EFFECTIVENESS OF SOUTH COAST AIR BASIN

CHANGE OF OWNERSHIP

I/M PROGRAM

AESi
AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
A subsidiary of Clayton Manufacturing Company

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CHANGE OF OWNERSHIP

I/M PROGRAM

by

Alan D. Jones

Automotive Environmental Systems
7300 Bolsa Avenue
Westminster, California 92683

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ABSTRACT

This report presents and summarizes exhaust emissions test data and other related information obtained in the testing and inspection of 55 in-use passenger cars. The test fleet consisted of 1975-1979 automobiles. The test vehicles were obtained randomly from private owners in the Los Angeles and Orange County areas. The testing was completed October 1980.

Each vehicle was tested in as-received condition and given an underhood emissions control component inspection. The test sequence consisted of a tailpipe test for the presence of lead, an underhood emissions control component inspection and a four-mode idle emissions test. Vehicles passing this initial screening were returned to the owners and those vehicles failing the screening remained at AESi for more extensive testing. The vehicles remaining at AESi received a State Lane inspection, a 1975 Federal Test Procedure, a Highway Fuel Economy test, a 50 MPH Cruise test, a Four-Speed Idle test, a Federal Loaded Two-Mode test, a State Loaded Two-Mode test, a Four-Speed Idle test with one spark plug disconnected and needed repairs performed by AESi and state qualified commercial repair facilities. Three of the vehicles remaining at AESi received SHED evaporative emissions testing.

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SECTION 1

INTRODUCTION

The U.S. Environmental Protection Agency (EPA), through authority provided by the Clean Air Act, is responsible for the control and prevention of air pollution. As provided by the Act, one of the charges of the EPA is the design, conduct and promotion of surveys and studies of the sources of air pollution. The Emission Control Technology Division (ECTD) of the EPA develops, implements and administers a national program to characterize, quantify and reduce the air pollution caused by mobile sources. Included in the division's responsibilities is the collection of emissions data from in-use vehicles and the development and evaluation of alternatives for the control of vehicle emissions. These in-use vehicle data are utilized by the EPA in calculating and projecting motor vehicle emissions from light-duty vehicles. The emission factors generated by this process are also used in developing transportation control procedures and contingency programs to cover emergency situations. Outside of the EPA, these data and the emission control alternatives are used by various state and local agencies in their air pollution control programs. In carrying out its responsibilities, the EPA regularly conducts in-use vehicle emission factors programs and emission control alternative studies. In order to support the states in their efforts to implement their air quality programs, the Emission Control Technology Division will use the data generated by this project to assess the effectiveness of new technology vehicle exhaust emissions systems in Los Angeles.

This report describes a program conducted by Automotive Environmental Systems, (AESi) to gather information on the effectiveness of south coast air basin change of ownership I/M program. The testing was conducted between August 1980 and October 1980.

Section 2 of this report describes the objectives, design, and conduct of the program. Section 3 presents summary results. Detailed listings of data are presented in the Appendices by vehicle number. Data packets and punched computer cards, with EPA-defined data formats, were submitted to the Project Officer.

SECTION 2

TECHNICAL DISCUSSION

2.1 PROGRAM OBJECTIVES

This report describes a program conducted by Automotive Environmental Systems, (AESi) to gather information on the effectiveness of south coast air basin change of ownership I/M program. The testing was conducted between August 1980 and October 1980.

2.2 PROGRAM DESIGN

The emphasis of this project was to gather information on the effectiveness of south coast air basin change of ownership I/M program. The effectiveness of this program may aid other areas in the implementation of similar programs. The test fleet consisted of 1975-1979 vehicles specifically selected by the EPA to represent a cross-section of vehicles that had possibly undergone a change of ownership since the program began.

2.3 TEST VEHICLE PROCUREMENT

A list of vehicle makes and engine families was provided by the EPA. Specific guidelines were provided as to the quantities desired from each of these engine families.

In an effort to avoid biasing the sample, the number of vehicles procured from members of commercial, civic, fraternal, or religious organizations was limited to fifty percent of the vehicles from any one model year. The use of rental, leased or fleet vehicles was forbidden. Groups of vehicles were not obtained from organizations which are automobile oriented.

2.3.1 Test Vehicle Selection

Test vehicles were selected based on guidelines provided by the EPA Project Officer.

Test vehicles were solicited using various methods. The primary method was from vehicle registration lists purchased from a market information service company, from which mailings were prepared. Vehicles

were also solicited using news releases in local papers and paid advertisements in newspapers and flyers.

2.3.2 Incentives for Participation

The owner of a suitable test vehicle was provided the following incentives for his participation:

A $100 U.S. Savings Bond. Bonds were mailed to participants within one month following the test on their vehicle.

The use of a late-model, fully insured loaner automobile during the time their vehicle was undergoing testing.

The owner's automobile was returned with a full tank of fuel.

Owner's of vehicles that passed the initial screening were given a tank of gas only.

2.3.3 Test Vehicle Handling

In most cases, the vehicle was scheduled to be delivered to AESi in Westminster by appointment. In some cases, vehicles were picked up and/or delivered at a participant's home or place of business. An inspection was performed to ensure proper vehicle match and to establish the physical condition of the vehicle. The owner remained at AESi during an initial screening of the vehicle. This screening consisted of a tailpipe test for the presence of lead, using plumbtesmo test paper, an underhood emissions control component inspection, an EGR test and a four-mode idle emissions test. Vehicles passing this screening were returned to the owner with a full tank of gasoline. Vehicles failing this screening remained at AESi for further testing. A loan vehicle exchange agreement, the savings bond application and the Vehicle Owner Use Questionnaire were completed at this time. Once the vehicle was accepted into the program it then followed the sequence illustrated in Figure 2.

2.4 FACILITIES AND EQUIPMENT

2.4.1 Test Location

All tests were performed at AESi's test facility at 7300 Bolsa Avenue in Westminster, California. The facility is located approximately 25 miles south of downtown Los Angeles at an elevation of 45 feet above sea level.

The test facility environment, including testing and vehicle soak areas, was maintained within the requirements of the contract. A permanent

record was maintained for the ambient temperature in the soak and test areas for all phases of testing. The vehicle soak area is inside the same building as is the test area and is free from precipitation.

2.4.2 Constant Volume Sampler

A positive displacement pump type constant volume sampler (CVS) built by AESi was used in this program. This CVS meets or exceeds all specifications defined in the Code of Federal Regulations Title 40, Part 86, Subparts A and B (40 CFR Part 86). The system contains six sample bags switched by computer in sample/background pairs for all dilute exhaust sample testing.

All plumbing in the sampling, analytical and calibration systems is either stainless steel or teflon. This includes all sample, calibration and zero gas lines and the valves and regulators for NO gases. Leak-tight stainless steel convoluted tubing is used between the CVS and the vehicle tail pipe for exhaust gas sampling. An appropriate leak-tight boot was used to connect the tail pipe to the convoluted tubing. A stainless steel heat exchanger with a temperature controlled cold water inlet was used to provide essentially a constant exhaust gas temperature throughout the entire test.

The sample and dilution air bags are made of Dupont Tedlar material and are of a volume compatible with the CVS unit (i.e., no pressure build up in the bag when filling with sample or background gas).

2.4.3 Emission Analysis Console

An AESi exhaust gas analytical system meeting or exceeding the specifications of 40 CFR Part 86, was used for dilute gas measurements. Similar laboratory type instrumentation, with additional ranges, was used for analysis of raw NO gas. In addition, a Chrysler Model III garage-type analyzer was used for measurement of raw HC and CO. The console contains the following instrument types and ranges:

Analyzer	Ranges
Bendix Model 8501-5C NDIR (Lo CO - Dilute Exhaust)	0-100, 0-500 ppm (11 1/4" Cell Length)
Beckman 315B NDIR (Hi CO - Dilute Exhaust)	0-.3% (2 1/2" Cell Length) 0-3%, 0-5% (1/4" Cell Length)
Beckman 315B NDIR (CO_2 - Dilute Exhaust)	0-2.5%, 0-4% (1/4" Cell Length)

Beckman 400 FID (Lo HC - Dilute Exhaust)	0-50, 0-100, 0-300 ppm Carbon
Beckman 400 FID (Hi HC - Dilute Exhaust)	0-1,000, 0-3,000 ppm Carbon
Teco 10AR Chemiluminescent (NOx - Dilute Exhaust)	0-100, 0-250 0-1,000, 0-2,500 ppm
Teco 10AR Chemiluminescent (NO - Raw Exhaust)	0-250, 0-1,000, 0-2,500 0-4,000 ppm
Chrysler Model III Garage (HC - Raw Exhaust)	0-300, 0-2,000 ppm Hexane Equivalent
(CO - Raw Exhaust)	0-.5%, 0-10%

2.4.3.1 Laboratory Standard Calibration & Working Gases

Laboratory standard calibration gases, previously approved by EPA, were used for defining instrument calibration curves and assigning concentration values for the working gases. Each cylinder of standard gas and each working gas cylinder was equipped with its own pressure regulator as specified by the contract. All gases were plumbed to a quick-disconnect panel for ease in selecting the gas desired during calibration and testing.

Calibration gases for each range of the HC and NOx analyzers were chosen such that three points were used across the curve (zero and approximately 45% and 90% of full scale concentration). CO and CO_2 calibration points were at zero and approximately 15, 30, 45, 60, 75 and 90 percent of full scale. All span gases were 80-100 percent of full scale.

The diluents used in the calibration and working gases are:

HC, ppmC	Propane in HC free air
NOx, ppm	In zero grade nitrogen
CO, mole %	In zero grade nitrogen
CO_2, mole %	In zero grade nitrogen

2.4.4 Sealed Housing For Evaporative Determinations (SHED)

Evaporative emissions tests were performed using an AESi SHED and its associated operator console. The SHED meets all requirements of 40 CFR Part 86. The console includes a Beckman 400 FID analyzer with ranges of 0-100, 0-300, 0-1000 and 0-3000 ppmC; a Linear Instruments chart recorder for analyzer output; a Leeds and Northrup SPEEDOMAX multipoint temperature recorder; and a variable voltage source and heating element (blanket) for applying heat to the vehicle gas tank for the diurnal heat build. A cooling package is installed to ensure operation of the SHED within the temperature range of 68°F to 86°F. The cooling package consists of a 1680 CFM fan

and a heat exchanger utilizing cold water (68°F) to maintain the ambient temperature within the SHED.

2.4.5 Chassis Dynamometer

The chassis dynamometer was equipped to simulate vehicle inertia and road load horsepower as required in 40 CFR Part 86.

The dynamometer used was a Clayton ECE-50 with 17 1/4 inch roll spacing and 8 5/8 inch diameter rolls. Direct drive variable inertia loading weights were employed, with 250 pound increments from 1,750 through 3,000 pounds and 500 pound increments from 3,000 through 5,500.

A speed meter which indicates mi/hr was used to monitor the speed of the dynamometer roll. The rear dynamometer roll is equipped with a tachometer generator which provides the speed signal during testing. The meter response was linear with speed and the accuracy was within ±2.0 km/hr (±1.2 mph) over the range of 0-95 km/hr (0-59 mph). The dynamometer was equippped to measure actual distance traveled for each segment of the FTP testing sequence. However, the theoretical distance for each segment was used in the exhaust emissions calculations.

The power absorption unit was monitored by a power meter accurate and readable to ±0.25 hp (0.187 kw) over the range of intended use.

2.4.6 Data Acquisition System

Data were obtained from the analyzers, CVS and dynamometer via an AESi Data Acquisition Control Computer (DACC). A Data General NOVA computer was used for generating driver traces for the various driving schedules, for sample bag management and for calculation and presentation of the emission test results. The data were printed by a Data General Dasher printer immediately following sample analysis.

The output from the analyzers was also wired to four Hewlett-Packard Model 7130A two-pen recorders. One recorder was used for dilute HC and NOx, one for dilute CO and CO_2, one for undiluted HC and CO and one for undiluted NO.

2.4.7 Driver's Aid

A two-pen Hewlett-Packard Model 7130A Driver's Aid (speed vs time recorder) was employed to permanently record the driver's performance during the test. The driving trace was generated by the NOVA computer on this recorder in agreement with the specifications of 40 CFR Part 86.

2.4.8 Miscellaneous Equipment

Miscellaneous equipment used in conjunction with the major items of equipment included the following:

Two Teco Model 100 NOx Generators. The generator in the raw gas analysis bench was not used since only NO is reported.

One Rustrak Chart Recording Psychrometer, Model 2133B with continuous recording of wet/dry bulb temperatures.

One Rustrak Chart Recorder, Model AD 101-462-2A for continuous recording of CVS temperature.

One Weathermeasure M701 continuous recording temperature recorder for soak area temperature.

One Princo Mercurial Barometer.

One Meriam 50 MC2-4SF Laminar Flow Element for CVS calibration.

One Sartorius Model 2257 Balance used for weighing the propane cylinders for propane recovery tests.

One Strobotach for dynamometer speed calibration.

Horiba GSM and MEXA 300A garage analyzers were used for vehicle inspection by the mechanic.

2.5 EQUIPMENT QUALIFICATION, CALIBRATION AND CROSSCHECK

This section describes the qualification, calibration, and crosscheck procedures utilized by AESi and verified by EPA technical personnel to ensure that valid test data were generated throughout the test program. Initial qualification included complete demonstration of individual instrument calibration, zero air and nitrogen purity, CVS calibration, dynamometer calibration, and inspection of all daily, weekly and monthly logs.

2.5.1 Constant Volume Sampler

The CVS was calibrated with a laminar flow element (Meriam Model 50- MC2-6SF) using the basic procedures specified in the Federal Register. CVS air flow, measured using the laminar flow element on the inlet side of the mass pump (CVS blower) was controlled by throttling. Air flow rates were measured at five incremental changes in pump differential pressure on each side of the normal operating point. Flow rates at a total of at least ten points were measured. The nominal air flow of the CVS is 345 cfm. Auxiliary devices employed in the calibration included a mercury barometer to measure absolute ambient pressure, a close tolerance mercury thermometer to measure pump inlet air temperature, a U-tube water manometer to measure pressure drop across the pump and pump inlet pressure and a close tolerance inclined water manometer to measure pressure drop across the laminar flow

element. Once this calibration was completed, data from these devices were computer processed and the mid-range blower operating point was determined. Propane recovery tests using instrument grade propane were made after the calibration to confirm its accuracy. A copy of the calibration data was provided to the EPA Project Officer as a part of the qualification data package.

Calibration of the laminar flow element (LFE) is traceable to the National Bureau of Standards, and a certified copy of the LFE calibration curve was furnished to the Project Officer at the time of Laboratory Qualification.

Daily propane recovery tests were made to confirm continued calibration of the CVS system. The measured propane mass recovered by the CVS had to be within $\pm$2.0 percent of the injected mass of up to 20 grams of instrument grade propane as determined gravimetrically. The recovered amount of propane was measured on the 0-300 ppmC FID range. A Rustrak chart recorder was used to continuously record CVS temperature during these tests.

2.5.2 Emission Analysis Console

2.5.2.1 Dilute Exhaust Analysis Console

Complete calibrations of the mass emission analysis console instruments were performed initially and checked each week thereafter until testing was completed. Calibration curves for the mass emission analysis console CO, CO_2, HC and NOx instruments were established using the gases previously identified. The CO and CO_2 instruments were calibrated at seven somewhat evenly spaced points (zero and six upscale points) across each operating range. Calibration of the HC and NOx instruments was performed at three somewhat evenly spaced points (zero and two upscale points) across each operating range. Calibration of these instruments was established and maintained within one percent of full scale for each range, respectively, or five percent of the measured value, whichever was smaller. A computer program provided by the EPA was used in the generation of the calibration curves.

