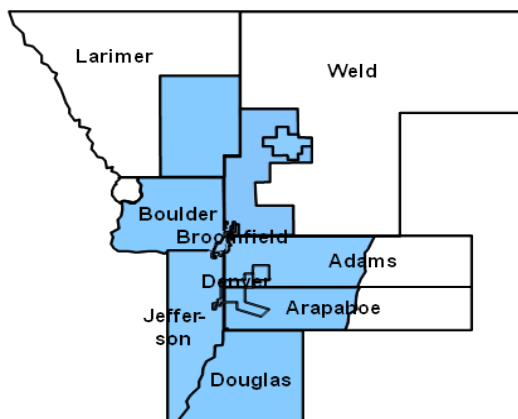
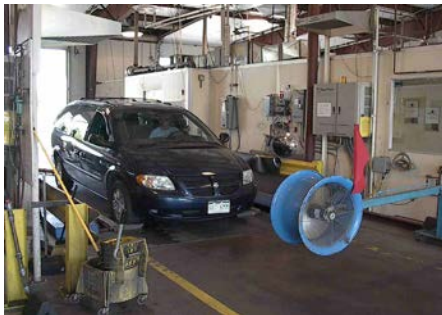




Colorado Department
of Public Health
and Environment

Air Pollution Control Division Mobile Sources Program

Automobile Inspection and Readjustment (AIR) Program Annual Report Calendar Year 2012



July 1, 2013

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Executive Summary

The State of Colorado operates a motor vehicle emissions inspection program in the nine-county Front Range area, including all or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld Counties. The program's purpose is to improve air quality through the detection and repair of excessively emitting vehicles. Mobile source emissions constitute one of the larger categories of controllable emissions that contribute to summertime ozone concentrations. Lowering vehicle emissions by repairing dirty vehicles contributes to a cleaner motor vehicle fleet and improvement in the Colorado Front Range area's air quality.

The Automobile Inspection and Readjustment (AIR) Program consists of an "enhanced" Inspection and Maintenance (I/M) Program that uses a dynamometer-based I/M240 test for model year 1982 and newer light-duty gasoline-powered vehicles and a Two-Speed Idle Test (TSI) for 1981 and older light-duty and all heavy-duty gasoline-powered vehicles. The program also involves a visual inspection and gas cap pressure test to check for required emissions control equipment and evaporative emission leaks along with an inspection for visible smoke. The State enforces the AIR program through denial of vehicle registrations.

Vehicles are exempt from inspection for the first four model years. Vehicles that transfer ownership during this period are also exempt from inspection if they have at least 12 months remaining in their four-year exemption period. As a result of these exemptions, approximately 370,000 vehicles were exempt from emissions inspection in 2012.

The I/M network consists of eighteen (18) Air Care Colorado emissions testing stations with 97 inspection lanes located throughout the nine-county program area. These centralized testing stations are allowed to inspect all gasoline-powered vehicles regardless of age. There were also three independent test-only stations that are only allowed to inspect 1981 and older gasoline-powered vehicles. Additionally, there were 23 fleet self-inspection stations throughout the program area licensed to test qualifying commercial and governmental fleet vehicles.

The State has developed a Clean Screen program, called "RapidScreen", to increase motorist convenience and limit the number of vehicles undergoing the traditional I/M inspection. RapidScreen uses Remote Sensing Devices (RSD) to measure tailpipe emissions while a vehicle drives past these devices on the road. There were a total of 22 RSD units operating throughout the nine-county program area in 2012.

There were approximately 849,000 initial I/M240 tests and 78,000 Two-Speed Idle (TSI) tests conducted throughout the I/M network in 2012. RSD units observed approximately 231,000 unique vehicles that met Clean Screen program requirements. The I/M240 failure rate was 8.56% with the TSI test failure rate being 9.05%. Including Clean Screen inspections, the overall failure rate was 6.88%.

The State estimates that the net cost of the total AIR program during 2012 was approximately \$42.8 million. Net cost is a combination of vehicle inspection costs, repair costs, vehicle registration fees, and estimated fuel savings. For ozone precursors, the State estimates the cost-effectiveness of the inspection program to be \$3,328 per ton removed. For carbon monoxide (CO) the cost effectiveness is estimated at \$668 per ton removed.

This \$3,328 cost per ton result differs significantly from the cost reported in the 2011 annual report of \$7,370. This is due to the 2011 emissions inventory results being generated using EPA's Mobile 6.2 emissions factor model, while the 2012 inventory was generated through EPA's newest Motor Vehicle Emissions Simulator (MOVES) model.

The Colorado Department of Public Health and Environment (CDPHE) conducted several studies throughout 2012. These studies consisted of the evaluation of program effectiveness for both I/M240 and On-Board Diagnostics (OBD) and evaluating the Denver Metro Area's (DMA) vehicle registration data to ensure program compliance. The program effectiveness study started in 2011 and is scheduled to be completed in 2013/2014. The program compliance study was completed in 2012. The results from this study indicated a vehicle registration compliance rate of 99.2%.

The Air Pollution Control Division (APCD) worked extensively with the Air Quality Control Commission (AQCC) to analyze, approve, and ultimately implement changes to the AIR Program. These changes will take effect in 2015.

The Office of the State Auditor conducted its periodic Performance Audit of the AIR Program. The recommendations of this audit were similar to those that APCD recommended, and that AQCC ultimately approved.

Introduction

The State of Colorado has maintained an automotive emissions inspection program since 1981. The purpose of this program is to identify and repair high-emitting vehicles. Repair of these vehicles results in lower mobile source emissions and contributes to improvement in the program area's air quality. Mobile sources remain a significant source of controllable emissions that contribute to Front Range summertime ozone levels.

