FUEL ECONOMY	.19	.94	382.8	8.27	23.06			
						FEDERAL SHORT CYCLE	.61	6.28	380.3	4.84	22.64			
						COMPOSITE N.Y. N.J.	1.06	14.41	487.1	3.48	17.30			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.03	18	
						IDLE NEUTRAL						.23	58	
						FEDERAL 3 MODE HIGH SPEED						.04	17	
						LOW SPEED						.05	17	
						IDLE IN DRIVE						1.05	75	
						IDLE IN NEUTRAL						.55	70	
6029-8	76	PLYM	VOLA	225	8	COLD TRANSIENT	4.27	59.16	554.6	3.83	13.42			
						COLD STABILIZED	.63	3.87	544.1	1.82	16.07			
						HOT TRANSIENT	1.32	5.96	499.8	2.82	17.29			
						75 FEDERAL TEST PROCEDURE	1.57	15.82	534.2	2.50	15.74			
						EPA HIGHWAY FUEL ECONOMY	.16	.87	392.8	2.53	22.49			
						FEDERAL SHORT CYCLE	.45	3.14	391.6	1.55	22.30			
						COMPOSITE N.Y. N.J.	.84	7.60	522.2	1.65	16.54			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	53	
						IDLE NEUTRAL						.07	23	
						FEDERAL 3 MODE HIGH SPEED						.05	17	
						LOW SPEED						.05	20	
						IDLE IN DRIVE						1.65	128	
						IDLE IN NEUTRAL						.15	70	
6029-9	76	PLYM	VOLA	225	9	COLD TRANSIENT	2.27	22.43	524.5	5.79	15.65			
						COLD STABILIZED	.83	4.56	478.5	2.41	18.18			
						HOT TRANSIENT	1.50	3.70	455.5	4.51	19.05			
						75 FEDERAL TEST PROCEDURE	1.31	8.00	481.7	3.68	17.80			
						EPA HIGHWAY FUEL ECONOMY	.23	.48	375.8	4.15	23.52			
						FEDERAL SHORT CYCLE	.76	5.54	364.6	2.42	23.63			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	21	
						(LOW CRUISE)						.03	24	
						IDLE						1.25	129	
						TWO SPEED IDLE 2250 RPM						.03	90	
						IDLE NEUTRAL						.30	150	
						FEDERAL 3 MODE HIGH SPEED						.05	17	
						LOW SPEED						.05	20	
						IDLE IN DRIVE						1.65	128	
						IDLE IN NEUTRAL						.15	70	

ADVANCED TIMING 10
DEGREES

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
6030 1	76	CHRY	CORD	400	1	COLD TRANSIENT	4.48	62.85	682.0	2.91	11.16			
						COLD STABILIZED	3.12	83.23	631.8	1.92	11.49			
						HOT TRANSIENT	1.90	36.82	622.1	3.37	12.94			
						75 FEDERAL TEST PROCEDURE	3.07	66.37	639.4	2.52	11.70			
						EPA HIGHWAY FUEL ECONOMY	.48	11.45	529.6	2.94	16.16			
						FEDERAL SHORT CYCLE	3.64	72.67	461.9	1.41	14.34			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.28	15	
						(LOW CRUISE)						.48	21	
						IDLE						1.40	65	
						TWO SPEED IDLE						.03	15	
						2250 RPM						1.40	58	
						IDLE NEUTRAL						.24	12	
						FEDERAL 3 MODE						.02	21	
						HIGH SPEED						1.20	50	
						LOW SPEED						1.25	60	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6030 2	76	CHRY	CORD	400	2	COLD TRANSIENT	3.51	75.72	805.7	2.42	9.48			
						COLD STABILIZED	2.52	88.84	759.3	1.66	9.79			
						HOT TRANSIENT	2.08	43.76	725.4	2.93	11.08			
						75 FEDERAL TEST PROCEDURE	2.60	73.84	759.6	2.16	10.04			
						EPA HIGHWAY FUEL ECONOMY	.44	12.47	610.1	2.17	14.06			
						FEDERAL SHORT CYCLE	3.67	105.90	550.5	1.35	12.05			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.24	20	
						(LOW CRUISE)						.60	30	
						IDLE						3.80	110	
						TWO SPEED IDLE						.03	18	
						2250 RPM						4.20	130	
						IDLE NEUTRAL						.23	20	
						FEDERAL 3 MODE						.03	15	
						HIGH SPEED						4.50	120	
						LOW SPEED						5.20	170	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6030 3	76	CHRY	CORD	400	3	COLD TRANSIENT	1.60	27.46	747.7	2.96	11.14			
						COLD STABILIZED	.05	.15	804.4	1.47	11.02			
						HOT TRANSIENT	.48	.92	683.5	3.20	12.93			
						75 FEDERAL TEST PROCEDURE	.50	5.98	759.8	2.26	11.51			
						EPA HIGHWAY FUEL ECONOMY	.05	.71	485.9	4.56	18.22			
						FEDERAL SHORT CYCLE	.08	.28	594.5	2.25	14.72			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	15	
						(LOW CRUISE)						.01	10	
						IDLE						.01	7	
						TWO SPEED IDLE						.01	7	
						2250 RPM						.01	8	
						IDLE NEUTRAL						.04	10	
						FEDERAL 3 MODE						.03	6	
						HIGH SPEED						.03	7	
						LOW SPEED						.03	10	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO%	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6031-1	76	CHRY	CORD	360	1	COLD TRANSIENT	2.67	72.61	692.6	3.62	10.88			
						COLD STABILIZED	1.95	86.41	679.0	1.81	10.81			
						HOT TRANSIENT	1.87	44.77	601.7	3.67	13.09			
						75 FEDERAL TEST PROCEDURE	2.08	72.21	660.7	2.69	11.37			
						EPA HIGHWAY FUEL ECONOMY	.33	8.58	470.4	4.62	18.30			
						FEDERAL SHORT CYCLE	2.33	80.55	493.5	2.54	14.14			
						COMPOSITE N.Y. N.J.	2.99	141.13	651.7	1.40	10.05			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	15	
						(LOW CRUISE)						.01	10	
						IDLE						1.25	35	
						TWO SPEED IDLE 2250 RPM						.30	20	
						IDLE NEUTRAL						1.35	30	
						FEDERAL 3 MODE HIGH SPEED						.05	8	
						LOW SPEED						.02	5	
						IDLE IN DRIVE						1.22	22	
						IDLE IN NEUTRAL						1.38	29	
6031-3	76	CHRY	CORD	360	3	COLD TRANSIENT	1.25	34.93	716.8	4.65	11.44			
						COLD STABILIZED	.38	5.38	760.7	2.30	11.51			
						HOT TRANSIENT	.62	5.48	667.6	4.79	13.09			
						75 FEDERAL TEST PROCEDURE	.62	11.49	726.3	3.46	11.89			
						EPA HIGHWAY FUEL ECONOMY	.09	1.09	495.4	5.37	17.84			
						FEDERAL SHORT CYCLE	.35	5.46	553.5	3.52	15.76			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	25	
						(LOW CRUISE)						.03	18	
						IDLE						.02	19	
						TWO SPEED IDLE 2250 RPM						.02	15	
						IDLE NEUTRAL						.02	15	
						FEDERAL 3 MODE HIGH SPEED						.02	15	
						LOW SPEED						.02	15	
						IDLE IN DRIVE						.04	25	
						IDLE IN NEUTRAL						.02	15	
6031-4	76	CHRY	CORD	360	4	COLD TRANSIENT	1.00	20.40	693.9	3.84	12.17			
						COLD STABILIZED	.07	.67	763.8	2.14	11.60			
						HOT TRANSIENT	.62	4.16	640.5	4.03	13.68			
						75 FEDERAL TEST PROCEDURE	.41	5.68	715.8	3.01	12.21			
						EPA HIGHWAY FUEL ECONOMY	.10	1.88	453.5	4.58	19.43			
						FEDERAL SHORT CYCLE	.35	7.68	559.2	2.99	15.51			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	22	
						(LOW CRUISE)						.01	14	
						IDLE						.01	18	
						TWO SPEED IDLE 2250 RPM						.02	25	
						IDLE NEUTRAL						.02	18	
						FEDERAL 3 MODE HIGH SPEED						.03	23	
						LOW SPEED						.02	18	
						IDLE IN DRIVE						.02	18	
						IDLE IN NEUTRAL						.02	13	

MAJOR TUNE UP
NEW OSAC VALVE INSTALLED

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SCR	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6031 6	76	CHRY	CORD	360	6	COLD TRANSIENT	1.49	27.07	714.8	7.10	11.64			
						COLD STABILIZED	.09	1.22	779.1	3.15	11.36			
						HOT TRANSIENT	.66	4.64	650.0	7.21	13.46			
						75 FEDERAL TEST PROCEDURE	.53	7.47	730.6	5.07	11.93			
						EPA HIGHWAY FUEL ECONOMY	.07	.98	454.7	7.20	19.44			
						FEDERAL SHORT CYCLE	.25	3.06	558.5	3.44	15.74			
						COMPOSITE N.Y. N.J.	.12	.75	794.8	2.53	11.14			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	16	
						(LOW CRUISE)						.02	11	
						IDLE						.01	10	
						TWO SPEED IDLE 2250 RPM						.01	10	
						IDLE NEUTRAL						.25	25	
						FEDERAL 3 MODE HIGH SPEED						.02	15	
						LOW SPEED						.02	17	
						IDLE IN DRIVE						.02	10	
						IDLE IN NEUTRAL						.48	21	
6031 7	76	CHRY	CORD	360	7	COLD TRANSIENT	2.89	79.90	683.3	3.93	10.85			
						COLD STABILIZED	.09	1.04	774.6	2.23	11.43			
						HOT TRANSIENT	.34	2.69	648.7	4.64	13.57			
						75 FEDERAL TEST PROCEDURE	.74	17.72	721.5	3.24	11.81			
						EPA HIGHWAY FUEL ECONOMY	.06	.75	463.8	5.17	19.08			
						FEDERAL SHORT CYCLE	.09	3.19	553.8	3.31	15.88			
						COMPOSITE N.Y. N.J.						.03	16	
						CLAYTON KEY MODE (HIGH CRUISE)						.02	12	
						(LOW CRUISE)						.02	10	
						IDLE						.02	9	
						TWO SPEED IDLE 2250 RPM						.02	8	
						IDLE NEUTRAL						.02	13	
						FEDERAL 3 MODE HIGH SPEED						.02	11	
						LOW SPEED						.01	9	
						IDLE IN DRIVE						.01	8	
						IDLE IN NEUTRAL								
6031 8	76	CHRY	CORD	360	8	COLD TRANSIENT	1.60	38.31	694.0	4.06	11.67			
						COLD STABILIZED	1.03	35.93	709.3	1.70	11.54			
						HOT TRANSIENT	.96	18.83	599.2	4.06	14.05			
						75 FEDERAL TEST PROCEDURE	1.13	31.75	676.1	2.94	12.17			
						EPA HIGHWAY FUEL ECONOMY	.15	3.07	448.2	5.00	19.57			
						FEDERAL SHORT CYCLE	1.12	34.48	492.9	3.09	16.12			
						COMPOSITE N.Y. N.J.						.02	17	
						CLAYTON KEY MODE (HIGH CRUISE)						.01	11	
						(LOW CRUISE)						1.70	52	
						IDLE						.01	14	
						TWO SPEED IDLE 2250 RPM						.01	14	
						IDLE NEUTRAL						1.68	50	
						FEDERAL 3 MODE HIGH SPEED						.02	16	
						LOW SPEED						.01	13	
						IDLE IN DRIVE						1.85	50	
						IDLE IN NEUTRAL						1.70	59	

IHC = 21 PPM/HEXANE
 ICD (ACT) = .48 % CO
 ICD (SPEC) = .30 % CO

FOR DISABLED

LIGHT HEATER WIRE
 MISFUNCTIONED

IHC = 100 PPM/HEXANE
 ICD (ACT) = 1.80 % CO
 ICD (SPEC) = .30 % CO

NET ICD AT 1.8%

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6031-9	74	CHRY	CORB	360	9	COLD TRANSIENT	1.08	51.08	703.2	2.69	11.22			
						COLD STABILIZED	2.00	70.46	676.2	1.65	11.01			
						HOT TRANSIENT	1.53	38.55	623.9	2.66	12.87			
						75 FEDERAL TEST PROCEDURE	1.05	62.10	667.5	2.14	11.51			
						EPA HIGHWAY FUEL ECONOMY	.22	6.76	499.1	2.06	17.39			
						FEDERAL SHORT CYCLE	1.54	58.40	498.0	1.49	14.93			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	
						(LOW CRUISE)						.02	20	
						IDLE						4.18	119	
						TWO SPEED IDLE 2250 RPM						.02	18	
						IDLE NEUTRAL						4.20	120	
						FEDERAL 3 MODE HIGH SPEED						.03	19	
						LOW SPEED						.02	16	
						IDLE IN DRIVE						4.20	120	
						IDLE IN NEUTRAL						4.30	140	
5032-1	75	CHRY	NEWP	400	1	COLD TRANSIENT	1.01	17.32	789.7	4.27	10.81			
						COLD STABILIZED	.53	4.10	750.5	2.14	11.50			
						HOT TRANSIENT	.47	6.78	670.8	4.28	12.99			
						75 FEDERAL TEST PROCEDURE	.61	7.59	741.0	3.16	11.76			
						EPA HIGHWAY FUEL ECONOMY	.13	2.29	516.9	5.04	17.04			
						FEDERAL SHORT CYCLE	.16	3.58	566.6	2.88	15.50			
						COMPOSITE N.Y. N.J.	.23	6.86	783.0	1.48	11.17			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	30	
						(LOW CRUISE)						.05	10	
						IDLE						.03	10	
						TWO SPEED IDLE 2250 RPM						.02	10	
						IDLE NEUTRAL						.03	10	
						FEDERAL 3 MODE HIGH SPEED						.05	10	
						LOW SPEED						.02	10	
						IDLE IN DRIVE						.02	10	
						IDLE IN NEUTRAL						.02	10	
5032-2	75	CHRY	NEWP	400	2	COLD TRANSIENT	1.07	29.52	791.5	3.79	10.51			
						COLD STABILIZED	.07	.35	826.2	2.11	10.73			
						HOT TRANSIENT	.33	4.05	711.3	3.07	12.35			
						75 FEDERAL TEST PROCEDURE	.51	7.36	787.7	2.94	11.08			
						EPA HIGHWAY FUEL ECONOMY	.06	1.11	515.5	4.40	17.15			
						FEDERAL SHORT CYCLE	.16	4.68	585.5	2.49	14.96			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.01	10	
						(LOW CRUISE)						.01	10	
						IDLE						.01	10	
						TWO SPEED IDLE 2250 RPM						.01	8	
						IDLE NEUTRAL						.01	8	
						FEDERAL 3 MODE HIGH SPEED						.01	5	
						LOW SPEED						.01	5	
						IDLE IN DRIVE						.01	5	
						IDLE IN NEUTRAL						.01	5	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO%	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6033-1	76	CHRY	CORD	400	1	COLD TRANSIENT	2.00	40.09	704.3	3.09	11.47			
						COLD STABILIZED	3.61	28.02	712.6	1.97	11.55			
						HOT TRANSIENT	.77	15.16	661.9	3.76	12.90			
						75 FEDERAL TEST PROCEDURE	2.50	27.00	677.1	2.69	11.87			
						EPA HIGHWAY FUEL ECONOMY	.23	3.63	468.6	3.91	10.68			
						FEDERAL SHORT CYCLE	1.52	40.96	510.5	2.83	15.31			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	25	
						(LOW CRUISE)						.02	20	
						IDLE						.95	44	
						TWO SPEED IDLE						.02	14	
						IDLE NEUTRAL						1.00	40	
						FEDERAL 3 MODE						.04	10	
						HIGH SPEED						.02	18	
						LOW SPEED						1.05	41	
						IDLE IN DRIVE						.95	38	
						IDLE IN NEUTRAL								
6033-2	76	CHRY	CORD	400	2	COLD TRANSIENT	3.60	56.65	683.2	2.87	11.32			
						COLD STABILIZED	1.44	36.79	709.1	1.96	11.50			
						HOT TRANSIENT	1.17	10.16	607.2	3.13	13.08			
						75 FEDERAL TEST PROCEDURE	1.81	35.79	675.9	2.47	12.03			
						EPA HIGHWAY FUEL ECONOMY	.28	4.78	451.0	3.45	19.32			
						FEDERAL SHORT CYCLE	1.27	30.43	509.8	2.91	15.81			
						COMPOSITE N.Y. N.J.	2.05	61.46	715.3	1.51	10.84			
						CLAYTON KEY MODE (HIGH CRUISE)						.42	35	
						(LOW CRUISE)						.08	28	
						IDLE						2.18	73	
						TWO SPEED IDLE						.35	22	
						IDLE NEUTRAL						2.38	65	
						FEDERAL 3 MODE						.38	35	
						HIGH SPEED						.06	33	
						LOW SPEED						2.25	75	
						IDLE IN DRIVE						2.28	73	
						IDLE IN NEUTRAL								
6032-3	76	CHRY	CORD	400	3	COLD TRANSIENT	1.99	37.80	699.0	3.08	11.60			
						COLD STABILIZED	.86	15.39	717.7	1.90	11.72			
						HOT TRANSIENT	.91	8.46	607.0	3.11	14.24			
						75 FEDERAL TEST PROCEDURE	1.11	18.13	683.7	2.47	12.40			
						EPA HIGHWAY FUEL ECONOMY	.18	2.17	457.9	3.71	19.21			
						FEDERAL SHORT CYCLE	.85	15.37	515.9	3.08	16.35			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.05	25	
						(LOW CRUISE)						.05	25	
						IDLE						.68	52	
						TWO SPEED IDLE						.05	20	
						IDLE NEUTRAL						.88	48	
						FEDERAL 3 MODE						.06	25	
						HIGH SPEED						.05	25	
						LOW SPEED						.80	48	
						IDLE IN DRIVE						.92	50	
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL	CO2	PPM/HEX	PPM	
NUMBER											ECONOMY				
6033-1	76	CHRY	CORD	400	4	COLD TRANSIENT	1.65	33.29	712.2	3.13	11.53				
						COLD STABILIZED	.19	1.17	733.2	2.09	12.06				
						HOT TRANSIENT	.50	3.27	637.9	3.37	13.77				
						75 FEDERAL TEST PROCEDURE	.57	8.35	702.9	2.66	12.37				
						EPA HIGHWAY FUEL ECONOMY	.13	1.18	484.9	4.02	18.22				
						FEDERAL SHORT CYCLE	.26	1.97	530.1	3.35	16.67				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	15		
						(LOW CRUISE)						.02	19		
						IDLE						.01	15		
						TWO SPEED IDLE 2250 RPM						.02	11		
						IDLE NEUTRAL						.01	15		
						FEDERAL 3 MODE HIGH SPEED						.03	12		
						LOW SPEED						.02	12		
5034-1	75	FORD	FJN1	140	1	COLD TRANSIENT	.75	3.66	502.5	1.90	17.38				
						COLD STABILIZED	.07	.87	532.3	1.33	16.62				
						HOT TRANSIENT	.40	1.97	434.5	1.73	20.22				
						75 FEDERAL TEST PROCEDURE	.30	1.74	499.5	1.56	17.64				
						EPA HIGHWAY FUEL ECONOMY	.03	.19	326.0	1.38	27.19				
						FEDERAL SHORT CYCLE	.03	.48	401.4	1.22	22.00				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	29	730	
						(LOW CRUISE)						.02	21	200	
						IDLE						.02	20	65	
						TWO SPEED IDLE 2250 RPM						.02	15	95	
						IDLE NEUTRAL						.02	13	60	
						FEDERAL 3 MODE HIGH SPEED						.03	17	870	
						LOW SPEED						.03	18	890	
5035-1	75	FORD	MUST	140	1	COLD TRANSIENT	1.14	6.10	450.4	2.62	19.14				
						COLD STABILIZED	.39	1.23	460.5	2.02	19.14				
						HOT TRANSIENT	.73	3.06	374.9	2.36	23.24				
						75 FEDERAL TEST PROCEDURE	.64	2.73	435.1	2.24	20.12				
						EPA HIGHWAY FUEL ECONOMY	.19	.31	268.5	2.71	32.72				
						FEDERAL SHORT CYCLE	1.64	3.76	2,012.0	10.80	4.30				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	31	860	
						(LOW CRUISE)						.02	23	260	
						IDLE						.02	19	45	
						TWO SPEED IDLE 2250 RPM						.02	16	75	
						IDLE NEUTRAL						.02	19	40	
						FEDERAL 3 MODE HIGH SPEED						.03	29	1,850	
						LOW SPEED						.03	27	1,150	
LIMITER CAPS BROKEN						IDLE IN DRIVE					.00	0			
						IDLE IN NEUTRAL					.02	13	45		

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
6036-1	76	FORD	MUST	140	1	COLD TRANSIENT	1.24	8.12	475.3	2.89	17.33			
						COLD STABILIZED	.47	.59	485.1	1.53	18.21			
						HOT TRANSIENT	.53	1.06	419.4	2.50	21.01			
						75 FEDERAL TEST PROCEDURE	.64	2.27	469.3	2.08	18.69			
						EPA HIGHWAY FUEL ECONOMY	.32	.28	314.8	2.47	28.06			
						FEDERAL SHORT CYCLE	.38	.52	372.3	1.35	23.72			
						COMPOSITE N.Y. N.J.	.80	.41	539.4	1.74	16.36			
						CLAYTON KEY MODE (HIGH CRUISE)						.08	15	1,750
						(LOW CRUISE)						.05	30	420
						IDLE						.04	10	60
						TWO SPEED IDLE 2250 RPM						.05	10	270
						IDLE NEUTRAL						.05	10	50
						FEDERAL 3 MODE HIGH SPEED						.05	25	1,350
						LOW SPEED						.05	35	510
						IDLE IN DRIVE						.05	12	60
						IDLE IN NEUTRAL						.04	8	50
6037-1	76	FORD	MUST	171	1	COLD TRANSIENT	1.86	32.16	525.2	3.08	15.26			
						COLD STABILIZED	.61	2.13	579.2	2.42	15.18			
						HOT TRANSIENT	1.07	5.44	479.1	2.75	18.08			
						75 FEDERAL TEST PROCEDURE	1.00	9.21	540.8	2.65	15.89			
						EPA HIGHWAY FUEL ECONOMY	.40	1.91	348.6	1.92	25.15			
						FEDERAL SHORT CYCLE	.38	1.11	437.2	1.90	20.17			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.09	58	595
						(LOW CRUISE)						.04	42	700
						IDLE						.03	26	155
						TWO SPEED IDLE 2250 RPM						.06	29	390
						IDLE NEUTRAL						.03	37	125
						FEDERAL 3 MODE HIGH SPEED						.19	51	1,475
						LOW SPEED						.05	42	650
						IDLE IN DRIVE						.03	25	145
						IDLE IN NEUTRAL						.03	25	105
6038-1	76	FORD	FINT	171	1	COLD TRANSIENT	1.82	16.41	495.4	2.71	16.84			
						COLD STABILIZED	.40	1.29	544.8	1.50	16.19			
						HOT TRANSIENT	1.70	3.74	450.3	2.28	19.23			
						75 FEDERAL TEST PROCEDURE	1.05	5.07	508.8	1.96	17.06			
						EPA HIGHWAY FUEL ECONOMY	.32	1.07	343.1	1.61	25.67			
						FEDERAL SHORT CYCLE	.32	2.14	409.3	1.64	21.46			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.06	55	420
						(LOW CRUISE)						.03	35	420
						IDLE						.02	27	50
						TWO SPEED IDLE 2250 RPM						.06	18	65
						IDLE NEUTRAL						.02	21	40
						FEDERAL 3 MODE HIGH SPEED						.13	48	1,125
						LOW SPEED						.05	35	530
						IDLE IN DRIVE						.02	20	55
						IDLE IN NEUTRAL						.02	19	40

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX			
VEHICLE	YR.	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL	CO2	PPM/HEX	PPM				
NUMBER											ECONOMY							
6037 J	76	FORD	GRAN 302	J		COLD TRANSIENT	2.82	12.48	722.1	5.05	11.82							
						COLD STABILIZED	.71	.64	691.2	4.09	12.70							
						THU = 110 PPM/HEXANE												
						100 (ACF) .04 % CO												
						100 (SPEC) = NONE % CO												

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6040-1	76	FORD	GRAN 250	1		COLD TRANSIENT	2.63	20.78	522.2	2.36	15.76			
						COLD STABILIZED	1.34	1.70	537.5	1.71	16.30			
						HOT TRANSIENT	1.65	10.34	463.3	2.24	18.32			
						75 FEDERAL TEST PROCEDURE	1.69	7.98	514.1	1.77	16.68			
						EPA HIGHWAY FUEL ECONOMY	.36	.56	371.8	2.95	23.74			
						FEDERAL SHORT CYCLE	.67	.67	412.2	1.26	21.37			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	32	2,050
						(LOW CRUISE)						.03	30	340
						IDLE						.03	25	30
						TWO SPEED IDLE						.03	31	80
						2250 RPM						.03	105	25
						IDLE NEUTRAL						.01	7	990
						FEDERAL 3 MODE						.01	10	690
						HIGH SPEED						.01	7	650
						LOW SPEED						.01	9	230
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6040-2	76	FORD	GRAN 250	2		COLD TRANSIENT	3.06	19.72	486.3	3.53	16.84			
						COLD STABILIZED	1.43	2.42	520.5	1.82	16.79			
						HOT TRANSIENT	1.57	5.47	456.9	3.37	18.87			
						75 FEDERAL TEST PROCEDURE	1.80	6.81	496.1	2.60	17.32			
						EPA HIGHWAY FUEL ECONOMY	.37	.23	355.7	3.72	24.83			
						FEDERAL SHORT CYCLE	.92	.73	406.0	1.73	21.65			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	39	2,500
						(LOW CRUISE)						.02	43	500
						IDLE						.02	70	40
						TWO SPEED IDLE						.02	40	80
						2250 RPM						.02	130	20
						IDLE NEUTRAL						.01	7	990
						FEDERAL 3 MODE						.01	10	690
						HIGH SPEED						.01	7	650
						LOW SPEED						.01	9	230
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6040-3	76	FORD	GRAN 250	3		COLD TRANSIENT	.03	24.38	466.6	2.96	17.57			
						COLD STABILIZED	1.01	2.24	516.7	1.79	16.96			
						HOT TRANSIENT	1.37	5.73	438.1	3.16	19.66			
						75 FEDERAL TEST PROCEDURE	.90	7.75	484.9	2.40	17.76			
						EPA HIGHWAY FUEL ECONOMY	.38	.26	353.0	3.70	25.03			
						FEDERAL SHORT CYCLE	.52	.32	386.2	1.78	22.86			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	42	2,350
						(LOW CRUISE)						.02	45	410
						IDLE						.02	36	35
						TWO SPEED IDLE						.02	35	70
						2250 RPM						.02	45	23
						IDLE NEUTRAL						.01	7	990
						FEDERAL 3 MODE						.01	10	690
						HIGH SPEED						.01	7	650
						LOW SPEED						.01	9	230
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)		HC	NOX
VEHICLE	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6040 1	76 FORD	GRAN 250	4		COLD TRANSIENT	2.08	18.98	491.7	3.31	16.80			
					COLD STABILIZED	.79	1.34	492.5	2.18	17.86			
					HOT TRANSIENT	1.48	8.29	432.2	3.26	19.74			
					75 FEDERAL TEST PROCEDURE	1.24	6.87	475.9	2.71	18.09			
					EPA HIGHWAY FUEL ECONOMY	.34	.36	357.6	4.03	24.70			
					FEDERAL SHORT CYCLE	.51	.68	391.6	1.93	22.51			
					COMPOSITE N.Y. N.J.								
					CLAYTON KEY MODE (HIGH CRUISE)						.03	41	2,250
					(LOW CRUISE)						.03	43	1,000
					IDLE						.02	38	40
					TWO SPEED IDLE 2250 RPM						.02	30	100
					IDLE NEUTRAL						.02	45	35
					FEDERAL 3 MODE HIGH SPEED						.01	7	990
					LOW SPEED						.01	10	650
5041 1	75 FORD	MAVE 250	1		COLD TRANSIENT	.90	28.14	672.0	1.96	12.34			
					COLD STABILIZED	.76	16.05	637.9	1.62	13.34			
					HOT TRANSIENT	.74	11.15	557.9	1.59	15.36			
					75 FEDERAL TEST PROCEDURE	.78	17.20	623.0	1.68	13.60			
					EPA HIGHWAY FUEL ECONOMY	.21	3.81	517.3	2.20	16.94			
					FEDERAL SHORT CYCLE	.67	13.17	529.4	1.21	16.07			
					COMPOSITE N.Y. N.J.	.90	27.57	710.3	1.93	11.73			
					CLAYTON KEY MODE (HIGH CRUISE)						.15	25	460
					(LOW CRUISE)						.15	30	270
					IDLE						1.20	35	160
					TWO SPEED IDLE 2250 RPM						.11	30	75
					IDLE NEUTRAL						.70	35	75
					FEDERAL 3 MODE HIGH SPEED						.23	25	620
					LOW SPEED						.15	35	280
5041 3	75 FORD	MAVE 250	3		COLD TRANSIENT	.87	19.14	677.9	2.18	12.48			
					COLD STABILIZED	.69	4.20	630.0	1.45	13.90			
					HOT TRANSIENT	.79	5.87	587.4	1.92	14.82			
					75 FEDERAL TEST PROCEDURE	.75	7.73	628.2	1.73	13.81			
					EPA HIGHWAY FUEL ECONOMY	.24	3.13	493.3	2.01	17.79			
					FEDERAL SHORT CYCLE	.55	3.24	508.1	1.20	17.23			
					COMPOSITE N.Y. N.J.								
					CLAYTON KEY MODE (HIGH CRUISE)						.15	15	560
					(LOW CRUISE)						.12	19	180
					IDLE						.10	35	180
					TWO SPEED IDLE 2250 RPM						.12	30	55
					IDLE NEUTRAL						.09	23	45
					FEDERAL 3 MODE HIGH SPEED						.14	20	660
					LOW SPEED						.13	26	400
ADJUSTED IDLE MIXTURE AND SPEED TO SPEC					IDLE IN DRIVE						.09	35	160
					IDLE IN NEUTRAL						.10	24	60

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOx PPM
							HC	CO	CO2	NOXC				
5042-1	75	FORD	MAVE	250	1	COLD TRANSIENT	1.17	34.51	672.4	2.74	12.15			
						COLD STABILIZED	1.01	12.43	620.0	2.38	13.01			
						HOT TRANSIENT	1.28	14.91	568.9	2.55	14.88			
						75 FEDERAL TEST PROCEDURE	1.12	17.65	616.0	2.50	13.70			
						EPA HIGHWAY FUEL ECONOMY	.18	5.85	488.6	2.65	17.01			
						FEDERAL SHORT CYCLE	.60	5.70	480.4	1.87	18.07			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.45	20	840
						(LOW CRUISE)						.13	20	410
						IDLE						.60	49	265
						TWO SPEED IDLE 2250 RPM						.13	20	95
						IDLE NEUTRAL						.28	22	80
						FEDERAL 3 MODE HIGH SPEED						.34	14	760
						LOW SPEED						.19	11	480
						IDLE IN DRIVE						.46	38	270
						IDLE IN NEUTRAL						.30	21	80
5042-2	75	FORD	MAVE	250	2	COLD TRANSIENT	.92	32.47	747.9	1.98	11.06			
						COLD STABILIZED	.63	12.11	683.1	1.70	12.61			
						HOT TRANSIENT	1.09	13.13	652.2	1.87	13.12			
						75 FEDERAL TEST PROCEDURE	.81	16.58	688.0	1.84	12.38			
						EPA HIGHWAY FUEL ECONOMY	.09	4.13	530.2	1.63	16.53			
						FEDERAL SHORT CYCLE	.47	6.07	531.6	1.26	16.36			
						COMPOSITE N.Y. N.J.	.82	11.89	706.0	1.83	12.20			
						CLAYTON KEY MODE (HIGH CRUISE)						.26	10	800
						(LOW CRUISE)						.15	10	310
						IDLE						.59	25	230
						TWO SPEED IDLE 2250 RPM						.12	15	90
						IDLE NEUTRAL						.28	15	90
						FEDERAL 3 MODE HIGH SPEED						.28	9	740
						LOW SPEED						.15	12	420
						IDLE IN DRIVE						.55	18	240
						IDLE IN NEUTRAL						.30	15	90
5042-3	75	FORD	MAVE	250	3	COLD TRANSIENT	1.15	30.29	794.2	2.13	10.49			
						COLD STABILIZED	.76	6.34	675.6	1.73	12.90			
						HOT TRANSIENT	1.38	12.27	662.5	1.88	12.93			
						75 FEDERAL TEST PROCEDURE	1.01	12.89	696.4	1.85	12.33			
						EPA HIGHWAY FUEL ECONOMY	.19	4.76	544.9	1.74	16.05			
						FEDERAL SHORT CYCLE	.57	3.98	530.1	1.25	16.49			
						COMPOSITE N.Y. N.J.	1.10	5.76	677.5	1.56	12.86			
						CLAYTON KEY MODE (HIGH CRUISE)						.35	20	620
						(LOW CRUISE)						.17	35	320
						IDLE						.10	40	80
						TWO SPEED IDLE 2250 RPM						.17	35	90
						IDLE NEUTRAL						.10	170	35
						FEDERAL 3 MODE HIGH SPEED						.29	10	620
						LOW SPEED						.18	20	450
						IDLE IN DRIVE						.10	35	90
						IDLE IN NEUTRAL						.10	35	45

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
5043-1	75	FORD	GRAN 250	1		COLD TRANSIENT	.68	9.61	619.1	2.77	13.94			
						COLD STABILIZED	.21	.12	585.6	2.43	15.14			
						HOT TRANSIENT	.70	1.38	535.8	2.61	16.43			
						75 FEDERAL TEST PROCEDURE	.44	2.42	578.9	2.55	15.19			
						EPA HIGHWAY FUEL ECONOMY	.10	.13	417.7	2.39	21.22			
						FEDERAL SHORT CYCLE	.20	.47	443.2	3.12	19.98			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	1,400
						(LOW CRUISE)						.03	18	1,300
						IDLE						.03	18	100
						TWO SPEED IDLE 2250 RPM						.03	10	140
						IDLE NEUTRAL						.03	16	45
						FEDERAL 3 MODE HIGH SPEED						.03	10	880
						LOW SPEED						.03	25	920
						IDLE IN DRIVE						.03	18	90
						IDLE IN NEUTRAL						.03	15	50
6044-1	76	FORD	GRAN 302	1		COLD TRANSIENT	1.61	12.66	643.7	4.09	13.27			
						COLD STABILIZED	.42	.16	655.2	2.78	13.51			
						HOT TRANSIENT	.63	1.05	581.9	3.97	15.16			
						75 FEDERAL TEST PROCEDURE	.72	2.98	632.8	3.37	13.87			
						EPA HIGHWAY FUEL ECONOMY	.32	.32	450.3	4.07	19.64			
						FEDERAL SHORT CYCLE	.27	.20	477.6	2.31	17.80			
						COMPOSITE N.Y. N.J.	.31	.18	605.4	2.76	12.92			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.05	23	125
						IDLE NEUTRAL						.04	15	45
						FEDERAL 3 MODE HIGH SPEED						.03	10	880
						LOW SPEED						.03	25	920
						IDLE IN DRIVE						.03	18	90
						IDLE IN NEUTRAL						.03	15	50
6044-2	76	FORD	GRAN 302	4		COLD TRANSIENT	1.44	14.45	658.9	5.23	12.93			
						COLD STABILIZED	.45	.17	661.7	3.03	13.30			
						HOT TRANSIENT	1.25	2.22	591.6	4.24	14.81			
						75 FEDERAL TEST PROCEDURE	.87	3.67	642.0	3.81	13.64			
						EPA HIGHWAY FUEL ECONOMY	.32	.29	457.3	4.64	19.35			
						FEDERAL SHORT CYCLE	.31	.12	507.3	2.60	17.46			
						COMPOSITE N.Y. N.J.	.39	.17	700.0	2.79	12.65			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.04	35	150
						IDLE NEUTRAL						.04	20	50
						FEDERAL 3 MODE HIGH SPEED						.03	10	880
						LOW SPEED						.03	25	920
						IDLE IN DRIVE						.03	18	90
						IDLE IN NEUTRAL						.03	15	50