In connection with each test, the CVS sample bags were purged with nitrogen, evacuated and leak-checked. These operations were performed in a bag evacuate, N_2 purge, evacuate and leak-check sequence by means of a manual push-button selection of solenoids located within the CVS. A leak in the system is indicated by a non-zero flow in the flow meters on the operator's console.

Other activities included setting zero and span points immediately prior to exhaust sample analysis and zero and span point verifications immediately following exhaust sample analysis. Strip chart recorders were operated continuously throughout the zero and span set-point calibration, sample analysis and zero and span verification sequence. Verification tolerances were maintained within $\pm$1 deflection from the set-point for the

range in use. Converter efficiency of the NOx converter was maintained above 90 percent. The noise level of analyzer outputs as indicated on the strip chart was maintained within ±0.5 percent of full scale for the range used during both calibration and analysis.

2.5.2.2 Raw Exhaust Analysis Console

The NOx instrument used in the undiluted (raw) emission analysis console is a laboratory instrument calibrated using the same gases, calibration points, tolerances and verification frequency described above in connection with the NOx instrument used in the mass emission analysis console. Efficiency of the tail pipe raw exhaust NOx laboratory instrument thermal converter was not checked daily because NO (Nitric Oxide) was measured and reported, not NOx (Oxides of Nitrogen).

The tail pipe HC/CO measurement instrument was operated in accordance with the manufacturer's recommendations except that this instrument was zeroed with nitrogen and the HC and CO span-points calibrated with appropriate gases immediately prior to each test. Each analyzer was checked for zero and span point drift immediately following each test.

2.5.2.3 Daily Qualification Checks

Daily qualification checks included:

Leak-check of each instrument as well as the system.

Recording of zero, gain and tune, as applicable, for each instrument.

Hang-up and leak-checks for background and sample bags and sample line.

NOx analyzer vacuum and converter efficiency checks.

Propane recovery tests to ensure proper FID operation as well as verification of the CVS calibration.

Recording of FID fuel and air pressure.

Recording of cylinder number, concentration, deflection, cylinder pressure for each working gas.

In addition to the above daily checks, weekly calibration curve checks were made for each range of each instrument.

Appropriate calibrations, leak-checks, etc., were also made whenever maintenance was performed which could change instrument or system operation.

2.5.3 Sealed Housing for Evaporative Determinations (SHED)

The volume of the SHED used was determined by physical measurement. Calibration of thermocouples used in the SHED was verified by an ASTM thermometer as was the temperature recording instrument. Calibration curves were generated for each range of the Beckman 400 FID used in the analytical console. These curves were verified weekly.

For initial calibration, the FID was zeroed on zero grade prepurified air and calibrated at two upscale points (i.e. 45% and 90% of full scale) on each of the ranges used. The same hydrocarbon gas standards previously described were employed for this calibration. Curve fit tolerances and verification frequency were the same as those applied to the dilute emission analysis console instruments.

The SHED was subjected to a background hydrocarbon check, a calibration check and a retention check prior to testing the first vehicle.

The background emissions check was performed by sealing the enclosure and allowing it to remain sealed for a period of four hours. Initial and final hydrocarbon readings were taken. The background emission rate was acceptable when it was less than the maximum increase of 0.4 grams for the four hours, as defined in 40 CFR Part 86.

The SHED was calibrated by first purging with fresh air and then sealing the enclosure. Approximately 4 grams of instrument grade propane was injected into the enclosure after the enclosure was sealed. The mixing fans were operating during this injection. After five minutes of mixing, the stabilized hydrocarbon level of the enclosure was measured and the mass calculated. The quantity of the calculated recovery was within $\pm$2% of the injected amount.

The propane retention (leak) check was performed following the calibration. In this check the SHED was allowed to remain sealed for a minimum of four hours with the mixing blowers operating. At the end of this period the hydrocarbon level of the enclosure was measured and the mass calculated. For this check, the hydrocarbon level was within $\pm$4% of the initial reading as calculated. The SHED calibration and retention tests were performed monthly thereafter.

2.5.4 ECE-50 Chassis Dynamometer

Dynamometer speed was verified initially and bi-weekly with a Strobotach. Road load force was determined using calibrated weights. Coastdowns were performed initially and bi-weekly thereafter to verify the road load force versus inertia weight relationships as given in 40 CFR Part 86.

2.5.5 Data Acquisition System

The data acquisition system was verified by performing manual checks of equipment performance and hand calculations from strip chart data and comparing these with the data provided by the DACC. This activity was verified by a Quality Assurance inspection for each test. A reasonableness check is performed for each critical data element. Any suspect data was verified by strip chart or calculation. Any data found to be in error was independently recalculated wherever possible or the test was rejected.

2.5.6 Miscellaneous Equipment

All miscellaneous equipment was calibrated or verified according to manufacturer's recommended practices. The CVS laminar flow element and barometers were calibrated by Meriam Instruments Company.

2.6 TEST PROCEDURES

2.6.1 Vehicle Preparation

Each vehicle received a preliminary safety inspection as part of the procurement activity. This was done to ensure that the vehicle was safe to operate on the street. Upon acceptance for testing, the vehicle's fuel tank was drained and refueled with appropriate test fuel to 40% of tank capacity. Vehicles receiving a SHED test were further prepared by locating a point on the side of the fuel tank that approximated the midpoint of the 40% fuel volume. A Type J thermocouple was then soldered to the tank at that point. To ensure that test fuel had purged the fuel system, the vehicle was driven for ten minutes on city streets or on the dynamometer for the first 505 seconds of the FTP. After the preconditioning run, the vehicle was driven or pushed into the soak area for the required 12 to 24 hour soak at temperatures between 68°F and 86°F. Drive wheel tire pressure was set to 45 psi prior to dynamometer testing to prevent tire damage.

Figure 2 presents a flow chart of testing activities.

2.6.1.1 Driveability Evaluation

An evaluation of the driveability of each vehicle was performed prior to and during each FTP. The evaluation is essentially the same as that performed on previous EPA light duty vehicle projects.

2.6.2 Equipment Preparation

Prior to the first test of the day and following any shut-down, equipment which had been idle or in a stand-by condition was activated to begin warm-up. This included the CVS water heater, mass pump and each of the analytical instruments. Following the warm-up of the respective instruments, efficiency of the NOx instrument thermal converter was checked and

the propane recovery test involving the CVS sample system and the FID hydrocarbon instrument was conducted. Subsequent to these checks, analyzer outputs, as indicated by the strip chart recorders and the DACC computer and printer, were checked for correlation by calibrating at zero and five volts. Prior to the first exhaust emissions test of the day or following any extended shut-down, the dynamometer was warmed-up. The prescribed 15 minutes of 30 mile per hour operation of the dynamometer was the warm-up procedure followed. Following warm-up, the speed calibration of the dynamometer, driver's aid recorder and associated indicating devices were also checked and calibrated as necessary.

Prior to each test, all charts were properly stamped to show, among other things, the vehicle number, run number, date and persons involved in the test.

2.6.3 Initial Screening

This written procedure should be used in conjunction with the Test Flow Chart presented in Figure 2.

All vehicles were screened upon arrival at AESi for "obvious pass" classification. The screening consisted of a tailpipe test for the presence of lead, using plumbtesmo test paper, an underhood component inspection and a 4-mode idle emissions test. The plumbtesmo lead test procedure is presented in Figure 4. The plumbtesmo test paper was attached to the underhood/EGR inspection form and submitted with the other test data to the EPA Project Officer.

The underhood component inspection was originally planned to duplicate the inspection performed at the State Inspection Lanes. The underhood/EGR inspection procedure was developed by AESi based on California Air Resources Board and the Bureau of Automotive Repair supplied requirements. An underhood/EGR inspection form is presented in Figure 4 with the EGR test procedure. It was later determined that the AESi underhood check was a far more intense inspection than the inspection being performed at the State Lanes. As a result several vehicles were failing the initial screening at AESi, passing the State Lane inspection and being tested further as "incorrect pass" vehicles. Consequently, EPA decided that all vehicles tested after September 19, 1980 would receive the initial screening tests (plumbtesmo lead test, underhood/EGR check and 4-mode idle emissions test) but pass/fail would be determined by the emissions test only. This eliminated any possibilities of incorrect pass vehicles.

2.6.4 State Lane Inspection

The State Lane inspection station testing consisted of a very quick underhood inspection and a State Loaded 2-Mode emissions test. The State Loaded 2-Mode test included 40 MPH Cruise (at specified loads*) and idle in neutral. The cost of the test was $11 and a retest, should the vehicle fail, was $7.

2.6.5 Cold Start Sequence

The Cold Start testing sequence included a 1975 Federal Test Procedure (FTP) cold start test, a 50 MPH Cruise test, a Highway Fuel Ecnomy test (HFET), a Four-Speed Idle test, a Federal Loaded 2-Mode test, a State Loaded 2-Mode test (at specified loads*) and a Four-Speed Idle test with one spark plug wire disconnected. This test sequence was performed following a State Lane test or following any AESi repair work on the vehicle.

2.6.5.1 Federal Exhaust Emission Test Procedure

The Federal Test Procedure as described in 40 CFR Part 86 was performed on all vehicles in the as-received condition. The evaporative emissions portion of the procedure was performed on 3 vehicles in this program. The exhaust emission portion of the Federal Test Procedure is comprised of cold transient, cold stabilized and hot transient phases. The cold transient portion is 505 seconds long, covering a distance of 3.59 miles with an average speed of 25.6 mph. The cold stabilized portion is 869 seconds in length, 3.91 miles in distance and a 16.2 mph average speed. The hot transient portion is identical to the cold transient portion except that it is preceded by a 10 minute soak. The evaporative emissions testing consisted of a diurnal heat build as described in 40 CFR Part 86 paragraph 86.133-78. This was followed by FTP testing and a Hot Soak test per 40 CFR paragraph 86.138-78.

The cold soak period used for the test vehicles was 12 to 24 hours. The starting procedures and shift points used for the test vehicles were as recommended by each manufacturer.

2.6.5.2 50 MPH Cruise

This test takes advantage of the 3 minute preconditioning run before the HFET. Tailpipe emissions are recorded and measured continuously throughout the period although the official sampling period ends 30 seconds after the speed and load have stabilized at 50 MPH.

*NOTE:		
	10.0 AHP ±1.0	4 Cylinders or less
	15.0 AHP ±1.0	5 or 6 Cylinders
	17.5 AHP ±1.5	8 Cylinders less than 3250 lbs
	20.0 AHP ±1.5	8 Cylinders more than 3250 lbs

2.6.5.3 Highway Fuel Economy Test

Starting with each vehicle in a warmed-up condition (at least 7.5 miles of cyclic operation within the last thirty-five minutes) each vehicle was operated on the chassis dynamometer at 50 miles per hour for three minutes. Within one minute after the end of the 50 mile per hour cruise period, the vehicle commenced operation over the 10.242 mile, 765 second driving schedule. A CVS sample bag was used to gather the dilute exhaust for emissions analysis and fuel economy calculations. HC, CO, CO_2 and NOx

emissions were measured and reported in grams per mile. Fuel economy was calculated by the carbon balance method and reported in miles per gallon.

2.6.5.4 Four-Speed Idle Test

This test followed the HFET and required additional analytical instruments, aside from those required for the basic FTP test, to measure undiluted exhaust emissions. The instruments used for measurement of undiluted HC, CO and NO emissions are specified in Section 2.4.3.

This short test consisted of volumetric sampling of undiluted exhaust emissions during four steady state operating conditions, with the hood open and the cooling fan on. The first operating mode was basic idle with the transmission in neutral. The second operating mode was at 2500 engine RPM, also in neutral. The third mode was again normal curb idle in neutral and the fourth mode (automatic transmission vehicles only) was curb idle in Drive with brakes applied.

Four-Speed Idle tests were preceded by a six minute idle soak period with transmission in neutral, the hood open and the auxiliary cooling fan on. At the end of the soak period the vehicle was operated at idle in neutral, then at 2500 RPM, again at idle in neutral and then idle in Drive for automatic transmission vehicles. Equilibrium of engine speed and the CO, HC and NO analyzer output meters was maintained for 30 seconds before the readings were recorded. CO, HC and NO were measured and reported in percent CO, ppm Hexane and ppm NO respectively. Engine RPM from the last idle mode was written on the vehicle data packet.

2.6.5.5 Federal Loaded Two Mode Test

The six minute soak period and the undiluted exhaust analysis instruments described under the Four-Speed Idle test were also used for this test. This test followed the HFET and Four-Speed Idle Test so the engine, dynamometer and analyzers were at normal operating temperature. Inertia weight was set at 1750 pounds. The dynamometer load was set to 9.0 actual horsepower at 30 miles per hour regardless of vehicle weight. Using Drive for automatic and third gear for manual transmissions, the vehicle was operated at 30 miles per hour roll speed. The concentrations of HC, CO and NO emissions were recorded continuously during this time and analyzed after a maximum of 30 seconds or when stabilized. Following this, the vehicle was allowed to idle until emissions once again stabilized or for a maximum of 30 seconds before the concentrations were again analyzed.

2.6.5.6 State Loaded Two-Mode

This test is based on the Loaded Two-Mode test performed at the State Lane inspection stations. The test consists of a 40 MPH cruise as defined in paragraph 2.6.4 State Lane Inspection and an idle in neutral. Undiluted HC, CO and NO emissions were recorded at each stage of the test.

2.6.5.7 Four-Speed Idle with One Spark Plug Disconnected

This test is the same as the Four-Speed Idle test in Section 2.6.6 except that one spark plug wire is disconnected during the test.

2.6.6 Commercial Repair

Those vehicles needing repairs were taken to commercial repair facilities chosen at random from a listing of State qualified facilities. The listing was obtained from the State Lane when a vehicle failed and additional listings were obtained from the State Bureau of Automotive Repair. AESi employees took the vehicles to the State Lane and commercial repair facilities as the owner's of the vehicles. No one facility was used to repair more than two vehicles.

2.6.7 Underhood EGR Check

The underhood/EGR check in Step "F" of the Test Flow Chart in Figure 2 is the same test performed in the initial screening except that no plumbtesmo lead test was performed.

2.6.8 State Loaded Two-Mode

The State Loaded 2-Mode test that occurs after AESi repair and before a cold start sequence is an AESi performed State Loaded 2-Mode test as defined in paragraph 2.6.4 State Lane.

2.6.9 Low Emissions Tune Up

The Low Emissions Tune Up, appearing on the flow chart, consisted of adjustments to IRPM, IHC, ICO, dwell and timing only. No other adjustments, changes or modifications were performed at this step.

2.6.10 Evaporative Emissions Testing

Three vehicles, with failures in the evaporative emissions system portion of the underhood check, received SHED testing. The SHED evaporative emissions testing was performed in accordance with Federal Register test procedures and EPA requirements. The vehicles receiving SHED tests had evaporative emissions tests as part of the cold start sequences in test numbers 3 and 6 only. All other cold start test sequences were FTP without SHED tests.

2.6.11 After-Test Procedures

After the completion of testing and acceptance of the data by Quality Assurance, each vehicle was taken to the inspection and maintenance area. Here the mechanic measured and recorded engine parameters which included initial timing, idle speed, undiluted idle CO and undiluted idle HC emissions. When possible the procedures outlined in the owner's manual and

on the vehicle's emission sticker were followed in performing these inspections. If the owner's manual and emissions sticker were missing, the shop manual, or other available publication was used to determine vehicle specifications. In some cases, the vehicle manufacturer was called upon to aid in determining specifications.

2.6.11.1 Maladjustment and Disablement Inspection

Following test #3 or test #7 of the flow chart in Figure 2, all vehicles were given an extensive underhood inspection to determine the condition and proper installation of each emission control component. Procedures used were those detailed in manufacturers shop manuals. These procedures were supplemented by other manufacturer supplied information where necessary. The results of the many subsystem inspections were submitted to EPA but are not listed in this report.