The current Automobile Inspection and Readjustment (AIR) program was authorized by HB93-1340, and began operations on January 1, 1995. It consists of an "enhanced" Inspection and Maintenance (I/M) Program that uses a dynamometer-based I/M240 test for model year 1982 and newer light-duty gasoline-powered vehicles, and a Two-Speed Idle (TSI) test for 1981 and older light-duty and all heavy-duty gasoline-powered vehicles. The program also involves conducting a visual inspection and gas cap pressure test on all 1975 and newer vehicles. Vehicles model year 1982 and newer receive inspections biennially (every two years), while 1981 and older vehicles are inspected annually. The program enforcement is through denial of vehicle registrations at the County Clerk level. Vehicles are exempt from inspection for their first four (4) model years as well as used vehicles that are sold during their exemption period.

To improve motorist convenience, the State also administers a remote-sensing based Clean Screen program called "RapidScreen." RapidScreen monitors vehicle emissions while simultaneously photographing the license plate when a vehicle passes through infrared and ultraviolet beams of light. County Clerks notify owners of vehicles meeting the RapidScreen criteria that their vehicle has passed the inspection process and are excused from their next regularly scheduled I/M240 test.

The State of Colorado selected Envirotest Systems Holding Corporation (hereinafter referred to as "Envirotest") as the contractor to operate the I/M program, which they have done since the enhanced I/M Program was established in 1995. They are charged with operating the network of test-only stations, providing data and communication services, and operating the RapidScreen remote sensing network.

The current AIR Program covers the nine-county Front Range area, including all or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties. The latter two North Front Range counties began inspecting gasoline-powered motor vehicles since November 1, 2010.

The Mobile Sources Program in the Air Pollution Control Division at the Colorado Department of Public Health and Environment (CDPHE) designs, administers, and evaluates the program. The Division of Motor Vehicles Emissions at the Colorado Department of Revenue (DOR) regulates the emissions testing facilities and inspectors working in the emissions program areas.

Inspection and Maintenance (I/M) Program

I/M Network

The I/M network consists of eighteen (18) Air Care Colorado emissions testing stations with a total of 97 inspection lanes, three (3) independent test-only stations that inspect model year 1981 and older gasoline-powered vehicles, and 23 fleet stations that inspect qualifying commercial and governmental fleet vehicles. Envirotest operates these Air Care Colorado stations, inspecting most gasoline-powered vehicles registered in the program area. Model year 1981 and older vehicles can also be inspected at the three independent test-only stations that test only 1981 and older vehicles. Fleet inspection stations are licensed to only test qualifying commercial and governmental fleet vehicles.

The remote sensing program consists of 22 RSD units within the program area. The vans were rotated among 115 locations throughout the program area, with the primary locations being highway on and off ramps.

The State also staffs six Emissions Technical Centers (ETCs) throughout the enhanced AIR program area to help both the motoring public and the repair industry. These centers perform a variety of support functions for the Mobile Sources program, including technical support of vehicle inspection programs, and motor vehicle clean fuels programs.

New Program Developments

The AIR Program was expanded to the North Front Range (NFR) which included parts of Larimer and Weld counties in 2011. At that time, the I/M240 standards used for 1982 and newer vehicles in the NFR were more lenient than those in the Denver Metro Area (DMA) area. These standards were lowered in 2012 to match the more stringent DMA standards.

To prepare for upcoming emissions program changes, the Department has launched a special “Mobile Source Emissions Control Strategies” study. This evaluation focuses on comparing Colorado’s I/M test results to Federal Test Procedure (FTP) results. A large part of this study is to verify that the On-Board Diagnostic (OBD) system is working properly when related to exhaust emissions measured by I/M240 and FTP test methods. The study began in early 2011, and will continue until the sample size reaches its goal (which is expected to be in 2013 or 2014). This study will assist in future refinement of the vehicle emissions program.

In an effort to evaluate emissions program compliance, CDPHE evaluated vehicle registration data from the seven-county DMA program area. Approximately 9.7 million Colorado registration records were evaluated to determine overall registration compliance rates. The compliance rate for vehicles in the DMA was found to be 99.2%.

The Mobile Sources Program worked extensively with the Air Pollution Control Division (APCD) management throughout 2012 to recommend AIR Program improvements to the Air Quality Control Commission. APCD recommended the following changes to the program: 1) Increase the model year exemption from four (4) to seven (7) years; 2) Require OBD-II testing

for the first two (2) inspection cycles (vehicles age 8 through 11 years); 3) Require I/M240 testing commencing with the third inspection cycle (vehicles age 12 years and older). AQCC approved these changes in December 2012, and they will take effect in 2015.

The Office of the State Auditor (OSA) conducted its periodic Performance Audit of the AIR Program, and presented its findings in November 2012. The OSA's recommendations from this audit are similar to the changes approved by the AQCC (i.e., to include a seven-year new vehicle exemption, and use OBD testing on vehicles back to model year 1996).