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE				-----GRAMS PER MILE-----				(MPG)							
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	POX PPM
6044-A	76	FORD	GRAN 302	302	A	COLD TRANSIENT		1.40	11.54	670.5	3.78	12.80			
						COLD STABILIZED		.45	.20	660.6	2.00	13.40			
						HOT TRANSIENT		.65	1.12	592.5	3.00	14.88			
						75 FEDERAL TEST PROCEDURE		.70	2.78	644.0	2.64	13.64			
						EPA HIGHWAY FUEL ECONOMY		.34	.50	492.0	3.13	17.77			
						FEDERAL SHORT CYCLE		.30	.13	508.0	1.68	17.44			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.05	42	1,250	
						(LOW CRUISE)						.03	40	1,300	
						IDLE						.02	32	80	
						TWO SPEED IDLE 2250 RPM						.06	56	120	
						IDLE NEUTRAL						.03	24	55	
						FEDERAL 3 MODE HIGH SPEED						.06	43	1,120	
						LOW SPEED						.04	40	830	
6045-1	76	FORD	GRAN 302	302	1	COLD TRANSIENT		1.57	10.72	635.6	4.79	13.50			
						COLD STABILIZED		.69	.30	638.5	2.91	13.84			
						HOT TRANSIENT		1.02	1.91	567.6	4.52	15.47			
						75 FEDERAL TEST PROCEDURE		.96	2.88	618.6	3.73	14.18			
						EPA HIGHWAY FUEL ECONOMY		.47	.79	441.8	4.09	17.95			
						FEDERAL SHORT CYCLE		.44	.55	507.9	2.28	17.40			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.08	59	1,650	
						(LOW CRUISE)						.03	40	750	
						IDLE						.03	32	120	
						TWO SPEED IDLE 2250 RPM						.03	25	110	
						IDLE NEUTRAL						.02	20	80	
						FEDERAL 3 MODE HIGH SPEED						.12	50	1,600	
						LOW SPEED						.06	52	1,050	
6045-2	76	FORD	GRAN 302	302	3	COLD TRANSIENT		1.54	9.96	638.6	4.87	13.46			
						COLD STABILIZED		.66	.26	636.1	2.97	13.90			
						HOT TRANSIENT		.95	1.46	561.3	4.60	15.66			
						75 FEDERAL TEST PROCEDURE		.92	2.58	616.2	3.81	14.24			
						EPA HIGHWAY FUEL ECONOMY		.48	.54	459.0	4.26	19.24			
						FEDERAL SHORT CYCLE		.44	.34	503.8	2.52	17.55			
						COMPOSITE N.Y. N.J.		.52	.30	691.1	2.90	12.80			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	50	2,000	
						(LOW CRUISE)						.02	40	1,050	
						IDLE						.01	28	120	
						TWO SPEED IDLE 2250 RPM						.02	45	135	
						IDLE NEUTRAL						.01	20	80	
						FEDERAL 3 MODE HIGH SPEED						.05	50	1,975	
						LOW SPEED						.04	50	1,400	
6045-3	76	FORD	GRAN 302	302	3	COLD TRANSIENT		1.54	9.96	638.6	4.87	13.46			
						COLD STABILIZED		.66	.26	636.1	2.97	13.90			
						HOT TRANSIENT		.95	1.46	561.3	4.60	15.66			
						75 FEDERAL TEST PROCEDURE		.92	2.58	616.2	3.81	14.24			
						EPA HIGHWAY FUEL ECONOMY		.48	.54	459.0	4.26	19.24			
						FEDERAL SHORT CYCLE		.44	.34	503.8	2.52	17.55			
						COMPOSITE N.Y. N.J.		.52	.30	691.1	2.90	12.80			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	50	2,000	
						(LOW CRUISE)						.02	40	1,050	
						IDLE						.01	28	120	
						TWO SPEED IDLE 2250 RPM						.02	45	135	
						IDLE NEUTRAL						.01	20	80	
						FEDERAL 3 MODE HIGH SPEED						.05	50	1,975	
						LOW SPEED						.04	50	1,400	
ADJUSTED IDLE MIXTURE AND SPEED TO SPEC						CLAYTON KEY MODE (HIGH CRUISE)							.04	50	2,000
						(LOW CRUISE)							.02	40	1,050
						IDLE							.01	28	120
						TWO SPEED IDLE 2250 RPM							.02	45	135
						IDLE NEUTRAL							.01	20	80
						FEDERAL 3 MODE HIGH SPEED							.05	50	1,975
						LOW SPEED							.04	50	1,400
						IDLE IN DRIVE							.05	25	180
						IDLE IN NEUTRAL							.04	30	80

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6025-A	76	FORD	GRAN 302	4		COLD TRANSIENT	1.81	7.26	625.2	4.44	13.81			
						COLD STABILIZED	.64	.28	635.9	2.64	13.90			
						HOT TRANSIENT	.93	1.44	555.0	4.13	15.84			
						75 FEDERAL TEST PROCEDURE	.96	2.03	611.6	3.42	14.37			
						EPA HIGHWAY FUEL ECONOMY	.46	.61	447.3	4.08	19.65			
						FEDERAL SHORT CYCLE	.51	.29	510.3	2.48	17.32			
						COMPOSITE N.Y. N.J.	.57	.39	677.3	2.52	13.02			
						CLAYTON KEY MODE (HIGH CRUISE)						.06	50	1,250
						(LOW CRUISE)						.05	40	1,275
						IDLE						.04	30	110
						TWO SPEED IDLE 2250 RPM						.04	25	160
						IDLE NEUTRAL						.03	25	70
						FEDERAL 3 MODE HIGH SPEED						.07	50	1,725
						LOW SPEED						.05	50	1,300
						IDLE IN DRIVE						.03	30	50
						IDLE IN NEUTRAL						.03	22	40
6015-A	76	FORD	GRAN 302	A		COLD TRANSIENT	1.59	12.77	646.3	4.09	13.22			
						COLD STABILIZED	.72	.29	648.4	2.62	13.63			
						HOT TRANSIENT	1.01	1.64	567.7	3.34	15.48			
						75 FEDERAL TEST PROCEDURE	.98	3.23	626.0	3.12	14.00			
						EPA HIGHWAY FUEL ECONOMY	.43	.64	442.2	3.45	19.96			
						FEDERAL SHORT CYCLE	.44	.28	503.3	2.05	17.57			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.07	49	1,125
						(LOW CRUISE)						.04	32	370
						IDLE						.03	27	105
						TWO SPEED IDLE 2250 RPM						.04	35	105
						IDLE NEUTRAL						.03	25	55
						FEDERAL 3 MODE HIGH SPEED						.08	49	1,125
						LOW SPEED						.04	40	860
						IDLE IN DRIVE						.03	30	105
						IDLE IN NEUTRAL						.03	25	25
6016-1	76	FORD	GRAN 351	1		COLD TRANSIENT	3.82	65.29	681.2	5.72	11.15			
						COLD STABILIZED	.33	.13	728.4	4.54	12.16			
						HOT TRANSIENT	.71	1.19	639.0	2.64	13.80			
						75 FEDERAL TEST PROCEDURE	1.15	13.83	694.3	4.27	12.33			
						EPA HIGHWAY FUEL ECONOMY	.17	.17	499.1	5.14	17.75			
						FEDERAL SHORT CYCLE	.34	.12	549.3	4.50	16.12			
						COMPOSITE N.Y. N.J.	.26	.08	785.4	4.00	11.28			
						CLAYTON KEY MODE (HIGH CRUISE)						!		
						(LOW CRUISE)								
						IDLE						.04	110	340
						TWO SPEED IDLE 2250 RPM						.02	110	150
						IDLE NEUTRAL						.02	20	1,850
						FEDERAL 3 MODE HIGH SPEED						.02	20	1,750
						LOW SPEED						.02	15	105
						IDLE IN DRIVE						.02	20	70
						IDLE IN NEUTRAL								

LIMITER CAPS MISSING EGR TR
ANSUDER BROKEN

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

(TEST SITE: WASHINGTON, D.C.)

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6046 3	76	FORD	GRAN	351	3	COLD TRANSIENT	3.51	46.37	655.5	5.88	12.00			
						COLD STABILIZED	.75	.08	643.6	5.70	13.73			
						HOT TRANSIENT	1.34	2.04	597.5	6.56	14.67			
						75 FEDERAL TEST PROCEDURE	1.48	10.14	633.5	5.97	13.57			
						EPA HIGHWAY FUEL ECONOMY	.22	.16	479.1	4.85	18.49			
						FEDERAL SHORT CYCLE	.61	.06	486.0	5.73	18.19			
						COMPOSITE N.Y. N.J.	.83	.07	664.0	6.25	13.31			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.04	70	330
						2250 RPM						.03	105	230
						IDLE NEUTRAL						.02	20	1,850
						FEDERAL 3 MODE						.02	20	1,750
						HIGH SPEED						.02	15	195
						LOW SPEED						.02	20	70
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6046 4	76	FORD	GRAN	351	4	COLD TRANSIENT	2.23	28.72	669.4	5.03	12.30			
						COLD STABILIZED	.34	.10	641.3	4.73	13.81			
						HOT TRANSIENT	1.79	3.12	598.0	5.29	14.58			
						75 FEDERAL TEST PROCEDURE	1.12	6.81	635.3	4.94	13.66			
						EPA HIGHWAY FUEL ECONOMY	.19	.26	484.9	3.74	18.27			
						FEDERAL SHORT CYCLE	.41	1.33	491.6	3.98	17.93			
						COMPOSITE N.Y. N.J.	.40	1.50	682.3	5.35	12.94			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE						.02	20	180
						2250 RPM						.02	70	195
						IDLE NEUTRAL						.02	20	1,850
						FEDERAL 3 MODE						.02	20	1,750
						HIGH SPEED						.02	15	195
						LOW SPEED						.02	20	70
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6047 1	76	FORD	ELITE	351	1	COLD TRANSIENT	4.98	89.14	725.1	1.74	10.07			
						COLD STABILIZED	2.44	59.87	639.0	1.86	11.98			
						HOT TRANSIENT	1.63	26.78	626.1	2.30	13.18			
						75 FEDERAL TEST PROCEDURE	2.74	56.87	653.2	1.95	11.81			
						EPA HIGHWAY FUEL ECONOMY	.29	1.90	495.7	2.06	17.77			
						FEDERAL SHORT CYCLE	1.44	24.82	513.0	1.96	15.95			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	22	
						(LOW CRUISE)						.04	20	
						IDLE						3.00	175	
						TWO SPEED IDLE						.04	30	
						2250 RPM						1.85	350	
						IDLE NEUTRAL						.04	20	
						FEDERAL 3 MODE						.04	30	
						HIGH SPEED						3.10	175	
						LOW SPEED						2.40	300	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

LIMETER CAPS MISSING TIMING
RETARDED 10 DEGREES HEATED AIR
TUBE DISCONNECTED, EGR TRANSDUCER
BROKEN

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YEAR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
6047 2	76	FORD	ELITE	351	2	COLD TRANSIENT	7.05	100.86	671.5	3.25	10.41			
						COLD STABILIZED	2.70	52.60	632.9	4.34	12.26			
						HOT TRANSIENT	2.01	19.16	601.3	5.01	13.92			
						75 FEDERAL TEST PROCEDURE	3.41	53.41	632.2	4.30	12.21			
						EPA HIGHWAY FUEL ECONOMY	.36	1.32	464.3	3.53	18.99			
						FEDERAL SHORT CYCLE	1.95	17.65	510.1	3.99	16.32			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.05	30	
						(LOW CRUISE)						.04	34	
						IDLE						2.30	200	
						TWO SPEED IDLE						.05	150	
						2250 RPM						.95	580	
						IDLE NEUTRAL						.05	35	
						FEDERAL 3 MODE						.05	38	
						HIGH SPEED						2.80	180	
						LOW SPEED						.95	600	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6047 3	76	FORD	ELITE	351	3	COLD TRANSIENT	3.79	90.96	664.1	7.85	10.83			
						COLD STABILIZED	1.00	11.01	684.2	8.24	12.60			
						HOT TRANSIENT	4.94	11.98	619.1	10.91	13.58			
						75 FEDERAL TEST PROCEDURE	2.65	27.73	662.3	7.30	12.42			
						EPA HIGHWAY FUEL ECONOMY	.19	1.04	471.4	10.70	18.74			
						FEDERAL SHORT CYCLE	.43	1.76	514.1	7.25	17.13			
						COMPOSITE N.Y. N.J.	.51	3.70	701.2	6.97	12.52			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	25	3,900
						(LOW CRUISE)						.03	17	2,025
						IDLE						.03	53	260
						TWO SPEED IDLE						.03	13	490
						2250 RPM						.03	73	125
						IDLE NEUTRAL						.03	73	125
						FEDERAL 3 MODE						.04	18	2,950
						HIGH SPEED						.03	15	2,300
						LOW SPEED						.02	38	345
						IDLE IN DRIVE						.03	130	130
						IDLE IN NEUTRAL								
6047 4	76	FORD	ELITE	351	4	COLD TRANSIENT	6.28	77.54	715.1	2.50	10.35			
						COLD STABILIZED	.49	.98	687.1	3.10	12.84			
						HOT TRANSIENT	1.35	3.23	618.1	3.23	14.14			
						75 FEDERAL TEST PROCEDURE	1.92	17.35	674.0	3.01	12.54			
						EPA HIGHWAY FUEL ECONOMY	.25	.24	501.6	2.94	17.65			
						FEDERAL SHORT CYCLE	.42	.09	524.1	2.73	16.89			
						COMPOSITE N.Y. N.J.	.48	.10	674.2	2.97	13.12			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	16	960
						(LOW CRUISE)						.05	15	540
						IDLE						.04	40	250
						TWO SPEED IDLE						.05	60	140
						2250 RPM						.05	63	115
						IDLE NEUTRAL						.05	17	890
						FEDERAL 3 MODE						.04	18	690
						HIGH SPEED						.04	40	320
						LOW SPEED						.04	130	120
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

MAJOR TO NEW PLUGS NEW EGR
TRANSDUCER INSTALLED

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MFG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6047 A	76	FORD	ELIT	351	A	COLD TRANSIENT	2.36	44.06	759.9	2.13	10.60			
						COLD STABILIZED	1.90	24.68	646.0	2.74	12.85			
						HOT TRANSIENT	1.46	9.47	607.3	3.24	14.16			
						75 FEDERAL TEST PROCEDURE	1.87	24.52	658.9	2.75	12.67			
						EPA HIGHWAY FUEL ECONOMY	.27	.56	493.2	3.19	17.93			
						FEDERAL SHORT CYCLE	1.15	4.98	507.6	2.91	17.10			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	24	940
						(LOW CRUISE)						.03	21	540
						IDLE						1.50	215	120
						TWO SPEED IDLE 2250 RPM						.03	60	140
						IDLE NEUTRAL						.32	220	60
						FEDERAL 3 MODE HIGH SPEED						.03	22	795
						LOW SPEED						.02	25	680
						IDLE IN DRIVE						1.50	180	140
						IDLE IN NEUTRAL						.35	300	75
6047 B	76	FORD	ELIT	351	B	COLD TRANSIENT	1.50	29.78	747.1	2.10	11.11			
						COLD STABILIZED	.54	.82	681.5	2.86	12.97			
						HOT TRANSIENT	.82	3.30	612.5	2.61	14.31			
						75 FEDERAL TEST PROCEDURE	.82	7.45	676.2	2.64	12.85			
						EPA HIGHWAY FUEL ECONOMY	.21	.35	503.0	3.02	17.60			
						FEDERAL SHORT CYCLE	.53	.09	520.0	2.99	17.01			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	880
						(LOW CRUISE)						.03	21	460
						IDLE						.02	50	230
						TWO SPEED IDLE 2250 RPM						.03	60	110
						IDLE NEUTRAL						.02	130	110
						FEDERAL 3 MODE HIGH SPEED						.03	20	800
						LOW SPEED						.03	22	660
						IDLE IN DRIVE						.02	40	300
						IDLE IN NEUTRAL						.02	200	120
6048 1	75	FORD	FORI	351	1	COLD TRANSIENT	1.85	15.57	750.1	3.11	11.37			
						COLD STABILIZED	1.05	5.38	716.1	3.06	12.20			
						HOT TRANSIENT	1.21	5.86	642.6	3.75	13.54			
						75 FEDERAL TEST PROCEDURE	1.26	7.61	703.0	3.26	12.34			
						EPA HIGHWAY FUEL ECONOMY	.50	3.10	507.7	4.10	17.26			
						FEDERAL SHORT CYCLE	1.09	2.06	549.4	2.93	15.97			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.08	24	1,000
						(LOW CRUISE)						.05	30	440
						IDLE						.14	60	75
						TWO SPEED IDLE 2250 RPM						.08	25	155
						IDLE NEUTRAL						.12	250	45
						FEDERAL 3 MODE HIGH SPEED						.08	30	1,025
						LOW SPEED						.13	35	1,175
						IDLE IN DRIVE						.41	45	80
						IDLE IN NEUTRAL						.13	250	45

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO%	HC PPM/HEX	NO _x PPM
							HC	CO	CO2	NO _x C				
5048-2	75	FORD	TORI	351	2	COLD TRANSIENT	1.97	12.37	769.5	4.24	11.16			
						COLD STABILIZED	1.30	5.31	717.9	3.59	12.15			
						HOT TRANSIENT	1.38	5.07	653.0	4.88	13.34			
						75 FEDERAL TEST PROCEDURE	1.46	6.70	710.8	4.07	12.27			
						EPA HIGHWAY FUEL ECONOMY	.56	2.65	505.9	3.84	17.34			
						FEDERAL SHORT CYCLE	1.81	1.92	526.1	2.67	16.59			
						COMPOSITE N.Y. N.J.	1.62	3.05	694.2	2.26	12.60			
						CLAYTON KEY MODE (HIGH CRUISE)						.07	28	1,500
						(LOW CRUISE)						.07	30	770
						IDLE						.10	140	60
						TWO SPEED IDLE 2250 RPM						.10	25	180
						IDLE NEUTRAL						.10	370	40
						FEDERAL 3 MODE HIGH SPEED						.08	30	1,025
						LOW SPEED						.13	35	1,170
						IDLE IN DRIVE						.41	45	80
						IDLE IN NEUTRAL						.13	250	40
5049-3	75	FORD	TORI	351	4	COLD TRANSIENT	1.54	15.32	765.1	2.94	11.17			
						COLD STABILIZED	.97	4.06	783.2	3.08	11.19			
						HOT TRANSIENT	1.85	7.35	685.2	3.74	12.63			
						75 FEDERAL TEST PROCEDURE	1.33	7.28	752.7	3.23	11.55			
						EPA HIGHWAY FUEL ECONOMY	.56	3.52	507.8	3.54	17.23			
						FEDERAL SHORT CYCLE	.86	2.51	591.1	2.77	14.80			
						COMPOSITE N.Y. N.J.	.89	2.75	815.2	2.47	10.79			
						CLAYTON KEY MODE (HIGH CRUISE)						.08	25	1,325
						(LOW CRUISE)						.08	25	725
						IDLE						.08	30	120
						TWO SPEED IDLE 2250 RPM						.17	15	150
						IDLE NEUTRAL						.15	75	80
						FEDERAL 3 MODE HIGH SPEED						.09	30	1,300
						LOW SPEED						.12	30	1,100
						IDLE IN DRIVE						.06	25	140
						IDLE IN NEUTRAL						.12	60	70
5049-B	75	FORD	TORI	351	A	COLD TRANSIENT	1.34	9.94	764.5	2.59	11.31			
						COLD STABILIZED	.91	2.77	772.5	2.51	11.30			
						HOT TRANSIENT	1.03	4.40	658.4	3.05	13.27			
						75 FEDERAL TEST PROCEDURE	1.03	4.69	737.7	2.67	11.83			
						EPA HIGHWAY FUEL ECONOMY	.47	2.91	503.5	3.12	17.42			
						FEDERAL SHORT CYCLE	.86	1.87	595.8	2.13	14.76			
						COMPOSITE N.Y. N.J.	.92	2.14	818.8	1.98	10.75			
						CLAYTON KEY MODE (HIGH CRUISE)						.08	25	1,025
						(LOW CRUISE)						.07	30	650
						IDLE						.07	30	130
						TWO SPEED IDLE 2250 RPM						.10	15	195
						IDLE NEUTRAL						.10	90	70
						FEDERAL 3 MODE HIGH SPEED						.10	30	1,050
						LOW SPEED						.09	30	1,100
						IDLE IN DRIVE						.08	30	160
						IDLE IN NEUTRAL						.10	90	80

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6049 1	76	FORD	ELIT	351	1	COLD TRANSIENT	1.93	29.53	699.9	3.27	11.77			
						COLD STABILIZED	1.20	23.96	696.9	2.09	12.00			
						HOT TRANSIENT	1.11	10.43	606.8	3.00	14.16			
						75 FEDERAL TEST PROCEDURE	1.33	21.41	672.9	2.58	12.48			
						EPA HIGHWAY FUEL ECONOMY	.62	2.66	452.1	3.10	19.37			
						FEDERAL SHORT CYCLE	.68	10.14	535.5	2.08	16.04			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.09	60	1,150
						(LOW CRUISE)						.09	49	850
						IDLE						1.00	60	110
						TWO SPEED IDLE 2250 RPM						.11	50	170
						IDLE NEUTRAL						.32	26	55
						FEDERAL 3 MODE HIGH SPEED						.13	48	1,250
						LOW SPEED						.11	45	1,000
						IDLE IN DRIVE						1.10	50	115
						IDLE IN NEUTRAL						.40	27	55
6049 3	76	FORD	ELIT	351	3	COLD TRANSIENT	1.57	14.91	690.3	4.16	12.35			
						COLD STABILIZED	1.03	5.85	682.2	2.75	12.78			
						HOT TRANSIENT	1.10	3.15	594.4	3.33	14.72			
						75 FEDERAL TEST PROCEDURE	1.16	6.98	659.9	3.20	13.16			
						EPA HIGHWAY FUEL ECONOMY	.69	2.12	476.1	3.65	18.43			
						FEDERAL SHORT CYCLE	.79	1.91	517.3	2.21	16.98			
						COMPOSITE N.Y. N.J.	.95	4.17	706.7	2.42	12.39			
						CLAYTON KEY MODE (HIGH CRUISE)						.12	50	1,350
						(LOW CRUISE)						.09	30	600
						IDLE						.20	45	120
						TWO SPEED IDLE 2250 RPM						.12	80	190
						IDLE NEUTRAL						.08	75	80
						FEDERAL 3 MODE HIGH SPEED						.12	55	1,450
						LOW SPEED						.06	50	1,000
						IDLE IN DRIVE						.11	48	240
						IDLE IN NEUTRAL						.10	40	70
6049 4	76	FORD	ELIT	351	4	COLD TRANSIENT	1.47	13.37	687.4	3.85	12.44			
						COLD STABILIZED	1.02	5.93	685.8	2.58	12.71			
						HOT TRANSIENT	1.05	3.28	598.0	3.10	14.64			
						75 FEDERAL TEST PROCEDURE	1.12	6.74	662.2	2.98	13.12			
						EPA HIGHWAY FUEL ECONOMY	.58	1.73	458.0	3.12	19.19			
						FEDERAL SHORT CYCLE	.76	5.16	549.4	2.16	15.86			
						COMPOSITE N.Y. N.J.	1.09	6.97	725.3	2.22	11.99			
						CLAYTON KEY MODE (HIGH CRUISE)						.15	45	880
						(LOW CRUISE)						.10	40	660
						IDLE						.30	50	180
						TWO SPEED IDLE 2250 RPM						.12	100	130
						IDLE NEUTRAL						.10	55	60
						FEDERAL 3 MODE HIGH SPEED						.12	48	1,050
						LOW SPEED						.08	40	200
						IDLE IN DRIVE						.20	50	180
						IDLE IN NEUTRAL						.10	30	50

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YEAR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6049 5	76	FORD	ELIT	351	5	COLD TRANSIENT	1.41	19.88	708.4	5.89	11.92			
						COLD STABILIZED	.76	4.11	672.6	3.67	13.01			
						HOT TRANSIENT	.98	5.10	599.7	5.88	14.53			
						75 FEDERAL TEST PROCEDURE	1.06	7.62	660.0	4.74	13.14			
						EPA HIGHWAY FUEL ECONOMY	.37	3.83	475.8	4.60	18.37			
						FEDERAL SHORT CYCLE	.67	3.69	526.6	3.24	16.61			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.15	47	2,350
						(LOW CRUISE)						.08	38	1,200
						IDLE						.10	50	240
						TWO SPEED IDLE						.10	22	180
						2250 RPM						.08	100	65
						IDLE NEUTRAL						.19	40	2,025
						FEDERAL 3 MODE						.10	37	1,250
						HIGH SPEED						.15	55	270
						LOW SPEED						.12	75	60
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6049 6	76	FORD	ELIT	351	6	COLD TRANSIENT	3.73	26.66	747.6	2.30	11.07			
						COLD STABILIZED	1.05	3.66	687.3	1.86	12.74			
						HOT TRANSIENT	1.02	3.77	630.3	2.09	13.88			
						75 FEDERAL TEST PROCEDURE	1.59	8.42	684.1	2.01	12.64			
						EPA HIGHWAY FUEL ECONOMY	.35	2.24	504.2	1.37	17.44			
						FEDERAL SHORT CYCLE	.65	3.26	534.3	1.64	16.39			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	35	720
						(LOW CRUISE)						.08	30	320
						IDLE						.15	52	300
						TWO SPEED IDLE						.11	100	75
						2250 RPM						.09	65	70
						IDLE NEUTRAL						.10	36	600
						FEDERAL 3 MODE						.09	32	450
						HIGH SPEED						.15	53	245
						LOW SPEED						.10	75	80
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6049 7	76	FORD	ELIT	351	7	COLD TRANSIENT	1.44	15.16	696.2	3.70	12.24			
						COLD STABILIZED	.97	3.54	678.4	2.40	12.91			
						HOT TRANSIENT	1.07	3.48	593.4	2.76	14.74			
						75 FEDERAL TEST PROCEDURE	1.09	5.92	658.9	2.82	13.22			
						EPA HIGHWAY FUEL ECONOMY	.61	1.65	441.7	2.89	19.89			
						FEDERAL SHORT CYCLE	.89	2.39	532.4	2.12	16.47			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	50	920
						(LOW CRUISE)						.10	45	680
						IDLE						.15	60	150
						TWO SPEED IDLE						.13	150	120
						2250 RPM						.11	70	50
						IDLE NEUTRAL						.15	55	1,250
						FEDERAL 3 MODE						.12	50	880
						HIGH SPEED						.22	60	280
						LOW SPEED						.15	35	70
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

TEST SITE: WASHINGTON, D.C.

VEHICLE					GRAMS PER MILE					(MPG)					
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
0049	8	76	FORD	ELIT	351	8	COLD TRANSIENT	1.48	13.78	672.0	8.23	12.70			
							COLD STABILIZED	1.10	5.95	671.0	4.79	12.70			
							HOT TRANSIENT	1.32	6.12	592.3	8.01	14.65			
							75 FEDERAL TEST PROCEDURE	1.24	7.65	649.8	6.37	13.33			
							EPA HIGHWAY FUEL ECONOMY	.65	5.15	461.4	7.60	18.02			
							FEDERAL SHORT CYCLE	.80	4.77	516.9	4.63	16.83			
							COMPOSITE N.Y. N.J.								
							CLAYTON KEY MODE (HIGH CRUISE)						.18	49	2,500
							(LOW CRUISE)						.17	50	1,600
							IDLE						.28	58	155
							TWO SPEED IDLE 2250 RPM						.11	22	370
							IDLE NEUTRAL						.12	70	60
							FEDERAL 3 MODE HIGH SPEED						.17	65	2,500
							LOW SPEED						.23	66	2,500
							IDLE IN DRIVE						.15	55	195
							IDLE IN NEUTRAL						.12	35	55
0050	1	75	FORD	TORT	351	1	COLD TRANSIENT	2.34	26.07	775.3	5.48	10.77			
							COLD STABILIZED	1.22	10.77	727.2	5.53	11.67			
							HOT TRANSIENT	1.54	12.10	666.1	7.13	12.86			
							75 FEDERAL TEST PROCEDURE	1.54	18.45	720.4	5.96	11.77			
							EPA HIGHWAY FUEL ECONOMY	.64	3.01	513.1	7.31	17.07			
							FEDERAL SHORT CYCLE	.83	10.63	562.0	7.17	15.77			
							COMPOSITE N.Y. N.J.	1.11	19.70	740.9	5.41	11.33			
							CLAYTON KEY MODE (HIGH CRUISE)								
							(LOW CRUISE)								
							IDLE								
							TWO SPEED IDLE 2250 RPM						.08	25	
							IDLE NEUTRAL						.40	20	
							FEDERAL 3 MODE HIGH SPEED						.04	25	
							LOW SPEED						.05	30	
							IDLE IN DRIVE						.50	25	
							IDLE IN NEUTRAL						.40	20	
0050	3	75	FORD	TORT	351	3	COLD TRANSIENT	1.89	23.91	734.0	11.56	11.41			
							COLD STABILIZED	1.02	3.12	771.1	9.42	11.39			
							HOT TRANSIENT	1.11	4.25	665.6	12.86	13.13			

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)				
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM	
6650-4	75	FORD	TORI	351	4	COLD TRANSIENT	2.23	18.63	806.7	4.11	10.52				
						COLD STABILIZED	1.14	3.70	772.3	4.45	11.35				
						HOT TRANSIENT	1.08	5.12	697.0	6.19	12.71				
						75 FEDERAL TEST PROCEDURE	1.35	7.16	756.1	4.85	11.50				
						EPA HIGHWAY FUEL ECONOMY	.63	2.32	525.0	5.76	16.73				
						FEDERAL SHORT CYCLE	.79	2.31	575.7	4.25	15.26				
						COMPOSITE N.Y. N.J.	.88	3.50	777.0	3.74	11.30				
						CLAYTON KEY MODE (HIGH CRUISE)						.10	30	1,350	
						(LOW CRUISE)						.08	35	520	
						IDLE						.13	28	130	
						TWO SPEED IDLE						.10	25	140	
						2250 RPM						.07	25	60	
						IDLE NEUTRAL						.04	25		
						FEDERAL 3 MODE						.05	30		
						HIGH SPEED						.50	25		
						LOW SPEED						.40	20		
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									
6650-5	80		602A	370	A	COLD TRANSIENT	1.81	16.20	812.6	3.50	10.51				
						COLD STABILIZED	1.10	3.95	772.4	3.57	11.25				
						HOT TRANSIENT	1.08	5.36	691.7	4.46	12.41				
						75 FEDERAL TEST PROCEDURE	1.24	6.86	762.3	3.79	11.42				
						EPA HIGHWAY FUEL ECONOMY	.59	2.60	521.0	4.45	16.84				
						FEDERAL SHORT CYCLE	.87	2.06	600.7	3.43	14.63				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.10	32	1,110	
						(LOW CRUISE)						.08	32	580	
						IDLE						.10	24	120	
						TWO SPEED IDLE						.10	31	140	
						2250 RPM						.03	40	60	
						IDLE NEUTRAL						.12	33	1,170	
						FEDERAL 3 MODE						.07	35	960	
						HIGH SPEED						.08	25	125	
						LOW SPEED						.08	60	60	
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									
602A-1	76	FORD	TORI	351	1	COLD TRANSIENT	1.23	35.60	763.1	2.03	10.78				
						COLD STABILIZED	.31	.13	714.9	3.32	12.39				
						HOT TRANSIENT	.68	4.21	639.9	2.92	13.69				
						75 FEDERAL TEST PROCEDURE	.60	8.54	704.4	2.94	12.33				
						EPA HIGHWAY FUEL ECONOMY	.16	.14	493.4	2.70	17.96				
						FEDERAL SHORT CYCLE	.22	.07	532.1	2.83	16.66				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	32	1,225	
						(LOW CRUISE)						.03	27	450	
						IDLE						.02	27	480	
						TWO SPEED IDLE						.02	32	135	
						2250 RPM						.02	50	130	
						IDLE NEUTRAL						.03	25	1,250	
						FEDERAL 3 MODE						.02	25	1,225	
						HIGH SPEED						.02	23	520	
						LOW SPEED						.02	60	185	
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)			
VEHICLE NUMBER	DR NAME	MODEL	CID	SER	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6052-1	76 FORD	ELITE 400	1		COLD TRANSIENT	.77	8.91	770.5	7.00	11.27			
					COLD STABILIZED	.32	.15	697.4	4.97	12.71			
					HOT TRANSIENT	.43	2.36	638.4	7.77	13.79			
					75 FEDERAL TEST PROCEDURE	.44	2.56	696.4	6.15	12.64			
					EPA HIGHWAY FUEL ECONOMY	.14	.27	516.7	7.18	17.15			
					FEDERAL SHORT CYCLE	.22	.31	547.1	4.06	16.19			
					COMPOSITE N.Y. N.J.								
					CLAYTON KEY MODE (HIGH CRUISE)						.05	30	
					(LOW CRUISE)						.04	30	
					IDLE						.04	30	
					TWO SPEED IDLE 2250 RPM						.04	17	
					IDLE NEUTRAL						.04	30	
					FEDERAL 3 MODE HIGH SPEED						.05	27	
					LOW SPEED						.05	27	
					IDLE IN DRIVE						.04	24	
					IDLE IN NEUTRAL						.04	25	
6052-2	76 FORD	ELITE 400	3		COLD TRANSIENT	1.05	9.17	789.8	7.79	10.99			
					COLD STABILIZED	.30	.13	743.1	5.79	11.93			
					HOT TRANSIENT	.46	4.73	678.2	8.71	12.92			
					75 FEDERAL TEST PROCEDURE	.50	3.24	735.0	7.00	11.97			
					EPA HIGHWAY FUEL ECONOMY	.15	.29	521.8	7.87	16.98			
					FEDERAL SHORT CYCLE	.27	.13	559.2	4.60	15.84			
					COMPOSITE N.Y. N.J.	.21	.08	734.5	4.49	12.07			
					CLAYTON KEY MODE (HIGH CRUISE)						.05	19	2,500
					(LOW CRUISE)						.04	20	470
					IDLE						.04	21	100
					TWO SPEED IDLE 2250 RPM						.04	17	310
					IDLE NEUTRAL						.04	25	80
					FEDERAL 3 MODE HIGH SPEED						.05	27	1,200
					LOW SPEED						.04	23	1,750
					IDLE IN DRIVE						.03	22	300
					IDLE IN NEUTRAL						.03	35	170
6052-4	76 FORD	ELITE 400	4		COLD TRANSIENT	1.54	36.83	917.7	1.40	9.05			
					COLD STABILIZED	.36	.61	800.7	1.95	11.06			
					HOT TRANSIENT	.49	11.55	749.6	1.87	11.53			
					75 FEDERAL TEST PROCEDURE	.64	11.05	810.8	1.81	10.69			
					EPA HIGHWAY FUEL ECONOMY	.13	1.54	609.4	1.65	14.50			
					FEDERAL SHORT CYCLE	.23	.35	610.5	1.63	14.51			
					COMPOSITE N.Y. N.J.	.25	.15	781.5	2.16	11.34			
					CLAYTON KEY MODE (HIGH CRUISE)						.09	10	370
					(LOW CRUISE)						.04	12	240
					IDLE						.03	18	340
					TWO SPEED IDLE 2250 RPM						.04	20	160
					IDLE NEUTRAL						.03	25	80
					FEDERAL 3 MODE HIGH SPEED						.08	13	390
					LOW SPEED						.04	17	375
					IDLE IN DRIVE						.03	17	340
					IDLE IN NEUTRAL						.03	25	100

TEST SITE: WASHINGTON, D.C.