2.6.11.2 Fuel Tank

Prior to returning the vehicle to the owner, tire pressure was set to manufacturer's specifications, and the fuel tank was filled to full capacity with fuel currently being marketed in the test area. This fuel was suitable for use in the particular vehicle.

2.6.12 Daily Test Schedule

Test shifts were generally limited to the first and second shifts of the day. Vehicles scheduled for test the next day were usually preconditioned on the second shift. Daily calibration checks and system preparation (as described in Section 2.5) were performed prior to the first test of the day and tests were scheduled with this in mind.

2.7 DATA HANDLING

2.7.1 Data Collection

Various forms were developed for the recording of significant test information. These data forms are supported by various strip charts and computer printouts from the AESi DACC. The forms were designed to enable direct keypunching in the formats defined by EPA.

The information included a thorough description of each test vehicle, its test results and inspection parameters, its driveability characteristics and its use charateristics.

2.7.2 Data Processing

Diluted exhaust emissions test results include ambient temperature, barometric pressure, humidity, and mass equivalent (grams per mile) of total HC, CO, CO_2, and of NOx both as-measured and corrected for relative humidity. Undiluted exhaust emissions were recorded as ppm Hexane for

hydrocarbons, percent CO for carbon monoxide and ppm NO for nitric oxides. Fuel consumption, in miles per gallon, was calculated from bag data according to the carbon balance technique and reported for each vehicle. The carbon balance technique used was provided by the Project Officer.

All of the exhaust emissions data were calculated at the time of test by the AESi DACC. This computer was checked at least monthly using independent calculations from the analyzer strip charts to ensure its validity.

These results were reported on a weekly and a cumulative monthly basis using the keypunched cards prepared for submittal to EPA.

2.7.3 Quality Control

The quality assurance program applied to this project monitored every aspect of each emissions test. This included operator and driver performance, the sampling system, ambient test conditions, analyzer performance, gases, fuel, dynamometer settings and all data processing. In addition, all other data submitted as part of this project received the inspection of the Quality Assurance section. Any discrepancies noted during the review process were resolved in an appropriate manner.

Figure 3 presents a flow chart of the Quality Assurance activities.

2.7.4 Calculation of Results

2.7.4.1 Federal Test Procedure

Test results were calculated based on the procedure presented in 40 CFR Part 86. Theoretical distance was used in the grams per mile calculation for each test phase. Fuel consumption was calculated using the carbon balance method and was reported in miles per gallon.

2.7.4.2 50 MPH Cruise

Emissions from the 50 MPH Cruise tests, performed with the vehicle on the dynamometer, consisted of a five second analyze time after stabilization of HC, CO and NO had occurred. The DACC collects ten readings per second, averages them and prints the average value for each pollutant.

2.7.4.3 Highway Fuel Economy Test

HC, CO, CO_2 and NOx were measured and reported in grams per mile. The mass emissions were calculated according to 40 CFR Part 600. Fuel economy was calculated by the carbon balance method and reported in miles per gallon.

2.7.4.4 Four-Speed Idle Emissions Test

Emissions from the Four-Speed Idle tests, performed with the vehicle on the dynamometer, consisted of a five second analyze time after stabilization of HC, CO and NO had occurred. The DACC collects ten readings per second, averages them and prints the average value for each pollutant. This procedure was followed for each test mode.

2.7.4.5 Federal Loaded Two Mode Emissions Test

Federal Loaded Two Mode emissions tests were performed with the vehicle on the dynamometer using the same computer procedure described for the Four-Speed Idle test.

2.7.4.6 State Loaded Two-Mode

State Loaded Two-Mode emissions tests were performed with the vehicle on the dynamometer using the same computer procedure described for the Four-Speed Idle test.

2.7.4.7 Four-Speed Idle Test with One Spark Plug Wire Disconnected

The Four-Speed Idle tests with one spark plug wire disconnected were performed with the vehicle on the dynamometer using the same procedure described for the Four-Speed Idle test except one spark plug wire was disconnected at the spark plug.

SECTION 3

DISCUSSION OF TEST RESULTS

3.1 TEST FLEET DESCRIPTION

The test fleet was made up of a total of 55 vehicles. The final vehicle matrix by make and model year is shown in Figure 1.

The vehicle numbering system groups all model year vehicles by the leading digit of the vehicle (e.g. 5022 would be a 1975 vehicle, 9007 would be a 1979 vehicle).

3.2 TEST RESULTS

Test results are presented by vehicle number in Table 1. The results are presented in the order in which the tests were performed and with the appropriate comments for each phase of testing.

LIST OF FIGURES

VEHICLE LIST

1975 MODEL YEAR

Model	Description
AMC	C258A1
Buick	M350A4
Cadillac	L425A4
Chevrolet	S140M2
	C250A1
	M350A2
	M350A2
	L400A4
Dodge/Plymouth	C225A1
	M318A2
Ford	S140M2
	C250A1
	C302A2
	M351A2
Oldsmobile	M350A4
Pontiac	M350A2
Toyota	S097M2
Datsun	S085M2
Honda	S091M3
VW	S097M2

Figure 1

VEHICLE LIST

1977 MODEL YEAR		1976 MODEL YEAR	
Model	Description	Model	Description
AMC	S232M1	AMC	C258A1
Buick	C231A2	Buick	M350A4
M350A4			
Cadillac	L425A4	Cadillac	L425A4
Chevrolet	S098M1	Chevrolet	S140M2
	M250A1		C250A1
	M350A4		C305A2
			M350A2
			L400A4
Dodge/Plymouth	C225A1	Dodge/Plymouth	C225A1
	M318A2		M318A2
Ford	S140M2	Ford	S140M2
	S171A2		C250A1
	C302A2		C302A2
	M351A2		M351A2
Oldsmobile	M350A4	Oldsmobile	M350A4
Pontiac	M350A4	Pontiac	M350A2
Toyota	S097M2	Toyota	S097M2
	S134M2		
Datsun	S085M2	Datsun	S085M2
Honda	S091M3	Honda	S091M3
VW	S097M0	VW	S097M2

Figure 1 (Continued)

VEHICLE LIST

1979 MODEL YEAR		1978 MODEL YEAR	
Model	Description	Model	Description
AMC	C258A1	AMC	C232A1
Buick	S231A2 M350A2	Buick	S231A2 M350A4
		Cadillac	L425A4
Chevrolet	S098M2 S151A2 S250A1 S305A2	Chevrolet	S098M1 C250M1 S305A2
Dodge/Plymouth	S105M2 M225A2	Dodge/Plymouth	C105M2 C225A2
Ford	S098M2 C250A1 M351A2	Ford	S098M2 S140M2 C250A1 M302A2 L351A2
Oldsmobile	L260A2	Oldsmobile	L350A4
Pontiac	S151M2 M301A2	Pontiac	S151A2
Toyota	S097M2 S134A2	Toyota	S071M2
Datsun	S085M2	Datsun	S085M2
Honda	S076M2	Honda	S091M3
VW	S097M0	VW	S089M0

Figure 1 (Continued)