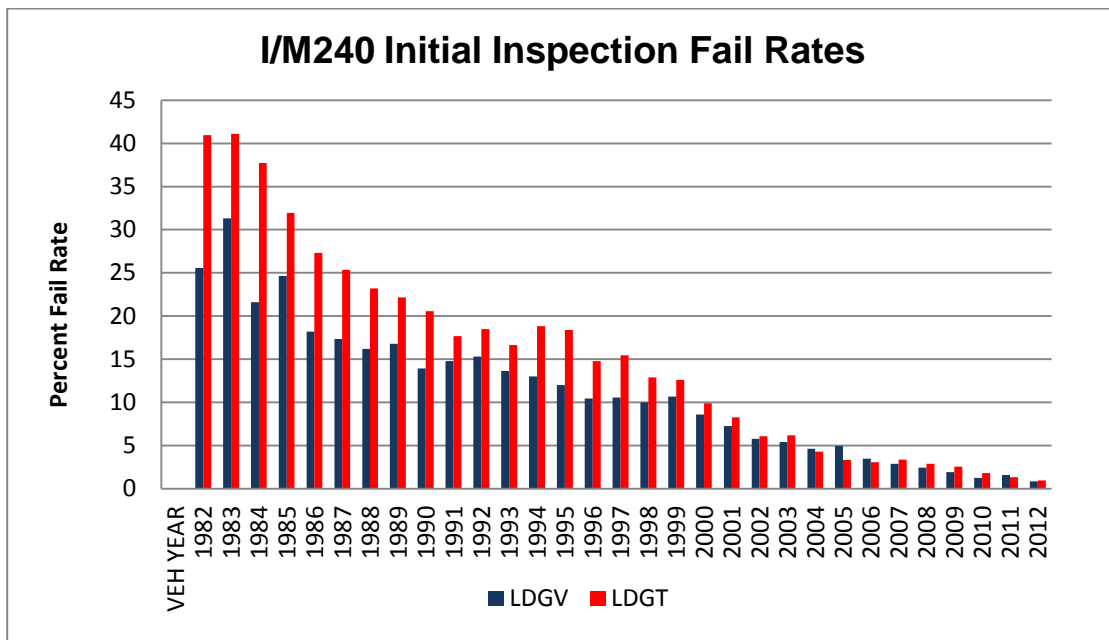
I/M240 Program Results

The I/M240 element of the enhanced program uses the I/M240 loaded-mode dynamometer test cycle. This test is arguably the most accurate emissions test currently in use for replicating the Federal Test Procedure (FTP) that is used to certify new model year vehicles.

I/M240 – Initial Test Results

In 2012 there were a total of 848,816 initial I/M240 inspections conducted in the nine-county program area. Vehicles that fail their initial test must undergo repairs and then return to an emissions testing station for additional testing. Vehicles can fail for a number of reasons, including missing or broken emission control equipment, excess exhaust emissions, or evaporative emissions. In 2012, 72,618 vehicles failed their initial I/M240 inspections resulting in an I/M240 initial failure rate of 8.56%. Of these, 38,712 failed for excess exhaust emissions resulting in an exhaust emissions failure rate of 4.56%. Figure 1 shows overall failure rates by model year. Overall failures consist of vehicles with excessive exhaust emissions, gas cap pressure failures, and/or visual equipment test failures.

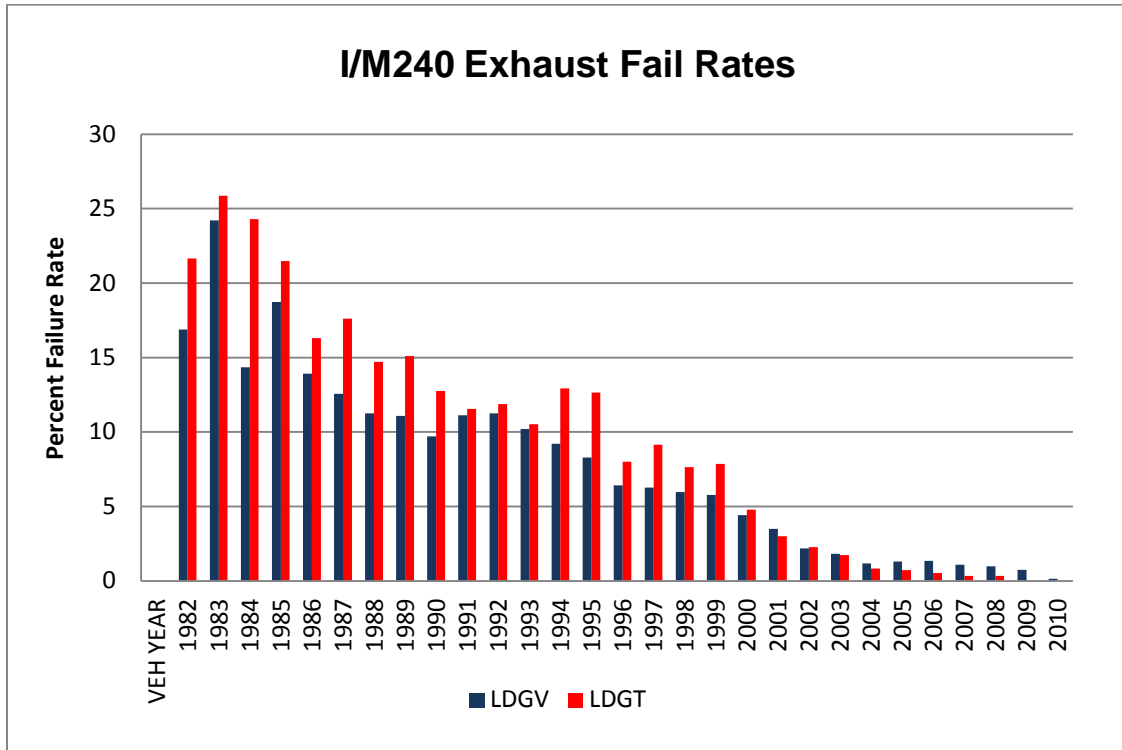
Figure 1 - I/M240 Initial Inspection Fail Rates (1982-2012)



As Figure 1 shows, the highest failure rates are associated with the oldest model year vehicles. This contrasts with the failure rate for the newest model year vehicles, which were significantly lower (as expected). The newest vehicles experienced failure rates of 1-3% even though they are subjected to the most stringent vehicle emissions standards. Because of these low failure rates, and the high probability that they will pass an emissions test, the state exempts all new vehicles from periodic emissions inspections for the first four model years. These charts show, however, that some motorists voluntarily have their exempt vehicles tested.