							GRAMS PER MILE				(MPG)			
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
4052 6	76	FORD	ELIT 400	400	6	COLD TRANSIENT	.65	9.22	818.8	7.84	10.62			
						COLD STABILIZED	.30	.17	745.5	5.76	11.88			
						HOT TRANSIENT	.48	3.68	676.7	9.08	12.97			
						75 FEDERAL TEST PROCEDURE	.42	2.99	741.8	7.09	11.86			
						EPA HIGHWAY FUEL ECONOMY	.14	.27	525.5	8.11	16.86			
						FEDERAL SHORT CYCLE	.27	.24	570.6	4.84	15.52			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	21	2-140
						(LOW CRUISE)						.03	20	1-140
						IDLE						.02	19	200
						TWO SPEED IDLE						.03	10	265
						IDLE NEUTRAL						.02	40	80
						FEDERAL 3 MODE						.08	13	370
						HIGH SPEED						.04	17	375
						LOW SPEED						.03	17	340
						IDLE IN DRIVE						.03	17	340
						IDLE IN NEUTRAL						.03	25	100
6052 6	76	FORD	ELIT 400	400	7	COLD TRANSIENT	1.74	50.69	816.1	1.58	9.84			
						COLD STABILIZED	.29	1.07	779.7	2.17	11.34			
						HOT TRANSIENT	.64	15.60	697.5	2.23	12.25			
						75 FEDERAL TEST PROCEDURE	.68	15.25	764.8	2.06	11.22			
						EPA HIGHWAY FUEL ECONOMY	.20	2.95	561.7	1.75	15.65			
						FEDERAL SHORT CYCLE	.32	4.35	584.0	1.56	15.00			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.07	20	510
						(LOW CRUISE)						.03	15	420
						IDLE						.02	11	310
						TWO SPEED IDLE						.08	14	140
						IDLE NEUTRAL						.02	20	80
						FEDERAL 3 MODE						.08	13	370
						HIGH SPEED						.04	17	375
						LOW SPEED						.03	17	340
						IDLE IN DRIVE						.03	17	340
						IDLE IN NEUTRAL						.03	25	100
4052 6	76	FORD	ELIT 400	400	8	COLD TRANSIENT	2.45	48.45	892.6	1.35	9.08			
						COLD STABILIZED	.36	.44	817.1	1.79	10.84			
						HOT TRANSIENT	.56	14.28	754.2	1.79	11.40			
						75 FEDERAL TEST PROCEDURE	.84	14.10	815.4	1.70	10.56			
						EPA HIGHWAY FUEL ECONOMY	.15	1.90	603.0	1.50	14.64			
						FEDERAL SHORT CYCLE	.26	.30	605.9	1.53	14.61			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.11	18	330
						(LOW CRUISE)						.03	15	240
						IDLE						.02	14	210
						TWO SPEED IDLE						.03	35	100
						IDLE NEUTRAL						.03	25	60
						FEDERAL 3 MODE						.08	13	370
						HIGH SPEED						.04	17	375
						LOW SPEED						.03	17	340
						IDLE IN DRIVE						.03	17	340
						IDLE IN NEUTRAL						.03	25	100

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6052	76	FORD	ELITE	400	2	COLD TRANSIENT	.92	9.24	794.2	2.81	10.93			
						COLD STABILIZED	.59	.15	728.6	3.58	12.14			
						HOT TRANSIENT	.88	2.84	655.2	3.47	13.40			
						75 FEDERAL TEST PROCEDURE	.74	2.75	722.1	3.39	12.18			
						EPA HIGHWAY FUEL ECONOMY	.27	.46	531.9	2.90	16.64			
						FEDERAL SHORT CYCLE	.44	.11	565.6	3.09	15.65			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	27	890
						(LOW CRUISE)						.03	27	610
						IDLE						.02	35	630
						TWO SPEED IDLE 2250 RPM						.02	50	150
						IDLE NEUTRAL						.02	100	170
						FEDERAL 3 MODE HIGH SPEED						.08	13	390
						LOW SPEED						.04	17	375
						IDLE IN DRIVE						.03	17	300
						IDLE IN NEUTRAL						.03	25	100
6054	76	FORD	LTD	351	1	COLD TRANSIENT	1.95	19.36	788.5	1.72	10.75			
						COLD STABILIZED	1.08	13.80	728.6	1.38	11.77			
						HOT TRANSIENT	1.93	10.47	664.6	1.74	12.91			
						75 FEDERAL TEST PROCEDURE	1.49	14.03	723.5	1.54	11.83			
						EPA HIGHWAY FUEL ECONOMY	.14	.82	536.1	1.41	16.50			
						FEDERAL SHORT CYCLE	.53	3.67	546.0	1.29	16.04			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.05	22	510
						(LOW CRUISE)						.03	22	115
						IDLE						.00	90	60
						TWO SPEED IDLE 2250 RPM						.03	32	60
						IDLE NEUTRAL						.15	37	40
						FEDERAL 3 MODE HIGH SPEED						.06	20	480
						LOW SPEED						.03	22	280
						IDLE IN DRIVE						.17	70	75
						IDLE IN NEUTRAL						.10	65	40
6055	76	FORD	LTD	400	1	COLD TRANSIENT	.92	10.32	1,015.0	4.99	8.58			
						COLD STABILIZED	.56	4.45	846.5	2.12	10.30			
						HOT TRANSIENT	.63	4.60	750.3	2.67	11.68			
						75 FEDERAL TEST PROCEDURE	.65	5.72	854.9	2.86	10.25			
						EPA HIGHWAY FUEL ECONOMY	.18	2.59	604.6	2.59	14.57			
						FEDERAL SHORT CYCLE	.32	2.90	649.5	2.10	13.55			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.05	22	800
						(LOW CRUISE)						.10	15	140
						IDLE						.12	23	215
						TWO SPEED IDLE 2250 RPM						.08	13	65
						IDLE NEUTRAL						.07	19	60
						FEDERAL 3 MODE HIGH SPEED						.09	21	800
						LOW SPEED						.09	19	215
						IDLE IN DRIVE						.07	25	110
						IDLE IN NEUTRAL						.08	20	60

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	COX	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6055-1	76	FORD	LTD	400	1	COLD TRANSIENT	1.34	15.27	828.1	3.18	10.36			
						COLD STABILIZED	.53	4.13	801.4	3.07	10.96			
						HOT TRANSIENT	.83	11.58	718.8	3.70	12.00			
						75 FEDERAL TEST PROCEDURE	.78	8.46	784.3	3.26	11.09			
						EPA HIGHWAY FUEL ECONOMY	.33	.87	550.0	4.55	16.07			
						FEDERAL SHORT CYCLE	.63	8.35	589.0	3.37	14.70			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	27	
						(LOW CRUISE)						.02	22	
						IDLE						3.50	155	
						TWO SPEED IDLE						.03	20	
						2250 RPM						.02	25	
						IDLE NEUTRAL						.03	25	
						FEDERAL 3 MODE						.02	22	
6055-2	76	FORD	LTD	400	2	COLD TRANSIENT	1.49	14.97	853.6	3.55	10.06			
						COLD STABILIZED	.64	7.20	819.7	3.30	10.65			
						HOT TRANSIENT	1.44	10.84	717.4	4.65	12.01			
						75 FEDERAL TEST PROCEDURE	1.04	9.79	798.7	3.72	10.86			
						EPA HIGHWAY FUEL ECONOMY	.38	1.27	568.1	5.23	15.54			
						FEDERAL SHORT CYCLE	.66	7.82	578.9	3.31	14.96			
						COMPOSITE N.Y. N.J.	.37	.85	820.0	3.07	10.79			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	32	
						(LOW CRUISE)						.03	27	
						IDLE						.03	25	
						TWO SPEED IDLE						.03	35	
						2250 RPM						.02	37	
						IDLE NEUTRAL						.10	23	
						FEDERAL 3 MODE						.04	20	
6055-4	76	FORD	LTD	400	4	COLD TRANSIENT	2.52	23.47	787.2	3.60	10.66			
						COLD STABILIZED	.82	1.16	735.8	4.51	11.99			
						HOT TRANSIENT	1.22	9.11	684.7	5.32	12.62			
						75 FEDERAL TEST PROCEDURE	1.28	7.92	732.4	4.54	11.85			
						EPA HIGHWAY FUEL ECONOMY	.39	.98	546.5	4.87	16.16			
						FEDERAL SHORT CYCLE	.83	.19	567.0	4.01	15.58			
						COMPOSITE N.Y. N.J.	.89	.20	722.4	5.08	12.23			
						CLAYTON KEY MODE (HIGH CRUISE)						.07	30	
						(LOW CRUISE)						.03	25	
						IDLE						.03	25	
						TWO SPEED IDLE						.03	21	
						2250 RPM						.02	70	
						IDLE NEUTRAL						.06	31	
						FEDERAL 3 MODE						.03	29	

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
4035 A	80	J	2020	064	A	COLD TRANSIENT	1.91	17.50	818.9	3.44	10.41			
						COLD STABILIZED	.93	1.66	754.3	4.31	11.68			
						HOT TRANSIENT	1.38	9.63	677.4	4.96	12.73			
						75 FEDERAL TEST PROCEDURE	1.25	7.10	746.6	4.31	11.65			
						EPA HIGHWAY FUEL ECONOMY	.37	1.09	539.5	4.58	16.36			
						FEDERAL SHORT CYCLE	.79	.56	555.5	4.03	15.88			
						COMPOSITE N.Y. N.J.	1.08	.11	734.0	4.77	12.03			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	27	
						(LOW CRUISE)						.03	25	
						IDLE						.03	70	
						TWO SPEED IDLE 2250 RPM						.03	25	
						IDLE NEUTRAL						.03	80	
						FEDERAL 3 MODE HIGH SPEED						.05	27	
						LOW SPEED						.03	25	
4036 B	80	J	LTD	400	1	COLD TRANSIENT	1.27	17.49	837.6	2.56	10.21			
						COLD STABILIZED	.44	.80	793.9	2.31	11.14			
						HOT TRANSIENT	.72	6.20	701.2	3.17	12.44			
						75 FEDERAL TEST PROCEDURE	.69	5.70	777.6	2.59	11.25			
						EPA HIGHWAY FUEL ECONOMY	.25	.69	518.6	3.21	17.05			
						FEDERAL SHORT CYCLE	.48	.29	576.2	3.28	15.31			
						COMPOSITE N.Y. N.J.	.41	.20	798.5	2.18	11.09			
						CLAYTON KEY MODE (HIGH CRUISE)						.08	2	1.225
						(LOW CRUISE)						.05	33	670
						IDLE						.06	270	60
						TWO SPEED IDLE 2250 RPM						.05	15	180
						IDLE NEUTRAL						.05	175	200
						FEDERAL 3 MODE HIGH SPEED						.05	27	
						LOW SPEED						.03	25	
4037 C	80	J	MINI	460	1	COLD TRANSIENT	.76	11.66	899.3	2.58	9.64			
						COLD STABILIZED	.16	.28	865.1	3.95	10.25			
						HOT TRANSIENT	.76	2.81	755.7	3.60	11.64			
						75 FEDERAL TEST PROCEDURE	.44	3.31	842.3	3.57	10.45			
						EPA HIGHWAY FUEL ECONOMY	.08	.17	553.0	2.81	16.03			
						FEDERAL SHORT CYCLE	.11	.07	659.6	3.46	13.45			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	40	810
						(LOW CRUISE)						.02	34	610
						IDLE						.02	23	460
						TWO SPEED IDLE 2250 RPM						.02	30	130
						IDLE NEUTRAL						.02	29	150
						FEDERAL 3 MODE HIGH SPEED						.03	20	960
						LOW SPEED						.02	21	580
4038 D	80	J	MINI	460	1	IDLE IN DRIVE						.02	20	320
						IDLE IN NEUTRAL						.02	30	170

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6057-3	76	FORD	THUN	460	3	COLD TRANSIENT	1.35	3.00	870.5	2.69	10.09			
						COLD STABILIZED	.26	.17	836.4	3.21	10.59			
						HOT TRANSIENT	1.08	1.32	716.6	2.86	12.29			
						75 FEDERAL TEST PROCEDURE	.70	1.06	810.7	3.00	10.89			
						EPA HIGHWAY FUEL ECONOMY	.11	.21	545.5	2.42	16.25			
						FEDERAL SHORT CYCLE	.25	.12	613.9	2.15	14.44			
						COMPOSITE N.Y. N.J.	.31	.13	782.5	1.92	11.32			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	18	690
						(LOW CRUISE)						.03	20	480
						IDLE						.03	15	150
						TWO SPEED IDLE 2250 RPM						.03	30	110
						IDLE NEUTRAL						.04	20	50
						FEDERAL 3 MODE HIGH SPEED						.04	18	710
						LOW SPEED						.03	18	740
						IDLE IN DRIVE						.03	15	150
						IDLE IN NEUTRAL						.03	35	60
6058-1	76	MERL	MONA	250	1	COLD TRANSIENT	.75	4.42	645.7	2.82	13.55			
						COLD STABILIZED	.19	.03	561.4	3.33	15.79			
						HOT TRANSIENT	.92	.49	552.2	2.76	15.77			
						75 FEDERAL TEST PROCEDURE	.50	1.06	576.2	3.07	15.31			
						EPA HIGHWAY FUEL ECONOMY	.07	.03	454.1	2.20	19.54			
						FEDERAL SHORT CYCLE	.11	.03	441.8	2.50	20.07			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	580
						(LOW CRUISE)						.02	19	170
						IDLE						.02	20	650
						TWO SPEED IDLE 2250 RPM						.02	30	40
						IDLE NEUTRAL						.02	18	70
						FEDERAL 3 MODE HIGH SPEED						.03	19	615
						LOW SPEED						.03	19	280
						IDLE IN DRIVE						.02	18	520
						IDLE IN NEUTRAL						.02	16	70
6058-2	76	MERL	MONA	250	2	COLD TRANSIENT	.64	3.20	611.0	3.77	14.36			
						COLD STABILIZED	.21	.06	553.1	4.15	16.03			
						HOT TRANSIENT	.85	.56	543.7	4.10	16.22			
						75 FEDERAL TEST PROCEDURE	.47	.84	562.4	4.06	15.70			
						EPA HIGHWAY FUEL ECONOMY	.11	.04	442.4	2.90	20.04			
						FEDERAL SHORT CYCLE	.12	.04	433.0	3.20	20.40			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	950
						(LOW CRUISE)						.02	18	300
						IDLE						.02	19	890
						TWO SPEED IDLE 2250 RPM						.02	25	35
						IDLE NEUTRAL						.02	18	60
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,175
						LOW SPEED						.02	18	500
						IDLE IN DRIVE						.02	18	930
						IDLE IN NEUTRAL						.02	15	100

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6058-3	76	MERC	MONA	250	3	COLD TRANSIENT	.77	3.91	602.5	2.77	14.52			
						COLD STABILIZED	.21	.04	537.5	3.07	16.49			
						HOT TRANSIENT	.83	.66	518.1	2.91	17.01			
						75 FEDERAL TEST PROCEDURE	.50	1.00	545.6	2.96	16.10			
						EPA HIGHWAY FUEL ECONOMY	.10	.04	439.7	2.65	20.17			
						FEDERAL SHORT CYCLE	.15	.06	423.8	2.40	20.93			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	760
						(LOW CRUISE)						.02	27	265
						IDLE						.02	26	190
						TWO SPEED IDLE 2250 RPM						.02	33	54
						IDLE NEUTRAL						.02	25	45
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,200
						LOW SPEED						.03	21	540
						IDLE IN DRIVE						.02	22	190
						IDLE IN NEUTRAL						.02	20	50
6058-5	76	MERC	MONA	250	5	COLD TRANSIENT	.77	8.82	610.1	10.40	14.17			
						COLD STABILIZED	.26	.07	560.3	9.04	15.82			
						HOT TRANSIENT	.72	.60	530.5	11.30	16.63			
						75 FEDERAL TEST PROCEDURE	.49	2.02	562.4	9.94	15.65			
						EPA HIGHWAY FUEL ECONOMY	.12	.04	455.3	10.77	19.40			
						FEDERAL SHORT CYCLE	.17	.06	443.3	7.40	19.99			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	30	3,200
						(LOW CRUISE)						.02	25	1,900
						IDLE						.02	17	135
						TWO SPEED IDLE 2250 RPM						.02	22	305
						IDLE NEUTRAL						.02	28	55
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,200
						LOW SPEED						.03	21	540
						IDLE IN DRIVE						.02	22	190
						IDLE IN NEUTRAL						.02	20	50
6058-6	76	MERC	MONA	250	6	COLD TRANSIENT	.73	3.06	609.2	2.82	14.40			
						COLD STABILIZED	.26	.06	567.0	2.93	15.63			
						HOT TRANSIENT	.84	.55	526.3	2.84	16.76			
						75 FEDERAL TEST PROCEDURE	.51	.81	564.5	2.88	15.64			
						EPA HIGHWAY FUEL ECONOMY	.13	.04	458.0	2.93	19.36			
						FEDERAL SHORT CYCLE	.16	.05	415.6	2.28	21.33			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	29	1,050
						(LOW CRUISE)						.02	29	320
						IDLE						.02	28	120
						TWO SPEED IDLE 2250 RPM						.02	40	45
						IDLE NEUTRAL						.02	29	35
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,200
						LOW SPEED						.03	21	540
						IDLE IN DRIVE						.02	22	190
						IDLE IN NEUTRAL						.02	20	50

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)				
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	COX	HC PPM/HEX	NOX PPM
6058-7	76	MERC	MONA	250	7	COLD TRANSIENT	.84	10.38	602.9	2.55	14.27			
						COLD STABILIZED	.23	.04	541.8	2.78	16.36			
						HOT TRANSIENT	.88	.82	520.1	2.58	16.94			
						75 FEDERAL TEST PROCEDURE	.53	2.38	548.5	2.60	16.02			
						EPA HIGHWAY FUEL ECONOMY	.11	.03	427.9	2.19	20.72			
						FEDERAL SHORT CYCLE	.16	.04	420.4	2.04	21.09			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	22	580
						(LOW CRUISE)						.02	20	170
						IDLE						.02	20	65
						TWO SPEED IDLE 2250 RPM						.02	32	25
						IDLE NEUTRAL						.02	23	15
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,200
						LOW SPEED						.03	21	540
						IDLE IN DRIVE						.02	22	190
						IDLE IN NEUTRAL						.02	20	50
5059-1	75	MERC	MONA	302	1	COLD TRANSIENT	1.66	18.93	619.9	5.67	13.55			
						COLD STABILIZED	.60	.25	637.1	3.93	13.80			
						HOT TRANSIENT	.79	1.94	566.2	5.98	15.53			
						75 FEDERAL TEST PROCEDURE	.87	4.55	614.2	4.84	14.22			
						EPA HIGHWAY FUEL ECONOMY	.40	.63	439.5	5.37	20.09			
						FEDERAL SHORT CYCLE	.35	.37	501.7	2.93	17.64			
						COMPOSITE N.Y. N.J.	.44	.37	710.2	3.01	12.46			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE								
						TWO SPEED IDLE 2250 RPM						.04	15	130
						IDLE NEUTRAL						.03	15	50
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,200
						LOW SPEED						.03	21	540
						IDLE IN DRIVE						.02	22	190
						IDLE IN NEUTRAL						.02	20	50
5059-2	75	MERC	MONA	302	2	COLD TRANSIENT	1.35	13.58	644.4	5.08	13.24			
						COLD STABILIZED	.47	.19	651.5	3.21	13.59			
						HOT TRANSIENT	.63	.75	572.5	5.18	15.42			
						75 FEDERAL TEST PROCEDURE	.69	3.10	628.5	4.13	13.97			
						EPA HIGHWAY FUEL ECONOMY	.32	.32	439.0	4.71	20.15			
						FEDERAL SHORT CYCLE	.18	.14	497.6	2.71	17.84			
						COMPOSITE N.Y. N.J.	.44	.18	705.8	3.26	12.55			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	46	1,550
						(LOW CRUISE)						.03	38	900
						IDLE						.02	27	85
						TWO SPEED IDLE 2250 RPM						.02	26	120
						IDLE NEUTRAL						.02	20	55
						FEDERAL 3 MODE HIGH SPEED						.05	40	1,500
						LOW SPEED						.03	38	1,175
						IDLE IN DRIVE						.02	25	80
						IDLE IN NEUTRAL						.02	17	55

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LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
405P 3	75	HEPC	MONA	302	3	COLD TRANSIENT	1.41	11.54	637.9	3.07	13.43			
						COLD STABILIZED	.48	.17	653.7	2.91	13.54			
						HOT TRANSIENT	.62	.84	569.8	4.94	15.49			
						75 FEDERAL TEST PROCEDURE	.71	2.69	627.5	3.91	14.00			
						EPA HIGHWAY FUEL ECONOMY	.34	.31	435.7	4.32	20.30			
						FEDERAL SHORT CYCLE	.35	.18	506.9	2.53	17.47			
						COMPOSITE N.Y. N.J.						.05	47	1,600
						CLAYTON KEY MODE (HIGH CRUISE)						.03	32	460
						(LOW CRUISE)						.02	29	90
						IDLE						.03	30	120
						TWO SPEED TIME 2250 RPM						.02	20	60
						IDLE NEUTRAL						.05	42	1,700
						FEDERAL 3 MODE HIGH SPEED						.04	42	1,250
						LOW SPEED						.03	25	80
						IDLE IN DRIVE						.03	18	60
						IDLE IN NEUTRAL								
405P 4	75	HEPC	MONA	302	4	COLD TRANSIENT	1.47	12.29	700.0	4.17	12.25			
						COLD STABILIZED	.51	.22	677.0	2.39	12.66			
						HOT TRANSIENT	.78	1.16	625.5	3.96	14.09			
						75 FEDERAL TEST PROCEDURE	.78	2.96	677.1	3.18	12.94			
						EPA HIGHWAY FUEL ECONOMY	.33	.34	450.1	3.24	19.65			
						FEDERAL SHORT CYCLE	.30	.16	511.6	1.66	17.31			
						COMPOSITE N.Y. N.J.	.37	.17	695.8	1.94	12.73			
						CLAYTON KEY MODE (HIGH CRUISE)								
						(LOW CRUISE)								
						IDLE						.02	30	120
						TWO SPEED TIME 2250 RPM						.02	20	60
						IDLE NEUTRAL						.03	35	1,450
						FEDERAL 3 MODE HIGH SPEED						.02	35	1,050
						LOW SPEED						.02	25	100
						IDLE IN DRIVE						.02	15	40
						IDLE IN NEUTRAL								
406P 1	76	HEPC	MONA	302	1	COLD TRANSIENT	2.45	16.35	636.7	3.34	13.24			
						COLD STABILIZED	.61	.33	669.0	3.97	13.29			
						HOT TRANSIENT	1.15	3.27	608.6	3.99	14.38			
						75 FEDERAL TEST PROCEDURE	1.13	4.43	645.9	3.81	13.52			
						EPA HIGHWAY FUEL ECONOMY	.28	.69	444.9	2.62	19.86			
						FEDERAL SHORT CYCLE	.38	1.05	537.6	3.27	16.43			
						COMPOSITE N.Y. N.J.	.52	.55	789.4	5.59	11.20			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	55	1,200
						(LOW CRUISE)						.04	45	690
						IDLE						.04	40	510
						TWO SPEED TIME 2250 RPM						.04	25	85
						IDLE NEUTRAL						.04	30	150
						FEDERAL 3 MODE HIGH SPEED						.05	45	1,300
						LOW SPEED						.04	45	990
						IDLE IN DRIVE						.04	40	400
						IDLE IN NEUTRAL						.03	35	270

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6060-2	76	MERC	MONA	302	2	COLD TRANSIENT	1.74	10.93	639.9	4.95	13.38			
						COLD STABILIZED	.67	.28	655.6	4.87	13.49			
						HOT TRANSIENT	1.30	2.02	570.5	4.68	15.36			
						75 FEDERAL TEST PROCEDURE	1.10	2.94	629.2	4.84	13.93			
						EPA HIGHWAY FUEL ECONOMY	.32	.39	452.5	3.19	19.55			
						FEDERAL SHORT CYCLE	.42	.19	512.4	3.62	17.27			
						COMPOSITE N.Y. N.J.	.54	.26	742.7	6.04	11.91			
						CLAYTON KEY MODE (HIGH CRUISE)						.05	48	1,400
						(LOW CRUISE)						.03	40	720
						IDLE						.03	45	390
						TWO SPEED IDLE 2250 RPM						.04	110	80
						IDLE NEUTRAL						.03	100	130
						FEDERAL 3 MODE HIGH SPEED						.05	48	1,625
						LOW SPEED						.04	48	1,250
						IDLE IN DRIVE						.03	38	390
						IDLE IN NEUTRAL						.03	125	120
6060-3	76	MERC	MONA	302	3	COLD TRANSIENT	1.46	10.87	597.0	3.73	14.34			
						COLD STABILIZED	.68	.26	583.6	3.19	15.14			
						HOT TRANSIENT	1.30	2.46	521.0	3.11	16.77			
						75 FEDERAL TEST PROCEDURE	1.03	3.04	569.2	3.28	15.38			
						EPA HIGHWAY FUEL ECONOMY	.31	.37	421.5	2.81	20.98			
						FEDERAL SHORT CYCLE	.53	.26	455.0	2.76	19.42			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	49	1,425
						(LOW CRUISE)						.02	41	810
						IDLE						.02	39	130
						TWO SPEED IDLE 2250 RPM						.03	110	50
						IDLE NEUTRAL						.02	110	95
						FEDERAL 3 MODE HIGH SPEED						.04	47	1,500
						LOW SPEED						.03	45	1,200
						IDLE IN DRIVE						.02	29	80
						IDLE IN NEUTRAL						.02	100	65
6060-4	76	MERC	MONA	302	4	COLD TRANSIENT	1.73	9.49	592.2	3.65	14.48			
						COLD STABILIZED	.63	.61	582.0	2.89	15.18			
						HOT TRANSIENT	1.46	2.63	522.0	2.96	16.72			
						75 FEDERAL TEST PROCEDURE	1.08	2.99	567.7	3.06	15.42			
						EPA HIGHWAY FUEL ECONOMY	.31	.53	416.0	2.27	21.24			
						FEDERAL SHORT CYCLE	.48	.28	465.4	2.33	18.97			
						COMPOSITE N.Y. N.J.	.52	.28	644.7	3.06	13.72			
						CLAYTON KEY MODE (HIGH CRUISE)						.07	42	870
						(LOW CRUISE)						.04	30	560
						IDLE						2.80	205	120
						TWO SPEED IDLE 2250 RPM						.03	150	170
						IDLE NEUTRAL						.03	90	200
						FEDERAL 3 MODE HIGH SPEED						.05	55	1,050
						LOW SPEED						.05	45	825
						IDLE IN DRIVE						.04	25	220
						IDLE IN NEUTRAL						.04	35	120

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6060-5	76	MERC	MONA	302	5	COLD TRANSIENT	3.71	52.62	584.4	7.86	13.07			
						COLD STABILIZED	2.63	33.01	577.9	5.72	13.91			
						HOT TRANSIENT	3.00	27.32	524.8	7.52	15.38			
						75 FEDERAL TEST PROCEDURE	2.95	35.49	564.7	6.65	14.09			
						EPA HIGHWAY FUEL ECONOMY	1.01	25.75	323.1	3.73	24.20			
						FEDERAL SHORT CYCLE	2.08	25.16	459.1	5.03	17.57			
						COMPOSITE N.Y. N.J.	3.23	43.72	590.5	4.68	13.25			
						CLAYTON KEY MODE (HIGH CRUISE)						1.10	135	3.250
						(LOW CRUISE)						.40	65	1.700
						IDLE						2.80	320	190
						TWO SPEED IDLE						.07	150	450
						2250 RPM						.20	200	25
						IDLE NEUTRAL						1.10	120	3.250
						FEDERAL 3 MODE						1.60	140	2.500
						HIGH SPEED						3.00	325	170
						LOW SPEED						.20	450	40
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6060-6	76	MERC	MONA	302	6	COLD TRANSIENT	1.83	9.67	590.5	4.23	14.51			
						COLD STABILIZED	.89	.30	583.0	3.69	15.14			
						HOT TRANSIENT	1.37	2.06	513.9	4.10	17.03			
						75 FEDERAL TEST PROCEDURE	1.21	2.71	565.7	3.71	15.47			
						EPA HIGHWAY FUEL ECONOMY	.35	.28	405.7	3.00	21.79			
						FEDERAL SHORT CYCLE	.59	.71	453.3	3.10	19.49			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	60	1.675
						(LOW CRUISE)						.02	49	1.025
						IDLE						.02	55	450
						TWO SPEED IDLE						.03	290	230
						2250 RPM						.07	120	360
						IDLE NEUTRAL						.04	50	1.725
						FEDERAL 3 MODE						.03	48	1.500
						HIGH SPEED						.07	40	500
						LOW SPEED						.07	90	240
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6060-7	76	MERC	MONA	302	7	COLD TRANSIENT	3.16	37.46	568.8	3.85	13.91			
						COLD STABILIZED	2.30	28.55	503.2	2.69	13.97			
						HOT TRANSIENT	3.19	29.96	505.4	3.03	15.78			
						75 FEDERAL TEST PROCEDURE	2.72	30.77	509.0	3.07	14.40			
						EPA HIGHWAY FUEL ECONOMY	1.81	55.50	365.6	1.38	19.36			
						FEDERAL SHORT CYCLE	3.06	72.71	420.2	1.86	16.31			
						COMPOSITE N.Y. N.J.	3.26	72.02	563.3	2.57	12.92			
						CLAYTON KEY MODE (HIGH CRUISE)						1.50	130	1.075
						(LOW CRUISE)						2.20	135	700
						IDLE						1.30	170	310
						TWO SPEED IDLE						1.50	150	200
						2250 RPM						.50	350	20
						IDLE NEUTRAL						1.50	120	1.150
						FEDERAL 3 MODE						1.90	130	850
						HIGH SPEED						2.00	170	370
						LOW SPEED						1.00	450	80
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6060 B	76	MERC	MONA	302	U	COLD TRANSIENT	1.55	13.00	647.3	8.86	13.19			
						COLD STABILIZED	.57	.73	644.8	7.05	13.70			
						HOT TRANSIENT	.93	2.99	590.9	7.90	14.83			
						75 FEDERAL TEST PROCEDURE	.87	3.87	630.6	7.66	13.80			
						EPA HIGHWAY FUEL ECONOMY	.20	1.75	504.1	4.72	17.49			
						FEDERAL SHORT CYCLE	.25	.92	545.3	3.43	16.21			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.18	45	2,700
						(LOW CRUISE)						.05	32	650
						IDLE						.03	20	370
						TWO SPEED IDLE 2250 RPM						.03	40	440
						IDLE NEUTRAL						.03	160	270
						FEDERAL 3 MODE HIGH SPEED						.15	30	2,600
						LOW SPEED						.09	20	1,650
						IDLE IN DRIVE						.03	10	300
						IDLE IN NEUTRAL						.03	50	180
6060 B	76	MERC	MONA	302	9	COLD TRANSIENT	2.00	13.40	600.6	4.70	14.13			
						COLD STABILIZED	.60	.35	602.0	3.90	14.60			
						HOT TRANSIENT	1.27	2.10	545.5	4.29	16.05			
						75 FEDERAL TEST PROCEDURE	1.07	3.51	586.3	4.17	14.91			
						EPA HIGHWAY FUEL ECONOMY	.33	.48	423.3	2.73	20.88			
						FEDERAL SHORT CYCLE	.59	.29	466.3	3.12	18.75			
						COMPOSITE N.Y. N.J.	.50	.49	644.1	4.40	13.73			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	52	1,400
						(LOW CRUISE)						.03	42	825
						IDLE						.03	38	530
						TWO SPEED IDLE 2250 RPM						.04	190	230
						IDLE NEUTRAL						.03	130	350
						FEDERAL 3 MODE HIGH SPEED						.05	45	1,650
						LOW SPEED						.04	42	1,350
						IDLE IN DRIVE						.03	30	500
						IDLE IN NEUTRAL						.03	115	245
6061 B	76	MERC	COUG	351	J	COLD TRANSIENT	1.71	20.66	713.7	4.95	11.80			
						COLD STABILIZED	1.12	10.82	673.0	3.41	12.79			
						HOT TRANSIENT	1.24	7.01	598.6	4.01	14.46			
						75 FEDERAL TEST PROCEDURE	1.27	11.80	661.1	3.89	12.98			
						EPA HIGHWAY FUEL ECONOMY	.68	3.02	482.1	4.36	10.15			
						FEDERAL SHORT CYCLE	1.09	6.38	508.1	2.99	17.01			
						COMPOSITE N.Y. N.J.	1.19	10.69	663.7	2.79	12.97			
						CLAYTON KEY MODE (HIGH CRUISE)						.17	35	
						(LOW CRUISE)						.08	29	
						IDLE						.50	42	
						TWO SPEED IDLE 2250 RPM						.08	18	
						IDLE NEUTRAL						.20	100	
						FEDERAL 3 MODE HIGH SPEED						.18	45	
						LOW SPEED						.07	42	
						IDLE IN DRIVE						.45	42	
						IDLE IN NEUTRAL						.25	75	

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APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER: YR MAKE MODEL CID SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
		HC	CO	CO2	NOXC				
6061 2 76 MERC COUG 351	2	COLD TRANSIENT	1.89	26.54	707.1	4.26	11.75		
		COLD STABILIZED	1.15	11.10	659.8	3.35	13.03		
		HOT TRANSIENT	1.25	5.64	602.3	3.97	14.43		
		75 FEDERAL TEST PROCEDURE	1.33	12.79	653.8	3.70	13.09		
		EPA HIGHWAY FUEL ECONOMY	.20	2.31	476.8	4.26	18.45		
		FEDERAL SHORT CYCLE	.88	5.07	518.7	3.23	16.76		
		COMPOSITE N.Y. N.J.							
		CLAYTON KEY MODE (HIGH CRUISE)					.08	36	
		(LOW CRUISE)					.07	32	
		IDLE					.40	43	
		TWO SPEED IDLE 2250 RPM					.09	22	
		IDLE NEUTRAL					.17	150	
		FEDERAL 3 MODE HIGH SPEED					.09	38	
		LOW SPEED					.07	40	
		IDLE IN DRIVE					.40	48	
		IDLE IN NEUTRAL					.20	140	
6061 3 76 MERC COUG 351	3	COLD TRANSIENT	1.66	13.27	735.0	5.05	11.66		
		COLD STABILIZED	1.06	2.13	715.3	3.67	12.29		
		HOT TRANSIENT	1.19	2.38	630.8	4.03	13.90		
		75 FEDERAL TEST PROCEDURE	1.22	4.49	696.3	4.05	12.55		
		EPA HIGHWAY FUEL ECONOMY	.61	1.57	483.5	4.24	18.19		
		FEDERAL SHORT CYCLE	1.06	2.00	541.8	3.14	16.19		
		COMPOSITE N.Y. N.J.							
		CLAYTON KEY MODE (HIGH CRUISE)					.08	35	
		(LOW CRUISE)					.06	31	
		IDLE					.06	39	
		TWO SPEED IDLE 2250 RPM					.09	60	
		IDLE NEUTRAL					.08	85	
		FEDERAL 3 MODE HIGH SPEED					.08	40	
		LOW SPEED					.06	38	
		IDLE IN DRIVE					.06	38	
		IDLE IN NEUTRAL					.08	180	
6061 4 76 MERC COUG 351	4	COLD TRANSIENT	1.61	16.75	735.0	5.13	11.58		
		COLD STABILIZED	.94	4.75	704.5	3.85	12.41		
		HOT TRANSIENT	1.06	3.51	628.7	4.83	13.92		
		75 FEDERAL TEST PROCEDURE	1.11	6.88	690.1	4.33	12.60		
		EPA HIGHWAY FUEL ECONOMY	.58	1.72	475.5	4.51	18.49		
		FEDERAL SHORT CYCLE	.63	2.66	543.9	3.67	16.14		
		COMPOSITE N.Y. N.J.							
		CLAYTON KEY MODE (HIGH CRUISE)					.07	40	1,350
		(LOW CRUISE)					.10	33	750
		IDLE					.15	37	280
		TWO SPEED IDLE 2250 RPM					.10	22	140
		IDLE NEUTRAL					.10	75	80
		FEDERAL 3 MODE HIGH SPEED					.08	42	1,100
		LOW SPEED					.08	42	1,150
		IDLE IN DRIVE					.15	39	270
		IDLE IN NEUTRAL					.10	80	30