EFFECTIVENESS OF SOUTH COAST AIR BASIN CHANGE-OF-OWNERSHIP
I/M PROGRAM

TEST FLOW CHART

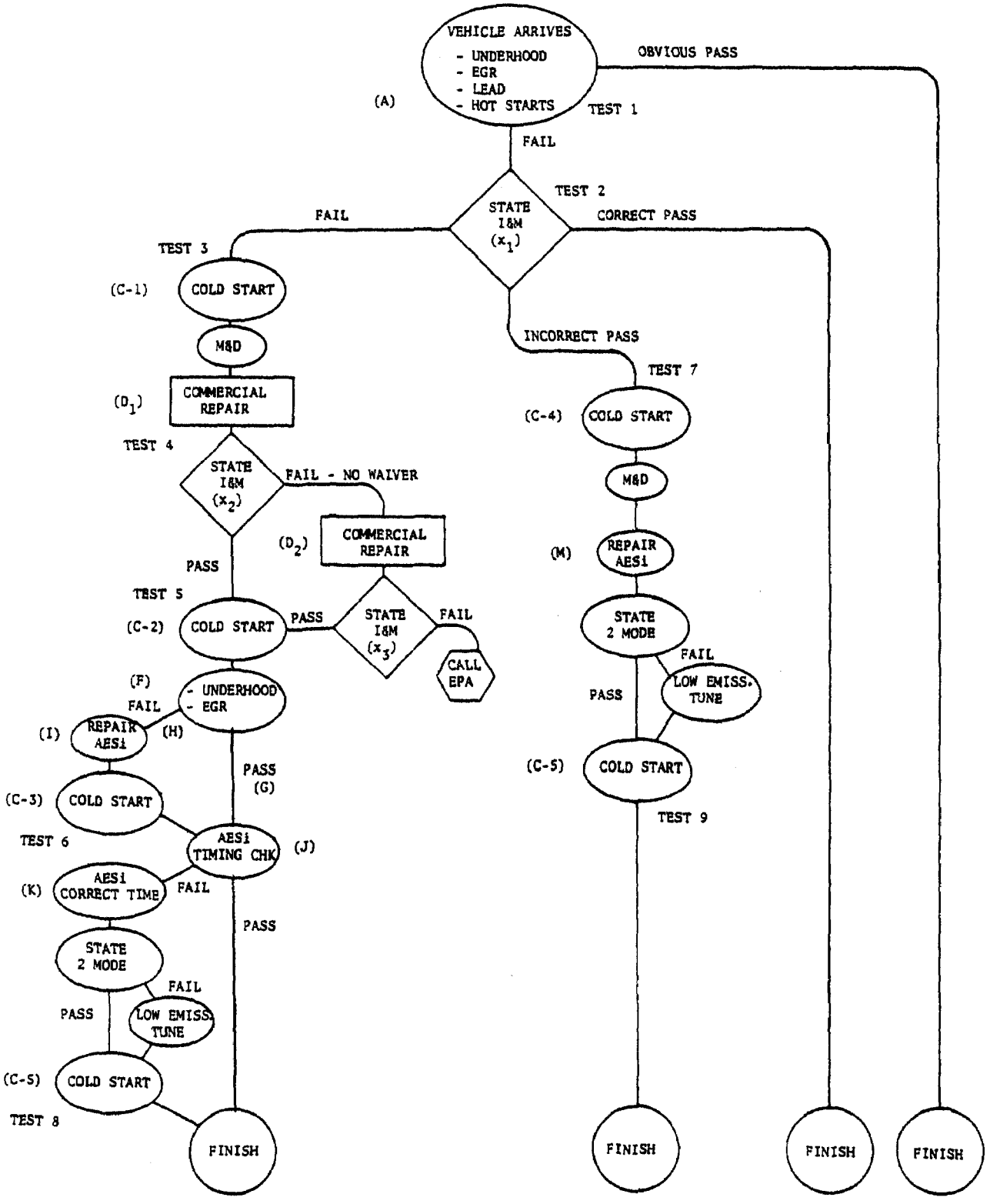

Figure 2

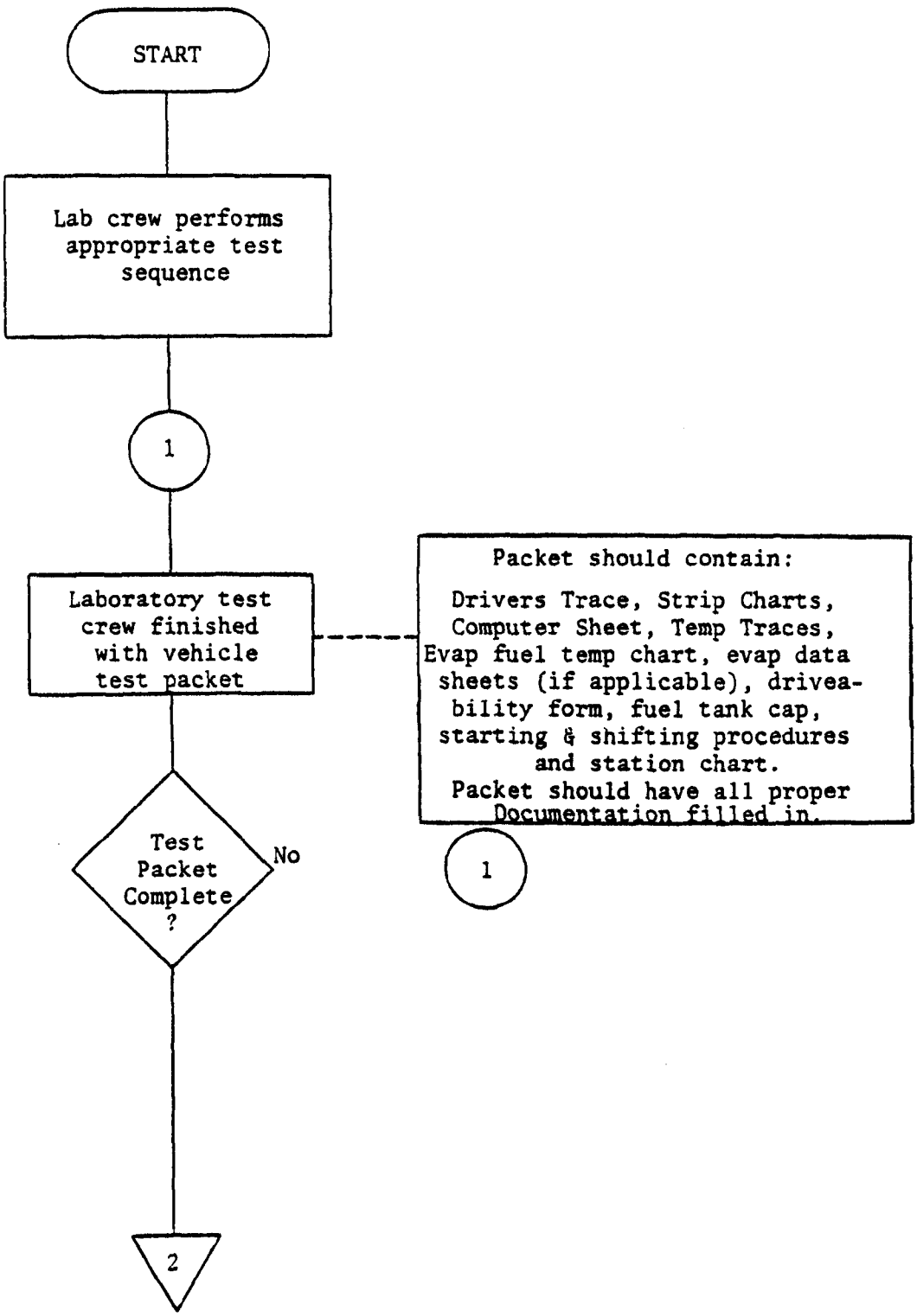

Figure 3 - QUALITY ASSURANCE ACTIVITY

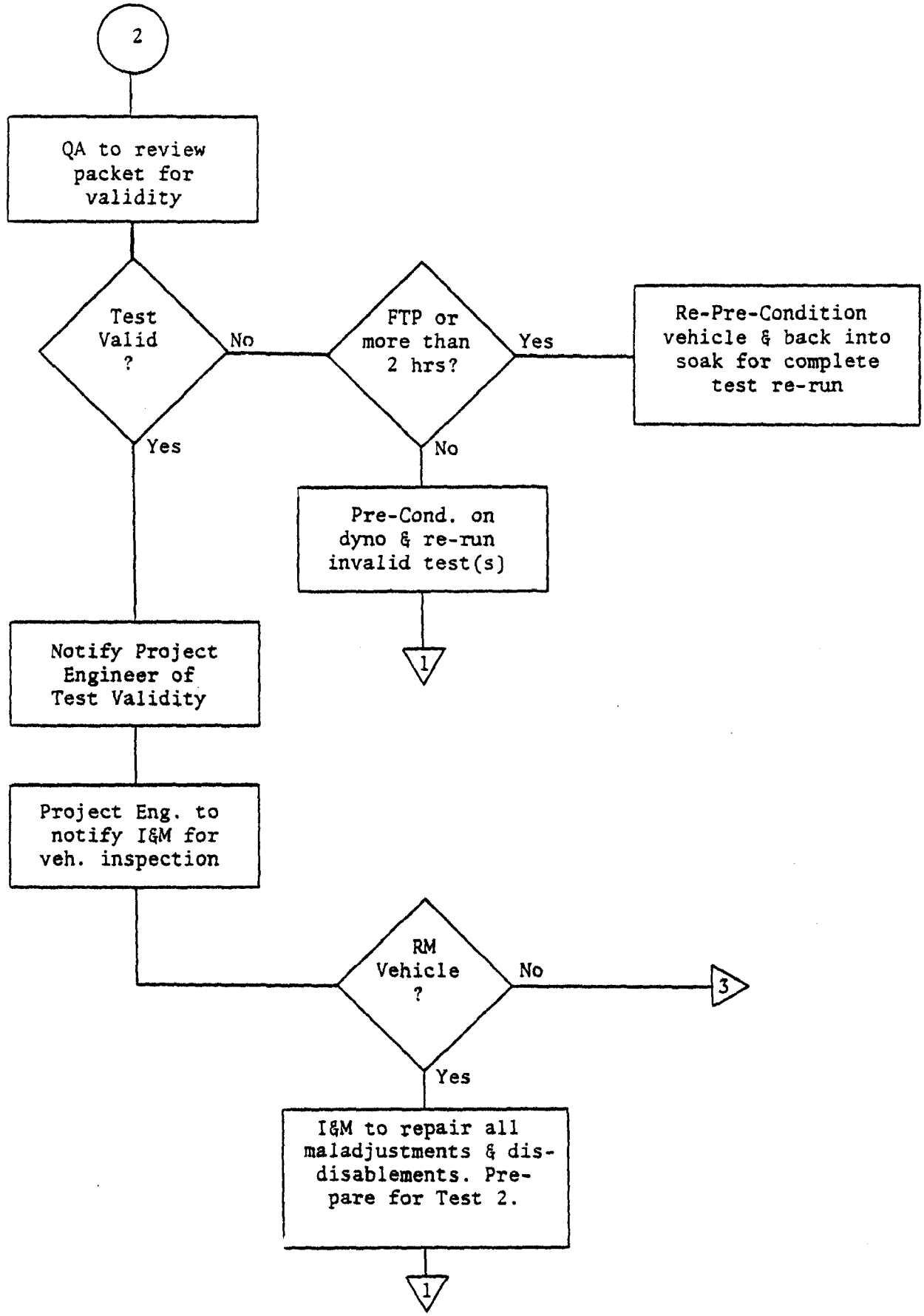

Figure 3 - QUALITY ASSURANCE ACTIVITY (CONTINUED)

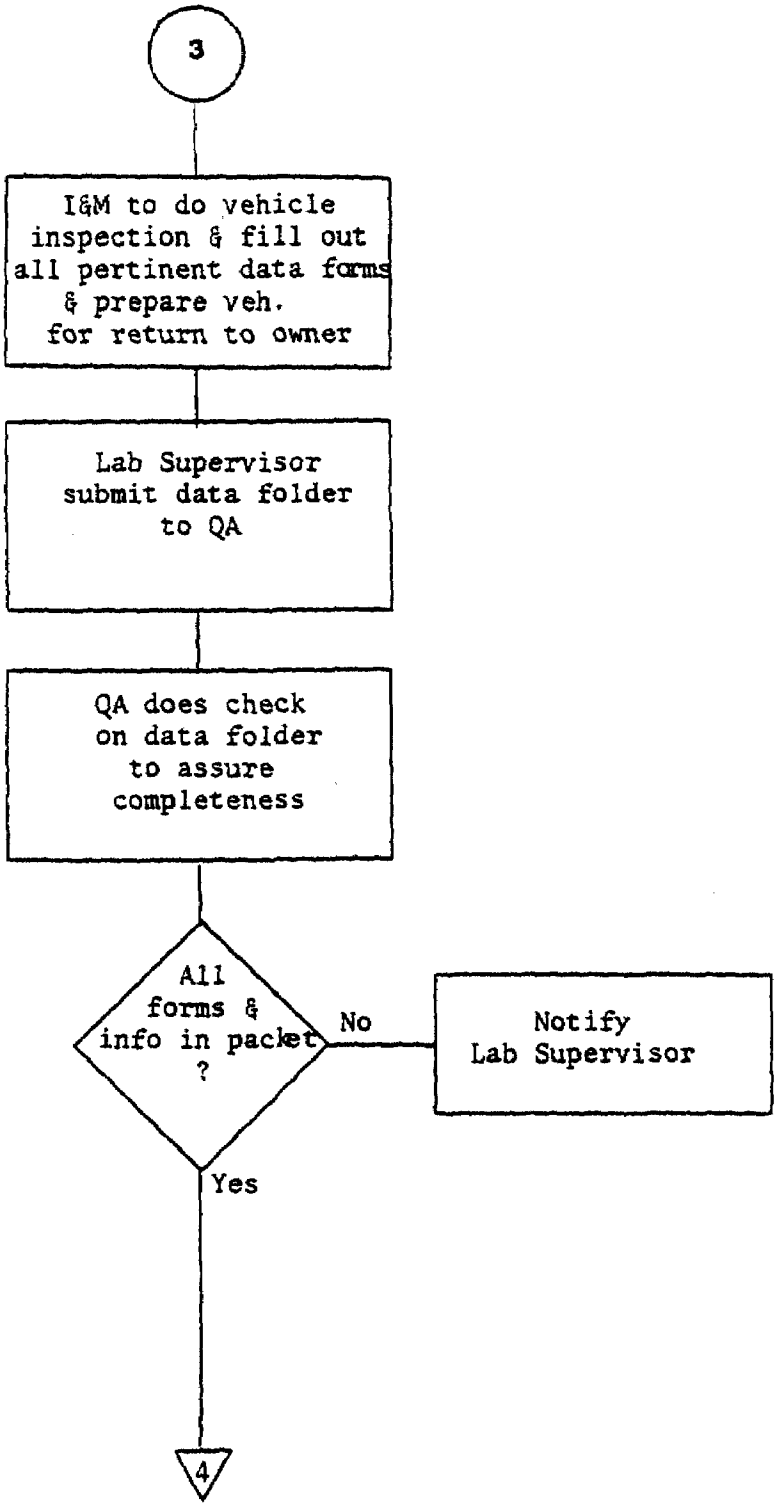

Figure 3 - QUALITY ASSURANCE ACTIVITY (CONTINUED)

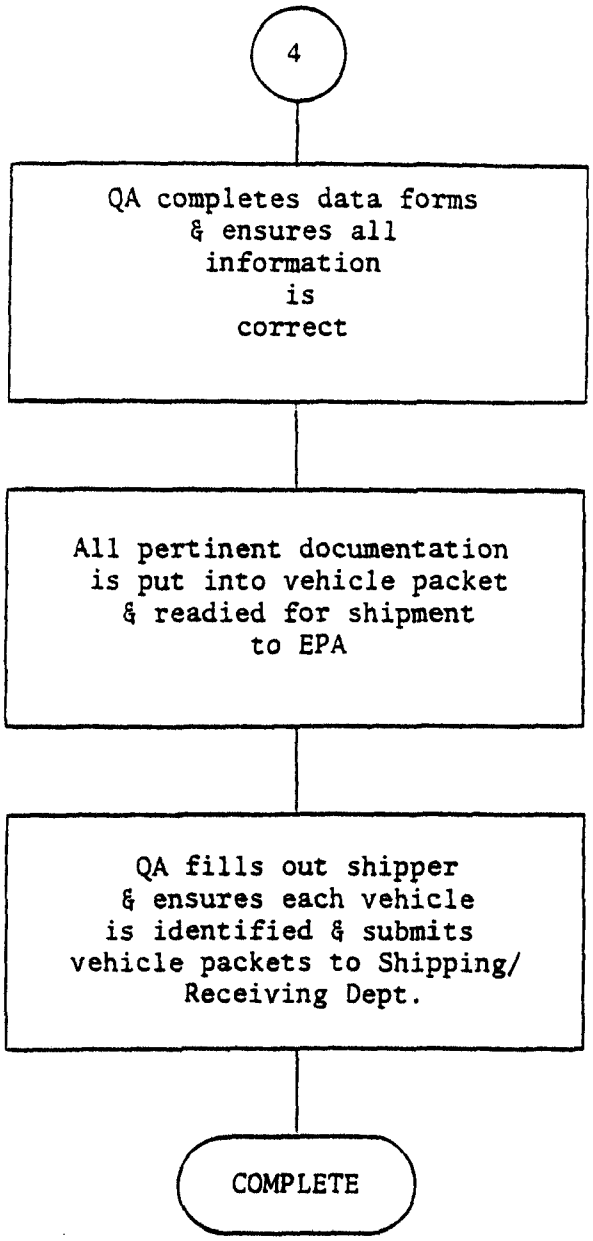

Figure 3 - QUALITY ASSURANCE ACTIVITY (CONTINUED)

AESi

SOUTH COAST I/M
PRELIMINARY TEST SUMMARY

2 3 4 6 7 9

3 | | 3 | 9 | 5 | 1 | 014 | | | |

TEST NO.

VEH NO.

VEHICLE NUMBER: _____

MAKE/MODEL: _____

IN: _____

PROJECT NUMBER: _____

DATE: _____

****

NOERMOOD INSPECTION

					Col. Numbers
CRANKCASE DEVICE (Circle Response)	1 Certified	2 OEM	3 Other		(13)
1. Device is ARB certified or OEM:	1	2	3	4	(14)
2. Idle Vacuum Test: Type*					
3. Vacuum	1 Yes	2 No			(15)

EXHAUST CONTROL DEVICE (Circle Code)**					
1. Heat Riser	1		3	4	5
2. Air Pump	1		3	4	5
3. Pump Belt	1		3	4	5
4. Thermostatic Air Cleaner	1		3	4	5
5. Emission Label	1	2	3		
6. Dual Diaphram Distributor	1	2	3		
7. Distributor Retard Solenoid	1	2	3		
8. Vacuum Delay Valve	1	2	3		
9. Vacuum Advance Valve	1	2	3		
10. Transmission Controlled Spark	1	2	3		
11. Speed Controlled Spark	1	2	3		
12. EGR Valve	1	2	3		
13. Catalytic Converter	1	2	3		

EVAPORATIVE CONTROL DEVICE				
1. Filler Cap	1	3	4	5
2. Hoses and Connections	1	3	4	5
3. Canister	1	3	4	5

*Type 1 Open System uses a valve to control blow by gases to the intake manifold.
Type 2 Restricted System uses a valve controlled by crankcase vacuum to route excess blow by to the intake manifold.
Type 3 Tube to Air no valve is used. Excess blow by gases pass through a tube to the air cleaner where they are drawn into the carburetor.
Type 4 Closed System Combination of Type a and Type c.

**1 Not Required
2 Required, Present
3 Required, Not Present
4 Required, Present, Operable
5 Required, Present, Non-Operable

Tech: _____ Pass Fail

Figure 4

AESi
AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.

SOUTH COAST I/M

PRELIMINARY TEST SUMMARY

VEHICLE NUMBER _____

LEAD TEST:

	Attach Plumbtesmo Test

EGR CHECK

- ☐ L-4 General Motors (use 2500 RPM)
- ☐ Other (use 2000 RPM)
- ☐ Vacuum hose not flexible enough to clamp, test aborted
- ☐ Test aborted due to fragile-looking vacuum hose
- ☐ Vacuum hose disconnected, test aborted
- ☐ Vacuum hose damaged during test attempt
- ☐ EGR Vacuum lines inaccessible

Change in RPM w/clamp released (100 RPM min) _____

Tech: _____ Pass Fail

EMISSION CHECK:

	HC	CO	NO
4 Speed Idle, Second Neutral			
Pass/Fail Criteria	100	.5%	

Tech: _____ Pass Fail

09/04/80/0199A

Figure 4

EXHIBIT A

FINAL LISTING OF TEST RESULTS

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6001	1976	FORD	351	LOD 2MOD	12.	0.03	260.	30 MPH
						89.	0.95	44.	IDLE-N
					4SPD IDL	406.	6.39	29.	IDLE-N
						1.	0.04	133.	2500 RPM
						13.	0.01	46.	IDLE-N
						170.	1.96	55.	IDLE-D
					STATE MOD	3.	0.03	752.	40 MPH
						6.	0.00	36.	IDLE-N

OMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6002	1976	MERC	302	LOD 2MOD	62.	0.11	313.	30 MPH
						32.	1.71	26.	IDLE-N
					4SPD IDL	560.	9.62	32.	IDLE-N
						22.	0.08	166.	2500 RPM
						27.	1.86	29.	IDLE-N
						260.	5.61	24.	IDLE-D
					STATE MOD	55.	0.15	804.	40 MPH
						8.	2.10	20.	IDLE-N

COMMENTS: FAIL CO.

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	HC, PPM	CO%	NO, PPM	
2	6002	1976	MERC	302	STATE MOD	95.	0.37	674.	40 MPH
						147.	4.30	0.	IDLE-N

COMMENTS: FAIL HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	6002	1976	MERC	302	1975 FTP	3.12	41.21	643.28	1.70	12.36
					HWY FET	0.86	3.80	481.60	2.41	18.09

	HC, PPM	CO%	NO, PPM	
50 CRUIS	22.	0.07	242.	50 MPH
LOD 2MOD	39.	0.05	162.	30 MPH
	10.	0.18	16.	IDLE-N
4SPD IDL	255.	4.99	20.	IDLE-N
	25.	0.05	74.	2500 RPM
	10.	0.08	21.	IDLE-N
	76.	1.83	14.	IDLE-D
STATE MOD	56.	0.09	387.	40 MPH
	20.	0.71	10.	IDLE-N
4SPD DIS	1633.	4.02	17.	IDLE-N
	503.	0.05	82.	2500 RPM
	173.	0.54	16.	IDLE-N
	364.	1.56	21.	IDLE-D

OMMENTS:

						HC, PPM	CO%	NO, PPM	
4	6002	1976	MERC	302	STATE MOD	107.	0.25	803.	40 MPH
						43.	0.14	0.	IDLE-N

OMMENTS: PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	6002	1976	MERC	302	1975 FTP	1.77	9.61	622.09	1.85	13.81
					HWY FET	0.84	2.58	457.60	2.33	19.1

	HC, PPM	CO%	NO, PPM	
50 CRUIS	21.	0.04	233.	50 MPH
LOD 2MOD	32.	0.04	149.	30 MPH
	7.	0.03	20.	IDLE-N
4SPD IDL	107.	1.60	25.	IDLE-N
	6.	0.03	59.	2500 RP
	18.	0.04	20.	IDLE-N
	28.	0.04	25.	IDLE-D
STATE MOD	35.	0.05	313.	40 MPH
	6.	0.03	28.	IDLE-N
4SPD DIS	1025.	1.30	21.	IDLE-N
	435.	0.06	67.	2500 RP
	325.	0.05	18.	IDLE-N
	286.	0.08	20.	IDLE-D

COMMENTS:

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5003	1975	MERC	302	LOD 2MOD	10.	0.03	313.	30 MPH
						10.	0.02	56.	IDLE-N
					4SPD IDL	15.	0.02	36.	IDLE-N
						2.	0.03	140.	2500 RPM
						33.	0.02	61.	IDLE-N
						21.	0.02	141.	IDLE-D
					STATE MOD	20.	0.04	487.	40 MPH
						12.	0.02	65.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8004	1978	FORD	140	LOD 2MOD	13.	0.02	490.	30 MPH
						3.	0.01	44.	IDLE-N
					4SPD IDL	3.	0.02	33.	IDLE-N
						3.	0.01	70.	2500 RF
						1.	0.01	36.	IDLE-N
						2.	0.02	34.	IDLE-D
					STATE MOD	12.	0.02	847.	40 MPH
						3.	0.02	47.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6005	1976	PLYM	225	LOD 2MOD	11.	0.02	153.	30 MPH
						5.	0.01	36.	IDLE-N
					4SPD IDL	11.	0.07	45.	IDLE-N
						28.	0.03	46.	2500 RPM
						4.	0.01	36.	IDLE-N
						5.	0.01	68.	IDLE-D
					STATE MOD	8.	0.09	38.	40 MPH
						2.	0.01	40.	IDLE-N

OMMENTS: FAIL UNDERHOOD.