Figure 2 shows rates of vehicles that fail for excessive exhaust emissions, sorted by model year.

Figure 2 – I/M240 Exhaust Fail Rates (1982-2010)



Emissions failure rates (as shown in Figure 2) follow the same trends as overall I/M240 failure rates. Newer cars and trucks were much cleaner (as expected), with failure rates below 1.0% for the newest vehicles (model year 2004 and newer).

Figures 3, 4, and 5 show the initial exhaust emission results for hydrocarbons (HC), carbon monoxide (CO), and nitrogen oxides (NOx), respectively.

Figure 3 – Average Hydrocarbon (HC) Emissions by Model Year (1982-2012)

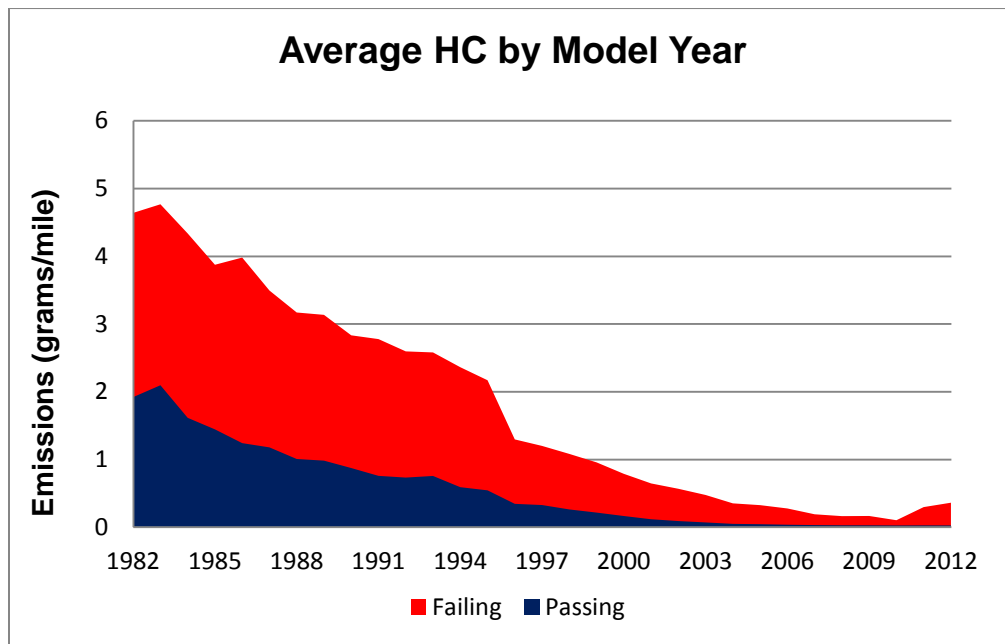


Figure 4 – Average Carbon Monoxide (CO) Emissions by Model Year (1982-2012)

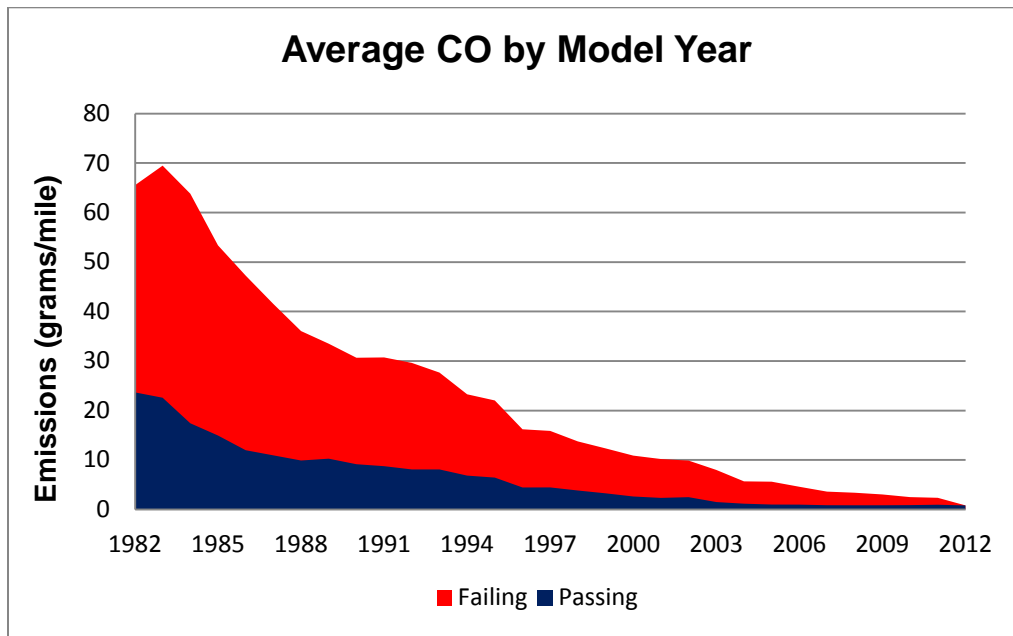
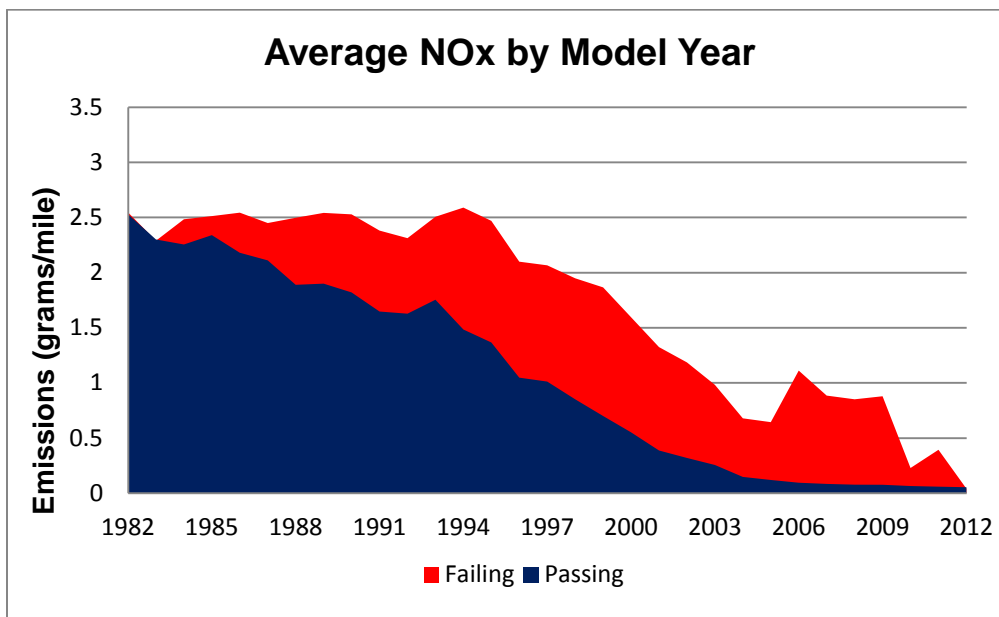