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOx PPM
							HC	CO	CO2	NOXC				
6061 A	76	MERC	COUG	351	A	COLD TRANSIENT	1.52	17.19	745.7	5.45	11.41			
						COLD STABILIZED	.91	5.95	707.1	4.01	12.34			
						HOT TRANSIENT	1.11	4.06	632.3	5.30	13.82			
						75 FEDERAL TEST PROCEDURE	1.09	7.75	694.6	4.66	12.49			
						EPA HIGHWAY FUEL ECONOMY	.60	1.91	484.7	4.96	18.13			
						FEDERAL SHORT CYCLE	.72	2.49	539.9	3.75	16.26			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.08	45	1,250
						(LOW CRUISE)						.07	40	800
						IDLE						.13	40	230
						TWO SPEED IDLE 2250 RPM						.09	40	120
						IDLE NEUTRAL						.07	95	70
						FEDERAL 3 MODE HIGH SPEED						.07	45	1,300
						LOW SPEED						.07	40	1,050
						IDLE IN DRIVE						.18	39	240
						IDLE IN NEUTRAL						.16	55	80
6061 B	76	MERC	COUG	351	B	COLD TRANSIENT	1.82	24.18	728.1	4.50	11.49			
						COLD STABILIZED	1.06	8.06	707.6	3.75	12.27			
						HOT TRANSIENT	1.12	5.05	619.0	4.42	14.08			
						75 FEDERAL TEST PROCEDURE	1.23	10.56	687.7	4.08	12.53			
						EPA HIGHWAY FUEL ECONOMY	.65	2.57	479.1	4.71	18.29			
						FEDERAL SHORT CYCLE	.81	4.11	540.2	3.53	16.16			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.12	40	1,150
						(LOW CRUISE)						.08	30	840
						IDLE						.20	40	220
						TWO SPEED IDLE 2250 RPM						.09	25	140
						IDLE NEUTRAL						.12	30	70
						FEDERAL 3 MODE HIGH SPEED						.11	40	500
						LOW SPEED						.07	40	1,100
						IDLE IN DRIVE						.25	35	240
						IDLE IN NEUTRAL						.14	30	65
6061 C	76	MERC	COUG	351	C	COLD TRANSIENT	1.72	19.64	730.4	6.04	11.57			
						COLD STABILIZED	.99	5.04	699.2	4.42	12.50			
						HOT TRANSIENT	1.18	4.49	632.5	5.57	13.80			
						75 FEDERAL TEST PROCEDURE	1.19	7.89	687.4	5.07	12.61			
						EPA HIGHWAY FUEL ECONOMY	.62	1.94	467.1	4.81	18.80			
						FEDERAL SHORT CYCLE	.82	1.97	530.3	4.09	16.54			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	55	1,640
						(LOW CRUISE)						.07	49	1,250
						IDLE						.07	45	270
						TWO SPEED IDLE 2250 RPM						.09	40	185
						IDLE NEUTRAL						.09	75	80
						FEDERAL 3 MODE HIGH SPEED						.12	52	1,500
						LOW SPEED						.07	55	1,525
						IDLE IN DRIVE						.11	43	240
						IDLE IN NEUTRAL						.08	90	80

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
5062-1	75	MERC	MOND	351	1	COLD TRANSIENT	1.53	24.14	785.1	6.33	10.72			
						COLD STABILIZED	.92	7.23	787.3	4.35	11.07			
						HOT TRANSIENT	.79	7.05	687.5	7.13	12.66			
						75 FEDERAL TEST PROCEDURE	1.01	10.66	759.4	5.52	11.30			
						EPA HIGHWAY FUEL ECONOMY	.38	4.16	530.6	7.42	16.49			
						FEDERAL SHORT CYCLE	.77	11.40	613.4	3.63	14.01			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	20	
						(LOW CRUISE)						.15	22	
						IDLE						.15	38	
						TWO SPEED IDLE						.10	13	
						2250 RPM						.13	30	
						IDLE NEUTRAL						.12	24	
						FEDERAL 3 MODE						.20	30	
						HIGH SPEED						.16	30	
						LOW SPEED						.37	35	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
5063-3	75	MERC	MOND	351	3	COLD TRANSIENT	1.42	23.03	762.7	9.64	11.04			
						COLD STABILIZED	.98	3.96	795.6	6.51	11.03			
						HOT TRANSIENT	.95	6.04	678.5	10.30	12.84			
						75 FEDERAL TEST PROCEDURE	1.06	8.45	756.8	8.19	11.47			
						EPA HIGHWAY FUEL ECONOMY	.56	3.66	519.6	10.87	16.84			
						FEDERAL SHORT CYCLE	.77	3.37	619.1	7.11	14.14			
						COMPOSITE N.Y. N.J.	.98	5.37	856.0	5.38	10.23			
						CLAYTON KEY MODE (HIGH CRUISE)						.15	15	3-200
						(LOW CRUISE)						.25	8	500
						IDLE						.12	11	180
						TWO SPEED IDLE						.09	15	410
						2250 RPM						.13	28	120
						IDLE NEUTRAL						.15	40	3,300
						FEDERAL 3 MODE						.25	50	2,400
						HIGH SPEED						.15	50	120
						LOW SPEED						.20	33	110
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
5062-4	75	MERC	MOND	351	4	COLD TRANSIENT	2.02	33.40	837.6	3.01	9.90			
						COLD STABILIZED	1.03	3.49	806.8	3.27	10.80			
						HOT TRANSIENT	1.02	4.18	717.2	3.71	12.08			
						75 FEDERAL TEST PROCEDURE	1.23	11.20	788.7	3.34	10.95			
						EPA HIGHWAY FUEL ECONOMY	.52	4.41	535.5	3.57	16.31			
						FEDERAL SHORT CYCLE	.76	3.64	630.6	2.92	13.50			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.08	20	600
						(LOW CRUISE)						.10	20	520
						IDLE						.10	35	130
						TWO SPEED IDLE						.10	30	100
						2250 RPM						.12	22	80
						IDLE NEUTRAL						.12	29	830
						FEDERAL 3 MODE						.12	35	700
						HIGH SPEED						.08	33	140
						LOW SPEED						.11	25	80
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

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APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NOX PPM
							HC	CO	CO ₂	NOXC				
6062 A	75	MERC	MONG	351	A	COLD TRANSIENT	1.62	32.52	823.4	2.91	10.09			
						COLD STABILIZED	1.03	3.64	808.7	3.16	10.85			
						HOT TRANSIENT	1.01	10.85	716.9	3.62	12.04			
						75 FEDERAL TEST PROCEDURE	1.14	11.55	786.7	3.23	10.98			
						EPA HIGHWAY FUEL ECONOMY	.50	4.23	539.7	3.52	16.20			
						FEDERAL SHORT CYCLE	.81	4.44	619.7	3.19	14.11			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	22	640
						(LOW CRUISE)						.17	30	500
						IDLE						.10	35	140
						TWO SPEED IDLE 2250 RPM						.10	22	100
						IDLE NEUTRAL						.12	30	90
						FEDERAL 3 MODE HIGH SPEED						.10	23	730
						LOW SPEED						.17	25	700
						IDLE IN DRIVE						.16	36	140
						IDLE IN NEUTRAL						.18	39	85
6063 B	76	MERC	MONG	351	J	COLD TRANSIENT	1.66	27.35	705.8	4.47	11.77			
						COLD STABILIZED	1.18	17.82	669.3	3.12	12.66			
						HOT TRANSIENT	1.13	9.47	594.2	4.19	14.48			
						75 FEDERAL TEST PROCEDURE	1.26	17.50	656.3	3.69	12.90			
						EPA HIGHWAY FUEL ECONOMY	.62	2.54	464.1	3.99	18.88			
						FEDERAL SHORT CYCLE	.72	8.54	516.3	2.81	16.38			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.10	51	1,150
						(LOW CRUISE)						.12	50	870
						IDLE						.85	58	90
						TWO SPEED IDLE 2250 RPM						.11	27	125
						IDLE NEUTRAL						.25	30	50
						FEDERAL 3 MODE HIGH SPEED						.09	45	1,050
						LOW SPEED						.10	56	1,150
						IDLE IN DRIVE						1.00	55	80
						IDLE IN NEUTRAL						.50	30	40
6063 C	76	MERC	MONG	351	2	COLD TRANSIENT	1.76	30.34	752.1	4.20	11.02			
						COLD STABILIZED	1.12	15.61	695.0	2.83	12.27			
						HOT TRANSIENT	1.24	7.98	624.9	3.93	13.84			
						75 FEDERAL TEST PROCEDURE	1.28	16.56	687.6	3.41	12.36			
						EPA HIGHWAY FUEL ECONOMY	.57	2.16	477.3	3.78	18.40			
						FEDERAL SHORT CYCLE	.68	8.22	534.7	2.64	16.15			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.09	40	1,050
						(LOW CRUISE)						.12	42	850
						IDLE						.60	45	120
						TWO SPEED IDLE 2250 RPM						.09	20	165
						IDLE NEUTRAL						.25	32	60
						FEDERAL 3 MODE HIGH SPEED						.09	43	1,125
						LOW SPEED						.13	48	1,050
						IDLE IN DRIVE						.80	50	100
						IDLE IN NEUTRAL						.35	30	40

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
4063-5	76	MERC	MONG	351	3	COLD TRANSIENT	1.71	29.59	714.1	3.96	11.58			
						COLD STABILIZED	1.09	14.02	685.5	2.81	12.40			
						HOT TRANSIENT	1.07	7.46	616.2	3.90	14.06			
						75 FEDERAL TEST PROCEDURE	1.21	15.43	672.5	3.34	12.67			
						EPA HIGHWAY FUEL ECONOMY	.55	2.00	479.0	3.79	18.34			
						FEDERAL SHORT CYCLE	.63	5.50	534.5	2.72	16.20			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.08	42	950
						(LOW CRUISE)						.09	47	940
						IDLE						.55	50	140
						TWO SPEED IDLE						.09	30	140
						2250 RPM						.19	29	45
						IDLE NEUTRAL						.07	40	1,125
						FEDERAL 3 MODE						.07	53	1,125
						HIGH SPEED						.50	50	140
						LOW SPEED						.30	30	35
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
4063-6	76	MERC	MONG	351	4	COLD TRANSIENT	1.44	21.28	709.3	4.05	11.87			
						COLD STABILIZED	1.04	12.45	691.3	2.94	12.42			
						HOT TRANSIENT	1.15	7.10	621.1	4.03	13.96			
						75 FEDERAL TEST PROCEDURE	1.15	12.81	675.8	3.46	12.69			
						EPA HIGHWAY FUEL ECONOMY	.60	2.13	480.0	3.78	18.29			
						FEDERAL SHORT CYCLE	.68	4.92	523.3	2.97	16.65			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.09	30	375
						(LOW CRUISE)						.19	24	100
						IDLE						.25	42	155
						TWO SPEED IDLE						.09	22	140
						2250 RPM						.16	29	35
						IDLE NEUTRAL						.17	31	1,125
						FEDERAL 3 MODE						.17	40	1,075
						HIGH SPEED						.65	42	100
						LOW SPEED						.45	22	40
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
4063-6	76	MERC	MONG	351	A	COLD TRANSIENT	1.42	24.68	717.1	3.62	11.67			
						COLD STABILIZED	1.00	15.26	688.6	2.59	12.40			
						HOT TRANSIENT	1.10	7.85	619.7	3.17	13.97			
						75 FEDERAL TEST PROCEDURE	1.11	15.18	675.7	2.96	12.62			
						EPA HIGHWAY FUEL ECONOMY	.56	2.38	478.7	3.47	18.33			
						FEDERAL SHORT CYCLE	.78	9.25	568.8	2.14	15.15			
						COMPOSITE N.Y. N.J.	1.51	16.07	763.9	2.60	11.18			
						CLAYTON KEY MODE (HIGH CRUISE)						1.20	39	960
						(LOW CRUISE)						.15	42	760
						IDLE						.51	62	60
						TWO SPEED IDLE						.09	22	83
						2250 RPM						.22	28	30
						IDLE NEUTRAL						.11	35	910
						FEDERAL 3 MODE						.10	40	610
						HIGH SPEED						.50	68	80
						LOW SPEED						.80	75	20
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6044-1	76	MERC	MONA	351	1	COLD TRANSIENT	1.45	26.15	669.4	3.77	12.41			
						COLD STABILIZED	.24	.04	657.7	3.18	13.40			
						HOT TRANSIENT	.49	.75	604.9	3.66	14.61			
						75 FEDERAL TEST PROCEDURE	.56	5.61	645.7	3.43	13.53			
						EPA HIGHWAY FUEL ECONOMY	.11	.06	507.8	2.50	17.46			
						FEDERAL SHORT CYCLE	.12	.05	526.0	2.53	16.87			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	32	1,400
						(LOW CRUISE)						.02	25	675
						IDLE						.02	25	650
						TWO SPEED IDLE 2250 RPM						.02	25	125
						IDLE NEUTRAL						.02	27	160
						FEDERAL 3 MODE HIGH SPEED						.03	33	1,400
						LOW SPEED						.02	30	930
						IDLE IN DRIVE						.02	23	650
						IDLE IN NEUTRAL						.02	37	160
6044-3	76	MERC	MONA	351	3	COLD TRANSIENT	1.59	34.20	678.2	3.02	12.04			
						COLD STABILIZED	.25	.10	684.1	2.41	12.76			
						HOT TRANSIENT	.48	.71	617.6	2.86	14.30			
						75 FEDERAL TEST PROCEDURE	.59	7.34	664.7	2.66	13.09			
						EPA HIGHWAY FUEL ECONOMY	.11	.06	503.4	2.26	17.62			
						FEDERAL SHORT CYCLE	.16	.05	556.6	2.08	15.93			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	750
						(LOW CRUISE)						.02	23	230
						IDLE						.02	23	110
						TWO SPEED IDLE 2250 RPM						.03	14	40
						IDLE NEUTRAL						.02	20	95
						FEDERAL 3 MODE HIGH SPEED						.03	28	490
						LOW SPEED						.03	25	350
						IDLE IN DRIVE						.02	23	180
						IDLE IN NEUTRAL						.02	18	80
6045-1	76	LINC	CONT	460	1	COLD TRANSIENT	.50	3.44	866.7	3.56	10.15			
						COLD STABILIZED	.17	.12	817.7	3.57	10.84			
						HOT TRANSIENT	.64	1.24	724.4	4.40	12.10			
						75 FEDERAL TEST PROCEDURE	.36	1.11	802.3	3.79	11.02			
						EPA HIGHWAY FUEL ECONOMY	.06	.13	544.9	2.71	16.20			
						FEDERAL SHORT CYCLE	.10	.08	592.1	2.73	14.80			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	16	545
						(LOW CRUISE)						.03	15	280
						IDLE						.02	12	290
						TWO SPEED IDLE 2250 RPM						.03	23	60
						IDLE NEUTRAL						.02	15	70
						FEDERAL 3 MODE HIGH SPEED						.03	15	580
						LOW SPEED						.03	12	400
						IDLE IN DRIVE						.03	11	390
						IDLE IN NEUTRAL						.03	19	65

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)		HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SER	TEST TYPE	HC	CO	CO2	NOXC	FUEL	CO2	P/M/HEX	PPM
NUMBER											ECONOMY			
6045-4	76	LINC	CONT	460	4	COLD TRANSIENT	.47	3.38	857.8	3.61	10.24			
						COLD STABILIZED	.15	.09	815.8	3.98	10.87			
						HOT TRANSIENT	.62	1.18	734.6	4.55	12.02			
						75 FEDERAL TEST PROCEDURE	.34	1.06	802.7	4.06	11.02			
						EPA HIGHWAY FUEL ECONOMY	.07	.16	553.1	2.47	16.03			
						FEDERAL SHORT CYCLE	.10	.11	612.4	2.41	14.48			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	22	840
						(LOW CRUISE)						.02	21	250
						IDLE						.02	20	450
						TWO SPEED IDLE 2250 RPM						.02	35	90
						IDLE NEUTRAL						.02	22	120
						FEDERAL 3 MODE HIGH SPEED						.03	22	820
						LOW SPEED						.03	20	580
6045-11	76	LINC	CONT	460 A	A	COLD TRANSIENT	.50	4.20	867.0	3.83	10.11			
						COLD STABILIZED	.13	.09	827.4	4.28	10.72			
						HOT TRANSIENT	.51	1.26	721.0	4.87	12.25			
						75 FEDERAL TEST PROCEDURE	.31	1.25	806.7	4.35	10.76			
						EPA HIGHWAY FUEL ECONOMY	.06	.13	555.3	3.00	15.97			
						FEDERAL SHORT CYCLE	.11	.09	610.0	2.08	14.54			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	18	970
						(LOW CRUISE)						.03	18	490
						IDLE						.03	15	395
						TWO SPEED IDLE 2250 RPM						.03	30	85
						IDLE NEUTRAL						.03	15	115
						FEDERAL 3 MODE HIGH SPEED						.03	18	860
						LOW SPEED						.03	17	550
6046-1	76	LINC	CONT	460	1	COLD TRANSIENT	.36	4.46	1,026.2	1.63	8.58			
						COLD STABILIZED	.06	.17	958.5	1.74	9.25			
						HOT TRANSIENT	.89	1.77	878.5	1.81	10.04			
						75 FEDERAL TEST PROCEDURE	.35	1.47	950.6	1.74	9.30			
						EPA HIGHWAY FUEL ECONOMY	.02	.16	664.4	1.27	13.35			
						FEDERAL SHORT CYCLE	.07	.14	734.3	1.21	12.08			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	15	375
						(LOW CRUISE)						.03	20	125
						IDLE						.02	20	55
						TWO SPEED IDLE 2250 RPM						.03	25	30
						IDLE NEUTRAL						.02	23	20
						FEDERAL 3 MODE HIGH SPEED						.03	20	385
						LOW SPEED						.02	19	175
LIMITER CAPS ON						IDLE IN DRIVE						.02	16	50
						IDLE IN NEUTRAL						.02	30	35

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HCX	NOX PPM
							HC	CO	CO ₂	NOXC				
6047 1	76	BUIC	SKYL	231	1	COLD TRANSIENT	2.41	71.23	490.4	6.91	14.55			
						COLD STABILIZED	2.11	89.83	483.0	5.29	14.07			
						HOT TRANSIENT	1.47	41.47	448.7	7.47	17.11			
						75 FEDERAL TEST PROCEDURE	2.00	72.80	475.2	6.72	14.89			
						EPA HIGHWAY FUEL ECONOMY	.30	7.55	363.0	7.44	23.62			
						FEDERAL SHORT CYCLE	1.89	62.24	366.9	4.34	18.86			
						COMPOSITE N.Y. N.J.	3.35	116.46	494.5	4.24	12.90			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	23	4,700
						(LOW CRUISE)						1.00	75	2,400
						IDLE						6.10	175	95
						TWO SPEED IDLE						1.30	60	240
						2250 RPM						5.40	120	60
						IDLE NEUTRAL						.03	20	4,900
						FEDERAL 3 MODE						.04	15	7,700
						HIGH SPEED						6.80	170	100
						LOW SPEED						6.00	140	65
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6047 2	76	BUIC	SKYL	231	2	COLD TRANSIENT	2.21	58.84	515.7	3.71	14.42			
						COLD STABILIZED	1.98	85.39	505.4	1.20	13.74			
						HOT TRANSIENT	1.24	37.98	475.5	2.35	16.46			
						75 FEDERAL TEST PROCEDURE	1.82	66.99	492.3	2.03	14.54			
						EPA HIGHWAY FUEL ECONOMY	.15	4.67	369.4	2.34	23.53			
						FEDERAL SHORT CYCLE	1.10	49.05	395.6	1.16	18.65			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	21	850
						(LOW CRUISE)						.05	21	120
						IDLE						5.60	175	45
						TWO SPEED IDLE						.03	23	45
						2250 RPM						5.10	120	10
						IDLE NEUTRAL						.02	15	1,250
						FEDERAL 3 MODE						.03	13	500
						HIGH SPEED						5.50	158	70
						LOW SPEED						5.00	130	10
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6047 3	76	BUIC	SKYL	231	3	COLD TRANSIENT	1.52	18.82	548.0	4.05	15.24			
						COLD STABILIZED	.10	.93	561.0	1.87	15.77			
						HOT TRANSIENT	.95	3.16	500.6	2.54	17.46			
						75 FEDERAL TEST PROCEDURE	.63	5.22	541.9	2.50	16.08			
						EPA HIGHWAY FUEL ECONOMY	.04	.16	365.8	2.31	24.24			
						FEDERAL SHORT CYCLE	.06	.31	417.4	1.32	21.14			
						COMPOSITE N.Y. N.J.	.06	.20	547.4	1.93	16.20			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	21	800
						(LOW CRUISE)						.02	22	200
						IDLE						.02	20	30
						TWO SPEED IDLE						.02	40	
						2250 RPM						.02	19	
						IDLE NEUTRAL						.02	20	1,100
						FEDERAL 3 MODE						.02	19	390
						HIGH SPEED						.02	17	95
						LOW SPEED						.02	18	
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6060-1	76	BUIC	REGA	350	1	COLD TRANSIENT	1.29	23.52	674.4	3.00	12.06			
						COLD STABILIZED	.06	.62	723.9	1.80	12.24			
						HOT TRANSIENT	1.45	4.01	627.1	2.64	13.87			
						75 FEDERAL TEST PROCEDURE	.67	6.26	691.9	2.28	12.61			
						EPA HIGHWAY FUEL ECONOMY	.05	.53	442.9	2.57	19.99			
						FEDERAL SHORT CYCLE	.18	1.23	547.4	1.58	16.14			
						COMPOSITE N.Y. N.J.	.29	.70	794.4	2.01	11.14			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	30	1,325
						(LOW CRUISE)						.02	26	520
						IDLE						.02	25	260
						TWO SPEED IDLE 2250 RPM						.05	25	120
						IDLE NEUTRAL						.03	24	80
						FEDERAL 3 MODE HIGH SPEED						.03	30	1,650
						LOW SPEED						.03	25	840
						IDLE IN DRIVE						.03	27	265
						IDLE IN NEUTRAL						.03	25	90
6069-1	76	BUIC	REGA	350	1	COLD TRANSIENT	1.22	17.47	634.9	2.93	13.32			
						COLD STABILIZED	.05	.23	628.5	2.40	14.11			
						HOT TRANSIENT	.47	3.96	545.7	2.60	16.03			
						75 FEDERAL TEST PROCEDURE	.40	4.79	607.3	2.56	14.41			
						EPA HIGHWAY FUEL ECONOMY	.02	.15	417.8	2.72	21.23			
						FEDERAL SHORT CYCLE	.02	.02	476.6	2.01	18.62			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	15	850
						(LOW CRUISE)						.02	12	625
						IDLE						.02	11	95
						TWO SPEED IDLE 2250 RPM						.02	12	75
						IDLE NEUTRAL						.02	11	40
						FEDERAL 3 MODE HIGH SPEED						.02	18	1,500
						LOW SPEED						.02	17	970
						IDLE IN DRIVE						.02	13	135
						IDLE IN NEUTRAL						.02	12	60
6070-1	76	BUIC	LESA	350	1	COLD TRANSIENT	1.10	22.62	707.1	3.67	11.87			
						COLD STABILIZED	.07	.21	714.5	2.02	12.41			
						HOT TRANSIENT	.83	7.75	613.7	2.72	14.12			
						75 FEDERAL TEST PROCEDURE	.49	6.88	685.5	2.55	12.72			
						EPA HIGHWAY FUEL ECONOMY	.02	.03	472.0	3.39	18.80			
						FEDERAL SHORT CYCLE	.03	.14	528.6	1.80	16.70			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	19	1,500
						(LOW CRUISE)						.02	18	680
						IDLE						.02	18	240
						TWO SPEED IDLE 2250 RPM						.02	13	140
						IDLE NEUTRAL						.02	16	75
						FEDERAL 3 MODE HIGH SPEED						.02	18	1,675
						LOW SPEED						.02	18	1,300
						IDLE IN DRIVE						.02	16	210
						IDLE IN NEUTRAL						.02	17	80

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

-----GRAMS PER MILE-----

VEHICLE						-----GRAMS PER MILE-----					(MPG)		HC	NOX	
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6071-1	76	BUIC	ELEC	455	1	COLD TRANSIENT		1.44	15.41	823.3	5.32	10.41			
						COLD STABILIZED		.19	1.83	816.0	2.44	10.83			
						HOT TRANSIENT		1.31	7.22	700.6	3.83	12.39			
						75 FEDERAL TEST PROCEDURE		.75	6.10	786.0	3.41	11.12			
						EPA HIGHWAY FUEL ECONOMY		.10	1.29	517.7	3.35	17.07			
						FEDERAL SHORT CYCLE		.21	6.24	605.8	1.45	14.40			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)							.03	25	2,400
						(LOW CRUISE)							.03	21	450
						IDLE							.02	18	65
						TWO SPEED IDLE 2250 RPM							.02	19	95
						IDLE NEUTRAL							.02	16	35
						FEDERAL 3 MODE HIGH SPEED							.03	21	2,225
						LOW SPEED							.03	20	760
						IDLE IN DRIVE							.03	17	85
						IDLE IN NEUTRAL							.03	16	50
6071-2	76	BUIC	ELEC	455	2	COLD TRANSIENT		1.65	16.05	814.1	5.69	10.51			
						COLD STABILIZED		.21	1.86	813.1	2.63	10.87			
						HOT TRANSIENT		1.32	7.34	694.4	4.22	12.50			
						75 FEDERAL TEST PROCEDURE		.81	6.28	780.9	3.70	11.19			
						EPA HIGHWAY FUEL ECONOMY		.12	2.20	527.3	3.48	16.71			
						FEDERAL SHORT CYCLE		.16	2.98	599.9	1.68	14.67			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)							.02	18	2,125
						(LOW CRUISE)							.25	23	200
						IDLE							.02	12	50
						TWO SPEED IDLE 2250 RPM							.02	11	90
						IDLE NEUTRAL							.02	10	10
						FEDERAL 3 MODE HIGH SPEED							.03	16	2,200
						LOW SPEED							.02	13	1,000
						IDLE IN DRIVE							.02	10	100
						IDLE IN NEUTRAL							.02	10	45
6071-3	76	BUIC	ELEC	455	3	COLD TRANSIENT		1.99	29.22	867.3	5.65	9.65			
						COLD STABILIZED		.19	1.29	858.6	2.75	10.31			
						HOT TRANSIENT		1.25	9.30	749.2	4.30	11.56			
						75 FEDERAL TEST PROCEDURE		.85	9.22	830.5	3.77	10.47			
						EPA HIGHWAY FUEL ECONOMY		.09	.73	526.3	3.67	16.82			
						FEDERAL SHORT CYCLE		.14	.92	625.1	1.87	14.16			
						COMPOSITE N.Y. N.J.		.11	.32	602.1	2.36	11.05			
						CLAYTON KEY MODE (HIGH CRUISE)							.03	45	1,800
						(LOW CRUISE)							.03	35	310
						IDLE							.03	23	10
						TWO SPEED IDLE 2250 RPM							.03	22	60
						IDLE NEUTRAL							.03	20	5
						FEDERAL 3 MODE HIGH SPEED							.03	30	2,125
						LOW SPEED							.03	28	960
						IDLE IN DRIVE							.03	22	10
						IDLE IN NEUTRAL							.03	22	3

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

						-----GRAMS PER MILE-----				(MPG)		HC	NOX	
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6071-4	76	BUIC	ELEC	455	4	COLD TRANSIENT	1.99	15.73	836.1	5.69	10.23			
						COLD STABILIZED	.23	.82	824.0	2.65	10.74			
						HOT TRANSIENT	1.08	3.67	722.5	4.85	12.13			
						75 FEDERAL TEST PROCEDURE	.82	4.66	798.8	3.88	10.97			
						EPA HIGHWAY FUEL ECONOMY	.08	.26	513.6	3.65	17.26			
						FEDERAL SHORT CYCLE	.16	2.07	635.7	2.14	13.88			
						COMPOSITE N.Y. N.J.	.10	.24	845.5	3.11	10.49			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	28	320
						(LOW CRUISE)						.04	20	70
						IDLE						.04	15	30
						TWO SPEED IDLE						.04	20	10
						2250 RPM						.04	18	10
						IDLE NEUTRAL						.04	20	210
						FEDERAL 3 MODE						.04	20	80
						HIGH SPEED						.04	15	70
						LOW SPEED						.04	12	30
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6072-1	76	CADT	ELDO	500	1	COLD TRANSIENT	3.17	69.07	910.8	1.83	8.62			
						COLD STABILIZED	1.14	18.15	878.5	1.86	9.74			
						HOT TRANSIENT	.91	12.58	804.1	2.06	10.73			
						75 FEDERAL TEST PROCEDURE	1.49	27.11	864.8	1.90	9.73			
						EPA HIGHWAY FUEL ECONOMY	.29	6.95	619.6	1.61	14.06			
						FEDERAL SHORT CYCLE	1.29	25.85	648.4	1.34	12.80			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.18	21	340
						(LOW CRUISE)						1.10	65	290
						IDLE						.03	18	380
						TWO SPEED IDLE						.17	15	45
						2250 RPM						.03	12	130
						IDLE NEUTRAL						.19	19	390
						FEDERAL 3 MODE						.50	29	380
						HIGH SPEED						.04	15	480
						LOW SPEED						.03	15	125
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6072-3	76	CADT	FLDO	500	3	COLD TRANSIENT	4.65	93.71	847.1	1.46	8.79			
						COLD STABILIZED	1.73	24.56	790.5	1.22	10.63			
						HOT TRANSIENT	1.52	17.06	751.8	1.44	11.33			
						75 FEDERAL TEST PROCEDURE	2.29	36.74	791.6	1.33	10.36			
						EPA HIGHWAY FUEL ECONOMY	.30	8.80	588.7	1.10	14.71			
						FEDERAL SHORT CYCLE	.74	19.79	599.2	.76	14.03			
						COMPOSITE N.Y. N.J.	1.16	26.60	743.6	.76	11.24			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	28	580
						(LOW CRUISE)						1.00	40	220
						IDLE						.03	15	120
						TWO SPEED IDLE						.70	21	40
						2250 RPM						.03	18	50
						IDLE NEUTRAL						.04	20	520
						FEDERAL 3 MODE						.45	25	160
						HIGH SPEED						.03	12	110
						LOW SPEED						.03	12	50
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
6072-4	76	CADILLAC	ELDO	500	4	COLD TRANSIENT	3.33	41.26	878.6	2.06	9.30			
						COLD STABILIZED	.75	12.00	838.9	1.82	10.32			
						HOT TRANSIENT	.83	9.76	776.5	2.03	11.17			
						75 FEDERAL TEST PROCEDURE	1.30	17.41	830.0	1.92	10.30			
						EPA HIGHWAY FUEL ECONOMY	.20	4.15	597.5	1.84	14.68			
						FEDERAL SHORT CYCLE	.52	16.04	600.8	1.35	14.14			
						COMPOSITE N.Y. N.J.	.65	17.81	775.7	1.68	11.01			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	33	850
						(LOW CRUISE)						1.20	80	330
						IDLE						.03	24	300
						TWO SPEED IDLE 2250 RPM						.70	30	65
						IDLE NEUTRAL						.03	23	100
						FEDERAL 3 MODE HIGH SPEED						.03	21	825
						LOW SPEED						1.00	40	460
						IDLE IN DRIVE						.03	19	290
						IDLE IN NEUTRAL						.03	20	105
						MAJOR TUNE UP REPLACED ELEC CHOKE AND RADIATOR CAP								
6073-1	76	CADILLAC	SEVIL	350	1	COLD TRANSIENT	1.98	45.54	714.1	3.09	11.20			
						COLD STABILIZED	.21	.04	742.8	2.27	11.94			
						HOT TRANSIENT	.42	.78	617.9	3.09	14.30			
						75 FEDERAL TEST PROCEDURE	.63	9.66	702.8	2.66	12.33			
						EPA HIGHWAY FUEL ECONOMY	.09	.06	463.6	3.34	19.13			
						FEDERAL SHORT CYCLE	.10	.04	553.3	1.72	16.03			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	28	1,275
						(LOW CRUISE)						.03	19	1,021
						IDLE						.03	17	230
						TWO SPEED IDLE 2250 RPM						.03	19	195
						IDLE NEUTRAL						.03	17	180
						FEDERAL 3 MODE HIGH SPEED						.03	22	1,400
						LOW SPEED						.03	21	1,050
						IDLE IN DRIVE						.03	15	155
						IDLE IN NEUTRAL						.03	14	75
						FUEL INJECTED EGR TRANSDUCER BROKEN								
6073-4	76	CADILLAC	SEVIL	350	4	COLD TRANSIENT	1.60	36.47	715.8	2.76	11.40			
						COLD STABILIZED	.19	.02	737.7	2.05	11.99			
						HOT TRANSIENT	.42	.78	620.7	2.74	14.24			
						75 FEDERAL TEST PROCEDURE	.54	7.73	702.3	2.39	12.37			
						EPA HIGHWAY FUEL ECONOMY	.07	.00	459.6	2.78	19.30			
						FEDERAL SHORT CYCLE	.09	.03	555.7	1.52	15.96			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	26	1,175
						(LOW CRUISE)						.03	21	680
						IDLE						.03	19	140
						TWO SPEED IDLE 2250 RPM						.03	19	140
						IDLE NEUTRAL						.03	16	65
						FEDERAL 3 MODE HIGH SPEED						.03	25	1,150
						LOW SPEED						.03	17	795
						IDLE IN DRIVE						.03	13	145
						IDLE IN NEUTRAL						.03	13	145
						MAJOR TO NEW EGR BACKPRESSURE TRANSDUCER								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

-----GRAMS PER MILE-----										(MPG)					
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6073-5	76	CADI	SEVI	350	5	COLD TRANSIENT		3.07	64.08	640.5	7.82	11.82			
						COLD STABILIZED		.35	.27	676.4	7.33	13.09			
						HOT TRANSIENT		.59	.65	577.9	7.63	15.28			
						75 FEDERAL TEST PROCEDURE		.97	13.51	642.1	7.51	13.32			
						EPA HIGHWAY FUEL ECONOMY		.07	.02	430.4	6.70	20.61			
						FEDERAL SHORT CYCLE		.10	.18	500.1	6.45	17.73			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)							.02	51	3,350
						(LOW CRUISE)							.02	30	2,200
						IDLE							.03	23	510
						TWO SPEED IDLE							.03	27	190
						2250 RPM							.03	35	110
						IDLE NEUTRAL							.03	35	3,700
						FEDERAL 3 MODE							.03	30	3,200
						HIGH SPEED							.03	20	550
						LOW SPEED							.03	30	115
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									
6073-6	76	CADI	SEVI	350	6	COLD TRANSIENT		2.59	46.22	688.3	3.78	11.54			
						COLD STABILIZED		.23	.01	723.2	2.37	12.26			
						HOT TRANSIENT		.43	1.22	609.1	2.97	14.50			
						75 FEDERAL TEST PROCEDURE		.76	9.85	684.9	2.82	12.63			
						EPA HIGHWAY FUEL ECONOMY		.09	.00	454.8	3.58	19.50			
						FEDERAL SHORT CYCLE		.18	.27	530.7	1.90	16.70			
						COMPOSITE N.Y. N.J.		.15	.39	708.6	1.92	12.51			
						CLAYTON KEY MODE (HIGH CRUISE)							.02	35	1,550
						(LOW CRUISE)							.02	27	950
						IDLE							.02	17	145
						TWO SPEED IDLE							.02	20	175
						2250 RPM							.02	18	60
						IDLE NEUTRAL							.02	22	1,475
						FEDERAL 3 MODE							.02	27	1,150
						HIGH SPEED							.02	18	150
						LOW SPEED							.02	17	65
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									
6073-7	76	CADI	SEVI	350	7	COLD TRANSIENT		3.01	62.93	688.9	6.37	11.13			
						COLD STABILIZED		.23	.00	714.8	4.61	12.40			
						HOT TRANSIENT		.47	.46	595.8	6.53	14.84			
						75 FEDERAL TEST PROCEDURE		.87	13.08	677.0	5.49	12.67			
						EPA HIGHWAY FUEL ECONOMY		.09	.01	440.9	5.72	20.11			
						FEDERAL SHORT CYCLE		.09	.02	512.9	3.56	17.29			
						COMPOSITE N.Y. N.J.		.12	.02	700.5	3.35	12.66			
						CLAYTON KEY MODE (HIGH CRUISE)							.02	35	2,350
						(LOW CRUISE)							.02	33	1,725
						IDLE							.02	22	165
						TWO SPEED IDLE							.02	25	170
						2250 RPM							.02	20	65
						IDLE NEUTRAL							.02	31	2,800
						FEDERAL 3 MODE							.02	31	2,400
						HIGH SPEED							.02	21	160
						LOW SPEED							.02	21	75
						IDLE IN DRIVE									
						IDLE IN NEUTRAL									

TEST SITE: WASHINGTON, D.C.