						HC, PPM	CO%	NO, PPM	
2	6005	1976	PLYM	225	STATE MOD	84.	4.28	77.	40 MPH
						79.	0.08	0.	IDLE-N

OMMENTS: INCORRECT PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
7	6005	1976	PLYM	225	1975 FTP	1.22	37.33	550.34	1.00	14.4
					HWY FET	0.32	26.33	525.90	0.51	15.4

	HC, PPM	CO%	NO, PPM	
50 CRUIS	5.	0.05	41.	50 MPH
LOD 2MOD	12.	0.02	158.	30 MPH
	16.	0.01	37.	IDLE-N
4SPD IDL	82.	0.01	35.	IDLE-N
	35.	0.02	47.	2500 RP
	17.	0.01	32.	IDLE-N
	11.	0.01	59.	IDLE-D
STATE MOD	13.	0.10	41.	40 MPH
	9.	0.01	39.	IDLE-N
4SPD DIS	336.	0.02	47.	IDLE-N
	365.	0.03	61.	2500 RP
	151.	0.03	48.	IDLE-N
	169.	0.03	96.	IDLE-D
SHED-GMS	18.02			DIURNAL
	22.72			HOT SOA
	40.74			TOTAL

COMMENTS: FUEL LEAK AT FUEL FILTER INLET AND OUTLET HOSE.
CHOKE .104 LEAN, MECHANICAL VALVES NOISY.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
9	6005	1976	PLYM	225	1975 FTP	1.59	47.65	554.16	0.83	14.00
					HWY FET	0.36	36.19	537.70	0.45	14.89

	HC, PPM	CO%	NO, PPM	
50 CRUIS	4.	0.42	30.	50 MPH
LOD 2MOD	13.	0.05	103.	30 MPH
	0.	0.01	32.	IDLE-N
4SPD IDL	2.	0.01	32.	IDLE-N
	12.	0.02	37.	2500 RPM
	1.	0.01	27.	IDLE-N
	3.	0.01	43.	IDLE-D
STATE MOD	17.	0.36	34.	40 MPH
	1.	0.01	36.	IDLE-N
4SPD DIS	601.	0.08	39.	IDLE-N
	672.	0.10	45.	2500 RPM
	218.	0.01	40.	IDLE-N
	220.	0.01	70.	IDLE-D
SHED-GMS	0.67			DIURNAL
	1.96			HOT SOAK
	2.63			TOTAL

COMMENTS: INLINE FUEL FLTR HOSES REPAIRED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7006	1977	FORD	351	LOD 2MOD	15.	0.02	243.	30 MPH
						4.	0.01	20.	IDLE-N
					4SPD IDL	82.	2.01	26.	IDLE-N
						27.	0.04	151.	2500 RP
						23.	0.02	19.	IDLE-N
						105.	2.31	26.	IDLE-D
					STATE MOD	13.	0.01	870.	40 MPH
						28.	0.02	24.	IDLE-N

COMMENTS: FAIL EGR.

						HC, PPM	CO%	NO, PPM	
2	7006	1977	FORD	351	STATE MOD	22.	0.04	1875.	40 MPH
						10.	0.03	0.	IDLE-N

COMMENTS: INCORRECT PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
7	7006	1977	FORD	351	1975 FTP	0.62	5.10	758.85	3.14	11.54
					HWY FET	0.14	0.13	499.80	5.55	17.72

	HC, PPM	CO%	NO, PPM	
50 CRUIS	4.	0.01	681.	50 MPH
LOD 2MOD	5.	0.00	193.	30 MPH
	1.	0.00	18.	IDLE-N
4SPD IDL	37.	1.48	24.	IDLE-N
	1.	0.00	153.	2500 RPM
	0.	0.00	17.	IDLE-N
	73.	1.58	27.	IDLE-D
STATE MOD	11.	0.01	790.	40 MPH
	1.	0.01	14.	IDLE-N
4SPD DIS	475.	0.77	20.	IDLE-N
	53.	0.00	30.	2500 RPM
	6.	0.00	16.	IDLE-N
	335.	0.74	23.	IDLE-D

COMMENTS: LIMITER CAP MIS, CHOKE 081 RICH, VAC LINE EGR VALVE PLUGGED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
9	7006	1977	FORD	351	1975 FTP	1.83	16.56	785.60	0.99	10.86
					HWY FET	0.12	0.57	506.40	1.60	17.4

	HC, PPM	CO%	NO, PPM	
50 CRUIS	1.	0.01	170.	50 MPH
LOD 2MOD	5.	0.01	66.	30 MPH
	5.	0.01	19.	IDLE-N
4SPD IDL	66.	1.62	24.	IDLE-N
	8.	0.00	59.	2500 RP
	0.	0.00	19.	IDLE-N
	86.	1.96	24.	IDLE-D
STATE MOD	10.	0.01	247.	40 MPH
	3.	0.01	19.	IDLE-N
4SPD DIS	269.	1.10	23.	IDLE-N
	6.	0.02	19.	2500 RP
	3.	0.01	15.	IDLE-N
	299.	0.84	28.	IDLE-D

COMMENTS: EGR VACUUM HOSE REPAIRED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	9007	1979	FORD	98	LOD 2MOD	11.	0.01	377.	30 MPH
						75.	1.65	17.	IDLE-N
					4SPD IDL	181.	2.91	25.	IDLE-N
						89.	2.09	35.	2500 RPM
						206.	3.05	25.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	22.	0.02	670.	40 MPH
						88.	2.14	39.	IDLE-N

OMMENTS: FAIL HC AND CO.

						HC, PPM	CO%	NO, PPM	
2	9007	1979	FORD	98	STATE MOD	104.	0.00	1427.	40 MPH
						156.	1.41	0.	IDLE-N

OMMENTS: FAIL HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	9007	1979	FORD	98	1975 FTP	0.25	2.71	353.40	1.66	24.7
					HWY FET	0.05	0.12	229.40	2.39	38.6

	HC, PPM	CO%	NO, PPM	
50 CRUIS	5.	0.00	396.	50 MPH
LOD 2MOD	35.	0.01	463.	30 MPH
	31.	0.32	11.	IDLE-N
4SPD IDL	218.	3.32	21.	IDLE-N
	54.	1.58	24.	2500 RP
	218.	2.94	21.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	22.	0.00	584.	40 MPH
	51.	1.03	15.	IDLE-N
4SPD DIS	605.	1.64	16.	IDLE-N
	16.	0.01	47.	2500 RP
	65.	0.17	8.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP OK, IRPM +225.

						HC, PPM	CO%	NO, PPM	
4	9007	1979	FORD	98	STATE MOD	18.	0.02	213.	40 MPH
						37.	0.02	0.	IDLE-N

COMMENTS: PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	9007	1979	FORD	98	1975 FTP	0.23	0.99	337.59	1.64	26.12
					HWY FET	0.06	0.00	227.60	2.46	38.94

	HC, PPM	CO%	NO, PPM	
50 CRUIS	7.	0.01	376.	50 MPH
LOD 2MOD	10.	0.01	352.	30 MPH
	3.	0.01	21.	IDLE-N
4SPD IDL	7.	0.01	16.	IDLE-N
	5.	0.01	19.	2500 RPM
	6.	0.01	12.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	11.	0.01	495.	40 MPH
	0.	0.01	20.	IDLE-N
4SPD DIS	31.	0.01	22.	IDLE-N
	58.	0.01	122.	2500 RPM
	12.	0.01	28.	IDLE-N
	0.	0.00	0.	IDLE-D

OMMENTS: LIMITER CAP MIS, UNDERHOOD AND EGR INSPECTION OK.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8008	1978	CHEV	98	LOD 2MOD	22.	0.07	136.	30 MPH
						7.	0.01	29.	IDLE-N
					4SPD IDL	22.	0.03	24.	IDLE-N
						13.	0.07	47.	2500 RP
						14.	0.02	31.	IDLE-N
						15.	0.02	29.	IDLE-D
					STATE MOD	16.	0.04	144.	40 MPH
						5.	0.01	30.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7009	1977	PLYM	225	LOD 2MOD	0.	0.01	130.	30 MPH
						1.	0.12	12.	IDLE-N
					4SPD IDL	5.	0.85	15.	IDLE-N
						0.	0.05	40.	2500 RPM
						1.	0.13	14.	IDLE-N
						4.	0.11	20.	IDLE-D
					STATE MOD	0.	0.01	145.	40 MPH
						0.	0.03	12.	IDLE-N

OMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	9010	1979	VOLK	89	LOD 2MOD	9.	0.01	1001.	30 MPH
						3.	0.01	42.	IDLE-N
					4SPD IDL	24.	0.33	34.	IDLE-N
						18.	0.02	19.	2500 RP
						27.	0.47	34.	IDLE-N
						39.	0.34	46.	IDLE-D
					STATE MOD	9.	0.01	1128.	40 MPH
						2.	0.01	42.	IDLE-N

COMMENTS: FAIL EGR.

						HC, PPM	CO%	NO, PPM	
2	9010	1979	VOLK	89	STATE MOD	33.	0.04	2039.	40 MPH
						77.	2.19	0.	IDLE-N

COMMENTS: FAIL CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	9010	1979	VOLK	89	1975 FTP	0.68	4.65	356.08	3.59	24.28
					HWY FET	0.21	0.92	264.70	4.77	33.23

	HC, PPM	CO%	NO, PPM	
50 CRUIS	11.	0.01	1136.	50 MPH
LOD 2MOD	17.	0.03	1142.	30 MPH
	36.	0.43	44.	IDLE-N
4SPD IDL	29.	0.56	38.	IDLE-N
	39.	0.18	63.	2500 RPM
	31.	0.52	36.	IDLE-N
	51.	0.53	49.	IDLE-D
STATE MOD	11.	0.02	1072.	40 MPH
	26.	0.42	37.	IDLE-N
4SPD DIS	908.	0.03	36.	IDLE-N
	334.	0.01	162.	2500 RPM
	334.	0.05	31.	IDLE-N
	275.	0.04	37.	IDLE-D

OMMENTS: LIMITER CAP NA, EGR VAC HOSE AT RESERVOIR DAMAGED BY BATTERY ACID.

						HC, PPM	CO%	NO, PPM	
4	9010	1979	VOLK	89	STATE MOD	46.	0.03	2496.	40 MPH
						32.	0.29	0.	IDLE-N

OMMENTS: PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MP
5	9010	1979	VOLK	89	1975 FTP	0.23	0.88	348.89	3.91	25.2
					HWY FET	0.11	0.16	261.90	5.28	33.7

	HC, PPM	CO%	NO, PPM	
50 CRUIS	6.	0.01	1155.	50 MPH
LOD 2MOD	9.	0.01	1051.	30 MPH
	0.	0.01	42.	IDLE-N
4SPD IDL	5.	0.01	40.	IDLE-N
	2.	0.01	82.	2500 RP
	3.	0.01	37.	IDLE-N
	6.	0.01	44.	IDLE-D
STATE MOD	8.	0.01	1010.	40 MPH
	0.	0.01	45.	IDLE-N
4SPD DIS	561.	0.02	35.	IDLE-N
	149.	0.00	173.	2500 RP
	53.	0.00	33.	IDLE-N
	22.	0.01	52.	IDLE-D

COMMENTS: FAILED EGR TEST.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2971 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
6	9010	19 0		0	1975 FTP	0.34	0.81	363.91	3.33	24.23
					HWY FET	0.15	0.12	262.40	5.24	33.71

	HC, PPM	CO%	NO, PPM	
50 CRUIS	11.	0.01	1152.	50 MPH
LOD 2MOD	15.	0.01	1101.	30 MPH
	4.	0.01	39.	IDLE-N
4SPD IDL	6.	0.01	33.	IDLE-N
	6.	0.01	83.	2500 RPM
	8.	0.01	26.	IDLE-N
	27.	0.03	6.	IDLE-D
STATE MOD	14.	0.01	1068.	40 MPH
	3.	0.01	40.	IDLE-N
4SPD DIS	621.	0.01	39.	IDLE-N
	280.	0.03	150.	2500 RPM
	143.	0.02	38.	IDLE-N
	161.	0.01	54.	IDLE-D

)MMENTS: VAC HOSE FOR EGR RESERVOIR REPLACED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5011	1975	FORD	351	LOD 2MOD	1.	0.02	55.	30 MPH
						3.	0.01	28.	IDLE-N
					4SPD IDL	46.	0.01	17.	IDLE-N
						1.	0.03	34.	2500 RP
						0.	0.01	28.	IDLE-N
						4.	0.01	44.	IDLE-D
					STATE MOD	4.	0.04	84.	40 MPH
						3.	0.01	28.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8012	1978	FORD	302	LOD 2MOD	22.	0.01	84.	30 MPH
						18.	0.01	47.	IDLE-N
					4SPD IDL	137.	0.92	27.	IDLE-N
						16.	0.02	40.	2500 RPM
						15.	0.03	55.	IDLE-N
						11.	0.02	57.	IDLE-D
					STATE MOD	16.	0.01	153.	40 MPH
						12.	0.01	55.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7013	1977	FORD	302	LOD 2MOD	11.	0.03	44.	30 MPH
						4.	0.01	26.	IDLE-N
					4SPD IDL	72.	0.88	32.	IDLE-N
						1.	0.01	32.	2500 RP
						10.	0.02	27.	IDLE-N
						18.	0.01	37.	IDLE-D
					STATE MOD	4.	0.03	131.	40 MPH
						4.	0.01	27.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6014	1976	TOYO	97	LOD 2MOD	2.	0.03	148.	30 MPH
						3.	0.01	16.	IDLE-N
					4SPD IDL	14.	0.02	17.	IDLE-N
						0.	0.01	34.	2500 RPM
						10.	0.01	19.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	2.	0.04	287.	40 MPH
						3.	0.01	19.	IDLE-N

COMMENTS: FAIL UNDERHOOD.

						HC, PPM	CO%	NO, PPM	
2	6014	1976	TOYO	97	STATE MOD	5.	0.12	489.	40 MPH
						12.	0.02	0.	IDLE-N

COMMENTS: INCORRECT PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
7	6014	1976	TOYO	97	1975 FTP	0.23	2.18	435.67	1.25	20.1
					HWY FET	0.58	17.61	258.90	2.07	30.7

	HC, PPM	CO%	NO, PPM	
50 CRUIS	2.	0.03	288.	50 MPH
LOD 2MOD	0.	0.03	147.	30 MPH
	0.	0.01	19.	IDLE-N
4SPD IDL	4.	0.01	15.	IDLE-N
	0.	0.01	27.	2500 RP
	3.	0.01	15.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	5.	0.05	319.	40 MPH
	6.	0.02	17.	IDLE-N
4SPD DIS	62.	0.01	13.	IDLE-N
	213.	0.03	26.	2500 RP
	49.	0.01	12.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, PCV PLUGGED WITH DIRT.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
9	6014	1976	TOYO	97	1975 FTP	0.26	2.56	427.24	1.33	20.54
					HWY FET	0.61	17.48	245.30	2.13	32.28

	HC, PPM	CO%	NO, PPM	
50 CRUIS	1.	0.02	369.	50 MPH
LOD 2MOD	0.	0.02	182.	30 MPH
	0.	0.01	19.	IDLE-N
4SPD IDL	29.	0.01	19.	IDLE-N
	0.	0.02	36.	2500 RPM
	10.	0.01	18.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	0.	0.05	407.	40 MPH
	4.	0.01	20.	IDLE-N
4SPD DIS	122.	0.01	14.	IDLE-N
	373.	0.05	36.	2500 RPM
	71.	0.02	16.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: PCV REPLACED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8015	1978	FORD	98	LOD 2MOD	26.	0.00	502.	30 MPH
						24.	0.00	22.	IDLE-N
					4SPD IDL	722.	3.83	16.	IDLE-N
						30.	0.01	27.	2500 RP
						46.	0.01	17.	IDLE-N
						32.	0.00	12.	IDLE-D
					STATE MOD	23.	0.01	726.	40 MPH
						21.	0.01	27.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8016	1978	CHEV	305	LOD 2MOD	7.	0.00	88.	30 MPH
						10.	0.00	25.	IDLE-N
					4SPD IDL	7.	0.00	31.	IDLE-N
						5.	0.00	47.	2500 RPM
						9.	0.00	37.	IDLE-N
						10.	0.00	25.	IDLE-D
					STATE MOD	7.	0.00	203.	40 MPH
						8.	0.00	30.	IDLE-N

OMMENTS: FAIL UNDERHOOD.