Figure 5 – Average Nitrogen Oxides (NOx) Emissions by Model Year (1982-2012)



Vehicles that fail for excessive exhaust emissions could fail for one of these criteria pollutants (HC, CO, or NOx) or any combination of them. Emission standards used to fail a vehicle are set for individual model years and vehicle types. All standards are set so that well-maintained vehicles will reasonably pass, with an adequate buffer to prevent marginal vehicles from falsely failing the inspection.

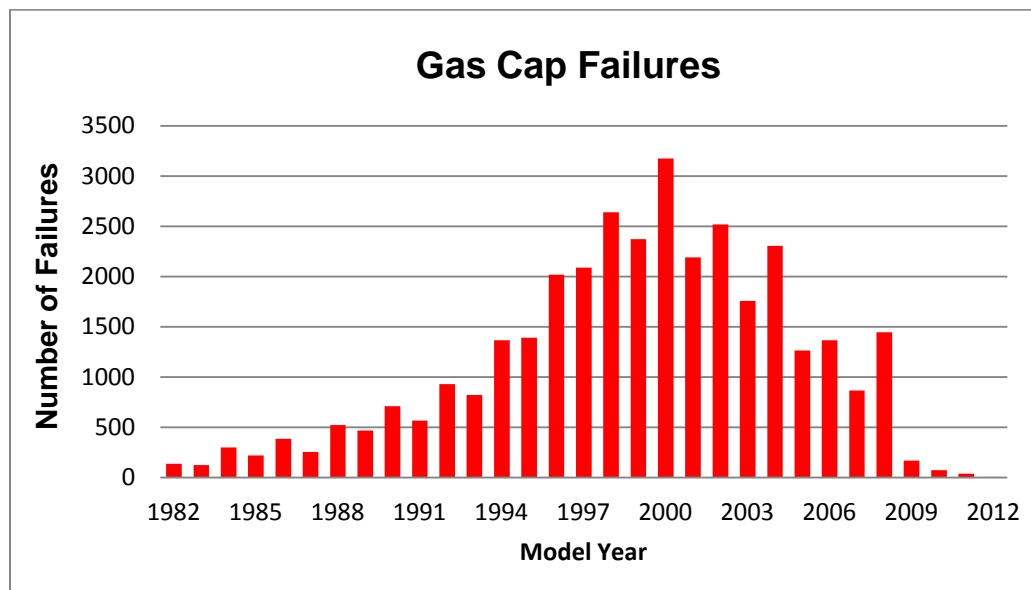
As these figures show, HC, CO, and NOx emissions are highest for the oldest model year vehicles. Average exhaust emissions drop significantly for newer model year vehicles (as expected), with the newest model year vehicles registering a small fraction of the average emissions of the oldest vehicles, in terms of both passing and failing emissions.

I/M240 – Gas Cap Pressure Inspection Results

Another element of the inspection program is a functional test of each vehicle's gas cap. Program inspectors install each gas cap on a device that pressurizes the cap and measures the decay of that pressure over time. If the pressure decay exceeds the standard, then the cap fails the test and the motorist is required to install a functional cap. There were 34,504 gas cap pressure failures in 2012.

The benefit of this test is the reduction of gasoline vapors venting to the atmosphere, which is a major factor in ground-level ozone formation. EPA's emissions model, MOVES, estimates that a functional gas cap program removes approximately 2.25 tons of hydrocarbons per day. The relative percent contribution of mobile source ozone precursors released through gas cap or fuel system failures is expected to increase in the future as tailpipe emissions continue to be reduced through fleet turnover and the introduction of advanced emissions control technologies. Figure 6 shows the number of gas cap pressure failures by model year.