-----GRAMS PER MILE-----										(MPG)		HC	NOX		
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM
6073-0	76	CADI	SEVI	350	8	COLD TRANSIENT		2.73	56.82	653.0	2.06	11.82			
						COLD STABILIZED		.27	1.27	723.9	2.06	12.21			
						HOT TRANSIENT		.58	4.75	595.0	2.64	14.69			
						75 FEDERAL TEST PROCEDURE		.86	13.65	674.1	2.38	12.71			
						EPA HIGHWAY FUEL ECONOMY		.11	.38	444.0	2.99	19.95			
						FEDERAL SHORT CYCLE		.14	1.70	537.0	1.66	16.43			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)							.03	38	1,375
						(LOW CRUISE)							.03	27	840
						IDLE							.03	20	90
						TWO SPEED IDLE	2250 RPM						.03	20	165
							IDLE NEUTRAL						.03	21	65
						FEDERAL 3 MODE	HIGH SPEED						.03	31	1,055
							LOW SPEED						.03	20	1,215
							IDLE IN DRIVE						.03	19	65
							IDLE IN NEUTRAL						.03	17	70
6073-9	76	CADI	SEVI	350	9	COLD TRANSIENT		2.59	48.53	666.2	3.77	11.82			
						COLD STABILIZED		.33	.01	686.1	3.46	12.71			
						HOT TRANSIENT		.61	1.53	606.7	3.90	14.52			
						75 FEDERAL TEST PROCEDURE		.87	10.41	660.3	3.66	13.06			
						EPA HIGHWAY FUEL ECONOMY		.09	.03	460.6	3.44	19.26			
						FEDERAL SHORT CYCLE		.26	.42	525.1	2.71	16.86			
						COMPOSITE N.Y. N.J.		.17	.01	726.3	3.77	12.21			
						CLAYTON KEY MODE (HIGH CRUISE)							.02	28	1,200
						(LOW CRUISE)							.02	25	900
						IDLE							.02	20	650
						TWO SPEED IDLE	2250 RPM						.02	19	165
							IDLE NEUTRAL						.02	38	155
						FEDERAL 3 MODE	HIGH SPEED						.02	25	1,400
							LOW SPEED						.02	25	1,050
							IDLE IN DRIVE						.02	20	675
							IDLE IN NEUTRAL						.02	31	125
6074-1	76	CHEV	CHET	085	1	COLD TRANSIENT		1.97	23.92	300.1	2.88	25.80			
						COLD STABILIZED		.23	6.01	332.0	2.75	25.75			
						HOT TRANSIENT		.43	7.68	285.3	2.95	29.74			
						75 FEDERAL TEST PROCEDURE		.64	10.15	312.7	2.83	26.86			
						EPA HIGHWAY FUEL ECONOMY		.04	.86	219.5	3.72	40.16			
						FEDERAL SHORT CYCLE		.05	2.04	266.6	2.75	32.91			
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)							.02	20	3,400
						(LOW CRUISE)							.02	19	2,200
						IDLE							.02	15	105
						TWO SPEED IDLE	2250 RPM						.02	12	200
							IDLE NEUTRAL						.02	10	75
						FEDERAL 3 MODE	HIGH SPEED						.02	17	2,900
							LOW SPEED						.02	12	3,400
							IDLE IN DRIVE						.00	0	
							IDLE IN NEUTRAL						.02	7	80

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
6075-1	76	CHEV	VEGA	140	1	COLD TRANSIENT	1.40	26.71	444.0	2.23	18.05			
						COLD STABILIZED	.24	4.09	460.8	1.50	18.90			
						HOT TRANSIENT	.48	0.55	307.2	1.99	22.07			
						75 FEDERAL TEST PROCEDURE	.54	10.00	437.5	1.78	19.51			
						EPA HIGHWAY FUEL ECONOMY	.06	1.20	251.1	1.72	35.06			
						FEDERAL SHORT CYCLE	.09	1.91	365.3	1.35	24.09			
						COMPOSITE N.Y. N.J.	.15	3.58	635.3	2.55	13.84			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	27	1,350
						(LOW CRUISE)						.50	45	210
						IDLE						.02	20	50
						TWO SPEED IDLE 2250 RPM						.40	35	15
						IDLE NEUTRAL						.02	20	20
						FEDERAL 3 MODE HIGH SPEED						.03	20	1,675
						LOW SPEED						.03	18	1,775
						IDLE IN DRIVE						.00	0	
						IDLE IN NEUTRAL						.02	17	50
6076-1	76	CHEV	VEGA	140	1	COLD TRANSIENT	3.15	30.84	450.4	2.45	17.44			
						COLD STABILIZED	.16	5.19	424.4	1.05	20.50			
						HOT TRANSIENT	.19	2.28	309.5	2.20	22.55			
						75 FEDERAL TEST PROCEDURE	.78	9.68	420.7	1.65	20.27			
						EPA HIGHWAY FUEL ECONOMY	.14	3.52	301.5	2.02	28.87			
						FEDERAL SHORT CYCLE	.49	14.92	315.6	.70	26.07			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	24	1,475
						(LOW CRUISE)						1.15	82	120
						IDLE						.03	15	65
						TWO SPEED IDLE 2250 RPM						1.05	83	10
						IDLE NEUTRAL						.03	15	15
						FEDERAL 3 MODE HIGH SPEED						.02	18	475
						LOW SPEED						.02	19	430
						IDLE IN DRIVE						.03	15	75
						IDLE IN NEUTRAL						.02	12	25
6077-1	76	CHEV	NOVA	250	1	COLD TRANSIENT	2.46	28.92	516.8	2.77	15.57			
						COLD STABILIZED	.81	8.43	481.8	2.20	17.84			
						HOT TRANSIENT	.85	5.13	452.7	2.26	19.16			
						75 FEDERAL TEST PROCEDURE	1.16	11.75	481.1	2.33	17.64			
						EPA HIGHWAY FUEL ECONOMY	.09	.99	354.3	2.60	24.92			
						FEDERAL SHORT CYCLE	.88	18.47	367.1	2.93	22.25			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	1,050
						(LOW CRUISE)						.03	24	2,100
						IDLE						2.80	185	120
						TWO SPEED IDLE 2250 RPM						.03	19	185
						IDLE NEUTRAL						1.70	170	10
						FEDERAL 3 MODE HIGH SPEED						.03	27	1,400
						LOW SPEED						.03	22	1,050
						IDLE IN DRIVE						2.10	180	50
						IDLE IN NEUTRAL						2.50	170	50

LIMITER CAP MISSING CHOKE
UNADJUSTED

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

					-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOx PPM
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC		
6077-2	76	CHEV	NOVA	250	2	COLD TRANSIENT	2.92	22.41	582.0	4.09	14.16	
						COLD STABILIZED	.36	2.31	526.3	2.17	16.72	
						HOT TRANSIENT	.55	4.31	475.4	2.60	18.35	
						75 FEDERAL TEST PROCEDURE	.94	7.00	523.9	2.60	16.50	
						EPA HIGHWAY FUEL ECONOMY	.06	.37	348.0	2.24	25.45	
						FEDERAL SHORT CYCLE	.32	3.51	388.3	2.13	22.40	
						COMPOSITE N.Y. N.J.	1.03	10.83	590.8	3.30	14.53	
RESET PRIMARY VACUUM BREAK TO SPEC						CLAYTON KEY MODE (HIGH CRUISE)					.03	22 1,400
						(LOW CRUISE)					.30	25 2,475
						IDLE					2.50	195 50
						TWO SPEED IDLE 2250 RPM					.02	27 100
						IDLE NEUTRAL					.25	115 10
						FEDERAL 3 MODE HIGH SPEED					.02	29 1,050
						LOW SPEED					.02	29 1,450
						IDLE IN DRIVE					3.10	175 100
						IDLE IN NEUTRAL					1.20	175 40
6078 1	76	CHEV	MAZ	305	1	COLD TRANSIENT	1.31	14.51	606.7	3.31	14.00	
						COLD STABILIZED	.09	.28	628.4	2.04	14.11	
						HOT TRANSIENT	.49	1.21	535.5	2.81	16.47	
						75 FEDERAL TEST PROCEDURE	.45	3.46	590.6	2.51	14.66	
						EPA HIGHWAY FUEL ECONOMY	.04	.10	395.1	2.17	22.45	
						FEDERAL SHORT CYCLE	.05	.20	470.5	1.89	18.53	
						COMPOSITE N.Y. N.J.						
1 FILTER CAPS OK						CLAYTON KEY MODE (HIGH CRUISE)					.02	20 2,800
						(LOW CRUISE)					.02	19 930
						IDLE					.02	15 560
						TWO SPEED IDLE 2250 RPM					.02	21 185
						IDLE NEUTRAL					.02	14 195
						FEDERAL 3 MODE HIGH SPEED					.02	22 2,350
						LOW SPEED					.02	21 1,300
						IDLE IN DRIVE					.02	17 590
						IDLE IN NEUTRAL					.02	18 105
6079 1	76	CHEV	CAMA	305	1	COLD TRANSIENT	1.81	15.31	586.5	3.95	14.40	
						COLD STABILIZED	.15	.73	578.9	2.31	15.29	
						HOT TRANSIENT	.67	3.52	523.0	2.79	16.73	
						75 FEDERAL TEST PROCEDURE	.63	4.49	565.2	2.78	15.46	
						EPA HIGHWAY FUEL ECONOMY	.10	2.65	433.6	2.90	20.26	
						FEDERAL SHORT CYCLE	.27	3.49	448.0	1.31	19.50	
						COMPOSITE N.Y. N.J.						
1 LIMITER CAPS OK						CLAYTON KEY MODE (HIGH CRUISE)					.03	25 2,050
						(LOW CRUISE)					.03	20 460
						IDLE					.50	75 100
						TWO SPEED IDLE 2250 RPM					.03	18 175
						IDLE NEUTRAL					.03	17 65
						FEDERAL 3 MODE HIGH SPEED					.05	20 1,350
						LOW SPEED					.03	18 1,125
						IDLE IN DRIVE					.50	100 65
						IDLE IN NEUTRAL					.03	20 65

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			HC	NOX
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	PPM/HEX	PPM	
6080-1	76	CHEV	CAMO	350	1	COLD TRANSIENT	1.31	18.00	653.2	5.09	12.94				
						COLD STABILIZED	.10	2.92	644.1	2.15	13.67				
						HOT TRANSIENT	.50	4.38	556.7	4.24	15.71				
						75 FEDERAL TEST PROCEDURE	.50	6.42	622.2	3.32	14.00				
						EPA HIGHWAY FUEL ECONOMY	.05	.57	454.2	4.09	19.50				
						FEDERAL SHORT CYCLE	.08	1.60	495.2	2.08	17.83				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	23	2,100	
						(LOW CRUISE)						.60	49	375	
						IDLE						.03	17	55	
						TWO SPEED IDLE 2250 RPM						.03	14	105	
						IDLE NEUTRAL						.03	20	25	
						FEDERAL 3 MODE HIGH SPEED						.03	22	2,225	
						LOW SPEED						.03	19	980	
						IDLE IN DRIVE						.03	16	80	
						IDLE IN NEUTRAL						.03	18	55	
6080-3	76	CHEV	CAMO	350	3	COLD TRANSIENT	1.61	10.06	668.5	5.32	12.62				
						COLD STABILIZED	.20	4.41	671.4	2.40	13.07				
						HOT TRANSIENT	.93	4.06	603.4	4.99	14.48				
						75 FEDERAL TEST PROCEDURE	.69	7.29	652.2	3.71	13.33				
						EPA HIGHWAY FUEL ECONOMY	.04	.26	470.3	4.42	18.85				
						FEDERAL SHORT CYCLE	.10	3.29	513.6	1.83	17.09				
						COMPOSITE N.Y. N.J.	.15	1.34	742.9	3.32	11.90				
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	2,100	
						(LOW CRUISE)						.03	20	90	
						IDLE						.03	10	50	
						TWO SPEED IDLE 2250 RPM						.03	12	50	
						IDLE NEUTRAL						.03	10	45	
						FEDERAL 3 MODE HIGH SPEED						.03	20	450	
						LOW SPEED						.03	15	200	
						IDLE IN DRIVE						.03	10	80	
						IDLE IN NEUTRAL						.03	10	60	
6080-4	76	CHEV	CAMO	350	4	COLD TRANSIENT	1.27	13.26	641.6	4.64	13.31				
						COLD STABILIZED	.13	2.27	657.5	2.20	13.42				
						HOT TRANSIENT	.47	2.55	567.2	4.16	15.50				
						75 FEDERAL TEST PROCEDURE	.46	4.61	629.6	3.24	13.91				
						EPA HIGHWAY FUEL ECONOMY	.03	.21	472.4	3.99	18.77				
						FEDERAL SHORT CYCLE	.06	1.26	502.4	1.91	17.59				
						COMPOSITE N.Y. N.J.									
						CLAYTON KEY MODE (HIGH CRUISE)						.03	23	2,350	
						(LOW CRUISE)						.05	20	250	
						IDLE						.02	19	75	
						TWO SPEED IDLE 2250 RPM						.02	17	85	
						IDLE NEUTRAL						.02	20	25	
						FEDERAL 3 MODE HIGH SPEED						.02	23	2,650	
						LOW SPEED						.02	21	1,100	
						IDLE IN DRIVE						.02	20	65	
						IDLE IN NEUTRAL						.02	21	25	

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)				
VEHICLE	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM	
6081-1	76	CHEV	MALI	305	1	COLD TRANSIENT	1.40	17.11	606.7	4.64	13.91				
						COLD STABILIZED	.09	.46	601.1	3.00	14.74				
THC=	21	PPM/HEXANE				HOT TRANSIENT	.32	1.37	526.4	4.41	16.76				
TCU (ACT)	.03	% CO				75 FEDERAL TEST PROCEDURE	.42	4.13	581.9	3.72	15.05				
TCU (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY	.04	.31	411.0	4.11	21.56				
						FEDERAL SHORT CYCLE	.05	.70	460.5	2.42	19.22				
						COMPOSITE N.Y. N.J.									
LIMITER CAPS ON VAC LINE FR						CLAYTON KEY MODE (HIGH CRUISE)						.02	30	2,650	
OM AIR CLEANER TO CARB DISC						(LOW CRUISE)						.02	22	725	
DISCONNECTED						IDLE						.02	21	160	
					TWO SPEED IDLE	2250 RPM						.03	20	120	
						IDLE NEUTRAL						.02	21	55	
					FEDERAL 3 MODE	HIGH SPEED						.03	27	2,850	
						LOW SPEED						.02	21	1,400	
						IDLE IN DRIVE						.03	20	185	
						IDLE IN NEUTRAL						.03	21	45	
6081-2	76	CHEV	MALI	305	2	COLD TRANSIENT	1.50	14.29	614.1	4.60	13.84				
						COLD STABILIZED	.11	.52	612.2	2.80	14.47				
THC=	11	PPM/HEXANE				HOT TRANSIENT	.51	3.75	532.0	4.05	16.45				
TCU (ACT)	.02	% CO				75 FEDERAL TEST PROCEDURE	.50	4.24	570.7	3.51	14.82				
TCU (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY	.05	.40	416.2	3.75	21.28				
						FEDERAL SHORT CYCLE	.05	1.30	467.5	2.28	18.90				
						COMPOSITE N.Y. N.J.									
RECONNECTED VAC LINE FROM						CLAYTON KEY MODE (HIGH CRUISE)						.02	23	2,450	
AIR CLEANER TO CARBURETOR						(LOW CRUISE)						.02	20	160	
						IDLE						.02	15	120	
					TWO SPEED IDLE	2250 RPM						.02	13	25	
						IDLE NEUTRAL						.02	13		
					FEDERAL 3 MODE	HIGH SPEED						.02	20	2,400	
						LOW SPEED						.02	11	410	
						IDLE IN DRIVE						.02	11	145	
						IDLE IN NEUTRAL						.02	11	20	
6081-3	76	CHEV	MALI	305	3	COLD TRANSIENT	2.61	24.86	622.3	4.73	13.25				
						COLD STABILIZED	.13	.62	617.9	3.05	14.33				
THC=	23	PPM/HEXANE				HOT TRANSIENT	.89	2.26	541.7	4.33	16.20				
TCU (ACT)	.04	% CO				75 FEDERAL TEST PROCEDURE	.85	6.05	598.0	3.74	14.55				
TCU (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY	.05	.24	417.5	3.84	21.23				
						FEDERAL SHORT CYCLE	.08	.78	477.6	2.26	18.54				
						COMPOSITE N.Y. N.J.	.08	.04	625.9	3.35	14.18				
ADJUSTED IDLE MIXTURE AND SPEED						CLAYTON KEY MODE (HIGH CRUISE)						.04	35	2,250	
TO SPEC						(LOW CRUISE)						.04	30	280	
						IDLE						.03	28	160	
					TWO SPEED IDLE	2250 RPM						.03	25	75	
						IDLE NEUTRAL						.03	28	50	
					FEDERAL 3 MODE	HIGH SPEED						.03	35	800	
						LOW SPEED						.03	30	490	
						IDLE IN DRIVE						.04	25	170	
						IDLE IN NEUTRAL						.04	23	40	

VEHICLE				-----GRAMS PER MILE-----				(MPG)							
NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
6091	4	76	CHEV	NALI	305	4	COLD TRANSIENT	1.54	13.21	594.0	5.22	14.32			
							COLD STABILIZED	.12	.57	610.7	3.53	14.50			
							HOT TRANSIENT	.44	1.85	533.2	5.01	16.52			
							75 FEDERAL TEST PROCEDURE	.50	3.52	586.1	4.28	14.96			
							EPA HIGHWAY FUEL ECONOMY	.04	.07	422.1	4.41	21.02			
							FEDERAL SHORT CYCLE	.05	.65	460.2	2.82	19.24			
							COMPOSITE N.Y. N.J.								
MAJOR TUNE UP							CLAYTON KEY MODE (HIGH CRUISE)						.02	28	1725
							(LOW CRUISE)						.02	23	200
							IDLE						.02	20	125
							TWO SPEED IDLE 2250 RPM						.02	13	60
							IDLE NEUTRAL						.02	14	30
							FEDERAL 3 MODE HIGH SPEED						.02	20	600
							LOW SPEED						.02	19	270
							IDLE IN DRIVE						.02	15	110
							IDLE IN NEUTRAL						.02	16	75
6092	1	76	CHEV	NALI	305	1	COLD TRANSIENT	3.77	73.73	637.4	4.26	11.59			
							COLD STABILIZED	3.20	82.69	612.2	2.22	11.79			
							HOT TRANSIENT	2.18	38.13	563.8	3.88	14.07			
							75 FEDERAL TEST PROCEDURE	3.04	68.69	604.2	3.09	12.30			
							EPA HIGHWAY FUEL ECONOMY	.41	8.76	452.1	3.21	19.00			
							FEDERAL SHORT CYCLE	2.12	56.54	491.7	1.40	15.11			
							COMPOSITE N.Y. N.J.	4.59	127.65	631.3	1.46	10.48			
MAJOR TUNE UP							CLAYTON KEY MODE (HIGH CRUISE)						.03	28	2400
							(LOW CRUISE)						.03	24	900
							IDLE						5.50	360	15
							TWO SPEED IDLE 2250 RPM						1.80	130	70
							IDLE NEUTRAL						6.40	375	10
							FEDERAL 3 MODE HIGH SPEED						.03	30	1100
							LOW SPEED						.03	25	1100
							IDLE IN DRIVE						6.50	400	5
							IDLE IN NEUTRAL						6.20	370	1
6093	3	76	CHEV	NALI	305	3	COLD TRANSIENT	1.94	20.29	633.8	4.66	13.21			
							COLD STABILIZED	.10	.41	645.0	2.65	13.74			
							HOT TRANSIENT	.38	3.20	563.2	4.21	15.57			
							75 FEDERAL TEST PROCEDURE	.56	5.29	620.3	3.49	14.08			
							EPA HIGHWAY FUEL ECONOMY	.07	1.21	439.2	3.33	20.11			
							FEDERAL SHORT CYCLE	.05	1.17	502.8	2.30	17.59			
							COMPOSITE N.Y. N.J.								
ADJUSTED IDLE MIXTURE AND SPEED							CLAYTON KEY MODE (HIGH CRUISE)						.03	38	2400
TO SPEEDS							(LOW CRUISE)						.03	27	750
							IDLE						.04	25	180
							TWO SPEED IDLE 2250 RPM						.03	22	45
							IDLE NEUTRAL						.03	24	25
							FEDERAL 3 MODE HIGH SPEED						.03	23	850
							LOW SPEED						.03	20	455
							IDLE IN DRIVE						.05	19	25
							IDLE IN NEUTRAL						.05	21	25

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6082-4	76	CHEV	MALI	305	4	COLD TRANSIENT	2.35	31.92	624.4	3.91	13.01			
						COLD STABILIZED	.13	1.47	640.8	2.39	13.77			
						HOT TRANSIENT	.84	2.58	570.0	4.28	15.39			
						75 FEDERAL TEST PROCEDURE	.70	0.05	618.1	3.22	14.02			
						EPA HIGHWAY FUEL ECONOMY	.04	.10	437.3	3.94	20.28			
						FEDERAL SHORT CYCLE	.06	.41	482.1	2.23	18.30			
						COMPOSITE N.Y. N.J.	.07	.05	637.2	2.56	13.92			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	21	2,500
						(LOW CRUISE)						.03	20	725
						IDLE						.02	16	
						TWO SPEED IDLE						.03	18	15
						IDLE NEUTRAL						.03	20	
						FEDERAL 3 MODE						.02	20	1,525
						HIGH SPEED						.02	20	515
						LOW SPEED						.02	20	
6083-1	76	CHEV	MONT	350	1	COLD TRANSIENT	1.81	30.58	660.9	2.73	12.41			
						COLD STABILIZED	.15	3.15	675.3	1.45	13.04			
						HOT TRANSIENT	.35	3.44	589.0	2.44	14.91			
						75 FEDERAL TEST PROCEDURE	.54	8.07	648.8	1.99	13.36			
						EPA HIGHWAY FUEL ECONOMY	.14	6.60	448.2	1.97	19.34			
						FEDERAL SHORT CYCLE	.11	3.35	543.9	1.47	16.16			
						COMPOSITE N.Y. N.J.	.64	28.48	743.9	1.35	11.23			
						CLAYTON KEY MODE (HIGH CRUISE)						.25	8	1,700
						(LOW CRUISE)						1.00	30	260
						IDLE						.03	3	240
						TWO SPEED IDLE						.90	12	60
						IDLE NEUTRAL						.04	2	70
						FEDERAL 3 MODE						.35	8	1,550
						HIGH SPEED						.03	4	500
						LOW SPEED						.04	2	325
6084-1	76	CHEV	MONT	350	1	COLD TRANSIENT	2.09	45.01	715.9	3.11	11.18			
						COLD STABILIZED	2.13	71.71	703.0	1.34	10.79			
						HOT TRANSIENT	1.23	38.86	619.0	2.38	12.98			
						75 FEDERAL TEST PROCEDURE	1.88	57.25	682.7	1.99	11.40			
						EPA HIGHWAY FUEL ECONOMY	.33	16.64	476.5	1.65	17.62			
						FEDERAL SHORT CYCLE	2.13	86.56	516.5	.75	13.46			
						COMPOSITE N.Y. N.J.	3.52	151.53	686.8	.94	9.48			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	19	800
						(LOW CRUISE)						.38	35	90
						IDLE						6.00	220	10
						TWO SPEED IDLE						2.80	65	35
						IDLE NEUTRAL						4.40	175	15
						FEDERAL 3 MODE						.40	21	700
						HIGH SPEED						1.50	45	110
						LOW SPEED						6.00	200	5
						IDLE IN DRIVE						6.60	210	3
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF AIR EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

					-----GRAMS PER MILE-----				(MPG)						
VEHICLE	YEAR	MAKE	MODEL	CID	SFG	TEST	TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HCX	PM PM
6084 2	76	CHEV	MONT	350	2	COLD TRANSIENT		2.36	74.16	671.3	2.54	11.16			
						COLD STABILIZED		2.01	74.37	677.2	1.14	11.09			
IR =	165	PPM/HEXANE				HOT TRANSIENT		1.11	28.97	598.0	2.39	13.72			
IR (ACT)	6.10	% CO				75 FEDERAL TEST PROCEDURE		1.83	61.94	654.4	1.77	11.71			
IR (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY		.20	11.60	465.5	1.92	10.32			
						FEDERAL SHORT CYCLE		1.97	89.66	485.3	.68	14.04			
						COMPOSITE N.Y. N.J.		3.27	162.81	667.4	.83	9.50			
REFS1 CHOLF TO SPEC						CLAYTON KEY NONE (HIGH CRUISE)							.04	29	1,775
						(LOW CRUISE)							1.20	60	180
						IDLE							5.20	190	90
						TWO SPEED IDLE	2250 RPM						2.80	65	90
						IDLE NEUTRAL							4.50	145	65
						FEDERAL 3 MODE	HIGH SPEED						.04	25	1,600
						LOW SPEED							.30	20	380
						IDLE IN DRIVE							6.20	185	90
						IDLE IN NEUTRAL							6.10	185	90
6084 3	76	CHEV	MONT	350	3	COLD TRANSIENT		1.35	30.29	671.6	2.62	12.26			
						COLD STABILIZED		.15	7.60	674.1	1.04	12.93			
IR =	17	PPM/HEXANE				HOT TRANSIENT		.24	2.34	597.8	2.39	14.74			
IR (ACT)	.02	% CO				75 FEDERAL TEST PROCEDURE		.42	10.83	657.8	1.73	13.22			
IR (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY		.03	1.10	461.3	2.38	19.17			
						FEDERAL SHORT CYCLE		.15	8.23	515.4	1.05	16.78			
						COMPOSITE N.Y. N.J.									
11351 IDLE MIXTURE AND SPEED						CLAYTON KEY NONE (HIGH CRUISE)							.03	21	1,625
IN SPEC						(LOW CRUISE)							.03	20	525
						IDLE							.03	18	250
						TWO SPEED IDLE	2250 RPM						.07	17	80
						IDLE NEUTRAL							.03	17	80
						FEDERAL 3 MODE	HIGH SPEED						.03	20	1,425
						LOW SPEED							.03	18	420
						IDLE IN DRIVE							.03	19	275
						IDLE IN NEUTRAL							.02	17	80
6085 1	76	CHEV	IMPA	400	1	COLD TRANSIENT		.79	10.21	790.1	3.17	10.97			
						COLD STABILIZED		.09	1.38	757.3	2.46	11.68			
IR =	17	PPM/HEXANE				HOT TRANSIENT		.48	4.22	671.0	3.31	13.07			
IR (ACT)	.02	% CO				75 FEDERAL TEST PROCEDURE		.34	3.97	740.5	2.84	11.87			
IR (SPEC)=	NONE	% CO				EPA HIGHWAY FUEL ECONOMY		.01	.09	514.9	2.27	17.23			
						FEDERAL SHORT CYCLE		.02	.02	571.1	2.06	15.54			
						COMPOSITE N.Y. N.J.									
1111111 CAPS OK						CLAYTON KEY NONE (HIGH CRUISE)							.02	19	1,750
						(LOW CRUISE)							.02	20	800
						IDLE							.02	17	85
						TWO SPEED IDLE	2250 RPM						.02	11	175
						IDLE NEUTRAL							.02	15	45
						FEDERAL 3 MODE	HIGH SPEED						.02	19	2,025
						LOW SPEED							.02	17	1,225
						IDLE IN DRIVE							.02	14	5
						IDLE IN NEUTRAL							.02	17	45

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
4086 1	76	CHEV	MALI	350	1	COLD TRANSIENT	2.61	52.65	709.0	3.34	11.09			
						COLD STABILIZED	.41	16.39	745.2	1.67	11.49			
						HOT TRANSIENT	1.05	12.19	627.9	2.63	13.64			
						75 FEDERAL TEST PROCEDURE	1.04	22.71	705.7	2.27	11.92			
						EPA HIGHWAY FUEL ECONOMY	.06	2.50	501.7	2.90	17.55			
						FEDERAL SHORT CYCLE	.37	16.32	557.0	1.46	15.10			
						COMPOSITE N.Y. N.J.	.47	24.46	767.8	1.75	10.98			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	1,450
						(LOW CRUISE)						.03	19	330
						IDLE						.03	18	165
						TWO SPEED IDLE 2250 RPM						.03	20	10
						IDLE NEUTRAL						.03	16	20
						FEDERAL 3 MODE HIGH SPEED						.03	18	1,225
						LOW SPEED						.03	17	480
						IDLE IN DRIVE						.05	18	120
						IDLE IN NEUTRAL						.03	18	10
4086 3	76	CHEV	MALI	350	3	COLD TRANSIENT	2.58	58.70	661.5	2.75	11.64			
						COLD STABILIZED	.18	8.17	694.0	1.53	12.55			
						HOT TRANSIENT	1.78	5.61	625.2	2.76	13.88			
						75 FEDERAL TEST PROCEDURE	1.11	17.87	668.5	2.12	12.67			
						EPA HIGHWAY FUEL ECONOMY	.11	.70	484.5	2.46	18.26			
						FEDERAL SHORT CYCLE	.14	8.51	550.5	1.40	15.73			
						COMPOSITE N.Y. N.J.	.27	15.41	607.9	1.04	12.41			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	1,000
						(LOW CRUISE)						.02	17	590
						IDLE						.02	16	300
						TWO SPEED IDLE 2250 RPM						.03	18	60
						IDLE NEUTRAL						.03	15	40
						FEDERAL 3 MODE HIGH SPEED						.03	16	1,600
						LOW SPEED						.03	17	720
						IDLE IN DRIVE						.03	12	155
						IDLE IN NEUTRAL						.03	13	25
4086 4	76	CHEV	MALI	350	4	COLD TRANSIENT	1.84	44.77	680.2	2.06	11.73			
						COLD STABILIZED	.15	5.44	697.6	1.63	12.56			
						HOT TRANSIENT	.22	3.53	622.7	2.70	14.12			
						75 FEDERAL TEST PROCEDURE	.52	13.01	673.6	2.17	12.76			
						EPA HIGHWAY FUEL ECONOMY	.03	.29	488.6	2.64	18.14			
						FEDERAL SHORT CYCLE	.06	2.80	553.4	1.54	15.71			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	16	675
						(LOW CRUISE)						.03	13	145
						IDLE						.03	11	100
						TWO SPEED IDLE 2250 RPM						.02	20	30
						IDLE NEUTRAL						.02	15	20
						FEDERAL 3 MODE HIGH SPEED						.02	15	475
						LOW SPEED						.02	16	195
						IDLE IN DRIVE						.02	13	105
						IDLE IN NEUTRAL						.02	13	25

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6086	76	CHEV	MALI	350	5	COLD TRANSIENT	3.92	105.84	588.0	5.47	11.57			
						COLD STABILIZED	1.17	25.02	641.2	3.32	12.97			
						HOT TRANSIENT	1.06	11.06	574.8	6.26	14.90			
						75 FEDERAL TEST PROCEDURE	1.71	37.85	612.1	4.56	13.11			
						EPA HIGHWAY FUEL ECONOMY	.07	1.55	445.5	5.20	19.80			
						FEDERAL SHORT CYCLE	.50	16.00	495.6	2.71	17.00			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	2,600
						(LOW CRUISE)						.03	15	950
						IDLE						.15	25	90
						TWO SPEED IDLE						.03	13	150
						2250 RPM						.02	12	60
						IDLE NEUTRAL						.02	12	60
						FEDERAL 3 MODE						.02	12	2,750
						HIGH SPEED						.02	18	1,350
						LOW SPEED						.15	20	60
						IDLE IN DRIVE						.03	14	45
						IDLE IN NEUTRAL								
6086	76	CHEV	MALI	350	6	COLD TRANSIENT	2.88	63.36	647.4	2.55	11.73			
						COLD STABILIZED	1.06	25.36	672.4	1.39	12.49			
						HOT TRANSIENT	.58	9.44	633.3	2.56	13.66			
						75 FEDERAL TEST PROCEDURE	1.30	28.83	656.6	1.95	12.57			
						EPA HIGHWAY FUEL ECONOMY	.05	1.16	478.3	2.50	18.48			
						FEDERAL SHORT CYCLE	.57	14.52	524.4	1.23	16.17			
						COMPOSITE N.Y. N.J.	.62	15.93	889.4	2.75	9.68			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	26	1,850
						(LOW CRUISE)						.03	20	600
						IDLE						.03	15	120
						TWO SPEED IDLE						.03	25	140
						2250 RPM						.03	13	80
						IDLE NEUTRAL						.03	18	1,600
						FEDERAL 3 MODE						.03	15	200
						HIGH SPEED						.03	20	220
						LOW SPEED						.04	12	90
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6086	76	CHEV	MALI	350	7	COLD TRANSIENT	1.73	44.36	650.6	3.17	12.22			
						COLD STABILIZED	.15	4.89	676.4	1.82	12.97			
						HOT TRANSIENT	.34	2.96	587.5	2.84	14.97			
						75 FEDERAL TEST PROCEDURE	.53	12.49	646.8	2.38	13.29			
						EPA HIGHWAY FUEL ECONOMY	.03	.15	460.0	2.91	19.28			
						FEDERAL SHORT CYCLE	.08	2.67	516.4	1.68	17.05			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	2,225
						(LOW CRUISE)						.02	14	320
						IDLE						.02	12	110
						TWO SPEED IDLE						.02	22	50
						2250 RPM						.02	14	30
						IDLE NEUTRAL						.02	20	550
						FEDERAL 3 MODE						.02	16	260
						HIGH SPEED						.02	15	120
						LOW SPEED						.02	19	80
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6086-8	76	CHEV	MALI	350	8	COLD TRANSIENT	4.54	120.15	625.5	2.38	10.71			
						COLD STABILIZED	.17	6.28	678.3	1.60	12.52			
						HOT TRANSIENT	.38	4.22	601.8	2.48	14.56			
						75 FEDERAL TEST PROCEDURE	1.13	29.15	657.0	2.00	12.56			
						EPA HIGHWAY FUEL ECONOMY	.03	.26	462.1	2.47	19.19			
						FEDERAL SHORT CYCLE	.09	4.46	528.4	1.42	16.57			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	2,000
						(LOW CRUISE)						.02	18	450
						IDLE						.02	14	250
						TWO SPEED IDLE 2250 RPM						.02	30	100
						IDLE NEUTRAL						.02	16	40
						FEDERAL 3 MODE HIGH SPEED						.02	19	1,500
						LOW SPEED						.02	18	700
						IDLE IN DRIVE						.02	15	100
						IDLE IN NEUTRAL						.02	15	70
6086-9	76	CHEV	MALI	350	9	COLD TRANSIENT	2.40	63.08	617.2	4.89	12.26			
						COLD STABILIZED	.27	7.85	658.9	2.68	13.15			
						HOT TRANSIENT	.57	5.13	588.6	5.25	14.83			
						75 FEDERAL TEST PROCEDURE	.79	19.52	631.2	3.83	13.36			
						EPA HIGHWAY FUEL ECONOMY	.04	.60	461.8	4.75	19.18			
						FEDERAL SHORT CYCLE	.09	2.67	513.4	2.45	17.14			
						COMPOSITE N.Y. N.J.	.12	5.11	712.6	2.80	12.31			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	30	2,800
						(LOW CRUISE)						.03	22	1,025
						IDLE						.03	11	310
						TWO SPEED IDLE 2250 RPM						.04	18	250
						IDLE NEUTRAL						.03	20	90
						FEDERAL 3 MODE HIGH SPEED						.04	25	2,400
						LOW SPEED						.04	20	1,340
						IDLE IN DRIVE						.04	18	360
						IDLE IN NEUTRAL						.04	17	200
6087-1	76	CHEV	IMPA	350	1	COLD TRANSIENT	2.03	48.00	651.6	2.55	12.09			
						COLD STABILIZED	.16	4.06	663.5	1.67	13.24			
						HOT TRANSIENT	.80	5.42	598.4	2.51	14.56			
						75 FEDERAL TEST PROCEDURE	.73	13.47	643.3	2.08	13.31			
						EPA HIGHWAY FUEL ECONOMY	.07	2.40	474.2	1.88	18.56			
						FEDERAL SHORT CYCLE	.18	7.52	510.7	1.25	16.97			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	21	2,450
						(LOW CRUISE)						.03	18	460
						IDLE						.02	15	140
						TWO SPEED IDLE 2250 RPM						.02	19	130
						IDLE NEUTRAL						.02	20	50
						FEDERAL 3 MODE HIGH SPEED						.02	18	2,350
						LOW SPEED						.02	13	950
						IDLE IN DRIVE						.02	11	170
						IDLE IN NEUTRAL						.02	12	60