						HC, PPM	CO%	NO, PPM	
2	8016	1978	CHEV	305	STATE MOD	178.	0.03	219.	40 MPH
						166.	0.04	0.	IDLE-N

OMMENTS: FAIL CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	HC	CO	CO2	NOXC	MPG
3	8016	1978	CHEV	305	1975 FTP	0.79	9.77	597.36	1.17	14.43
					HWY FET	0.15	0.85	396.60	1.19	22.2

	HC, PPM	CO%	NO, PPM	
50 CRUIS	4.	0.01	93.	50 MPH
LOD 2MOD	4.	0.01	74.	30 MPH
	9.	0.01	16.	IDLE-N
4SPD IDL	5.	0.01	26.	IDLE-N
	4.	0.01	39.	2500 RPM
	7.	0.01	27.	IDLE-N
	7.	0.01	22.	IDLE-D
STATE MOD	4.	0.01	188.	40 MPH
	12.	0.01	17.	IDLE-N
4SPD DIS	31.	0.01	14.	IDLE-N
	69.	0.01	32.	2500 RPM
	27.	0.00	16.	IDLE-N
	20.	0.01	17.	IDLE-D
SHED-GMS	7.46			DIURNAL
	3.77			HOT SOAK
	11.23			TOTAL

COMMENTS: LIMITER CAP MIS, PCV HOSE COLLAPSED, CARB VENT SIGNAL HOSE DISABLED. VIBRATION DAMPNER SLIPPING.

						HC, PPM	CO%	NO, PPM	
4	8016	1978	CHEV	305	STATE MOD	16.	0.03	273.	40 MPH
						8.	0.02	0.	IDLE-N

COMMENTS: PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	8016	1978	CHEV	305	1975 FTP	0.56	7.03	666.96	0.94	13.06
					HWY FET	0.08	1.03	473.70	0.86	18.65

	HC, PPM	CO%	NO, PPM	
50 CRUIS	0.	0.01	97.	50 MPH
LOD 2MOD	3.	0.01	80.	30 MPH
	4.	0.01	29.	IDLE-N
4SPD IDL	1.	0.01	30.	IDLE-N
	4.	0.01	48.	2500 RPM
	1.	0.01	31.	IDLE-N
	4.	0.01	64.	IDLE-D
STATE MOD	2.	0.01	145.	40 MPH
	0.	0.01	29.	IDLE-N
4SPD DIS	60.	0.01	30.	IDLE-N
	115.	0.01	62.	2500 RPM
	48.	0.01	35.	IDLE-N
	42.	0.01	74.	IDLE-D

COMMENTS: LIMITER CAP MIS, VIBRATION DAMPER SLIPPING.
PCV HOSE DEF AND CARB VENT SIGNAL HOSE DISABLED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
6	8016	1978	CHEV	305	1975 FTP	0.44	7.35	656.99	0.88	13.25
					HWY FET	0.08	1.41	474.10	0.84	18.61

	HC, PPM	CO%	NO, PPM	
50 CRUIS	0.	0.01	79.	50 MPH
LOD 2MOD	2.	0.01	65.	30 MPH
	3.	0.01	22.	IDLE-N
4SPD IDL	3.	0.01	21.	IDLE-N
	2.	0.01	36.	2500 RPM
	2.	0.01	23.	IDLE-N
	5.	0.01	41.	IDLE-D
STATE MOD	3.	0.01	119.	40 MPH
	2.	0.01	21.	IDLE-N
4SPD DIS	104.	0.01	24.	IDLE-N
	137.	0.01	56.	2500 RPM
	47.	0.01	23.	IDLE-N
	36.	0.01	39.	IDLE-D
SHED-GMS	6.71			DIURNAL
	3.14			HOT SOAK
	9.85			TOTAL

COMMENTS: PCV HOSE AND CARB VENT SIGNAL HOSE REPLACED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7017	1977	CADI	425	LOD 2MOD	38.	0.06	131.	30 MPH
						201.	2.41	18.	IDLE-N
					4SPD IDL	274.	2.75	19.	IDLE-N
						31.	0.09	65.	2500 RPM
						223.	2.75	19.	IDLE-N
						180.	2.69	23.	IDLE-D
					STATE MOD	12.	0.01	256.	40 MPH
						170.	2.17	26.	IDLE-N

COMMENTS: FAIL HC AND CO.

						HC, PPM	CO%	NO, PPM	
2	7017	1977	CADI	425	STATE MOD	48.	0.13	491.	40 MPH
						286.	5.24	0.	IDLE-N

COMMENTS: FAIL HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	7017	1977	CADI	425	1975 FTP	2.91	59.60	623.60	1.73	12.22
					HWY FET	0.41	5.62	463.40	1.85	18.73

	HC, PPM	CO%	NO, PPM	
50 CRUIS	6.	0.02	153.	50 MPH
LOD 2MOD	33.	0.08	86.	30 MPH
	139.	1.70	24.	IDLE-N
4SPD IDL	159.	1.93	21.	IDLE-N
	12.	0.03	56.	2500 RPM
	212.	2.44	17.	IDLE-N
	150.	2.37	23.	IDLE-D
STATE MOD	10.	0.03	212.	40 MPH
	140.	1.94	25.	IDLE-N
4SPD DIS	901.	0.68	23.	IDLE-N
	195.	0.03	96.	2500 RPM
	908.	1.61	14.	IDLE-N
	910.	1.76	19.	IDLE-D

COMMENTS: LIMITER CAP MIS, IDLE CO MEASURED VALUE 5.01 TO 10.0.

						HC, PPM	CO%	NO, PPM	
4	7017	1977	CADI	425	STATE MOD	55.	0.91	225.	40 MPH
						28.	0.08	0.	IDLE-N

COMMENTS: PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	7017	1977	CADI	425	1975 FTP	2.13	40.82	634.31	1.64	12.59
					HWY FET	0.29	3.37	464.40	1.82	18.84

	HC, PPM	CO%	NO, PPM	
50 CRUIS	10.	0.01	157.	50 MPH
LOD 2MOD	33.	0.06	87.	30 MPH
	187.	1.05	22.	IDLE-N
4SPD IDL	168.	1.00	26.	IDLE-N
	8.	0.02	53.	2500 RPM
	167.	1.26	23.	IDLE-N
	106.	1.07	61.	IDLE-D
STATE MOD	15.	0.04	185.	40 MPH
	187.	1.45	22.	IDLE-N
4SPD DIS	861.	0.29	19.	IDLE-N
	368.	0.08	23.	2500 RPM
	796.	0.26	17.	IDLE-N
	817.	0.37	51.	IDLE-D

COMMENTS: ALL SYSTEMS OK.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
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FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6018	1976	DODG	318	LOD 2MOD	135.	2.09	277.	30 MPH
						167.	2.78	35.	IDLE-N
					4SPD IDL	245.	3.81	19.	IDLE-N
						63.	1.55	141.	2500 RPM
						187.	3.00	29.	IDLE-N
						172.	3.23	32.	IDLE-D
					STATE MOD	109.	2.96	196.	40 MPH
						193.	3.36	27.	IDLE-N

COMMENTS: FAILED HC AND CO.

						HC, PPM	CO%	NO, PPM	
2	6018	1976	DODG	318	STATE MOD	177.	3.57	1292.	40 MPH
						399.	8.43	0.	IDLE-N

COMMENTS: FAILED HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	6018	1976	DODG	318	1975 FTP	7.41	85.14	500.66	4.50	13.49
					HWY FET	3.28	58.10	404.70	4.42	17.51

	HC, PPM	CO%	NO, PPM	
50 CRUIS	39.	0.14	1123.	50 MPH
LOD 2MOD	162.	2.70	269.	30 MPH
	210.	3.42	34.	IDLE-N
4SPD IDL	203.	3.28	33.	IDLE-N
	96.	3.19	88.	2500 RPM
	228.	3.33	33.	IDLE-N
	185.	3.48	36.	IDLE-D
STATE MOD	71.	0.19	1371.	40 MPH
	311.	4.66	31.	IDLE-N
4SPD DIS	1526.	3.94	25.	IDLE-N
	998.	0.42	217.	2500 RPM
	1357.	2.89	26.	IDLE-N
	1448.	3.04	30.	IDLE-D

COMMENTS: LIMITER CAP MIS, IDLE CO MEASURED 5.01 TO 10.0, TIMG -5
AIR CLEANER SNSR LEAKING. CARB INLET FUEL HOSE CRACKED.
VAC LINE TO EGR VALVE PLUGGED, PCV PLUGGED WITH DIRT.
DIFFERENCE FROM VACCUM BREAK SPECIFICATION 0.021 TO .040 RICH.

						HC, PPM	CO%	NO, PPM	
4	6018	1976	DODG	318	STATE MOD	222.	6.25	607.	40 MPH
						290.	2.65	0.	IDLE-N

COMMENTS: FAILED HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	6018	1976	DODG	318	1975 FTP	3.73	35.60	544.52	4.43	14.50
					HWY FET	2.35	45.03	407.90	4.66	18.2

	HC, PPM	CO%	NO, PPM	
50 CRUIS	42.	0.17	932.	50 MPH
LOD 2MOD	71.	0.13	723.	30 MPH
	124.	1.02	35.	IDLE-N
4SPD IDL	242.	0.83	29.	IDLE-N
	22.	0.26	168.	2500 RPM
	185.	0.68	28.	IDLE-N
	144.	0.84	40.	IDLE-D
STATE MOD	48.	0.11	1225.	40 MPH
	157.	1.25	30.	IDLE-N
4SPD DIS	1117.	0.93	26.	IDLE-N
	869.	0.16	205.	2500 RPM
	1050.	0.71	28.	IDLE-N
	1137.	0.79	37.	IDLE-D

COMMENTS: LIMITER CAP MIS, TIMG-5, VAC LINE TO EGR VLV PLGD, PCV VLV PLGD WITH DIRT.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	HC	CO	CO2	NOXC	MPG
6	6018	19 0		1	1975 FTP	3.87	27.27	570.26	2.02	14.19
					HWY FET	0.97	4.22	463.10	2.75	18.76

	HC, PPM	CO%	NO, PPM	
50 CRUIS	44.	0.19	562.	50 MPH
LOD 2MOD	109.	0.18	209.	30 MPH
	465.	0.47	42.	IDLE-N
4SPD IDL	638.	0.41	48.	IDLE-N
	63.	0.39	111.	2500 RPM
	455.	0.37	48.	IDLE-N
	237.	0.35	76.	IDLE-D
STATE MOD	120.	0.84	541.	40 MPH
	454.	0.52	50.	IDLE-N
4SPD DIS	932.	0.40	42.	IDLE-N
	1789.	0.86	102.	2500 RPM
	1869.	0.27	50.	IDLE-N
	1934.	0.23	79.	IDLE-D

COMMENTS: PCV VLV REPLACED, UNPLUGGED EGR VAC HOSE.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6019	1976	MERC	140	LOD 2MOD	23.	0.31	205.	30 MPH
						13.	0.02	16.	IDLE-N
					4SPD IDL	17.	0.06	17.	IDLE-N
						16.	0.41	40.	2500 RPM
						13.	0.03	17.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	19.	0.24	228.	40 MPH
						13.	0.03	17.	IDLE-N

COMMENTS: FAIL EGR.

						HC, PPM	CO%	NO, PPM	
2	6019	1976	MERC	140	STATE MOD	51.	0.37	569.	40 MPH
						16.	0.03	0.	IDLE-N

COMMENTS: INCORRECT PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
7	6019	1976	MERC	140	1975 FTP	1.54	28.43	451.29	0.97	17.72
					HWY FET	0.60	12.57	310.50	0.95	26.70

	HC, PPM	CO%	NO, PPM	
50 CRUIS	8.	0.14	131.	50 MPH
LOD 2MOD	16.	0.24	226.	30 MPH
	12.	0.02	21.	IDLE-N
4SPD IDL	35.	0.03	19.	IDLE-N
	8.	0.25	41.	2500 RPM
	12.	0.02	21.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	16.	0.21	292.	40 MPH
	10.	0.02	21.	IDLE-N
4SPD DIS	513.	0.08	13.	IDLE-N
	874.	0.33	34.	2500 RPM
	378.	0.06	14.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, ALL SYSTEMS OK.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5020	1975	TOYO	97	LOD 2MOD	24.	0.18	407.	30 MPH
						50.	0.19	11.	IDLE-N
					4SPD IDL	47.	0.40	10.	IDLE-N
						7.	0.20	24.	2500 RPM
						41.	0.24	9.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	23.	0.17	477.	40 MPH
						45.	0.19	12.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8021	1978	DATS	85	LOD 2MOD	3.	0.02	93.	30 MPH
						16.	0.37	7.	IDLE-N
					4SPD IDL	6.	0.01	16.	IDLE-N
						0.	0.01	52.	2500 RPM
						8.	0.01	15.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	29.	0.05	126.	40 MPH
						40.	0.54	6.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8022	1978	TOYO	97	LOD 2MOD	10.	0.04	244.	30 MPH
						2.	0.01	31.	IDLE-N
					4SPD IDL	8.	0.01	29.	IDLE-N
						0.	0.02	39.	2500 RPM
						6.	0.01	29.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	2.	0.05	250.	40 MPH
						2.	0.01	31.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6023	1976	FORD	140	LOD 2MOD	5.	0.03	320.	30 MPH
						10.	0.02	31.	IDLE-N
					4SPD IDL	41.	0.03	25.	IDLE-N
						3.	0.03	65.	2500 RPM
						23.	0.02	24.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	4.	0.03	374.	40 MPH
						5.	0.02	31.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8024	1978	MERC	250	LOD 2MOD	20.	0.02	101.	30 MPH
						4.	0.01	41.	IDLE-N
					4SPD IDL	9.	0.01	51.	IDLE-N
						9.	0.02	450.	2500 RP
						5.	0.01	37.	IDLE-N
						12.	0.01	121.	IDLE-D
					STATE MOD	17.	0.02	332.	40 MPH
						3.	0.02	37.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
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FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6025	1976	HOND	91	LOD 2MOD	11.	0.18	928.	30 MPH
						98.	0.12	21.	IDLE-N
					4SPD IDL	266.	0.10	15.	IDLE-N
						28.	0.21	71.	2500 RPM
						168.	0.14	20.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	20.	0.19	1139.	40 MPH
						28.	0.14	28.	IDLE-N

COMMENTS: FAILED HC.