Figure 6 – Gas Cap Failures by Model Year (1982-2012)



I/M240 – Visual Inspection Results

All 1982 and newer model year vehicles are subjected to a visual inspection of the secondary air injection system, catalytic converter, oxygen sensor, and gas cap. Vehicles model year 1996 and newer with On-Board Diagnostics (OBD) are subjected to a visual inspection only if the vehicle’s Malfunction Indicator Light (MIL, or “Check Engine” light) is commanded on, or there is no communication during the OBD inspection. In 2012, 1,453 vehicles failed for missing or improperly installed catalytic converter(s), 1,264 vehicles failed for missing or tampered air injection system, 1,191 vehicles failed for missing oxygen sensor(s), and 1,452 vehicles failed for a missing gas cap.

I/M240 – OBD-II Inspection Results

Every light-duty gasoline-powered vehicle built for sale in the USA since model year 1996 has special hardware and software installed called On-Board Diagnostics - Generation II (OBD-II). This system incorporates unique devices, statistical models, and procedures to *predict* (as opposed to measure) the vehicle’s emissions. Once the system identifies a problem, the vehicle’s MIL is turned on and a fault code is stored in the vehicle’s computer memory indicating the likely problem area. Currently, OBD evaluation for the Colorado AIR program is only for advisory purposes (i.e., not a pass/fail determination).

In 2012, there were 701,061 model year 1996 and newer vehicles inspected with matching I/M240 and OBD-II results. In this matched dataset, 19,706 (2.8%) vehicles failed for excess exhaust emissions. Based on EPA’s readiness criteria, 14,945 of these failed vehicles were classified as “ready” (i.e., enough of the vehicles’ OBD-II monitors were set to make a valid OBD pass/fail determination). Of these, 8,047 or 53.8% of the vehicles would have passed a hypothetical OBD-II inspection test, though they are true exhaust emission failures and did fail their I/M240 test.

I/M240 – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Of the vehicles that fail their initial I/M240 inspection, some will continue to fail after their initial repair. For calendar year 2012, 68,093 vehicles were given a first I/M240 retest. Of these vehicles, 18,633 failed again, resulting in a 27.36% I/M240 first retest failure rate. While vehicles undergoing retests after repair continue to show elevated failure rates compared to average vehicles undergoing initial testing, further analysis indicates that most vehicles that fail their initial I/M240 test are eventually repaired so that they pass their retest. Additional information on retest activity is available in the “Retest Frequency Report” in Appendix G.

I/M240 – Post-Repair Inspection Results

Vehicles that fail their emissions test generally have much higher emissions than vehicles that pass. The improved emissions from repairing these vehicles generate the program’s air quality benefit. Table 1 shows the average emissions from all vehicles that fail their initial I/M240 inspections and pass a subsequent retest, including the percent reduction by pollutant and vehicle type.

Table 1 – Passed Retest Inspection Results (2012)

Vehicle Type	Failed Initial Inspection			Passed Retest			Percent Reduction		
	HC gpm	CO gpm	NOx gpm	HC gpm	CO gpm	NOx gpm	HC	CO	NOx
Cars	1.58	19.43	1.78	0.36	4.21	0.82	67.40	70.53	43.13
Trucks	2.00	24.17	2.42	0.55	6.40	1.28	59.61	62.70	35.31
TOTAL	1.81	22.00	2.13	0.46	5.40	1.07	62.74	65.93	38.28

I/M240 – Unresolved Vehicles

A concern to any inspection program is “unresolved vehicles” which fail an initial inspection, never receive a passing inspection, and disappear from the system. Approximately 15.7% of failing vehicles in 2012 did not receive a passing retest in that calendar year.

An investigation of unresolved vehicles was performed by the CDPHE in February 2010. In this analysis, staff looked at the long-term trend (over multiple years) for vehicles that were unresolved for calendar year 2007. The results of the analysis indicated that very few vehicles from this group continued to operate within the AIR program area after failing and never passing an I/M inspection.

The study found 8,258 unresolved vehicles in 2007. Of these vehicles 2,400 were eventually repaired and passed an I/M inspection or received a waiver in either 2008 or 2009. Of the remaining 5,858 unresolved vehicles, only 825 were seen by the RapidScreen remote sensing program at some point during 2008 or 2009. This represents only 1.9% of all failing vehicles from 2007. Based on these results, the majority of unresolved vehicles appear to be either repaired, retired, moved out of the program area, or are no longer in operation. Only a limited fraction of these vehicles continue to operate, with the assumption being that most of the RapidScreen-observed unresolved vehicles in 2007 were actually seen early on in 2008 or 2009.

Two-Speed Idle Test Results

In Colorado, the enhanced I/M Program requires non-exempt (i.e., vehicles not registered as collector series, street rods or farm vehicles) 1981 model year and older gasoline-powered vehicles to undergo annual Two-Speed Idle (TSI) testing. Fleet vehicles undergoing fleet self-inspections also undergo annual TSI testing. Heavy-duty gasoline-powered vehicles newer than 1981 model year undergo a TSI inspection, though on a biennial (every two years) basis. The TSI inspection measures vehicle emissions at idle and raised idle. Only hydrocarbon and carbon monoxide emissions are measured, with no engine load placed on the vehicle. These tests only measure vehicle exhaust concentrations, not actual mass of emissions.

Idle –Initial Test Results

In calendar year 2012, 78,251 vehicles underwent a TSI inspection within the program area. Of these vehicles, 7,083 (or 9.05%) failed their initial test with 5,440 (6.95%) failing the exhaust portion of the inspection. Figures 7, 8, and 9 show failure rates by model year, along with the average emissions of passing and failing vehicles. Vehicles model year 1973 and older were combined with vehicles model year 1974 shown in Figures 7, 8, and 9.