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
4008 1	74	CHEV	CAPR	350	1	COLD TRANSIENT	2.89	56.71	717.0	4.77	10.88			
						COLD STABILIZED	.17	3.02	731.1	2.51	12.05			
						HOT TRANSIENT	.56	13.22	642.8	4.05	13.34			
						75 FEDERAL TEST PROCEDURE	.83	16.85	704.1	3.39	12.10			
						EPA HIGHWAY FUEL ECONOMY	.13	7.41	484.4	2.84	17.88			
						FEDERAL SHORT CYCLE	.14	1.75	541.0	1.79	16.31			
						COMPOSITE N.Y. N.J.	.15	8.05	692.5	1.45	12.58			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	30	2,475
						(LOW CRUISE)						.03	22	620
						IDLE						.03	20	310
						TWO SPEED IDLE						.03	35	175
						2250 RPM						.03	25	75
						IDLE NEUTRAL						.03	21	2,250
						FEDERAL 3 MODE						.03	20	900
						HIGH SPEED						.03	20	400
						LOW SPEED						.03	21	55
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
4008 3	73	CHEV	CAPR	350	3	COLD TRANSIENT	2.54	58.37	687.1	3.31	11.28			
						COLD STABILIZED	.17	6.52	699.6	1.74	12.56			
						HOT TRANSIENT	.70	12.23	627.3	2.96	13.68			
						75 FEDERAL TEST PROCEDURE	.80	18.75	677.3	2.39	12.51			
						EPA HIGHWAY FUEL ECONOMY	.17	1.82	504.3	2.44	17.48			
						FEDERAL SHORT CYCLE	.49	19.25	538.0	1.10	15.58			
						COMPOSITE N.Y. N.J.	.47	23.30	706.7	1.14	11.91			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	1,050
						(LOW CRUISE)						.03	12	400
						IDLE						.03	11	330
						TWO SPEED IDLE						.03	17	85
						2250 RPM						.03	13	70
						IDLE NEUTRAL						.03	19	1,425
						FEDERAL 3 MODE						.10	11	400
						HIGH SPEED						.50	10	200
						LOW SPEED						.03	11	60
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
4008 4	74	CHEV	CAPR	350	4	COLD TRANSIENT	1.64	45.31	673.5	3.79	11.83			
						COLD STABILIZED	.16	3.05	707.4	2.08	12.43			
						HOT TRANSIENT	.51	6.54	610.7	3.12	14.25			
						75 FEDERAL TEST PROCEDURE	.56	13.12	674.0	2.72	12.74			
						EPA HIGHWAY FUEL ECONOMY	.05	2.04	489.3	3.19	18.01			
						FEDERAL SHORT CYCLE	.14	7.69	534.7	1.68	16.22			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	20	2,650
						(LOW CRUISE)						.02	21	630
						IDLE						.02	20	265
						TWO SPEED IDLE						.02	23	150
						2250 RPM						.02	21	80
						IDLE NEUTRAL						.02	24	2,050
						FEDERAL 3 MODE						.02	21	925
						HIGH SPEED						.02	20	380
						LOW SPEED						.02	21	90
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
4089 J	76	CHEV	IMPA 400	1		COLD TRANSIENT	1.10	19.63	778.1	5.10	10.92			
						COLD STABILIZED	.14	2.64	750.3	2.71	11.75			
						HOT TRANSIENT	.96	5.94	685.6	4.73	12.72			
						75 FEDERAL TEST PROCEDURE	.56	7.04	738.4	3.75	11.81			
						EPA HIGHWAY FUEL ECONOMY	.03	.50	549.7	4.15	16.12			
						FEDERAL SHORT CYCLE	.06	1.43	575.7	2.43	15.35			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	10	2,125
						(LOW CRUISE)						.04	10	690
						IDLE						.04	10	100
						TWO SPEED IDLE 2250 RPM						.01	10	130
						IDLE NEUTRAL						.04	18	45
						FEDERAL 3 MODE HIGH SPEED						.04	15	2,350
						LOW SPEED						.03	15	1,040
						IDLE IN DRIVE						.03	12	160
						IDLE IN NEUTRAL						.03	18	55
4095-3	76	CHEV	IMPA 400	3		COLD TRANSIENT	.97	14.52	823.5	5.23	10.44			
						COLD STABILIZED	.09	.81	780.4	2.61	11.35			
						HOT TRANSIENT	.48	5.14	706.8	4.67	12.39			
						75 FEDERAL TEST PROCEDURE	.38	4.81	769.1	3.71	11.41			
						EPA HIGHWAY FUEL ECONOMY	.04	.38	559.1	4.07	15.86			
						FEDERAL SHORT CYCLE	.26	.30	590.9	2.11	14.99			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	10	2,000
						(LOW CRUISE)						.02	10	510
						IDLE						.02	11	170
						TWO SPEED IDLE 2250 RPM						.02	9	150
						IDLE NEUTRAL						.02	12	70
						FEDERAL 3 MODE HIGH SPEED						.03	13	2,000
						LOW SPEED						.02	10	900
						IDLE IN DRIVE						.02	10	150
						IDLE IN NEUTRAL						.02	10	80
4089 4	76	CHEV	IMPA 400	4		COLD TRANSIENT	1.02	17.41	778.8	5.46	10.96			
						COLD STABILIZED	.13	3.17	756.3	2.71	11.65			
						HOT TRANSIENT	.73	4.65	691.7	5.07	12.65			
						75 FEDERAL TEST PROCEDURE	.48	6.50	743.3	3.92	11.75			
						EPA HIGHWAY FUEL ECONOMY	.04	.40	530.2	4.26	16.72			
						FEDERAL SHORT CYCLE	.07	.51	577.7	2.21	15.33			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	18	2,200
						(LOW CRUISE)						.02	12	425
						IDLE						.02	13	175
						TWO SPEED IDLE 2250 RPM						.02	10	170
						IDLE NEUTRAL						.02	12	65
						FEDERAL 3 MODE HIGH SPEED						.03	11	2,125
						LOW SPEED						.03	10	
						IDLE IN DRIVE						.03	10	190
						IDLE IN NEUTRAL						.03	10	70

THL= 18 PPM/HEXANE
 TCU (ACT) .03 % CO
 TCU (SPEC)= NONE % CO

THIRTEEN CAPS OK

ALLET IDLE MIXTURE AND SPEED
 TO SPEC

MAJOR TO NEW AIR F
 FILTER: TIGHTEN MANIFOLD VAL
 FITTING

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
							HC	CO	CO ₂	NO _x				
4090-1	76	OLDS	CUTL	350	1	COLD TRANSIENT	3.07	16.57	636.4	2.83	13.20			
						COLD STABILIZED	.10	.12	625.4	2.11	14.18			
						HOT TRANSIENT	.64	3.16	553.5	2.62	15.83			
						75 FEDERAL TEST PROCEDURE	.86	4.34	608.0	2.40	14.37			
						EPA HIGHWAY FUEL ECONOMY	.05	.53	425.9	2.35	20.77			
						FEDERAL SHORT CYCLE	.10	.95	463.9	1.59	19.06			
						COMPOSITE N.Y. N.J.	.10	.07	627.0	2.27	14.15			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	20	1,550
						(LOW CRUISE)						.03	18	430
						IDLE						.03	15	330
						TWO SPEED IDLE						.03	20	150
						2250 RPM						.03	17	75
						IDLE NEUTRAL						.03	21	1,725
						FEDERAL 3 MODE						.02	19	630
						HIGH SPEED						.02	20	280
						LOW SPEED						.02	20	80
						IDLE IN DRIVE						.02	20	80
						IDLE IN NEUTRAL						.02	20	80
4111-1	76	OLDS	CUTL	350	1	COLD TRANSIENT	2.75	20.03	557.6	2.86	14.84			
						COLD STABILIZED	1.90	26.12	571.1	2.06	15.62			
						HOT TRANSIENT	1.62	15.38	492.7	2.90	17.00			
						75 FEDERAL TEST PROCEDURE	2.00	21.93	520.8	2.45	15.81			
						EPA HIGHWAY FUEL ECONOMY	.33	4.01	409.3	2.87	21.30			
						FEDERAL SHORT CYCLE	3.20	36.54	388.4	1.67	19.47			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.04	20	1,200
						(LOW CRUISE)						.05	20	430
						IDLE						7.30	120	30
						TWO SPEED IDLE						.02	5	80
						2250 RPM						.02	5	80
						IDLE NEUTRAL						1.60	125	19
						FEDERAL 3 MODE						.03	10	1,500
						HIGH SPEED						.05	25	800
						LOW SPEED						7.50	150	10
						IDLE IN DRIVE						6.60	240	5
						IDLE IN NEUTRAL						6.60	240	5
4091-1	76	OLDS	CUTL	350	3	COLD TRANSIENT	1.74	10.95	612.2	3.11	13.97			
						COLD STABILIZED	.17	.19	596.2	2.53	14.87			
						HOT TRANSIENT	.37	2.69	541.7	3.61	16.23			
						75 FEDERAL TEST PROCEDURE	.55	3.09	584.6	2.94	15.07			
						EPA HIGHWAY FUEL ECONOMY	.13	.83	475.6	3.37	20.77			
						FEDERAL SHORT CYCLE	.25	.10	458.3	1.92	19.32			
						COMPOSITE N.Y. N.J.	.20	.05	619.4	2.33	14.32			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	35	1,200
						(LOW CRUISE)						.03	33	1,630
						IDLE						.03	30	160
						TWO SPEED IDLE						.03	48	100
						2250 RPM						.03	37	50
						IDLE NEUTRAL						.03	37	50
						FEDERAL 3 MODE						.03	10	2,200
						HIGH SPEED						.03	33	1,050
						LOW SPEED						.03	31	160
						IDLE IN DRIVE						.03	31	160
						IDLE IN NEUTRAL						.03	34	50

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO%	HC PPM/HCX	NOX PPM
							HC	CO	CO2	NOXC				
6092-1	76	OLDS	CUTL	350	1	COLD TRANSIENT	2.13	19.34	654.1	2.88	12.84			
						COLD STABILIZED	1.27	19.46	628.5	1.83	13.39			
						HOT TRANSIENT	1.38	13.20	581.0	2.66	14.64			
						75 FEDERAL TEST PROCEDURE	1.48	17.73	620.8	2.27	13.59			
						EPA HIGHWAY FUEL ECONOMY	.13	.73	430.7	2.51	20.53			
						FEDERAL SHORT CYCLE	.87	7.45	474.0	1.32	18.14			
						COMPOSITE N.Y. N.J.	1.54	16.74	608.8	1.31	13.86			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	95	1,450
						(LOW CRUISE)						.04	90	200
						IDLE						1.53	195	90
						TWO SPEED IDLE						.03	35	60
						2250 RPM						1.00	190	5
						IDLE NEUTRAL						.04	35	240
						FEDERAL 3 MODE						.04	30	70
						HIGH SPEED						2.00	220	5
						LOW SPEED						1.15	220	5
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6092-2	76	OLDS	CUTL	350	2	COLD TRANSIENT	2.08	17.27	665.7	2.82	12.69			
						COLD STABILIZED	1.08	13.61	629.7	1.90	13.56			
						HOT TRANSIENT	.97	8.13	588.4	2.73	14.69			
						75 FEDERAL TEST PROCEDURE	1.25	12.87	625.8	2.32	13.65			
						EPA HIGHWAY FUEL ECONOMY	.10	.35	433.7	2.38	20.42			
						FEDERAL SHORT CYCLE	.73	9.20	483.7	1.49	17.74			
						COMPOSITE N.Y. N.J.	1.10	15.47	618.7	1.82	13.72			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	27	1,400
						(LOW CRUISE)						.03	30	215
						IDLE						1.20	160	115
						TWO SPEED IDLE						.03	30	45
						2250 RPM						1.25	120	15
						IDLE NEUTRAL						.03	23	1,850
						FEDERAL 3 MODE						.03	21	570
						HIGH SPEED						1.28	170	70
						LOW SPEED						.60	155	15
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								
6093-1	76	OLDS	CUTL	350	1	COLD TRANSIENT	3.04	43.51	718.2	2.11	11.14			
						COLD STABILIZED	1.55	29.47	644.0	1.58	12.76			
						HOT TRANSIENT	1.53	18.30	608.6	1.76	13.82			
						75 FEDERAL TEST PROCEDURE	1.85	29.31	649.6	1.79	12.65			
						EPA HIGHWAY FUEL ECONOMY	.17	1.60	478.3	1.47	18.44			
						FEDERAL SHORT CYCLE	1.14	22.44	466.8	1.37	17.55			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.02	27	600
						(LOW CRUISE)						.02	27	310
						IDLE						3.50	260	60
						TWO SPEED IDLE						.03	43	105
						2250 RPM						3.20	255	40
						IDLE NEUTRAL						.03	23	1,850
						FEDERAL 3 MODE						.03	21	570
						HIGH SPEED						1.28	170	70
						LOW SPEED						.60	155	15
						IDLE IN DRIVE								
						IDLE IN NEUTRAL								

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HFX	NOX PPM
							HC	CO	CO2	NOXC				
60932	76	OLDS	DELTA	350	2	COLD TRANSIENT	2.59	23.60	639.4	2.45	12.96			
						COLD STABILIZED	1.58	19.37	599.4	2.22	13.98			
						HOT TRANSIENT	1.67	14.01	555.4	2.40	15.03			
						75 FEDERAL TEST PROCEDURE	1.81	18.78	595.6	2.31	14.07			
						EPA HIGHWAY FUEL ECONOMY	.19	1.10	471.0	2.15	18.75			
						FEDERAL SHORT CYCLE	1.41	11.43	460.6	1.88	18.38			
						COMPOSITE N.Y. N.J.	2.29	31.42	580.2	1.92	13.94			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	39	1,425
						(LOW CRUISE)						.02	32	680
						IDLE						1.70	235	95
						TWO SPEED IDLE	2250 RPM				.03	37	125	
						IDLE NEUTRAL					2.50	255	50	
						FEDERAL 3 MODE	HIGH SPEED				.03	31	1,350	
						LOW SPEED					.03	28	180	
IDLE IN DRIVE					2.60	225	80							
IDLE IN NEUTRAL					2.40	255	25							
60933	76	OLDS	DELTA	350	3	COLD TRANSIENT	2.62	30.22	659.0	2.40	12.41			
						COLD STABILIZED	.36	.62	626.5	2.34	14.12			
						HOT TRANSIENT	1.12	4.99	573.3	2.44	15.18			
						75 FEDERAL TEST PROCEDURE	1.03	7.90	618.6	2.38	14.00			
						EPA HIGHWAY FUEL ECONOMY	.12	.28	444.0	1.91	19.95			
						FEDERAL SHORT CYCLE	.19	.23	478.0	1.96	18.54			
						COMPOSITE N.Y. N.J.	.20	.10	627.2	2.19	14.13			
						CLAYTON KEY MODE (HIGH CRUISE)						.03	32	1,050
						(LOW CRUISE)						.03	25	570
						IDLE						.02	20	115
						TWO SPEED IDLE	2250 RPM				.03	27	115	
						IDLE NEUTRAL					.02	30	45	
						FEDERAL 3 MODE	HIGH SPEED				.03	21	1,225	
						LOW SPEED					.03	17	990	
IDLE IN DRIVE					.02	15	170							
IDLE IN NEUTRAL					.02	50	50							
60941	76	OLDS	CUST	455	1	COLD TRANSIENT	2.10	20.37	860.2	1.68	9.87			
						COLD STABILIZED	.90	21.00	806.4	1.50	10.54			
						HOT TRANSIENT	1.20	16.67	765.0	1.50	11.16			
						75 FEDERAL TEST PROCEDURE	1.23	19.69	806.2	1.38	10.55			
						EPA HIGHWAY FUEL ECONOMY	.07	1.18	590.2	1.58	14.99			
						FEDERAL SHORT CYCLE	.62	11.84	623.5	1.03	13.78			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	22	500
						(LOW CRUISE)						.03	20	320
						IDLE						1.80	110	50
						TWO SPEED IDLE	2250 RPM				.03	40	75	
						IDLE NEUTRAL					1.40	90	20	
						FEDERAL 3 MODE	HIGH SPEED				.03	17	140	
						LOW SPEED					.03	15	135	
IDLE IN DRIVE					3.00	160	15							
IDLE IN NEUTRAL					2.80	150	10							
INITIAL CAPS BROKEN TIMING RETAINED 4 DEGREES														

INITIAL CAPS BROKEN TIMING
RETAINED 4 DEGREES

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SCR	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOx				
6094 2	76	OLDS	CUST	455	2	COLD TRANSIENT	2.16	19.69	815.7	2.13	10.39			
						COLD STABILIZED	1.06	17.92	765.9	1.72	11.13			
						HOT TRANSIENT	1.03	13.57	715.8	2.01	11.98			
						75 FEDERAL TEST PROCEDURE	1.28	17.10	762.5	1.88	11.19			
						EPA HIGHWAY FUEL ECONOMY	.11	1.15	552.6	2.25	16.00			
						FEDERAL SHORT CYCLE	.80	13.01	591.8	1.57	14.44			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	23	1,100
						(LOW CRUISE)						.03	20	100
						IDLE						1.05	95	115
						TWO SPEED IDLE 2250 RPM						.03	30	35
						IDLE NEUTRAL						1.10	90	25
						FEDERAL 3 MODE HIGH SPEED						.05	20	150
						LOW SPEED						.02	18	240
						IDLE IN DRIVE						2.49	160	60
						IDLE IN NEUTRAL						1.10	120	25
6094 3	76	OLDS	CUST	455	3	COLD TRANSIENT	1.70	9.26	797.8	2.20	10.85			
						COLD STABILIZED	.24	1.85	747.3	1.69	11.80			
						HOT TRANSIENT	.71	4.89	699.9	2.17	12.50			
						75 FEDERAL TEST PROCEDURE	.67	4.20	744.8	1.92	11.78			
						EPA HIGHWAY FUEL ECONOMY	.08	.45	547.2	2.28	16.19			
						FEDERAL SHORT CYCLE	.09	.20	566.1	1.57	15.66			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	22	1,050
						(LOW CRUISE)						.03	23	300
						IDLE						.03	17	65
						TWO SPEED IDLE 2250 RPM						.03	25	65
						IDLE NEUTRAL						.03	21	20
						FEDERAL 3 MODE HIGH SPEED						.03	18	1,100
						LOW SPEED						.03	19	800
						IDLE IN DRIVE						.03	13	50
						IDLE IN NEUTRAL						.03	21	25
6095 1	76	OLDS	REGE	455	1	COLD TRANSIENT	1.28	9.06	791.3	3.13	10.96			
						COLD STABILIZED	.12	.01	758.2	2.31	11.70			
						HOT TRANSIENT	.27	1.53	648.5	2.75	13.62			
						75 FEDERAL TEST PROCEDURE	.40	2.29	735.1	2.60	11.99			
						EPA HIGHWAY FUEL ECONOMY	.07	.03	501.5	3.26	17.69			
						FEDERAL SHORT CYCLE	.30	.12	540.3	1.46	16.39			
						COMPOSITE N.Y. N.J.	.50	.10	701.8	1.42	12.62			
						CLAYTON KEY MODE (HIGH CRUISE)						.04	15	1,750
						(LOW CRUISE)						.05	15	520
						IDLE						.05	15	190
						TWO SPEED IDLE 2250 RPM						.05	25	115
						IDLE NEUTRAL						.05	17	45
						FEDERAL 3 MODE HIGH SPEED						.04	17	1,940
						LOW SPEED						.05	14	930
						IDLE IN DRIVE						.04	12	280
						IDLE IN NEUTRAL						.05	15	75

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)			
VEHICLE	NUMBER	MAKE	MODEL	CID	SER	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6096 1	76	PONT	FIRE	250	1	COLD TRANSIENT	2.28	31.08	518.4	4.05	15.45			
						COLD STABILIZED	1.11	26.62	495.1	2.75	16.43			
						HOT TRANSIENT	.95	11.01	463.5	3.22	18.35			
						75 FEDERAL TEST PROCEDURE	1.31	23.28	491.3	3.14	16.60			
						EPA HIGHWAY FUEL ECONOMY	.09	1.23	365.6	2.35	24.13			
						FEDERAL SHORT CYCLE	.76	18.86	385.2	3.04	21.20			
						COMPOSITE N.Y. N.J.	1.38	36.53	512.7	3.12	15.45			
LIMITER CAP ON						CLAYTON KEY MODE (HIGH CRUISE)						.03	21	1,325
						(LOW CRUISE)						.03	20	1,775
						IDLE						2.80	180	150
						TWO SPEED IDLE	2250 RPM					.03	18	290
						IDLE NEUTRAL						2.30	160	60
						FEDERAL 3 MODE	HIGH SPEED					.03	25	2,150
						LOW SPEED						.03	18	810
						IDLE IN DRIVE						3.10	185	135
						IDLE IN NEUTRAL						2.80	170	60
6096 2	76	PONT	FIRE	250	3	COLD TRANSIENT	1.88	16.60	537.2	3.74	15.59			
						COLD STABILIZED	.11	.06	501.3	2.23	17.69			
						HOT TRANSIENT	.32	1.26	457.7	2.61	19.27			
						75 FEDERAL TEST PROCEDURE	.53	3.79	496.8	2.64	17.60			
						EPA HIGHWAY FUEL ECONOMY	.03	.02	365.1	1.47	24.30			
						FEDERAL SHORT CYCLE	.02	.02	300.5	2.68	23.34			
						COMPOSITE N.Y. N.J.	.05	.04	537.4	3.62	16.51			
CLAYTON KEY MODE (HIGH CRUISE)												.03	28	1,450
CLAYTON KEY MODE (LOW CRUISE)												.03	26	1,150
						IDLE						.02	20	300
						TWO SPEED IDLE	2250 RPM					.02	20	215
						IDLE NEUTRAL						.02	22	80
						FEDERAL 3 MODE	HIGH SPEED					.02	22	1,475
						LOW SPEED						.02	20	550
						IDLE IN DRIVE						.02	18	285
						IDLE IN NEUTRAL						.02	18	85
6096 4	76	PONT	FIRE	250	5	COLD TRANSIENT	2.15	26.23	506.3	6.24	16.01			
						COLD STABILIZED	.93	18.10	487.9	3.82	17.03			
						HOT TRANSIENT	.69	6.96	447.0	5.07	19.29			
						75 FEDERAL TEST PROCEDURE	1.12	16.73	481.6	4.66	17.36			
						EPA HIGHWAY FUEL ECONOMY	.09	.81	349.3	4.06	25.30			
						FEDERAL SHORT CYCLE	.65	13.62	374.8	4.92	22.29			
						COMPOSITE N.Y. N.J.	1.13	27.12	499.3	4.59	16.27			
CLAYTON KEY MODE (HIGH CRUISE)												.02	30	1,200
CLAYTON KEY MODE (LOW CRUISE)												.03	27	1,950
						IDLE						2.10	175	160
						TWO SPEED IDLE	2250 RPM					.02	21	320
						IDLE NEUTRAL						1.40	200	55
						FEDERAL 3 MODE	HIGH SPEED					.02	29	2,000
						LOW SPEED						.02	26	1,800
						IDLE IN DRIVE						2.40	180	175
						IDLE IN NEUTRAL						2.00	200	60

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
							HC	CO	CO2	NOXC				
6096 A	76	PONT	FIRE	250	6	COLD TRANSIENT	1.36	10.78	536.3	4.55	15.72			
						COLD STABILIZED	.18	.03	494.3	2.27	17.74			
						HOT TRANSIENT	.30	.67	451.8	2.88	19.56			
						75 FEDERAL TEST PROCEDURE	.46	2.42	491.3	2.90	17.87			
						EPA HIGHWAY FUEL ECONOMY	.04	.02	355.8	1.93	24.94			
						FEDERAL SHORT CYCLE	.04	.05	370.4	2.87	23.95			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	27	990
						(LOW CRUISE)						.03	25	1,450
						IDLE						.03	20	135
						TWO SPEED IDLE						.03	20	160
						2250 RPM						.03	30	55
						IDLE NEUTRAL						.03	30	55
						FEDERAL 3 MODE						.03	29	1,575
						HIGH SPEED						.03	30	590
6096 B	76	PONT	FIRE	250	7	COLD TRANSIENT	1.36	13.26	514.0	3.98	16.46			
						COLD STABILIZED	.67	8.34	497.4	2.36	17.32			
						HOT TRANSIENT	.60	3.58	456.2	2.73	19.14			
						75 FEDERAL TEST PROCEDURE	.77	8.06	487.6	2.79	17.57			
						EPA HIGHWAY FUEL ECONOMY	.08	.47	358.0	2.02	24.72			
						FEDERAL SHORT CYCLE	.57	9.48	372.9	3.30	22.78			
						COMPOSITE N.Y. N.J.	.98	20.02	502.0	2.87	16.54			
						CLAYTON KEY MODE (HIGH CRUISE)						.02	27	750
						(LOW CRUISE)						.02	29	1,550
						IDLE						1.30	160	95
						TWO SPEED IDLE						.02	21	215
						2250 RPM						.70	140	40
						IDLE NEUTRAL						.02	25	1,550
						FEDERAL 3 MODE						.02	22	650
						HIGH SPEED						1.40	150	160
6096 C	76	PONT	FIRE	250	8	COLD TRANSIENT	1.12	9.70	544.1	5.37	15.76			
						COLD STABILIZED	.15	.04	492.0	2.88	18.02			
						HOT TRANSIENT	.28	.77	440.2	3.87	20.06			
						75 FEDERAL TEST PROCEDURE	.37	2.78	488.6	3.67	18.00			
						EPA HIGHWAY FUEL ECONOMY	.04	.06	345.6	3.35	25.66			
						FEDERAL SHORT CYCLE	.06	.03	375.9	3.48	23.60			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	31	1,250
						(LOW CRUISE)						.03	27	1,750
						IDLE						.03	20	355
						TWO SPEED IDLE						.03	20	130
						2250 RPM						.02	23	100
						IDLE NEUTRAL						.03	31	2,450
						FEDERAL 3 MODE						.03	29	1,950
						HIGH SPEED						.03	20	260
6096 D	76	PONT	FIRE	250	9	LOW SPEED						.03	20	260
						IDLE IN DRIVE						.03	20	260
						IDLE IN NEUTRAL						.03	22	115

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

							-----GRAMS PER MILE-----				(MPG)				
VEHICLE	NUMBER	YR	MAKE	MODEL	CID	SER	TEST TYPE	HC	CO	CO2	NOXC	FUEL ECONOMY	CO2	HC PPM/HEX	NOX PPM
6096 5	76	PONT	FIRE	250	4		COLD TRANSIENT	1.88	19.76	528.1	3.97	15.70			
							COLD STABILIZED	.15	.00	492.5	2.55	18.01			
							HOT TRANSIENT	.39	1.17	445.9	2.91	19.77			
							75 FEDERAL TEST PROCEDURE	.57	4.38	487.1	2.94	17.91			
							EPA HIGHWAY FUEL ECONOMY	.04	.00	351.0	2.12	25.28			
							FEDERAL SHORT CYCLE	.05	.02	372.7	2.67	23.81			
							COMPOSITE N.Y. N.J.								
UNPAID ED EPE							CLAYTON KEY MODE (HIGH CRUISE)						.02	37	760
							(LOW CRUISE)						.02	35	770
							IDLE						.02	28	310
							TWO SPEED IDLE 2250 RPM						.02	28	170
							IDLE NEUTRAL						.02	35	110
							FEDERAL 3 MODE HIGH SPEED						.02	30	1-600
							LOW SPEED						.02	28	780
							IDLE IN DRIVE						.02	22	380
							IDLE IN NEUTRAL						.02	20	100
6097 1	76	PONT	VENT	260	1		COLD TRANSIENT	2.01	23.42	567.5	3.08	14.53			
							COLD STABILIZED	.14	.07	545.1	2.33	16.26			
							HOT TRANSIENT	.30	.70	485.0	2.90	18.22			
							75 FEDERAL TEST PROCEDURE	.57	5.05	533.3	2.64	16.35			
							EPA HIGHWAY FUEL ECONOMY	.05	.04	391.3	3.02	22.67			
							FEDERAL SHORT CYCLE	.05	.02	421.2	2.27	21.00			
							COMPOSITE N.Y. N.J.								
1 FUEL CAPS OK							CLAYTON KEY MODE (HIGH CRUISE)						.03	30	1,200
							(LOW CRUISE)						.03	29	1,300
							IDLE						.03	23	210
							TWO SPEED IDLE 2250 RPM						.03	30	110
							IDLE NEUTRAL						.02	30	10
							FEDERAL 3 MODE HIGH SPEED						.03	22	1,500
							LOW SPEED						.03	22	1,650
							IDLE IN DRIVE						.03	19	500
							IDLE IN NEUTRAL						.03	18	95
6098 1	76	PONT	LFMA	350	1		COLD TRANSIENT	1.96	38.53	671.1	4.90	12.02			
							COLD STABILIZED	.16	1.72	677.8	3.83	13.03			
							HOT TRANSIENT	1.04	6.57	576.3	5.08	15.04			
							75 FEDERAL TEST PROCEDURE	.77	10.62	648.7	4.39	13.29			
							EPA HIGHWAY FUEL ECONOMY	.06	.60	432.8	4.44	20.45			
							FEDERAL SHORT CYCLE	.08	1.11	493.8	2.85	17.90			
							COMPOSITE N.Y. N.J.	.10	.61	622.3	3.84	12.80			
1 FUEL CAPS OK FIMING							CLAYTON KEY MODE (HIGH CRUISE)						.03	22	3,200
REFARDED 4 DEGREES							(LOW CRUISE)						.03	18	1,300
							IDLE						.03	15	170
							TWO SPEED IDLE 2250 RPM						.04	19	85
							IDLE NEUTRAL						.03	10	40
							FEDERAL 3 MODE HIGH SPEED						.03	23	2,900
							LOW SPEED						.04	18	1,850
							IDLE IN DRIVE						.03	15	140
							IDLE IN NEUTRAL						.03	17	60

APPENDIX H

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

					-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO ₂	HC PPM/HEX	NO _x PPM
VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	HC	CO	CO ₂	NO _x		
6098 2	76	PONT	LEMA	350	2	COLD TRANSIENT	2.22	34.04	645.5	5.07	12.57	
						COLD STABILIZED	.24	4.51	651.3	3.76	13.46	
						HOT TRANSIENT	.64	7.54	559.3	5.52	15.49	
						75 FEDERAL TEST PROCEDURE	.76	11.41	625.0	4.51	13.75	
						EPA HIGHWAY FUEL ECONOMY	.07	1.27	411.2	4.48	21.47	
						FEDERAL SHORT CYCLE	.08	1.68	470.6	3.11	17.97	
						COMPOSITE N.Y. N.J.	.12	2.21	659.7	4.17	13.37	
RESEI TINTND TO SPEC						CLAYTON KEY MODE (HIGH CRUISE)					.04	30 3,000
						(LOW CRUISE)					.70	45 800
						IDLE					.04	15 410
						TWO SPEED IDLE 2250 RPM					.50	21 40
						IDLE NEUTRAL					.04	19 100
						FEDERAL 3 MODE HIGH SPEED					.04	25 3,000
						LOW SPEED					.04	17 1,950
						IDLE IN DRIVE					.03	15 350
						IDLE IN NEUTRAL					.03	17 100
6098 3	76	PONT	LEMA	350	3	COLD TRANSIENT	1.58	29.11	623.8	3.38	13.15	
						COLD STABILIZED	.12	.79	607.7	3.60	14.56	
						HOT TRANSIENT	.38	3.63	529.7	5.06	16.54	
						75 FEDERAL TEST PROCEDURE	.49	7.39	589.7	3.96	14.73	
						EPA HIGHWAY FUEL ECONOMY	.05	.43	405.2	4.47	21.76	
						FEDERAL SHORT CYCLE	.05	.80	462.0	3.23	19.15	
						COMPOSITE N.Y. N.J.						
ADJUSTED IDLE MIXTURE AND SPEED						CLAYTON KEY MODE (HIGH CRUISE)					.02	24 3,100
IN SPEC						(LOW CRUISE)					.25	20 750
						IDLE					.02	13 150
						TWO SPEED IDLE 2250 RPM					.10	16 160
						IDLE NEUTRAL					.02	19 75
						FEDERAL 3 MODE HIGH SPEED					.02	26 3,000
						LOW SPEED					.02	20 1,925
						IDLE IN DRIVE					.02	17 120
						IDLE IN NEUTRAL					.02	23 75
6098 4	76	PONT	LEMA	350	4	COLD TRANSIENT	1.84	37.77	638.1	4.62	12.61	
						COLD STABILIZED	.14	2.54	627.8	3.51	14.04	
						HOT TRANSIENT	.40	6.22	551.7	5.04	15.77	
						75 FEDERAL TEST PROCEDURE	.56	10.83	609.2	4.16	14.13	
						EPA HIGHWAY FUEL ECONOMY	.06	1.00	425.4	4.63	20.78	
						FEDERAL SHORT CYCLE	.05	.91	473.3	3.08	18.69	
						COMPOSITE N.Y. N.J.						
MAJOR TUNE UP						CLAYTON KEY MODE (HIGH CRUISE)					.04	30 3,100
						(LOW CRUISE)					.80	40 1,010
						IDLE					.04	17 170
						TWO SPEED IDLE 2250 RPM					.70	19 130
						IDLE NEUTRAL					.03	18 80
						FEDERAL 3 MODE HIGH SPEED					.03	25 2,000
						LOW SPEED					.04	20 1,915
						IDLE IN DRIVE					.03	15 150
						IDLE IN NEUTRAL					.03	17 75