						HC, PPM	CO%	NO, PPM	
2	6025	1976	HOND	91	STATE MOD	112.	0.22	2308.	40 MPH
						154.	0.27	0.	IDLE-N

COMMENTS: FAILED HC.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
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FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	6025	1976	HOND	91	1975 FTP	1.28	6.76	288.90	2.19	29.24
					HWY FET	0.08	1.86	222.60	3.02	39.2

	HC, PPM	CO%	NO, PPM	
50 CRUIS	2.	0.12	587.	50 MPH
LOD 2MOD	4.	0.15	687.	30 MPH
	72.	0.15	16.	IDLE-N
4SPD IDL	256.	0.10	12.	IDLE-N
	0.	0.13	58.	2500 RPM
	164.	0.09	10.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	0.	0.17	769.	40 MPH
	59.	0.16	17.	IDLE-N
4SPD DIS	249.	0.09	10.	IDLE-N
	1145.	0.10	69.	2500 RPM
	1233.	0.04	10.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: MIXTURE ADJ PLUG OK, TIMG-10, THERMOSNSR STUCK CLOSED, FULL ADV.

						HC, PPM	CO%	NO, PPM	
4	6025	1976	HOND	91	STATE MOD	151.	0.22	2256.	40 MPH
						290.	0.76	0.	IDLE-N

COMMENTS: FAILED HC WITH WAIVER.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
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FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	6025	1976	HOND	91	1975 FTP	1.36	7.99	283.22	3.03	29.58
					HWY FET	0.23	2.93	214.70	4.01	40.31

	HC, PPM	CO%	NO, PPM	
50 CRUIS	6.	0.31	1607.	50 MPH
LOD 2MOD	25.	0.32	1803.	30 MPH
	171.	0.64	81.	IDLE-N
4SPD IDL	171.	0.57	65.	IDLE-N
	10.	0.28	134.	2500 RPM
	134.	0.41	81.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	32.	0.31	2113.	40 MPH
	210.	0.93	73.	IDLE-N
4SPD DIS	2749.	0.48	67.	IDLE-N
	2288.	0.19	150.	2500 RPM
	2794.	0.56	61.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, THERMOSNSR DEF, FULL ADV.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6026	1976	AMC	258	LOD 2MOD	3.	0.02	448.	30 MPH
						66.	1.26	35.	IDLE-N
					4SPD IDL	113.	1.63	33.	IDLE-N
						8.	0.10	159.	2500 RPM
						101.	1.37	34.	IDLE-N
						93.	0.59	63.	IDLE-D
					STATE MOD	0.	0.01	359.	40 MPH
						47.	1.92	29.	IDLE-N

COMMENTS: FAILED HC AND CO.

						HC, PPM	CO%	NO, PPM	
2	6026	1976	AMC	258	STATE MOD	18.	0.04	653.	40 MPH
						98.	3.42	0.	IDLE-N

COMMENTS: FAILED CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
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FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	6026	1976	AMC	258	1975 FTP	0.76	14.99	447.31	2.14	18.75
					HWY FET	0.07	1.08	370.90	2.78	23.79

	HC, PPM	CO%	NO, PPM	
50 CRUIS	3.	0.01	342.	50 MPH
LOD 2MOD	0.	0.00	369.	30 MPH
	34.	0.52	31.	IDLE-N
4SPD IDL	49.	0.59	29.	IDLE-N
	0.	0.00	130.	2500 RPM
	31.	0.46	28.	IDLE-N
	10.	0.17	25.	IDLE-D
STATE MOD	0.	0.00	335.	40 MPH
	54.	1.41	31.	IDLE-N
4SPD DIS	97.	0.00	29.	IDLE-N
	286.	0.00	156.	2500 RPM
	17.	0.00	32.	IDLE-N
	0.	0.00	41.	IDLE-D

COMMENTS: LIMITER CAP MIS, AIR FILTER DIRTY, CHOKE OFF 2NL,
CARB PURGE AND BOWL VENT HOSES DISCNCTD.
PROPER CARB NUMBER BUT NO BOWL VENT SYSTEMS.
COOLANT TEMPERATURE OVERRIDE LETS IN VAC ADV CONSTANTLY

						HC, PPM	CO%	NO, PPM	
4	6026	1976	AMC	258	STATE MOD	24.	0.04	250.	40 MPH
						18.	0.03	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	6026	1976	AMC	258	1975 FTP	0.44	6.27	431.85	3.44	20.03
					HWY FET	0.04	0.23	344.70	4.74	25.69

	HC, PPM	CO%	NO, PPM	
50 CRUIS	3.	0.01	654.	50 MPH
LOD 2MOD	11.	0.02	660.	30 MPH
	10.	0.02	47.	IDLE-N
4SPD IDL	6.	0.01	33.	IDLE-N
	1.	0.01	178.	2500 RPM
	6.	0.01	39.	IDLE-N
	14.	0.01	65.	IDLE-D
STATE MOD	7.	0.02	812.	40 MPH
	5.	0.02	36.	IDLE-N
4SPD DIS	71.	0.01	30.	IDLE-N
	121.	0.01	102.	2500 RPM
	37.	0.01	37.	IDLE-N
	36.	0.01	51.	IDLE-D

COMMENTS: NO VAC TO EGR VLV.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
6	6026	19 0		0	1975 FTP	0.57	5.60	436.45	3.82	19.85
					HWY FET	0.04	0.21	350.40	4.84	25.28

	HC, PPM	CO%	NO, PPM	
50 CRUIS	21.	0.02	695.	50 MPH
LOD 2MOD	16.	0.02	897.	30 MPH
	13.	0.02	56.	IDLE-N
4SPD IDL	9.	0.01	39.	IDLE-N
	6.	0.01	239.	2500 RPM
	11.	0.01	45.	IDLE-N
	13.	0.01	63.	IDLE-D
STATE MOD	14.	0.01	1106.	40 MPH
	7.	0.02	47.	IDLE-N
4SPD DIS	19.	0.02	36.	IDLE-N
	127.	0.04	366.	2500 RPM
	31.	0.03	39.	IDLE-N
	19.	0.02	57.	IDLE-D

COMMENTS: EGR VAC RESTORED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8027	1978	CADI	425	LOD 2MOD	5.	0.01	88.	30 MPH
						4.	0.02	30.	IDLE-N
					4SPD IDL	7.	0.02	31.	IDLE-N
						1.	0.02	40.	2500 RPM
						4.	0.01	33.	IDLE-N
						4.	0.01	49.	IDLE-D
					STATE MOD	4.	0.01	134.	40 MPH
						3.	0.01	26.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7028	1977	VOLK	97	LOD 2MOD	18.	0.12	61.	30 MPH
						23.	0.60	30.	IDLE-N
					4SPD IDL	21.	0.08	1.	IDLE-N
						17.	0.16	18.	2500 RPM
						36.	0.31	2.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	19.	0.19	189.	40 MPH
						33.	0.71	49.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	9029	1979	CHEV	305	LOD 2MOD	1.	0.01	92.	30 MPH
						14.	0.01	16.	IDLE-N
					4SPD IDL	40.	0.01	12.	IDLE-N
						4.	0.01	51.	2500 RPM
						8.	0.01	16.	IDLE-N
						7.	0.01	31.	IDLE-D
					STATE MOD	0.	0.01	136.	40 MPH
						9.	0.01	16.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5030	1975	DATS	85	LOD 2MOD	6.	0.05	159.	30 MPH
						57.	0.04	24.	IDLE-N
					4SPD IDL	80.	0.09	18.	IDLE-N
						24.	0.05	43.	2500 RPM
						71.	0.07	18.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	21.	0.03	466.	40 MPH
						13.	0.02	3.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6031	1976	PONT	350	LOD 2MOD	18.	0.03	1011.	30 MPH
						21.	0.02	83.	IDLE-N
					4SPD IDL	20.	0.02	56.	IDLE-N
						5.	0.02	254.	2500 RPM
						20.	0.02	61.	IDLE-N
						19.	0.02	98.	IDLE-D
					STATE MOD	16.	0.03	2003.	40 MPH
						15.	0.02	74.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6032	1976	PONT	350	LOD 2MOD	17.	0.01	572.	30 MPH
						44.	0.01	36.	IDLE-N
					4SPD IDL	13.	0.00	34.	IDLE-N
						0.	0.01	180.	2500 RPM
						27.	0.00	34.	IDLE-N
						19.	0.10	39.	IDLE-D
					STATE MOD	14.	0.01	1546.	40 MPH
						64.	0.03	39.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6033	1976	CHEV	350	LDD 2MOD	3.	0.02	242.	30 MPH
						10.	0.02	88.	IDLE-N
					4SPD IDL	103.	0.02	79.	IDLE-N
						5.	0.02	136.	2500 RPM
						77.	0.02	91.	IDLE-N
						6.	0.02	294.	IDLE-D
					STATE MOD	3.	0.02	833.	40 MPH
						5.	0.02	99.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5034	1975	VOLK	90	LOD 2MOD	60.	1.71	644.	30 MPH
						5.	0.06	52.	IDLE-N
					4SPD IDL	6.	0.08	51.	IDLE-N
						182.	0.07	176.	2500 RPM
						7.	0.10	48.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	88.	2.45	710.	40 MPH
						9.	0.07	55.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5035	1975	FORD	140	LOD 2MOD	47.	0.39	746.	30 MPH
						57.	0.18	34.	IDLE-N
					4SPD IDL	425.	2.22	19.	IDLE-N
						26.	0.26	76.	2500 RPM
						72.	0.23	35.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	39.	0.39	1097.	40 MPH
						41.	0.17	40.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6036	1976	VOLK	97	LOD 2MOD	9.	0.12	440.	30 MPH
						401.	0.56	129.	IDLE-N
					4SPD IDL	196.	0.63	122.	IDLE-N
						17.	0.15	115.	2500 RPM
						75.	0.64	113.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	8.	0.14	593.	40 MPH
						76.	0.54	116.	IDLE-N

COMMENTS: FAILED CO.

						HC, PPM	CO%	NO, PPM	
2	6036	1976	VOLK	97	STATE MOD	31.	0.25	1022.	40 MPH
						25.	0.49	0.	IDLE-N

COMMENTS: INCORRECT PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
7	6036	1976	VOLK	97	1975 FTP	1.27	4.72	442.19	1.46	19.57
					HWY FET	0.32	1.92	279.20	1.62	31.31

	HC, PPM	CO%	NO, PPM	
50 CRUIS	9.	0.06	298.	50 MPH
LOD 2MOD	6.	0.05	238.	30 MPH
	182.	0.24	63.	IDLE-N
4SPD IDL	60.	0.21	70.	IDLE-N
	6.	0.05	58.	2500 RPM
	120.	0.20	68.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	12.	0.06	298.	40 MPH
	257.	0.24	68.	IDLE-N
4SPD DIS	2054.	0.06	58.	IDLE-N
	1694.	0.06	45.	2500 RPM
	2150.	0.05	59.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP NA, TIMG-5, IRPM -225, EGR VLV HAS EXCESSIVE CARBON BUILD UP. VAC ADV LINE CNCTD TO EGR TEMP CONTROL VLV. EGR VLV LINE CNCTD TO VAC ADV UNIT FROM EGR VLV.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
9	6036	1976	VOLK	97	1975 FTP	1.50	6.15	375.17	2.82	22.79
					HWY FET	0.81	2.23	236.70	3.68	36.53

	HC, PPM	CO%	NO, PPM	
50 CRUIS	46.	0.12	1004.	50 MPH
LOD 2MOD	26.	0.11	656.	30 MPH
	34.	0.36	50.	IDLE-N
4SPD IDL	18.	0.34	58.	IDLE-N
	17.	0.15	74.	2500 RPM
	15.	0.33	56.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	38.	0.10	1060.	40 MPH
	39.	0.32	56.	IDLE-N
4SPD DIS	2004.	0.37	52.	IDLE-N
	1849.	0.17	99.	2500 RPM
	2080.	0.36	54.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: VAC LINE REROUTED PROPERLY AT EGR VLV EGR VLV CLEANED.
VAC ADV LINE ROUTED PROPERLY FOR ADEQUATE VAC, IRPM +225.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7037	1977	DATS	85	LOD 2MOD	10.	0.02	611.	30 MPH
						1.	0.01	24.	IDLE-N
					4SPD IDL	4.	0.01	16.	IDLE-N
						5.	0.01	80.	2500 RPM
						4.	0.01	15.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	13.	0.02	772.	40 MPH
						1.	0.01	31.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6038	1976	CADI	500	LOD 2MOD	12.	0.01	64.	30 MPH
						18.	0.03	35.	IDLE-N
					4SPD IDL	14.	0.01	39.	IDLE-N
						1.	0.01	65.	2500 RPM
						10.	0.01	31.	IDLE-N
						8.	0.64	30.	IDLE-D
					STATE MOD	7.	0.02	114.	40 MPH
						8.	0.01	38.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8039	1978	BUIC	231	LOD 2MOD	11.	0.02	78.	30 MPH
						23.	0.01	24.	IDLE-N
					4SPD IDL	24.	0.01	22.	IDLE-N
						12.	0.01	39.	2500 RPM
						28.	0.01	23.	IDLE-N
						10.	0.01	44.	IDLE-D
					STATE MOD	8.	0.03	101.	40 MPH
						13.	0.01	23.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	9040	1979	HOND	91	LOD 2MOD	2.	0.06	342.	30 MPH
						1.	0.12	31.	IDLE-N
					4SPD IDL	84.	0.10	27.	IDLE-N
						9.	0.07	54.	2500 RPM
						18.	0.14	27.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	2.	0.08	399.	40 MPH
						1.	0.12	35.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5041	1975	CHEV	350	LOD 2MOD	19.	0.14	259.	30 MPH
						16.	0.02	22.	IDLE-N
					4SPD IDL	34.	0.12	22.	IDLE-N
						11.	0.06	107.	2500 RPM
						20.	0.05	24.	IDLE-N
						21.	0.03	53.	IDLE-D
					STATE MOD	23.	0.05	608.	40 MPH
						18.	0.02	27.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7042	1977	CHEV	350	LOD 2MOD	3.	0.02	100.	30 MPH
						8.	0.01	24.	IDLE-N
					4SPD IDL	9.	0.02	20.	IDLE-N
						10.	0.02	46.	2500 RPM
						1.	0.01	26.	IDLE-N
						4.	0.01	71.	IDLE-D
					STATE MOD	2.	0.02	166.	40 MPH
						1.	0.01	25.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5043	1975	OLDS	350	LOD 2MOD	37.	0.03	484.	30 MPH
						122.	1.74	40.	IDLE-N
					4SPD IDL	210.	0.95	24.	IDLE-N
						13.	0.01	166.	2500 RPM
						166.	1.53	26.	IDLE-N
						132.	1.66	31.	IDLE-D
					STATE MOD	3.	0.00	227.	40 MPH
						177.	0.94	24.	IDLE-N

COMMENTS: FAILED HC AND CO.

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	HC, PPM	CO%	NO, PPM	
2	5043	1975	OLDS	350	STATE MOD	7.	0.02	417.	40 MPH
						143.	3.14	0.	IDLE-N

COMMENTS: FAILED CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	5043	1975	OLDS	350	1975 FTP	1.61	25.38	648.73	2.08	12.79
					HWY FET	0.14	1.04	529.90	2.13	16.67

	HC, PPM	CO%	NO, PPM	
50 CRUIS	7.	0.01	357.	50 MPH
LOD 2MOD	5.	0.04	223.	30 MPH
	250.	1.17	22.	IDLE-N
4SPD IDL	259.	0.57	18.	IDLE-N
	1.	0.03	119.	2500 RPM
	188.	1.00	22.	IDLE-N
	112.	0.92	28.	IDLE-D
STATE MOD	10.	0.04	215.	40 MPH
	165.	1.25	24.	IDLE-N
4SPD DIS	655.	0.18	15.	IDLE-N
	223.	0.04	185.	2500 RPM
	588.	0.29	13.	IDLE-N
	569.	0.23	20.	IDLE-D
SHED-GMS	1.13			DIURNAL
	5.12			HOT SOAK
	6.25			TOTAL

COMMENTS: LIMITER CAP MIS, CARB BOWL HOSE AT CNSTR CRACKED OPEN.
TEMPERTURE CONTROL VLV LETS VAC OPEN EGR VLV BELOW 61 DEGREES.