Figure 7 – Initial Idle-Test Failure Rate by Model Year

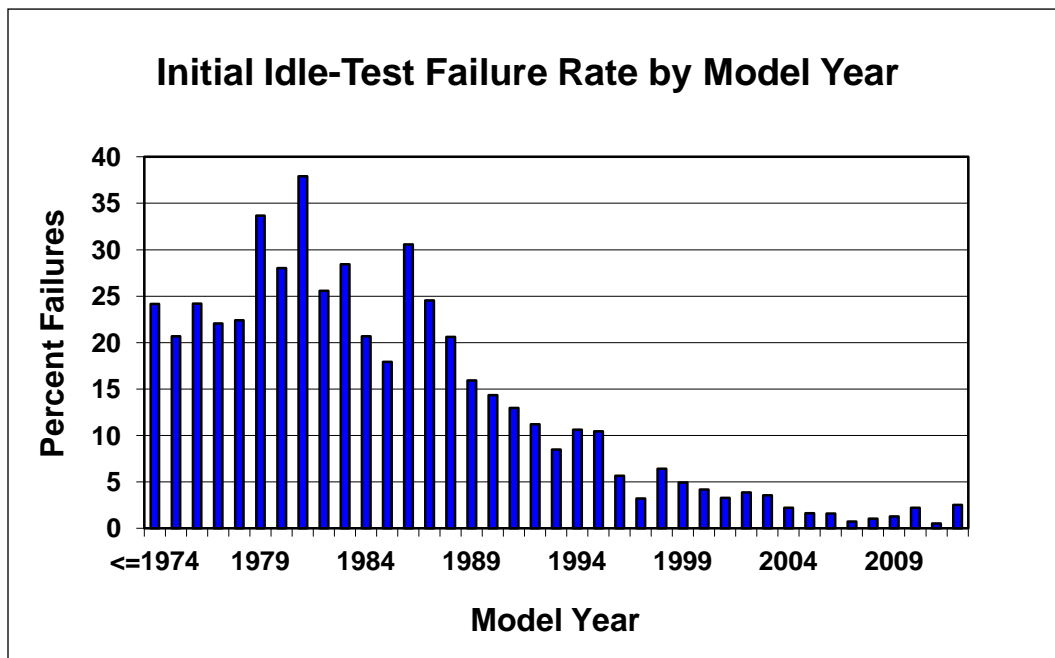


Figure 8 – Idle-Test Mean HC by Model Year

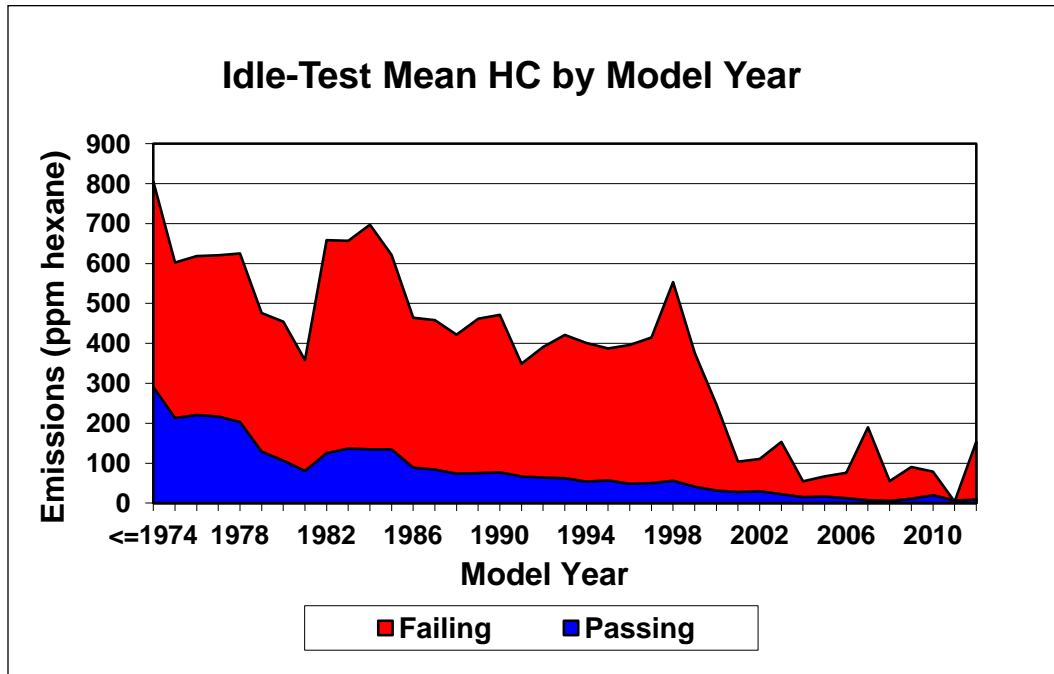
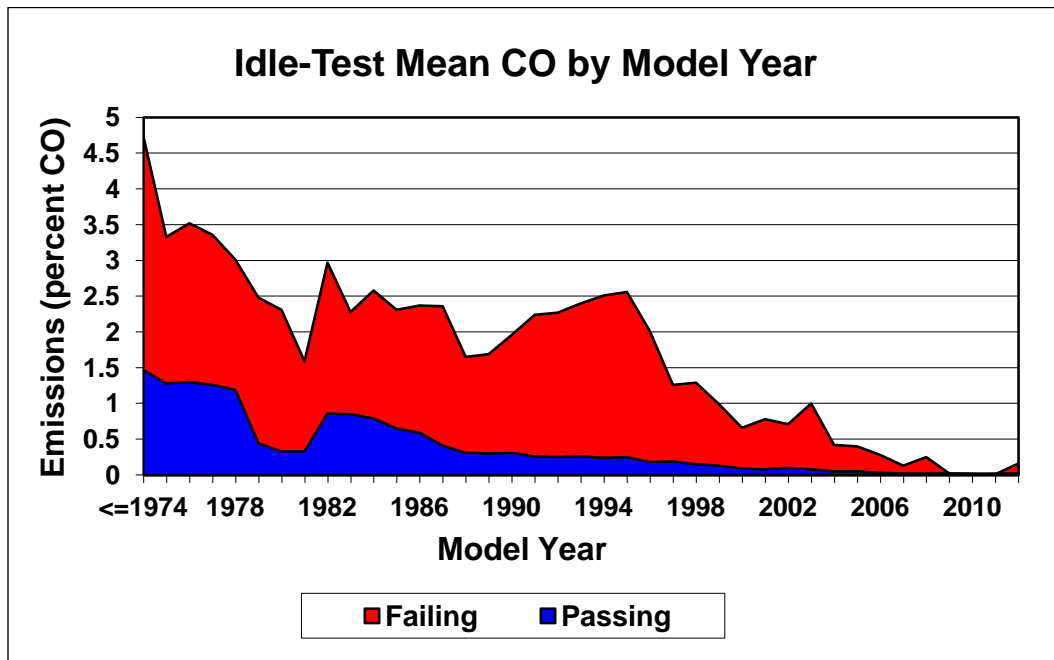