APPENDIX II

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST TYPE	-----GRAMS PER MILE-----				(MPG) FUEL ECONOMY	CO2	HC PPM/100Y	NOx PPM
							HC	CO	CO2	NOx				
40441	76	PONT	GRNF	350	1	COLD TRANSIENT	1.72	25.02	664.7	2.57	12.51			
						COLD STABILIZED	.00	.41	638.8	2.17	13.80			
						HOT TRANSIENT	.35	2.48	574.9	2.69	15.31			
						75 FEDERAL TEST PROCEDURE	.49	6.04	626.7	2.40	13.92			
						EPA HIGHWAY FUEL ECONOMY	.04	.18	451.3	2.93	19.65			
						FEDERAL SHORT CYCLE	.11	1.40	485.8	2.17	18.17			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	22	1-275
						(LOW CRUISE)						.03	10	450
						IDLE						.03	17	750
						TWO SPEED IDLE 2250 RPM						.03	22	300
						IDLE NEUTRAL						.03	15	105
						FEDERAL 3 MODE HIGH SPEED						.03	.0	200
40442	76	PONT	BONN	400	1	COLD TRANSIENT	2.73	55.16	723.3	2.66	10.80			
						COLD STABILIZED	2.07	54.96	686.9	2.18	11.30			
						HOT TRANSIENT	1.50	29.45	622.7	2.77	13.18			
						75 FEDERAL TEST PROCEDURE	2.05	48.04	677.5	2.44	11.64			
						EPA HIGHWAY FUEL ECONOMY	.22	3.91	493.5	3.19	17.74			
						FEDERAL SHORT CYCLE	2.39	58.72	490.5	1.81	14.84			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	16	1,700
						(LOW CRUISE)						.03	18	950
						IDLE						6.30	500	20
						TWO SPEED IDLE 2250 RPM						.03	30	150
						IDLE NEUTRAL						6.20	750	40
						FEDERAL 3 MODE HIGH SPEED						.02	21	1-400
40443	76	PONT	BONN	400	2	COLD TRANSIENT	2.45	44.95	702.4	2.90	11.36			
						COLD STABILIZED	1.86	45.94	674.5	2.33	11.79			
						HOT TRANSIENT	1.44	23.81	626.1	3.00	13.28			
						75 FEDERAL TEST PROCEDURE	1.87	39.69	667.0	2.63	12.07			
						EPA HIGHWAY FUEL ECONOMY	.18	3.05	481.8	3.24	18.22			
						FEDERAL SHORT CYCLE	1.81	47.17	512.4	1.85	14.99			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	1-350
						(LOW CRUISE)						.03	17	105
						IDLE						6.00	270	5
						TWO SPEED IDLE 2250 RPM						.03	30	50
						IDLE NEUTRAL						6.60	350	10
						FEDERAL 3 MODE HIGH SPEED						.03	25	1-250
40444	76	PONT	BONN	400	3	COLD TRANSIENT	2.45	44.95	702.4	2.90	11.36			
						COLD STABILIZED	1.86	45.94	674.5	2.33	11.79			
						HOT TRANSIENT	1.44	23.81	626.1	3.00	13.28			
						75 FEDERAL TEST PROCEDURE	1.87	39.69	667.0	2.63	12.07			
						EPA HIGHWAY FUEL ECONOMY	.18	3.05	481.8	3.24	18.22			
						FEDERAL SHORT CYCLE	1.81	47.17	512.4	1.85	14.99			
						COMPOSITE N.Y. N.J.								
						CLAYTON KEY MODE (HIGH CRUISE)						.03	25	1-350
						(LOW CRUISE)						.03	17	105
						IDLE						6.00	270	5
						TWO SPEED IDLE 2250 RPM						.03	30	50
						IDLE NEUTRAL						6.60	350	10
						FEDERAL 3 MODE HIGH SPEED						.03	25	1-250

LISTING OF ALL EMISSION TEST RESULTS ON INDIVIDUAL VEHICLES

-----GRAMS PER MILE-----

VEHICLE NUMBER	YR	MAKE	MODEL	CID	SEQ	TEST	TYPE	-----GRAMS PER MILE-----				(MPG)	CO2	HC PPM/HEX	NOX PPM
								HC	CO	CO2	NOXC	FUEL ECONOMY			
6100	3	76	PONT	ROMM	400	3	COLD TRANSIENT	1.67	16.46	720.2	3.00	11.81			
							COLD STABILIZED	.17	.05	676.1	2.28	13.12			
							HOT TRANSIENT	.32	.55	619.2	3.04	14.29			
							75 FEDERAL TEST PROCEDURE	.52	3.56	669.6	2.64	13.11			
							EPA HIGHWAY FUEL ECONOMY	.05	.04	471.5	3.10	18.81			
							FEDERAL SHORT CYCLE	.09	.22	512.9	1.90	17.20			
							COMPOSITE N.Y. N.J.								
							CLAYTON KEY MODE (HIGH CRUISE)					.03	22	1-375	
							(LOW CRUISE)					.03	25	500	
							IDLE					.05	24	45	
							TWO SPEED IDLE 2250 RPM					.03	40	75	
							IDLE NEUTRAL					.02	26	30	
							FEDERAL 3 MODE HIGH SPEED					.03	25	550	
							LOW SPEED					.03	23	275	
							IDLE IN DRIVE					.03	24	45	
							IDLE IN NEUTRAL					.03	23	25	

LEGEND

APPENDIX I, DRIVEABILITY EVALUATION

Constant Speed Phase (Over the Road)

- 1 Occurrence of Stalls
- 1A Number of Stalls
- 2 Acceleration Quality
- 3 Cruise Quality
- 4 Slight Acceleration Quality (passing)
- 5 Idle Quality (A/C on)
- 5A Idle Quality (A/C off)

Acceleration From Stop Phase (Over the Road)

- 1 Acceleration Quality at 1/4 Throttle
- 2 Acceleration Quality at 1/2 Throttle
- 3 Acceleration Quality at 2/3 Throttle
- 4 Acceleration Quality at 3/4 Throttle

Restart Phase

- 1 Cranking time to restart after 10 mins. (secs.)
- 2 Idle Quality after restart

Cold Start & Idle Phase (Dynamometer)

- 1 Initial cranking time (secs.)
- 2 Engine die-outs after start
- 2A Number of die-outs
- 3 Engine stalls after gear selection
- 3A Number of stalls
- 4 Hesitation or lag upon acceleration
- 5 Idle Quality

LEGEND (CONT.)

APPENDIX I, DRIVEABILITY EVALUATION

Drive Away Phase (Dynamometer)

- 1 Stalls upon acceleration to road speed
- 1A Number of Stalls
- 2 Acceleration Quality after 0.2 mile
- 3 Idle Quality after 0.2 mile
- 4 Stalls upon acceleration to road speed
- 4A Number of stalls
- 5 Acceleration Quality after 0.4 mile
- 6 Idle Quality after 0.4 mile

Quality Code

- 1 = Fail, Extremely unreliable, possible unsafe conditions exist.
(Frequent stalling, die-outs on acceleration, lack of throttle response)
- 2 = Poor, Undesirable element exists which affects reliability or driver confidence. (Steady misfire, roughness, lack of power, or response)
- 3 = Fair, Undesirable element exists yet reliability is maintained.
(Only intermittent misfire, surging hesitation)
- 4 = Good, Slight trace, small indication of an undesirable element
(initial unevenness, roughness, hesitation, quickly overcome)
- 5 = Excellent, No trace of undesirable elements (smooth, even, responsive)

Occurrence Code

- 1 = Yes
- 2 = No

APPENDIX I
DRIVABILITY EVALUATION
BY VEHICLE FOR TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)					DRIVE AWAY PHASE (DYNAMOMETER)					
		1-10-2-3-4-5-50	1-2-3-4	1-2	1-2-3-4-5	1-2-3-4-5	1-10-2-3-4-5-6								
6001	1	1 4 4 5 5 3 5	4 4 4 2	1 5	2 1 3 2 0 1 4	1 4 4 4 1 4 4 5									
6001	3	2 0 4 4 5 5 4	4 4 4 4	2 5	10 2 0 2 0 1 5	2 0 4 5 2 0 4 5									
6001	4	1 3 2 5 4 4 4	3 3 4 4	2 4	2 2 0 2 0 1 4	2 0 2 4 2 0 3 4									
6001	6	1 2 2 3 4 4 4	3 4 4 4	2 5	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4									
6001	7	1 3 3 3 3 3 3	3 3 3 3	1 4	2 2 0 2 0 2 4	2 0 4 5 2 0 4 5									
6001	8	1 3 3 3 3 4 4	3 3 3 3	2 4	1 2 0 2 0 1 4	2 0 3 4 2 0 3 4									
5002	1	2 0 3 4 3 3 4	3 4 4 4	2 3	15 1 4 2 0 1 3	2 0 3 3 2 0 3 4									
5002	2	2 0 5 5 5 4 5	5 5 5 5	1 5	2 2 0 2 0 1 3	2 0 4 3 2 0 4 3									
5002	3	2 0 3 4 3 3 3	3 3 3 3	3 3	2 2 0 1 1 1 3	1 1 3 3 2 0 3 3									
6003	1	2 0 5 5 5 5 5	4 4 5 5	1 5	5 2 0 2 0 1 4	2 0 2 4 2 0 2 4									
6003	2	2 0 4 4 3 5 5	4 4 4 4	3 4	5 2 0 2 0 1 3	1 3 2 4 1 3 2 4									
6003	3	2 0 3 4 3 4 4	4 4 4 4	4 4	4 2 0 1 2 1 4	1 1 2 4 1 1 2 4									
6004	1	1 3 4 4 4 5 5	4 4 4 5	1 5	3 2 0 2 0 1 4	1 1 3 3 1 1 3 4									
6004	3	1 3 2 3 2 3 3	2 2 3 3	2 3	8 1 1 2 0 1 4	2 0 3 4 2 0 4 4									
6004	4	2 0 3 4 3 4 5	3 4 4 4	2 4	3 2 0 1 1 1 4	1 1 2 4 2 0 3 4									
6004	A	1 3 3 4 3 3 3	3 3 4 4	1 3	4 2 0 2 0 1 3	1 5 1 3 1 5 1 3									
5005	1	1 1 4 4 4 4 5	4 4 4 4	3 4	3 2 0 2 0 2 5	2 0 5 5 2 0 5 5									
5005	2	2 0 5 5 4 5 5	4 5 5 5	2 5	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4									
5005	3	2 0 3 4 3 3 3	3 3 3 3	5 3	2 2 0 1 1 1 3	2 0 4 3 2 0 4 3									
6006	1	2 0 4 4 3 3 3	4 4 4 4	3 3	3 2 0 2 0 1 4	2 0 3 4 2 0 3 4									
5007	1	2 0 4 5 4 4 5	4 4 4 4	3 5	1 2 0 2 0 1 3	2 0 3 3 2 0 3 3									
5007	2	2 0 4 5 4 4 5	4 4 4 4	3 5	6 2 0 2 0 1 3	2 0 2 3 2 0 3 3									
5007	3	1 3 4 5 4 3 5	4 4 4 4	5 4	2 2 0 2 0 1 3	2 0 2 3 2 0 2 3									

APPENDIX I
NOISE ABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)	DRIVE AWAY PHASE (DYNAMOMETER)
		1-1A-2-3-4-5-5A	1-2-3-4	1-2	1-2-3A-4-5	1-1A-2-3-4-4A-5-6
5007	4	2 0 5 5 5 4 5	5 5 5 5	3 4	4 2 0 2 0 1 4	2 0 4 4 1 1 3 4
5007	A	2 0 4 5 4 4 5	4 5 5 5	2 4	5 2 0 2 0 1 4	2 0 4 4 2 0 4 5
5008	1	2 0 4 5 4 4 5	5 5 4 4	1 5	4 2 0 2 0 1 4	2 0 3 4 2 0 3 4
5006	2	1 2 3 5 4 5 5	4 4 5 5	1 4	4 2 0 2 0 1 4	2 0 4 4 2 0 4 4
5008	3	2 0 3 4 3 3 2	2 3 3 3	2 3	1 2 0 2 0 1 4	2 0 3 3 2 0 4 4
6009	1	1 2 4 5 4 5 5	5 5 5 5	1 5	2 2 0 2 0 1 4	2 0 4 4 2 0 5 4
6009	3	2 0 4 4 3 3 3	3 4 4 4	2 3	4 2 0 2 0 1 3	1 1 4 3 2 0 4 3
6009	4	2 0 4 5 4 3 4	3 4 4 4	2 4	3 2 0 2 0 1 4	2 0 4 4 1 1 4 4
6010	1	2 0 5 5 5 3 5	5 5 5 5	2 4	10 1 2 2 0 1 4	2 0 4 4 2 0 4 4
6010	3	2 0 5 5 5 4 5	5 5 5 5	1 5	6 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6011	1	2 0 5 5 5 4 5	5 5 5 5	5 5	6 2 0 2 0 1 3	2 0 3 4 2 0 3 4
6011	3	2 0 4 5 4 4 4	4 5 5 5	2 4	4 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6011	4	2 0 4 5 4 9 4	4 5 5 5	1 4	4 2 0 2 0 1 4	1 1 4 4 1 1 4 5
6011	5	2 0 5 5 5 9 4	5 5 5 5	1 4	1 2 0 2 0 2 4	2 0 5 4 2 0 5 4
6011	6	2 0 4 5 4 9 4	4 4 4 5	2 4	5 2 0 2 0 2 4	2 0 4 4 2 0 4 4
6011	7	2 0 5 4 4 9 3	4 5 5 5	2 3	4 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6011	8	2 0 4 5 4 9 4	4 4 5 5	2 4	2 2 0 2 0 1 4	2 0 5 4 2 0 5 4
6011	9	2 0 4 4 4 9 4	4 4 5 5	1 4	3 2 0 2 0 1 4	2 0 4 4 2 0 5 5
6012	1	2 0 4 4 3 3 4	4 4 4 5	3 3	3 2 0 2 0 1 2	2 0 4 2 2 0 4 2
6012	3	2 0 5 4 4 4 5	4 5 5 5	2 4	3 2 0 2 0 1 2	2 0 5 2 2 0 5 2
6013	1	2 0 5 5 4 4 5	4 5 5 5	1 4	1 2 0 2 0 1 4	2 0 4 4 2 0 5 4
6013	2	2 0 4 4 3 4 4	3 4 4 4	3 3	2 2 0 2 0 2 3	2 0 3 3 2 0 4 4
6013	3	2 0 4 4 4 4 4	1 4 5 5	1 5	3 2 0 2 0 2 5	2 0 5 5 2 0 5 5

APPENDIX I
 MANEUVERABILITY EVALUATION
 BY VEHICLE FOR TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)	DRIVE AWAY PHASE (DYNAMOMETER)
		1-1A-2-3-4-5-5a	1-2-3-4	1-2	1-2-2a-3-3a-4-5	1-1A-2-3-4-4a-5-6
6013	4	2 0 4 4 4 4 4	4 4 4 4	1 4	1 2 0 2 0 1 3	2 0 4 3 2 0 4 3
6014	1	2 0 5 4 4 9 4	3 4 4 4	3 4	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4
5015	1	1 1 4 5 3 3 4	3 3 3 4	2 4	4 2 0 2 0 1 2	2 0 2 2 2 0 3 2
5015	3	2 0 4 5 4 2 3	4 4 4 4	1 3	8 2 0 2 0 1 3	2 0 2 3 2 0 2 3
6016	1	2 0 4 5 5 4 5	4 5 5 5	4 4	7 2 0 2 0 1 5	2 0 4 4 2 0 4 5
6016	3	2 0 4 4 4 4 4	3 4 4 4	3 4	4 2 0 2 0 1 5	2 0 4 5 2 0 4 5
6017	1	2 0 4 4 4 9 4	4 4 4 4	3 4	7 1 1 2 0 1 5	1 1 3 5 1 1 3 5
6017	2	2 0 4 4 4 9 4	3 4 4 5	3 4	8 2 0 2 0 1 3	2 0 3 3 2 0 3 3
6017	3	2 0 4 4 4 9 4	3 4 4 5	2 4	8 2 0 2 0 1 4	1 1 3 4 1 1 3 4
6018	1	2 0 4 4 4 3 4	4 4 4 4	4 4	8 2 0 2 0 1 4	2 0 3 3 2 0 4 3
6018	2	2 0 4 4 3 4 4	3 4 4 4	3 3	1 2 0 2 0 2 5	2 0 5 5 2 0 5 5
6018	3	2 0 4 4 4 3 4	4 4 4 4	2 4	2 2 0 2 0 2 5	2 0 5 5 2 0 5 5
6018	4	2 0 4 4 4 3 4	4 4 4 4	1 4	2 2 0 2 0 1 3	1 1 4 3 1 1 4 3
6019	1	2 0 4 4 4 3 4	4 4 4 3	3 4	4 2 0 2 0 1 4	2 0 4 5 2 0 4 5
6019	2	2 0 4 4 4 3 4	4 3 4 3	4 4	4 2 0 2 0 1 3	2 0 3 4 2 0 3 4
6019	3	2 0 4 5 4 4 3	4 5 5 5	1 4	4 2 0 2 0 1 3	2 0 2 4 2 0 2 4
6020	1	2 0 3 3 2 2 3	2 3 3 3	4 2	2 2 0 2 0 1 3	2 0 3 2 2 0 3 2
6020	2	2 0 3 3 3 3 3	3 3 3 3	3 3	2 2 0 2 0 1 3	2 0 3 3 1 1 3 3
6020	3	2 0 3 3 3 3 3	3 3 3 3	3 3	4 2 0 2 0 1 3	2 0 3 2 1 1 3 3
6021	1	2 0 5 5 5 3 4	4 4 5 5	5 4	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6022	1	2 0 3 3 3 2 3	3 3 3 3	3 3	3 2 0 2 0 2 4	2 0 4 5 2 0 4 5
6022	2	2 0 4 4 4 4 5	4 5 5 5	4 4	4 2 0 2 0 1 4	2 0 3 4 2 0 4 4
6022	3	2 0 4 4 4 1 3	3 4 4 4	2 3	3 2 0 2 0 1 3	2 0 4 3 2 0 4 3

APPENDIX I
DRIVEABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)					DRIVE AWAY PHASE (DYNAMOMETER)					
		1-1A-2-3-4-5-5A	1-2-3-4	1-2	1-2-3A-4-5	1-1A-2-3-4-5-6									
6022	4	2 0 4 4 4 3 3	3 4 4 4	2 3	4 2 0 2 0 1 4	2 0 3 4 2 0 3 4									
6023	1	2 0 3 4 3 3 4	3 3 4 4	5 4	2 2 0 2 0 1 4	2 0 3 4 2 0 3 4									
6023	3	2 0 4 5 5 3 4	5 5 5 5	4 3	5 2 0 2 0 1 3	2 0 2 3 2 0 2 3									
6023	4	2 0 4 4 4 4 4	4 4 4 4	1 3	4 2 0 2 0 1 3	2 0 3 3 2 0 3 3									
6023	A	2 0 4 4 3 2 3	3 4 4 4	4 3	7 2 0 2 0 1 4	1 1 3 4 1 1 4 4									
6024	1	2 0 4 4 4 3 4	5 5 4 4	1 4	4 2 0 2 0 1 4	2 0 3 4 2 0 4 5									
6024	2	2 0 5 5 5 4 5	4 5 5 5	2 4	2 2 0 2 0 1 5	2 0 4 4 2 0 5 5									
6025	1	2 0 4 4 4 2 3	3 4 4 4	1 3	7 1 1 2 0 1 3	2 0 3 4 2 0 4 4									
6025	3	2 0 5 5 5 2 3	4 4 4 4	2 4	5 1 1 2 0 1 4	2 0 4 4 2 0 4 4									
6025	4	1 1 4 4 4 2 3	3 3 3 3	2 3	5 2 0 2 0 1 4	2 0 2 4 2 0 3 4									
5026	1	2 0 4 4 4 3 4	4 4 5 5	1 3	3 2 0 2 0 1 4	2 0 4 4 2 0 4 4									
5026	2	2 0 4 4 3 3 4	3 4 4 4	2 3	6 2 0 2 0 1 4	2 0 4 5 2 0 4 5									
5026	3	2 0 4 5 4 3 4	5 5 5 5	2 4	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4									
5026	4	2 0 4 4 4 3 3	3 3 3 3	2 3	2 2 0 2 0 1 3	2 0 3 3 1 1 3 3									
5026	A	2 0 3 4 4 3 4	3 4 4 4	2 4	3 2 0 2 0 2 4	2 0 4 4 1 1 4 4									
6027	1	2 0 3 4 3 3 4	3 3 4 4	3 3	1 2 0 2 0 2 4	1 1 4 4 2 0 4 4									
6027	3	2 0 4 4 4 4 4	4 4 4 4	2 4	1 2 0 2 0 1 3	2 0 3 4 2 0 4 4									
6027	4	2 0 3 4 3 4 4	3 3 4 4	1 4	3 2 0 2 0 2 3	2 0 4 3 1 1 3 3									
6028	1	2 0 5 5 5 3 4	4 4 4 4	3 3	2 2 0 2 0 2 3	2 0 4 3 2 0 4 3									
6028	2	2 0 4 5 4 3 4	4 4 5 5	2 4	2 2 0 2 0 2 4	2 0 5 4 2 0 5 4									
6028	3	2 0 5 5 5 3 3	5 5 5 4	2 4	2 2 0 2 0 2 3	2 0 5 3 2 0 5 3									
6029	1	2 0 5 4 3 3 3	3 4 4 4	2 3	1 2 0 1 1 1 2	2 0 3 2 2 0 3 2									
6029	4	1 2 3 4 2 3 3	2 3 5 3	3 3	2 2 0 1 1 1 3	2 0 2 3 2 0 2 3									

APPENDIX I
DRIVABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)							DRIVE AWAY PHASE (DYNAMOMETER)					
		1-1A-2-3-4-5-5a	1-2-3-4	1-2	1-2-3a-3-3a-4-5	1-1A-2-3-4-4a-5-6											
6029	6	2 0 4 4 4 4 5	3 4 4 4	2 4	4 2 0 2 0 1 4	2 0 3 4 2 0 3 4											
6029	7	2 0 3 4 3 3 3	3 3 4 4	3 3	4 1 1 2 0 1 4	1 4 2 4 1 4 3 4											
6029	8	2 0 3 4 3 3 3	3 3 4 4	2 3	7 2 0 2 0 1 3	2 0 2 3 2 0 2 3											
6029	9	2 0 3 4 3 3 4	2 3 4 4	2 3	2 2 0 1 1 1 5	2 0 3 5 2 0 3 5											
6030	1	1 5 4 5 4 4 5	4 4 3 3	2 4	5 2 0 2 0 1 4	2 0 4 4 2 0 4 4											
6030	2	2 0 2 3 2 3 4	3 3 4 4	2 4	3 2 0 2 0 1 4	2 0 3 3 2 0 4 3											
6030	3	1 2 4 5 3 5 5	3 4 5 5	1 5	2 2 0 2 0 1 2	2 0 2 2 2 0 2 2											
6031	1	2 0 4 4 3 3 4	4 4 4 4	1 4	30 1 1 1 1 1 4	2 0 4 5 2 0 4 5											
6031	3	2 0 3 4 4 3 4	4 4 4 4	1 3	1 2 0 1 1 1 4	2 0 4 5 2 0 4 4											
6031	4	1 1 4 4 4 4 5	4 4 4 4	4 4	1 2 0 2 0 1 4	2 0 5 4 2 0 5 4											
6031	6	2 0 4 4 5 4 5	5 5 5 5	2 5	2 2 0 2 0 2 4	2 0 4 5 2 0 4 5											
6031	7	1 2 4 4 4 5 5	5 5 5 5	3 5	3 1 2 2 0 2 4	2 0 4 4 2 0 4 4											
6031	8	2 0 3 4 4 4 4	4 3 4 4	3 4	3 2 0 1 1 2 4	2 0 4 4 2 0 4 4											
6031	9	1 1 3 5 3 5 5	3 4 4 4	1 4	2 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
5032	1	2 0 2 4 4 2 4	3 3 2 3	1 3	1 1 1 2 0 1 3	2 0 3 3 2 0 3 3											
5032	2	1 4 4 5 4 3 4	4 4 4 4	1 4	10 1 1 1 1 1 2	1 1 3 3 1 1 3 3											
6033	1	2 0 5 5 5 4 5	5 5 5 5	3 4	1 2 2 1 2 1 3	2 0 4 3 2 0 4 3											
6033	2	2 0 5 5 5 4 5	5 5 5 5	2 5	4 1 1 2 0 1 4	2 0 5 4 2 0 5 5											
6033	3	2 0 3 4 3 3 4	3 3 3 4	5 5	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4											
6033	4	2 0 4 4 4 3 3	3 4 4 4	1 3	2 2 0 2 0 1 2	2 0 3 2 2 0 3 2											
5034	1	2 0 4 5 4 4 5	4 4 4 4	2 5	10 1 2 2 0 2 5	2 0 4 5 2 0 4 5											
5035	1	2 0 4 5 4 4 5	4 4 5 5	2 5	1 2 0 1 0 1 4	2 0 4 4 2 0 4 4											
6036	1	2 0 4 5 4 4 5	4 3 5 5	2 5	2 2 0 2 0 1 5	2 0 4 5 2 0 5 5											

APPENDIX I
DRIVABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)						ACCELERATION FROM STOP PHASE (OVER THE ROAD)				RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)							DRIVE AWAY PHASE (DYNAMOMETER)								
		1	10	2	3	4	5	5A	1	2	3	4	1	2	1	2	3	4	5	6	1	10	2	3	4	5	6		
6037	1	2	0	4	4	4	4	4	4	4	4	4	2	4	1	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6038	1	2	0	3	4	3	3	4	3	3	3	3	1	4	4	1	1	2	0	2	5	2	0	4	5	2	0	5	5
6039	1	2	0	5	5	4	4	4	4	4	4	4	1	4	7	2	0	2	0	2	4	2	0	5	9	2	0	5	5
6039	2	2	0	5	5	4	4	4	4	4	4	4	1	4	7	2	0	2	0	2	4	2	0	5	5	2	0	5	5
6039	4	2	0	5	5	4	4	4	4	4	4	4	1	4	7	2	0	2	0	2	4	2	0	5	5	2	0	5	5
6040	1	2	0	4	5	4	9	5	4	5	5	5	2	5	2	2	0	2	0	1	5	2	0	4	5	1	1	4	5
6040	2	2	0	4	5	4	9	3	4	5	5	5	1	3	2	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6040	3	2	0	4	5	4	9	4	4	4	4	4	1	4	2	2	0	1	1	1	2	1	1	3	2	2	0	4	2
6040	4	2	0	4	5	4	9	4	4	5	5	5	2	5	2	2	0	2	0	1	4	2	0	4	4	2	0	5	4
5041	1	2	0	3	4	4	4	4	3	4	4	4	1	4	1	2	0	2	0	1	5	2	0	4	4	2	0	4	4
5041	3	2	0	3	4	4	4	4	3	3	4	4	1	4	1	2	0	2	0	1	4	2	0	3	3	2	0	4	4
5042	1	2	0	4	5	4	9	4	4	4	5	5	2	5	2	2	0	2	0	1	3	2	0	4	3	2	0	4	3
5042	2	2	0	4	4	4	9	3	4	4	4	4	2	3	3	2	0	2	0	1	2	2	0	3	2	2	0	3	3
5042	3	2	0	3	4	4	3	4	3	3	4	4	2	4	3	2	0	2	0	1	2	2	0	3	2	2	0	3	3
5043	1	2	0	4	5	4	3	4	4	4	4	4	1	4	2	2	0	2	0	1	3	2	0	4	3	2	0	4	3
6044	1	2	0	5	5	5	3	4	4	5	5	5	1	4	2	2	0	2	0	2	3	2	0	3	3	2	0	4	3
6044	4	2	0	4	5	4	4	5	4	4	4	5	2	5	8	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6044	A	2	0	5	5	5	4	5	5	5	5	5	1	4	1	2	0	2	0	1	5	2	0	5	4	2	0	5	5
6045	1	2	0	4	5	5	4	5	4	5	5	5	2	5	1	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6045	3	2	0	4	5	5	4	5	4	5	5	5	2	5	3	2	0	2	0	1	5	2	0	4	5	2	0	5	5
6045	4	2	0	4	4	4	4	4	4	4	5	5	1	3	5	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6045	A	2	0	4	5	5	5	5	5	5	5	5	1	5	3	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6046	1	2	0	4	4	3	4	4	4	4	5	5	2	4	3	2	0	2	0	1	4	2	0	4	5	2	0	4	5

APPENDIX I
DRIVABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)						ACCELERATION FROM STOP PHASE (OVER THE ROAD)				RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)								DRIVE AWAY PHASE (DYNAMOMETER)							
		1-1A-2-3-4-5-5A	1-2-3-4	1-2	3-4	1-2	3-4	1-2	3-4	1-2	3-4	1-2-3-4-5	1-2-3-4-5	1-2-3-4-5-6	1-2-3-4-5-6														
6046	3	2	0	4	4	4	2	2	4	5	5	5	1	2	3	2	0	2	0	2	3	2	0	4	3	2	0	4	4
6046	4	2	0	4	5	4	3	3	4	5	5	5	2	3	2	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6047	1	2	0	4	4	4	4	4	4	4	4	5	2	4	2	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6047	2	2	0	4	4	4	4	4	4	4	4	4	2	4	2	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6047	3	2	0	4	5	4	4	4	4	5	5	5	2	4	3	2	0	2	0	1	4	2	0	3	4	2	0	3	4
6047	4	2	0	4	4	4	3	3	4	4	4	4	2	3	4	2	0	2	0	1	3	2	0	3	4	2	0	3	4
6047	A	2	0	4	4	4	3	4	4	4	5	5	2	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6047	B	2	0	5	5	5	4	5	4	5	5	5	2	5	2	2	0	2	0	1	5	2	0	4	5	2	0	4	5
5048	1	2	0	4	5	5	5	5	4	4	4	4	1	5	2	2	0	2	0	1	3	2	0	3	3	2	0	4	3
5048	2	2	0	5	5	4	4	4	4	5	5	5	1	4	2	2	0	2	0	1	3	2	0	4	3	2	0	4	3
5048	4	2	0	4	5	4	4	4	4	4	5	5	1	4	3	2	0	2	0	1	3	2	0	4	4	2	0	4	4
5048	A	2	0	4	4	4	4	4	4	5	5	5	1	4	2	2	0	2	0	1	3	2	0	4	4	2	0	4	4
6049	1	2	0	4	5	4	4	5	4	5	5	5	2	5	2	2	0	2	0	1	4	2	0	4	4	2	0	5	5
6049	3	2	0	4	4	4	3	3	4	5	5	5	2	3	2	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6049	4	2	0	4	4	4	3	3	4	5	5	5	1	3	2	2	0	2	0	1	3	2	0	4	3	2	0	4	3
6049	5	2	0	4	5	4	4	4	5	5	5	5	1	4	1	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6049	6	2	0	4	5	4	4	4	5	5	5	5	2	4	2	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6049	7	2	0	4	4	4	3	3	4	5	5	5	1	4	1	2	0	2	0	2	4	2	0	4	4	2	0	5	4
6049	8	2	0	4	4	4	3	3	4	5	5	5	1	4	1	2	0	2	0	2	4	2	0	4	4	2	0	5	4
5050	1	2	0	4	5	4	3	4	3	4	4	4	3	3	1	2	0	2	0	1	3	2	0	4	3	2	0	4	4
5050	3	2	0	5	5	5	4	5	4	4	4	5	2	5	3	2	0	2	0	1	5	2	0	3	3	2	0	3	3
5050	4	2	0	4	5	4	4	5	4	5	5	5	1	5	1	2	0	2	0	1	4	2	0	3	4	2	0	3	4
5050	A	1	1	3	4	3	3	3	1	1	1	1	1	3	1	2	0	2	0	1	4	1	0	3	4	2	0	4	4

APPENDIX I
INJURABILITY EVALUATION
BY VEHICLE FOR TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)							ACCELERATION FROM STOP PHASE (OVER THE ROAD)				RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)							DRIVE AWAY PHASE (DYNAMOMETER)							
		1	1A	2	3	4	5	5A	1	2	3	4	1	2	1	2	2A	3	3A	4	5	1	1A	2	3	4	4A	5	6
6051	1	2	0	4	5	5	4	4	4	5	5	5	2	4	1	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6052	1	2	0	4	5	4	4	4	4	4	4	4	2	4	3	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6052	3	2	0	4	5	4	4	5	4	5	5	5	2	5	3	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6052	4	2	0	4	5	4	4	4	4	4	5	5	2	3	3	2	0	2	0	1	4	2	0	3	4	2	0	3	4
6052	6	2	0	4	4	4	3	4	4	5	5	5	2	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6052	7	2	0	4	5	4	4	4	4	4	5	5	1	4	1	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6052	8	2	0	5	5	5	4	4	5	5	5	5	1	4	2	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6052	9	2	0	3	5	3	4	5	3	4	4	4	2	4	2	2	0	2	0	2	5	2	0	4	4	2	0	4	5
6053	1	2	0	4	4	4	4	4	4	4	5	5	1	4	1	2	0	1	1	1	4	2	0	4	4	2	0	4	4
6054	1	2	0	5	5	5	5	5	5	5	5	5	1	5	1	2	0	2	0	1	5	2	0	3	5	2	0	4	5
6055	1	2	0	4	5	4	3	4	4	4	4	5	2	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6055	2	2	0	4	5	4	4	4	4	4	5	5	2	4	4	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6055	4	1	1	4	5	4	3	3	4	5	4	5	1	3	9	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6055	6	2	0	4	4	4	3	3	4	4	4	4	1	3	8	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6056	1	2	0	4	5	4	3	4	4	5	5	5	1	3	2	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6057	1	1	2	4	5	4	4	4	4	4	5	5	1	3	1	2	0	2	0	2	4	2	0	5	4	2	0	5	4
6057	3	2	0	4	5	4	4	4	4	4	5	5	1	4	1	2	0	2	0	1	3	2	0	3	4	2	0	4	4
6058	1	2	0	4	5	4	3	4	3	4	4	4	6	4	1	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6058	2	2	0	4	5	4	3	3	3	4	4	4	4	3	1	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6058	3	2	0	4	5	4	4	4	4	4	4	4	3	4	2	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6058	5	2	0	3	4	3	4	4	4	4	3	3	3	4	1	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6058	6	2	0	4	4	4	4	4	4	4	4	4	2	4	1	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6058	7	2	0	4	5	4	4	4	4	4	4	4	1	4	1	2	0	2	0	1	4	2	0	4	4	2	0	4	4