						HC, PPM	CO%	NO, PPM	
4	5043	1975	OLDS	350	STATE MOD	29.	0.05	445.	40 MPH
						333.	0.25	0.	IDLE-N

COMMENTS: FAILED HC.

						HC, PPM	CO%	NO, PPM	
0	5043	1975	OLDS	350	STATE MOD	15.	0.02	397.	40 MPH
						62.	0.28	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	5043	1975	OLDS	350	1975 FTP	0.66	7.51	700.15	2.14	12.43
					HWY FET	0.08	0.17	520.30	2.21	17.03

	HC, PPM	CO%	NO, PPM	
50 CRUIS	5.	0.02	376.	50 MPH
LOD 2MOD	8.	0.02	303.	30 MPH
	18.	0.02	33.	IDLE-N
4SPD IDL	14.	0.02	31.	IDLE-N
	1.	0.02	131.	2500 RPM
	11.	0.02	35.	IDLE-N
	6.	0.02	69.	IDLE-D
STATE MOD	3.	0.01	252.	40 MPH
	9.	0.02	36.	IDLE-N
4SPD DIS	60.	0.02	33.	IDLE-N
	130.	0.02	208.	2500 RPM
	35.	0.02	36.	IDLE-N
	33.	0.01	76.	IDLE-D

COMMENTS: LIMITER CAP MIS, CARB BOWL HOSE AT CNSTR CRACKED OPEN.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
6	5043	19 0		0	1975 FTP	0.00	0.00	0.00	0.00	12.43
					HWY FET	0.07	0.12	526.00	2.18	16.86

	HC, PPM	CO%	NO, PPM	
50 CRUIS	2.	0.01	315.	50 MPH
LOD 2MOD	9.	0.02	349.	30 MPH
	13.	0.01	29.	IDLE-N
4SPD IDL	24.	0.01	28.	IDLE-N
	3.	0.02	109.	2500 RPM
	20.	0.01	31.	IDLE-N
	6.	0.01	60.	IDLE-D
STATE MOD	5.	0.02	296.	40 MPH
	8.	0.01	31.	IDLE-N
4SPD DIS	49.	0.02	30.	IDLE-N
	139.	0.02	205.	2500 RPM
	30.	0.02	31.	IDLE-N
	31.	0.02	67.	IDLE-D
SHED-GMS	0.64			DIURNAL
	5.25			HOT SOAK
	5.89			TOTAL

COMMENTS: LIMITER CAP MIS, CARB BOWL HOSE AT CNSTR REPAIRED.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6044	1976	CHEV	250	LOD 2MOD	37.	0.06	75.	30 MPH
						71.	0.03	18.	IDLE-N
					4SPD IDL	281.	0.08	14.	IDLE-N
						42.	0.13	41.	2500 RPM
						104.	0.04	15.	IDLE-N
						62.	0.02	21.	IDLE-D
					STATE MOD	13.	0.04	178.	40 MPH
						60.	0.01	18.	IDLE-N

COMMENTS: FAILED HC.

						HC, PPM	CO%	NO, PPM	
2	6044	1976	CHEV	250	STATE MOD	28.	0.05	378.	40 MPH
						40.	0.02	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5045	1975	CHEV	140	LOD 2MOD	23.	0.19	493.	30 MPH
						10.	0.04	24.	IDLE-N
					4SPD IDL	14.	0.09	23.	IDLE-N
						8.	0.16	90.	2500 RPM
						9.	0.06	23.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	23.	0.12	601.	40 MPH
						10.	0.04	27.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5046	1975	HOND	91	LOD 2MOD	19.	0.19	814.	30 MPH
						113.	0.25	43.	IDLE-N
					4SPD IDL	256.	0.16	44.	IDLE-N
						21.	0.14	84.	2500 RPM
						179.	0.23	48.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	13.	0.14	865.	40 MPH
						42.	0.30	52.	IDLE-N

COMMENTS: FAILED HC.

						HC, PPM	CO%	NO, PPM	
2	5046	1975	HOND	91	STATE MOD	26.	0.20	775.	40 MPH
						128.	0.30	0.	IDLE-N

COMMENTS: FAILED HC.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	5046	1975	HOND	91	1975 FTP	0.92	8.17	334.54	2.33	25.34
					HWY FET	0.10	1.39	243.50	3.45	36.05

	HC, PPM	CO%	NO, PPM	
50 CRUIS	0.	0.08	866.	50 MPH
LOD 2MOD	1.	0.10	683.	30 MPH
	30.	0.21	48.	IDLE-N
4SPD IDL	129.	0.21	40.	IDLE-N
	7.	0.13	91.	2500 RPM
	164.	0.24	36.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	6.	0.10	815.	40 MPH
	35.	0.24	48.	IDLE-N
4SPD DIS	1608.	0.07	34.	IDLE-N
	1742.	0.11	79.	2500 RPM
	1735.	0.15	36.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, THERMOSNSR SWITCH ALLOWING MANIFOLD VAC ADV CONSTANTLY

						HC, PPM	CO%	NO, PPM	
4	5046	1975	HOND	91	STATE MOD	8.	0.10	621.	40 MPH
						18.	0.10	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	5046	19 0		0	1975 FTP	0.61	10.11	348.72	1.72	24.22
					HWY FET	0.03	0.71	249.70	2.24	35.35

	HC, PPM	CO%	NO, PPM	
50 CRUIS	1.	0.04	546.	50 MPH
LOD 2MOD	0.	0.04	427.	30 MPH
	0.	0.10	50.	IDLE-N
4SPD IDL	27.	0.15	41.	IDLE-N
	2.	0.07	83.	2500 RPM
	17.	0.13	33.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	0.	0.04	424.	40 MPH
	0.	0.07	49.	IDLE-N
4SPD DIS	1760.	0.08	63.	IDLE-N
	1604.	0.15	65.	2500 RPM
	1715.	0.12	52.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: THERMOSNSR SWITCH ALLOWING MANIFOLD VAC ADV CONSTANTLY

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7047	1977	HOND	91	LOD 2MOD	5.	0.10	921.	30 MPH
						4.	0.15	35.	IDLE-N
					4SPD IDL	38.	0.10	33.	IDLE-N
						2.	0.07	80.	2500 RPM
						9.	0.14	35.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	1.	0.10	1178.	40 MPH
						2.	0.15	51.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5048	1975	CHRY	318	LOD 2MOD	14.	0.04	304.	30 MPH
						5.	0.09	33.	IDLE-N
					4SPD IDL	9.	0.11	31.	IDLE-N
						4.	0.04	127.	2500 RPM
						7.	0.09	34.	IDLE-N
						17.	0.22	49.	IDLE-D
					STATE MOD	13.	0.04	1006.	40 MPH
						3.	0.07	41.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	5049	1975	MERC	140	LOD 2MOD	201.	1.29	152.	30 MPH
						40.	1.10	48.	IDLE-N
					4SPD IDL	39.	0.74	49.	IDLE-N
						141.	2.15	41.	2500 RPM
						29.	0.80	48.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	211.	1.01	233.	40 MPH
						45.	1.64	40.	IDLE-N

COMMENTS: FAILED CO.

						HC, PPM	CO%	NO, PPM	
2	5049	1975	MERC	140	STATE MOD	238.	1.85	559.	40 MPH
						81.	1.60	0.	IDLE-N

COMMENTS: FAILED CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2971 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	5049	1975	MERC	140	1975 FTP	2.46	66.13	425.06	0.74	16.53
					HWY FET	1.42	62.67	269.60	0.63	23.80

	HC, PPM	CO%	NO, PPM	
50 CRUIS	66.	2.37	122.	50 MPH
LOD 2MOD	57.	1.41	95.	30 MPH
	17.	0.48	49.	IDLE-N
4SPD IDL	1.	0.17	44.	IDLE-N
	47.	1.51	38.	2500 RPM
	0.	0.16	44.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	59.	1.36	143.	40 MPH
	2.	0.07	50.	IDLE-N
4SPD DIS	1043.	0.05	43.	IDLE-N
	1518.	0.31	27.	2500 RPM
	804.	0.05	39.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, IRPM +230, FRESH AIR DUCT TORN. FUEL INLET LINE LEAKING GAS. HOSE FROM DUCT MOTOR VLV ON AIR CANISTER CNCTD TO VAC SOL. CHOKE THERMOSTAT DEF CLOSES PARTIALLY.
AIR BY-PASS VLV VAC HOSE CNCTD TO DUCT VLV MOTOR FROM VAC SOL.
CHOKE 111 RICH, SPARK DELAY VLV MIS.

						HC, PPM	CO%	NO, PPM	
4	5049	1975	MERC	140	STATE MOD	55.	0.21	326.	40 MPH
						26.	0.05	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	5049	1975	MERC	140	1975 FTP	1.00	10.65	504.66	0.89	16.92
					HWY FET	0.15	3.91	360.60	0.75	24.15

	HC, PPM	CO%	NO, PPM	
50 CRUIS	7.	0.19	118.	50 MPH
LOD 2MOD	175.	0.14	140.	30 MPH
	13.	0.06	29.	IDLE-N
4SPD IDL	5.	0.05	29.	IDLE-N
	62.	0.09	33.	2500 RPM
	7.	0.05	29.	IDLE-N
	0.	0.00	0.	IDLE-D
STATE MOD	190.	0.20	182.	40 MPH
	11.	0.08	27.	IDLE-N
4SPD DIS	459.	0.26	25.	IDLE-N
	1404.	0.16	32.	2500 RPM
	537.	0.11	21.	IDLE-N
	0.	0.00	0.	IDLE-D

COMMENTS: LIMITER CAP MIS, IRPM +190 CHOKE .111 RICH.
SPARK DELAY VLV MIS, NOT REPLACED PER BRUCE MICHAEL.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7050	1977	OLDS	350	LOD 2MOD	16.	0.02	282.	30 MPH
						9.	0.01	17.	IDLE-N
					4SPD IDL	31.	0.02	15.	IDLE-N
						7.	0.02	67.	2500 RPM
						12.	0.01	19.	IDLE-N
						10.	0.01	36.	IDLE-D
					STATE MOD	11.	0.02	406.	40 MPH
						8.	0.01	21.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7051	1977	PLYM	318	LOD 2MOD	11.	0.04	377.	30 MPH
						5.	0.06	23.	IDLE-N
					4SPD IDL	5.	0.06	19.	IDLE-N
						1.	0.01	127.	2500 RPM
						6.	0.06	19.	IDLE-N
						6.	0.05	23.	IDLE-D
					STATE MOD	11.	0.03	1002.	40 MPH
						3.	0.06	20.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	7052	1977	BUIC	231	LOD 2MOD	26.	0.64	74.	30 MPH
						20.	0.43	18.	IDLE-N
					4SPD IDL	30.	0.44	14.	IDLE-N
						10.	0.27	17.	2500 RPM
						26.	0.42	18.	IDLE-N
						56.	0.73	56.	IDLE-D
					STATE MOD	21.	0.63	102.	40 MPH
						11.	0.40	18.	IDLE-N

COMMENTS: OBVIOUS PASS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6053	1976	OLDS	350	LOD 2MOD	39.	0.03	118.	30 MPH
						451.	1.66	20.	IDLE-N
					4SPD IDL	600.	0.98	15.	IDLE-N
						107.	0.06	61.	2500 RPM
						405.	2.01	19.	IDLE-N
						307.	2.60	17.	IDLE-D
					STATE MOD	35.	0.04	221.	40 MPH
						432.	1.59	18.	IDLE-N

COMMENTS: FAILED HC AND CO.

						HC, PPM	CO%	NO, PPM	
2	6053	1976	OLDS	350	STATE MOD	65.	0.09	482.	40 MPH
						710.	3.76	0.	IDLE-N

COMMENTS: FAILED HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
3	6053	1976	OLDS	350	1975 FTP	2.21	18.49	564.04	1.59	14.79
					HWY FET	0.26	0.88	463.80	1.87	19.03

	HC, PPM	CO%	NO, PPM	
50 CRUIS	11.	0.01	147.	50 MPH
LOD 2MOD	18.	0.02	88.	30 MPH
	510.	0.78	19.	IDLE-N
4SPD IDL	538.	0.35	14.	IDLE-N
	34.	0.01	63.	2500 RPM
	421.	1.38	17.	IDLE-N
	280.	1.95	19.	IDLE-D
STATE MOD	7.	0.02	215.	40 MPH
	407.	1.06	18.	IDLE-N
4SPD DIS	1070.	0.39	13.	IDLE-N
	162.	0.01	64.	2500 RPM
	1001.	0.48	13.	IDLE-N
	1010.	0.50	15.	IDLE-D

COMMENTS: LIMITER CAP MIS

						HC, PPM	CO%	NO, PPM	
4	6053	1976	OLDS	350	STATE MOD	13.	0.02	492.	40 MPH
						31.	0.02	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH FTP, HFET IN GMS/MI

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	EMISSION RESULTS HC	CO	CO2	NOXC	MPG
5	6053	1976	OLDS	350	1975 FTP	1.09	3.42	617.97	1.43	14.16
					HWY FET	0.12	0.00	482.70	1.58	18.36

	HC, PPM	CO%	NO, PPM	
50 CRUIS	8.	0.02	144.	50 MPH
LOD 2MOD	18.	0.02	95.	30 MPH
	129.	0.02	74.	IDLE-N
4SPD IDL	8.	0.02	53.	IDLE-N
	14.	0.02	60.	2500 RPM
	8.	0.02	83.	IDLE-N
	10.	0.02	193.	IDLE-D
STATE MOD	9.	0.02	246.	40 MPH
	110.	0.01	81.	IDLE-N
4SPD DIS	2.	0.02	82.	IDLE-N
	1.	0.03	83.	2500 RPM
	0.	0.03	128.	IDLE-N
	1.	0.02	182.	IDLE-D

COMMENTS: LIMITER CAP MIS.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	8054	1978	PONT	151	LOD 2MOD	61.	0.36	36.	30 MPH
						48.	0.37	0.	IDLE-N
					4SPD IDL	69.	0.98	4.	IDLE-N
						40.	0.76	31.	2500 RPM
						49.	0.57	3.	IDLE-N
						84.	0.68	4.	IDLE-D
					STATE MOD	46.	0.34	41.	40 MPH
						57.	0.47	3.	IDLE-N

COMMENTS: FAILED CO.

						HC, PPM	CO%	NO, PPM	
2	8054	1978	PONT	151	STATE MOD	83.	0.69	142.	40 MPH
						36.	0.58	0.	IDLE-N

COMMENTS: PASS HC AND CO.

AUTOMOTIVE ENVIRONMENTAL SYSTEMS, INC.
EPA TESTING PROGRAM - 68-03-2871 TASK 2

FINAL LISTING OF TEST RESULTS
LOS ANGELES

TESTED THIS MONTH

TEST NO	VEH NO	MODEL YEAR	MAKE	CID	TEST TYPE	--- EMISSION RESULTS --- HC, PPM	CO%	NO, PPM	
1	6055	1976	DATS	85	LOD 2MOD	67.	0.13	1159.	30 MPH
						26.	0.69	24.	IDLE-N
					4SPD IDL	47.	0.87	15.	IDLE-N
						16.	0.18	72.	2500 RPM
						28.	0.78	17.	IDLE-N
						0.	0.00	0.	IDLE-D
					STATE MOD	59.	0.12	1281.	40 MPH
						14.	0.64	25.	IDLE-N

COMMENTS: FAILED CO.

						HC, PPM	CO%	NO, PPM	
2	6055	1976	DATS	85	STATE MOD	115.	0.25	2431.	40 MPH
						21.	0.87	0.	IDLE-N

COMMENTS: PASS HC AND CO.