APPENDIX I
DRIVEABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM IDLE PHASE (OVER THE ROAD)	RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)								DRIVE AWAY PHASE (DYNAMOMETER)						
		1-1A-2-3-4-5-5A	1-2-3-4	1-2		1-2-2A-3-3A-4-5								1-1A-2-3-4-4A-5-6						
5059	1	2 0 4 5 4 5 5	4 5 5 5	1 5		3 2 0 2 0 2 5								2 0 5 5 2 0 5 5						
5059	2	2 0 4 4 4 3 4	4 4 5 5	1 4		2 2 0 2 0 1 4								2 0 4 4 2 0 5 4						
5059	3	2 0 5 5 5 5 5	5 5 5 5	1 5		1 2 0 2 0 2 5								2 0 5 5 2 0 5 5						
5059	4	2 0 4 5 4 4 4	4 4 4 4	1 4		3 1 1 2 0 1 4								2 0 4 5 2 0 4 5						
6060	1	2 0 5 5 5 4 5	5 5 5 4	1 5		6 2 0 2 0 2 4								2 0 4 4 2 0 4 4						
6060	2	2 0 4 4 4 4 4	4 4 4 4	1 4		3 2 0 2 0 2 4								2 0 4 4 2 0 4 4						
6060	3	2 0 4 5 4 4 4	4 4 4 4	1 3		1 2 0 2 0 2 4								2 0 4 4 2 0 4 4						
6060	4	2 0 4 5 4 4 4	4 4 4 4	2 4		2 2 0 2 0 2 4								2 0 4 4 2 0 4 4						
6060	5	2 0 4 5 4 4 4	4 4 5 5	1 4		2 2 0 2 0 2 3								2 0 3 3 2 0 4 4						
6060	6	2 0 4 5 4 4 4	4 5 5 5	1 4		1 2 0 2 0 2 4								2 0 4 4 2 0 5 4						
6060	7	2 0 5 5 5 4 4	5 5 5 5	3 4		2 2 0 2 0 2 4								2 0 5 4 2 0 5 4						
6060	8	2 0 4 5 4 4 4	4 5 5 5	2 5		2 2 0 2 0 2 5								2 0 5 5 2 0 5 5						
6060	9	2 0 4 5 5 4 4	4 5 5 5	1 4		3 2 0 2 0 2 4								2 0 4 4 2 0 5 4						
6061	1	2 0 4 4 4 4 4	4 4 4 4	4 4		3 2 0 2 0 1 4								2 0 4 5 2 0 4 5						
6061	2	2 0 4 4 4 4 4	3 4 4 4	3 4		2 2 0 2 0 1 4								2 0 3 4 2 0 4 4						
6061	3	2 0 5 5 5 5 5	4 5 5 5	2 5		1 2 0 2 0 1 3								2 0 3 3 2 0 4 3						
6061	4	2 0 4 5 4 4 4	4 5 5 5	1 4		1 2 0 2 0 1 4								2 0 3 4 2 0 4 4						
6061	A	2 0 5 5 4 4 4	4 5 5 5	2 4		2 2 0 2 0 1 4								2 0 3 4 2 0 4 4						
6061	B	2 0 4 5 4 4 4	4 5 5 5	1 4		2 2 0 2 0 1 4								2 0 4 4 2 0 4 4						
6061	C	2 0 4 5 5 4 5	4 5 5 5	2 5		2 2 0 2 0 1 4								2 0 4 5 2 0 5 5						
5062	1	2 0 4 4 4 4 4	4 4 5 5	2 4		2 2 0 2 0 1 4								2 0 3 4 2 0 4 4						
5062	3	2 0 5 5 5 5 5	5 5 5 5	1 5		2 2 0 2 0 1 3								2 0 3 3 2 0 3 3						
5062	4	2 0 4 4 4 4 4	5 5 3 4	2 3		4 2 0 2 0 1 4								2 0 4 4 2 0 4 4						

APPENDIX I
DRIVABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)	DRIVE AWAY PHASE (DYNAMOMETER)
		1-10-2-3-4-5-50	1-2-3-4	1-2	1-2-20-3-30-4-5	1-10-2-3-4-40-5-6
5062	A	2 0 4 5 4 4 5	4 4 4 5	2 5	2 2 0 2 0 1 5	2 0 3 5 2 0 4 5
6063	1	2 0 4 5 4 4 4	5 5 4 4	2 4	1 2 0 2 0 2 4	2 0 5 4 2 0 5 4
6063	2	2 0 3 4 3 3 4	3 3 3 3	4 3	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6063	3	2 0 4 5 4 4 4	4 4 4 4	2 3	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6063	4	2 0 4 5 4 4 4	4 4 5 5	3 4	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6063	A	2 0 5 5 5 5 5	5 5 5 5	1 4	1 2 0 2 0 1 5	2 0 3 5 2 0 4 5
6064	1	2 0 4 5 4 3 4	4 4 5 5	2 4	1 2 0 2 0 2 4	2 0 4 4 2 0 5 4
6064	3	2 0 4 5 4 5 5	4 4 4 4	2 4	1 2 0 2 0 2 5	2 0 4 5 2 0 4 5
6065	1	2 0 5 5 5 5 5	5 5 5 5	2 5	1 2 0 2 0 1 5	2 0 5 5 2 0 5 5
6065	4	2 0 4 4 4 4 4	4 4 4 4	2 4	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6065	A	2 0 4 5 4 4 4	4 4 5 5	1 4	1 2 0 2 0 2 5	2 0 4 5 2 0 4 5
6066	1	2 0 5 5 5 4 4	5 5 5 5	2 4	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6067	1	2 0 4 5 4 4 4	4 4 4 4	2 4	3 2 0 2 0 1 4	2 0 3 4 2 0 4 4
6067	2	2 0 4 4 4 3 4	3 4 4 4	1 4	1 2 0 2 0 1 4	2 0 3 4 2 0 4 4
6067	3	2 0 3 4 3 3 3	3 3 3 3	3 3	4 2 0 2 0 1 3	2 0 3 3 2 0 3 3
6068	1	2 0 4 5 4 4 4	4 4 4 4	2 4	3 2 0 2 0 2 4	2 0 4 4 2 4 4 1
6069	1	2 0 4 5 4 5 5	4 4 4 4	1 5	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4
6070	1	2 0 4 5 5 4 4	4 4 5 5	2 4	1 2 0 2 0 2 4	2 0 5 4 2 0 5 4
6071	1	2 0 4 5 4 4 4	4 4 4 4	1 4	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4
6071	2	2 0 4 4 4 3 3	5 4 4 4	2 3	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6071	3	2 0 5 5 5 5 5	5 5 4 4	1 4	2 2 0 2 0 1 4	2 0 4 4 2 0 4 4
6071	4	2 0 5 5 4 4 4	4 5 5 5	1 4	3 2 0 2 0 2 4	2 0 4 4 2 0 4 4
6072	1	2 0 5 5 5 5 5	5 5 5 5	1 5	1 2 0 2 0 2 5	2 0 5 5 2 0 5 5

APPENDIX 1
DRIVEABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)						ACCELERATION FROM STOP PHASE (OVER THE ROAD)				RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)						DRIVE AWAY PHASE (DYNAMOMETER)									
		1	1A	2	3	4	5	5A	1	2	3	4	1	2	1	2	3A	3	4	5	1	1A	2	3	4	4A	5	6	
6072	3	2	0	5	5	5	5	5	5	5	5	5	1	5	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6072	4	2	0	5	5	5	4	4	5	5	5	5	2	4	3	2	0	2	0	2	4	2	0	4	4	2	0	5	4
6073	1	2	0	4	5	5	4	4	5	5	5	5	1	4	1	2	0	2	0	2	5	2	0	4	5	2	0	4	5
6073	4	2	0	5	5	5	5	5	5	5	5	5	1	5	1	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6073	5	2	0	5	5	5	4	4	5	5	5	5	2	4	1	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6073	6	2	0	4	5	5	5	5	5	5	5	5	2	4	2	2	0	2	0	2	4	2	0	4	5	2	0	5	5
6073	7	2	0	5	5	5	5	5	5	5	5	5	2	5	3	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6073	8	2	0	4	5	4	4	4	4	4	4	4	3	4	1	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6073	9	2	0	5	5	5	5	5	5	5	5	5	2	4	2	2	0	2	0	2	4	2	0	4	5	2	0	5	5
6074	1	2	0	4	4	3	9	4	3	4	4	4	1	4	1	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6075	1	2	0	2	3	2	9	3	3	3	3	3	4	3	1	2	0	2	0	1	4	2	0	3	4	2	0	3	4
6076	1	2	0	3	4	3	9	4	3	3	4	4	2	4	3	2	0	2	0	1	3	2	0	3	3	2	0	4	3
6077	1	1	1	3	4	3	9	3	3	4	4	4	1	3	2	2	0	2	0	1	3	2	0	3	3	2	0	4	3
6077	2	1	2	3	4	3	9	3	3	4	4	4	2	3	5	2	0	1	2	1	3	2	0	3	4	2	0	4	4
6078	1	2	0	5	5	5	4	5	5	5	5	5	1	5	1	2	0	2	0	1	5	2	0	4	5	2	0	5	5
6079	1	2	0	5	5	5	5	5	5	5	5	5	1	5	1	2	0	2	0	2	5	2	0	4	5	2	0	5	5
6080	1	2	0	4	5	5	5	5	4	4	4	4	1	4	1	2	0	2	0	2	5	2	0	4	5	2	0	4	5
6080	3	2	0	5	5	5	5	5	5	4	4	4	1	4	2	2	0	2	0	2	4	2	0	5	4	2	0	5	4
6080	4	2	0	5	5	5	4	4	5	5	5	5	1	4	1	2	0	2	0	1	4	2	0	5	4	2	0	5	4
6081	1	2	0	5	5	4	4	4	4	5	5	5	1	4	1	2	0	2	0	1	5	2	0	4	5	2	0	5	5
6081	2	2	0	5	5	5	5	5	5	4	4	4	1	5	1	2	0	2	0	1	4	2	0	4	5	2	0	5	5
6081	3	2	0	4	4	4	4	4	5	4	4	4	1	4	3	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6081	4	2	0	4	5	4	4	4	4	4	4	5	2	4	1	2	0	2	0	2	4	2	0	4	4	2	0	5	4

APPENDIX I
DRIVEABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)						ACCELERATION FROM STOP PHASE (OVER THE ROAD)				RESTART PHASE		COLD START AND IDLE PHASE (DYNAMOMETER)								DRIVE AWAY PHASE (DYNAMOMETER)							
		1	1A	2	3	4	5	5A	1	2	3	4	1	2	1	2	3A	3B	4	5	1	1A	2	3	4	4A	5	6	
6082	1	2	0	5	5	5	5	5	5	5	5	4	1	5	3	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6082	3	2	0	4	5	4	4	4	5	5	5	5	2	4	1	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6082	4	2	0	4	4	4	4	4	4	4	4	4	1	4	2	2	0	2	0	1	5	2	0	4	4	2	0	4	4
6083	1	2	0	4	4	4	4	4	4	4	4	4	1	4	4	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6084	1	2	0	5	5	5	5	5	4	5	5	5	1	5	4	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6084	2	2	0	4	5	5	5	5	4	5	5	5	1	5	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6084	3	2	0	5	5	5	4	4	4	5	5	5	1	4	2	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6085	1	2	0	5	5	5	4	5	4	5	5	5	1	5	1	2	0	2	0	2	4	2	0	5	5	2	0	5	5
6086	1	2	0	4	5	4	4	4	4	5	5	5	1	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6086	3	2	0	4	5	4	4	4	4	4	4	5	1	4	3	2	0	2	0	1	4	2	0	3	4	2	0	4	4
6086	4	2	0	4	5	4	4	4	4	4	5	5	1	4	1	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6086	5	2	0	4	4	4	4	4	5	5	4	4	2	4	1	2	0	2	0	2	5	2	0	4	5	2	0	5	5
6086	6	2	0	5	5	4	4	4	4	5	5	5	1	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6086	7	2	0	5	5	4	4	4	4	5	5	5	1	4	1	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6086	8	2	0	4	5	4	4	4	4	4	4	5	1	4	1	2	0	2	0	2	4	2	0	4	4	2	0	5	4
6086	9	2	0	4	5	4	4	4	4	4	5	5	1	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6087	1	2	0	5	5	4	4	4	4	5	5	5	1	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6088	1	2	0	4	5	4	4	5	4	4	5	5	2	4	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6088	3	2	0	4	5	4	4	4	4	4	4	5	2	4	1	2	0	2	0	1	4	2	0	4	4	2	0	4	4
6088	4	2	0	4	5	4	4	4	4	4	4	5	3	3	2	2	0	2	0	2	4	2	0	4	4	2	0	4	4
6089	1	2	0	5	5	5	4	5	5	5	5	5	1	4	1	2	0	2	0	2	5	2	0	5	5	2	0	5	5
6089	3	2	0	5	5	5	4	5	5	5	5	5	1	5	2	2	0	2	0	1	4	2	0	4	4	2	0	5	4
6089	4	2	0	5	5	5	4	5	4	4	5	5	1	5	1	2	0	2	0	2	4	2	0	5	4	2	0	5	4

APPENDIX I
DRIVEABILITY EVALUATION
BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)							DRIVE AWAY PHASE (DYNAMOMETER)					
		1-1A-2-3-4-5-5A	1-2-3-4	1-2	1-2-2A-3-3A-4-5	1-1A-2-3-4-4A-5-6											
6090	1	2 0 5 5 5 5 5	5 5 5 5	1 4	2 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6091	1	2 0 4 5 4 4 4	4 4 4 4	2 4	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6091	3	2 0 4 5 4 3 3	4 4 5 5	2 3	3 2 0 2 0 1 4	2 0 4 4 2 0 4 4											
6092	1	2 0 5 5 4 4 4	4 5 5 5	1 4	4 2 0 1 1 1 3	1 1 3 3 2 0 4 4											
6092	2	2 0 5 5 4 4 4	3 4 5 5	1 4	2 2 0 2 0 1 4	2 0 3 4 2 0 4 4											
6093	1	2 0 4 4 4 3 4	4 4 4 4	2 4	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4											
6093	2	2 0 4 5 5 4 5	5 5 4 4	1 4	3 2 0 2 0 1 4	2 0 3 4 2 0 4 4											
6093	3	2 0 5 5 5 4 4	4 5 5 5	1 4	2 2 0 2 0 2 4	2 0 4 4 2 0 5 4											
6094	1	2 0 4 5 4 4 4	4 4 4 4	2 4	1 2 0 2 0 1 4	2 0 4 4 2 0 4 4											
6094	2	2 0 5 5 4 5 5	5 5 5 5	2 4	1 2 0 2 0 2 5	2 0 4 5 2 0 5 5											
6094	3	2 0 5 5 4 4 4	4 5 5 5	1 4	1 2 0 2 0 2 4	2 0 5 4 2 0 5 4											
6095	1	2 0 4 5 4 4 4	5 5 5 4	2 4	3 2 0 2 0 2 4	2 0 4 4 2 0 5 4											
6096	1	2 0 2 3 2 3 3	2 2 2 2	3 3	3 1 1 1 1 1 4	2 0 3 4 2 0 3 4											
6096	3	2 0 4 4 4 4 4	4 4 4 4	1 4	3 1 1 1 1 1 3	2 0 3 3 2 0 4 3											
6096	5	2 0 4 4 3 3 3	4 4 3 3	3 3	4 2 0 2 0 1 3	2 0 3 3 2 0 4 3											
6096	6	2 0 4 5 4 3 3	4 4 4 4	1 3	1 2 0 1 1 2 2	2 0 3 2 2 0 4 2											
6096	7	2 0 3 4 3 3 3	4 3 3 3	3 3	4 2 0 2 0 2 3	2 0 3 3 2 0 3 3											
6096	8	2 0 4 4 4 3 4	4 4 4 4	1 4	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6096	9	2 0 3 4 3 3 3	3 3 4 4	1 3	1 2 0 2 0 1 3	2 0 3 3 2 0 4 3											
6097	1	2 0 4 5 4 4 4	4 4 4 4	1 4	1 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6098	1	2 0 5 5 5 5 5	5 5 5 5	2 5	3 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6098	2	2 0 4 5 5 5 5	4 4 4 4	1 4	2 2 0 2 0 2 4	2 0 4 4 2 0 4 4											
6098	3	2 0 5 5 4 4 4	4 5 5 5	1 4	1 2 0 2 0 2 4	2 0 4 4 2 0 5 4											

APPENDIX I
 IN VEHICLE EVALUATION
 BY VEHICLE PER TEST PHASE

TEST SITE: WASHINGTON, D.C.

VEHICLE NUMBER	SEQUENCE NUMBER	CONSTANT SPEED PHASE (OVER THE ROAD)	ACCELERATION FROM STOP PHASE (OVER THE ROAD)	RESTART PHASE	COLD START AND IDLE PHASE (DYNAMOMETER)					DRIVE AWAY PHASE (DYNAMOMETER)					
		1-1A-2-3-4-5-5A	1-2-3-4	1-2	1-2-2A-3-3A-4-5						1-1A-2-3-4-4A-5-6				
6078	4	2 0 5 5 4 4 4	4 5 5 5	1 4	1 2 0 2 0 2 4						2 0 4 4 2 0 5 4				
6099	1	2 0 4 5 4 3 3	3 4 5 5	2 3	2 2 0 2 0 1 4						2 0 3 4 2 0 4 4				
6100	1	2 0 5 5 4 4 5	4 5 5 5	3 4	2 2 0 2 0 1 4						2 0 3 4 2 0 4 4				
6100	2	2 0 4 5 4 4 5	4 5 5 5	2 4	1 2 0 2 0 1 5						2 0 4 5 2 0 4 5				
6100	3	2 0 4 5 4 4 4	4 5 5 5	2 4	3 2 0 2 0 2 4						2 0 4 4 2 0 5 4				

APPENDIX J

LISTING OF TEST RESULTS ON
MANUFACTURER'S CORRELATION VEHICLES



Engineering Staff
Current Product Engineering
General Motors Corporation

March 28, 1977

Mr. John T. White, III
Characterization and Applications Branch
Mobile Source Air Pollution Control
U.S. Environmental Protection Agency
2565 Plymouth Road
Ann Arbor, MI 48105

Dear Mr. White:

Subject: Repeatable Car (REPCA I) Used for R/M Laboratory Correlation

Attached is information you have requested pertaining to the correlation car, REPCA I, used during the joint EPA/GM Restorative Maintenance Program.

Vehicle Description - The vehicle is a standard Chevrolet converted into a "repeatable" car through several modifications. The car is used for hot start tests only to allow many tests to be run over a relatively short period of time. Major modifications include the following:

1. Carburetor - The secondary metering system, power system, accelerator pump, and choke were removed or rendered inoperative. The calibration was enriched slightly to achieve acceptable driveability consistent with the desired emission results. A one-inch thick insulating spacer was installed under the carburetor to minimize carburetor heating.
2. Ignition - A high energy ignition system was installed. Vacuum advance was eliminated and high temperature resistant wires were installed.
3. Accessories - All engine driven accessories, except for the water pump and the fan, were removed. A dummy alternator was used to tension the belt. All engine supplied vacuum functions, except for the transmission shift modulator, were eliminated. A house-powered battery charger was fitted to maintain the battery charge.
4. Brakes - Heavy duty station wagon brakes were fitted to the rear axle.
5. Engine - The EGR and AIR systems were eliminated. The air cleaner element was removed.

3/28/77

6. Fuel Supply - A fender-mounted, three gallon tank was installed. Regulated shop air, at 6 psi, was plumbed to the tank to supply constant temperature fuel to the carburetor at constant, non-pulsating pressure.

The modification information is excerpted from the paper by W. K. Juneja, D. D. Horchler, and H. M. Haskew, "A Treatise on Exhaust Emission Test Variability," Paper 770136 presented at the SAE Automobile Engineering Meeting, Detroit, Michigan, February 1977.

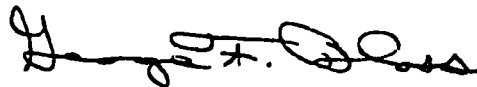
Inertia Weight and Horsepower - The vehicle is run at 4500 lb. inertia weight and 14.0 actual horsepower.

Vehicle Preconditioning and Warm-Up - Since the vehicle is used for hot start emission tests only (Phase II of the FTP), preconditioning and warm-up is accomplished by running the vehicle a minimum of 5 minutes at 50 miles per hour immediately followed by Phase I of the FTP.

Emission Test - The hot transient phase (Bag 2) of the FTP is the only test run with this vehicle. The data is reported in grams.

Test Results - Figure 1 shows the results of tests run at the GM Milford Vehicle Emission Laboratory prior to and after the vehicle was tested at the contractors' labs in Chicago and Washington, D.C. The data obtained at the contractors' labs (four tests at each location) is also shown. Because of the large number of tests on the vehicle at General Motors, a 95% confidence band is shown about the average emission levels.

I hope this information answers the questions you have had regarding the correlation vehicle.



George F. Blass
Emissions and Economy Evaluations

gs

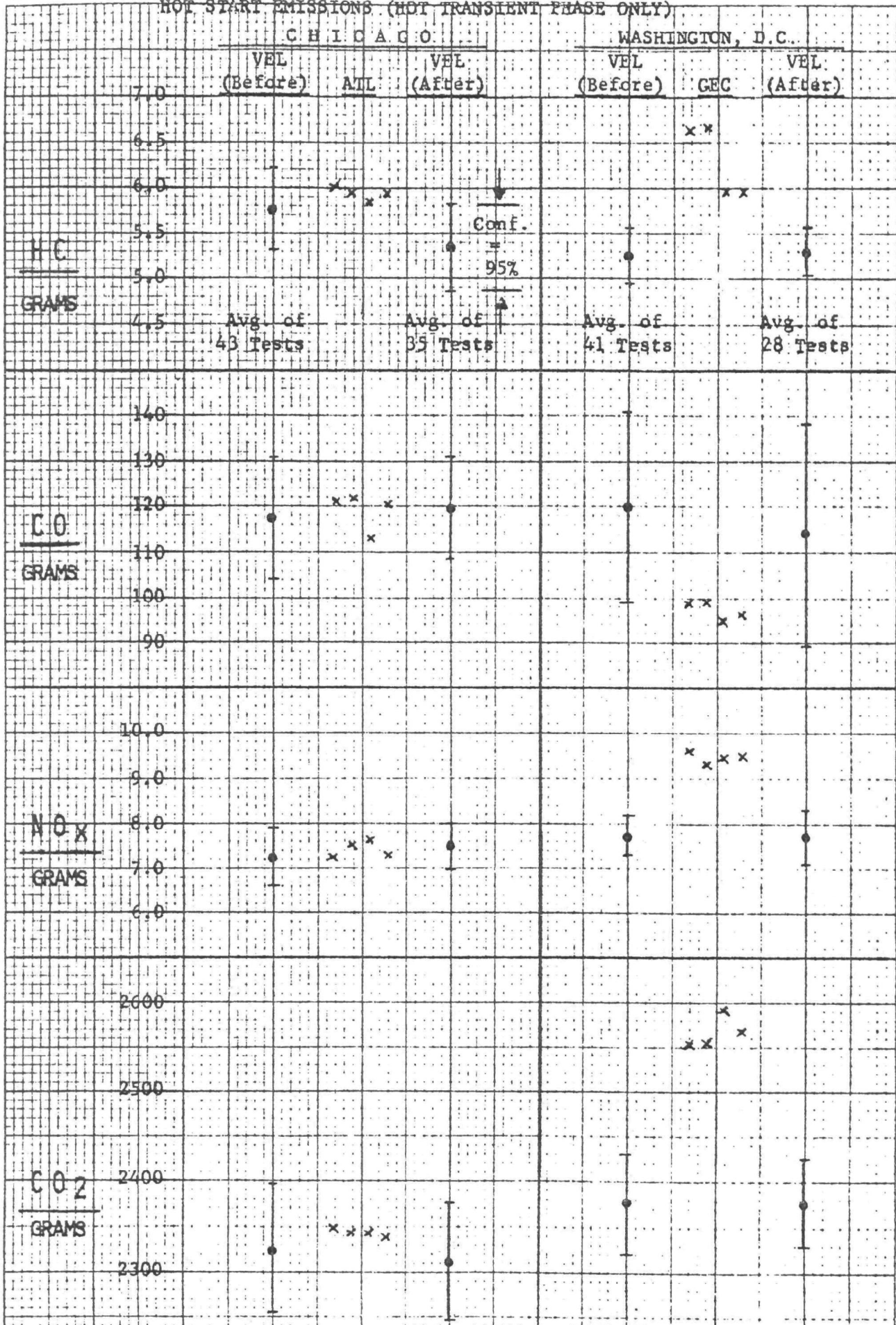
Attach.

cc: R. J. Bergin
R. W. Wiese
J. E. Pasek

REPCA I TESTS

PG-1000

HOT START EMISSIONS (HOT TRANSIENT PHASE ONLY)



PART I

GEC TEST RESULTS ON GENERAL MOTORS CORRELATION VEHICLES

FTP BAG#2 RESULTS FOR GM-REPCA (VEHICLE #104)

N=4	HC (g/bag)	CO (g/bag)	CO ₂ (g/bag)	NOx (g/bag)
Test 1	5.23	56.02	2064.33	15.87
Test 2	5.39	48.67	2030.60	15.48
Test 3	5.10	48.99	2112.43	16.68
Test 4	5.15	48.98	2040.48	15.63
$\bar{X}$	5.22	50.67	2061.96	15.92
σ	0.127	0.973	36.50	0.535

FTP BAG #2 RESULTS FOR GM-REPCA (VEHICLE #104)

N=4	HC (g/bag)	CO (g/bag)	CO ₂ (g/bag)	NOx (g/bag)
Test 1	6.12	100.42	2496.58	9.56
Test 2	6.13	100.69	2499.09	9.28
Test 3	5.38	99.28	2527.09	9.50
Test 4	5.37	101.35	2502.79	9.52
$\bar{X}$	5.75	100.44	2506.39	9.47
σ	0.433	0.863	14.04	0.126

FTP RESULTS FOR GM CORRELATION VEHICLE #103

N=5	HC (g/mi)	CO (g/mi)	CO ₂ (g/mi)	NOx (g/mi)	FUEL ECONOMY (MPG)
Test 1	0.80	8.02	692.53	1.91	12.54
Test 2	0.50	5.58	706.76	2.04	12.38
Test 3	0.51	6.99	747.59	2.50	11.68
Test 4	0.53	5.55	693.80	2.07	12.60
Test 5	0.67	10.71	698.97	1.78	12.36
$\bar{X}$	0.60	7.37	707.93	2.06	12.31
σ	0.130	2.14	22.87	0.272	0.368

NOTE: General Motors did not provide GEC with comparative data gathered by either GM or EPA for the GM correlation vehicles.

PART II

FORD/GEC/EPA - FTP TEST RESULTS ON FORD CORRELATION VEHICLE #106T304

FORD RESULTS:

N=4	HC (g/mi)	CO (g/mi)	CO ₂ (g/mi)	NOx (g/mi)	FUEL ECONOMY (MPG)
Test 1	0.896	2.37	573	2.16	15.3
Test 2	0.926	1.73	558	2.32	15.7
Test 3	1.057	2.97	571	2.47	15.3
Test 4	0.909	1.88	555	2.57	15.8
$\bar{X}$	0.947	2.24	564	2.38	15.5
σ	0.074	0.56	9.1	0.18	0.26

GEC RESULTS:

N=8	HC (g/mi)	CO (g/mi)	CO ₂ (g/mi)	NOx (g/mi)	FUEL ECONOMY (MPG)
Test 1	0.84	2.26	561.88	2.78	15.62
Test 2	0.88	2.23	572.05	3.03	15.35
Test 3	0.86	2.44	578.90	3.16	15.16
Test 4	0.90	3.04	586.58	2.79	14.94
Test 5	0.91	2.28	574.88	2.61	15.27
Test 6	0.92	2.82	583.13	2.51	15.03
Test 7	0.93	2.93	578.55	2.53	15.14
Test 8	0.88	2.26	573.10	2.65	15.32
$\bar{X}$	0.89	2.53	576.13	2.76	15.23
σ	0.0307	.34	7.58	0.234	0.212

EPA RESULTS:

N=2	HC (g/mi)	CO (g/mi)	CO ₂ (g/mi)	NOx (g/mi)	FUEL ECONOMY (MPG)
Test 1	0.907	2.42	545	2.22	16.1
Test 2	0.881	2.39	543	2.14	16.1
$\bar{X}$	0.894	2.41	544	2.18	16.1
σ	0.018	0.02	1.4	0.06	0

PART III

CHRYSLER/GEC/EPA - FTP (HOT START) BAG #1 RESULTS FOR CHRYSLER CORRELATION VEHICLE

CHRYSLER RESULTS:

N=14	HC (Gm/Mi)	CO (Gm/Mi)	CO ₂ (Gm/Mi)	NO _x (Gm/Mi)	FUEL ECONOMY (MPG)
Test 1	.440	1.13	593.1	2.55	14.88
Test 2	.425	.85	588.4	2.59	15.02
Test 3	.425	1.04	631.4	2.59	13.99
Test 4	.395	.84	633.7	2.44	13.95
Test 5	.393	.84	642.7	2.24	13.75
Test 6	.410	.94	638.4	2.32	13.84
Test 7	.436	.80	550.6	2.18	16.04
Test 8	.422	.81	571.1	2.26	15.47
Test 9	.369	.77	569.5	2.44	15.52
Test 10	.434	.95	582.9	2.45	15.15
Test 11	.375	.94	600.9	2.22	14.71
Test 12	.391	1.17	602.8	2.19	14.65
Test 13	.407	1.28	573.1	2.25	15.40
Test 14	.401	1.22	575.2	2.14	15.35
$\bar{X}$	.409	.97	596.7	2.35	14.84
σ	.023	.17	29.5	.16	.72

GEC RESULTS:

N=4	HC (Gm/Mi)	CO (Gm/Mi)	CO ₂ (Gm/Mi)	NO _x (Gm/Mi)	FUEL ECONOMY (MPG)
Test 1	.42	1.33	598.7	2.61	14.7
Test 2	.39	.91	587.2	2.64	15.0
Test 3	.39	1.02	578.9	2.66	15.3
Test 4	.43	1.14	581.3	2.59	15.2
$\bar{X}$	.41	1.10	586.5	2.63	15.1
σ	.02	.18	8.8	.03	.26

EPA RESULTS:

N=4	HC (Gm/Mi)	CO (Gm/Mi)	CO ₂ (Gm/Mi)	NO _x (Gm/Mi)	FUEL ECONOMY (MPG)
Test 1	.56	1.96	608.0	2.66	14.50
Test 2	.36	1.91	601.0	2.63	14.70
Test 3	.36	1.88	587.0	2.63	15.00
Test 4	.32	2.40	596.0	2.80	14.80
$\bar{X}$	.40	2.04	598.0	2.68	14.75
σ	.11	.24	8.8	.08	.21

APPENDIX K

LISTING OF TEST VEHICLES WHICH WERE REPLACED BY OTHER VEHICLES

Original Vehicle		Replacement Vehicle
Vehicle No.	Reason for Replacement	Vehicle No.
5039	Faulty transmission	6039
6060	More than 15,000 mi. accumulated	6060
5013	More than 15,000 mi. accumulated	5013
6087	More than 15,000 mi. accumulated	6087
6051	More than 15,000 mi. accumulated	6051
5027	More than 15,000 mi. accumulated	5027
6037	More than 15,000 mi. accumulated	6037
5057	More than 15,000 mi. accumulated	5057

APPENDIX L

TEST FUEL ANALYSIS REPORTS

J. A. NERE CO., INC.

TELEPHONE 373-1543



HEATING OILS
GASOLINES
DIESEL FUELS
INDUSTRIAL LUBRICANTS
TEXACO PRODUCTS

P. O. BOX 822
FREDERICKSBURG, VA. 22401

June 23, 1976

Mr. Tony Frazier
c/o General Environments Corp.
Hartwood, Virginia

Dear Mr. Frazier:

Below is the analysis of our Texaco Unleaded gasoline as delivered 6/23/76, delivery ticket no. 10153:

Sulfur, %	0.10
Gum, ASTM, mg/100ml	4
Octane, No. Research	91
Reid Vapor Press. psi @100	8.5 max.
ASTM Dist. °F	
10%	122
50%	200
90%	316
Residue, %	2%
End Point	410
Lead Content	0.03
Water %, Sediment %	0
Olefin, %	0.8
Saturates, %	64.6
Aromatics, %	34.6
Phosphorus	0.002

Sincerely,

J.A. NERE CO., INC.

John A. Nere
President

JAN:ds

HOWELL HYDROCARBONS

GEC

San Antonio, Texas P.O. 73406
LABORATORY REPORT

File No.

Sample: TECHNICAL FUEL Exhaust Evaporative Emission 30 Date: 7-23-76

INSPECTION		DISTILLATION			
Gravity, °API	62.1		% @	Initial Boiling Point	88
Color	Pink		% @	5%	114
Doctor	Neg		% @	10%	134
Corrosion	I-A		% @	20%	165
RVP	9.0		% @	30%	193
Octane No. F-1 Clear			% @	40%	210
Octane No. F-1 + ____ ml TEL	104.0		% @	50%	219
Octane No. F-2 Clear				60%	224
Octane No. F-2 + ____ ml TEL	101.6			70%	236
Total Sulfur, Wt. %	.004			80%	248
Mercaptan Sulfur				90%	301
Flash, F.				95%	336
Pour Point, F.		Diesel Index		End Point	386
Cloud Point, F.		Cetane No.		Recovery	98.0
Freeze Point, F.		Viscosity, S S @ ____ F		Residue	1.0
Smoke Point, mm		Viscosity, @ ____ F.		Loss	1.0
Aniline Point, °F		B S & W.		Paraffins, %	
Aniline Gravity Const		ASTM. Existent Gum, mg	1.0	Olefins, %	1.8
Water Tolerance		Potential Gum, mg.		Naphthenes, %	
				Aromatics %	22.2
				Phos	0.0
				Oxid Stab	1000+

Remarks:

Tested By: T. A. Moorman

TECHNICAL REPORT DATA <i>(Please read Instructions on the reverse before completing)</i>			
1. REPORT NO. EPA-460/3-76-031		3. RECIPIENT'S ACCESSION NO. PB-224 316/AS	
4. TITLE AND SUBTITLE Evaluation of Restorative Maintenance on 1975 and 1976 Light Duty Vehicles in Washington, D. C.		5. REPORT DATE	
		5. PERFORMING ORGANIZATION CODE	
7. AUTHOR(S) LeBaron H. Washington		8. PERFORMING ORGANIZATION REPORT NO.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS General Environments Corporation 6840 Industrial Road Springfield, Virginia 22151		10. PROGRAM ELEMENT NO.	
		11. CONTRACT/GRANT NO. 68-03-2185	
12. SPONSORING AGENCY NAME AND ADDRESS Environmental Protection Agency Office of Air and Waste Management Office of Mobil Source Air Pollution Control Emission Control Technology Division Ann Arbor, Michigan 48105		13. TYPE OF REPORT AND PERIOD COVERED Final	
		14. SPONSORING AGENCY CODE	
15. SUPPLEMENTARY NOTES			
16. ABSTRACT General Environments Corporation under contract to the Environmental Protection Agency, conducted a comprehensive study of automobile exhaust emissions and the effects of restorative maintenance and selective engine parameter maladjustment on these emissions. This was a study of 100, 1975 and 1976 model year consumer owned vehicles from the Washington, D. C. area and was an addition to a total surveillance program which had been conducted in seven major cities (Denver, Washington, D. C., Los Angeles, Houston, Phoenix, Chicago and St. Louis) in order to determine the impact of automobile emissions on air quality. This additional study was not made in all seven of the cities involved in the original study. Specifically, vehicles from the Washington, D. C. area were tested for fuel economy and the content of total hydrocarbons, carbon monoxide, carbon dioxide and nitrogen oxides in their exhaust emissions using the 1975 Federal Test Procedure, the Highway Fuel Economy Test, the Federal Short Cycle, the New York-New Jersey Acid Test, the Clayton Key Mode Test, the Two Speed Idle Test, and the Federal Three Mode Test.			
17. KEY WORDS AND DOCUMENT ANALYSIS			
a. DESCRIPTORS		b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution Exhaust Emissions Automobiles Hydrocarbons Carbon Monoxide Carbon Dioxide Oxides of Nitrogen		Gasoline Fuel Economy Restorative Maintenance	
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