Figure 9 – Idle-Test Mean CO by Model Year



NOx emissions are not measured as part of the idle test protocol. As with the I/M240 portion of the test, most non-exhaust failures were due to missing or malfunctioning gas caps.

Idle – Gas Cap Pressure Inspection Results

One function of the gas cap is to prevent harmful fuel vapors from escaping into the atmosphere. A gas cap pressure inspection is performed to test the gas cap's ability to hold pressurized vapors inside the fuel tank. Idle-tested light-duty vehicles, model year 1975 and newer, are also required to undergo a gas cap pressure inspection. Inspectors installed a vehicle's gas cap on a device that pressurizes the cap and measures the decay of that pressure over time. If the pressure decay exceeds the standard, the cap fails the test and motorists are required to install a functional cap. There were 1,222 gas cap pressure failures during idle tests in 2012.

Idle – Visual Inspection Results

Idle-inspected vehicles undergo the same visual inspection of the secondary air injection system, catalytic converter, oxygen sensor, and gas cap as I/M240-tested vehicles. Of the 78,251 vehicles that failed the idle test in calendar year 2012, 427 of them failed for missing or improperly installed catalytic converter(s), 591 failed for missing or tampered air injection system, 139 failed for missing oxygen sensor(s), and 101 vehicles failed for a missing gas cap.

Idle – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Of the vehicles that failed their initial TSI inspection, some will continue to fail after their initial repair. For calendar year 2012, 6,302 vehicles were given a first idle retest. Of these, 1,888 failed again, resulting in a 29.96% idle first retest failure rate. Additional information on retest activity is available in the "Idle Retest Frequency Report" in Appendix Q.

Idle – Post-Repair Inspection Results

Vehicles that fail their TSI exhaust emissions test generally have much higher emissions than vehicles that pass the test. After failing their emissions tests, vehicles must undergo repairs until passing the test. Table 2 shows the average emissions at idle and raised idle (2500 rpm) from all vehicles that fail their initial TSI inspection and pass a subsequent retest to include the percent reduction by pollutant.

Table 2 – Idle Passed Retest Inspection Results (2012)

Vehicle Type	Failed Initial Idle		Failed Initial 2500		Passed Retest Idle		Passed Retest 2500		% Reduction Idle		% Reduction 2500	
	HC	CO	HC	CO	HC	CO	HC	CO	HC	CO	HC	CO
Car	465.39	2.55	363.16	2.57	172.38	0.64	168.46	1.56	54.62	72.02	41.35	30.72
Truck	510.37	2.38	304.72	1.96	143.98	0.64	134.48	1.03	71.79	71.94	55.87	47.60
Total	499.57	2.42	318.76	2.10	148.83	0.63	141.28	1.14	63.87	70.06	46.27	35.41

Smoking Vehicles

Smoking vehicles, on an individual basis, tend to be gross emitters. They are of concern to not only the State for air quality reasons, but also to nearby motorists exposed to these vehicles. To address smoking vehicles, CDPHE operates a Smoking Vehicle Hotline for motorists to report any excessively smoking vehicles they observe. Once reported, CDPHE provides owners of these vehicles with a brochure informing them that if their vehicle emits smoke during their next regular emissions test, it will fail the test. Although the smoking vehicle program is voluntary, the State encourages smoking vehicles' owner to take advantage of the *free* diagnostic services at one of the State-operated Emission Technical Centers.

Vehicle information reported on the hotline is also transferred to Envirotest's lane inspectors, alerting them that the vehicle they are inspecting has been reported as a smoking vehicle. If the vehicle is smoking at the time of the inspection, then it fails the emissions test. For calendar year 2012, a total of 1,106 vehicles failed the visible smoke component of the emissions test with 957 and 149 I/M240 and idle tests respectively.

Waivers

A Certificate of Waiver (or "waiver") is an emissions control document which satisfies the emissions requirement for a vehicle for one inspection cycle, even though the vehicle was unable to meet emissions standards.

There are three types of waivers:

- A Repair Waiver is issued for a vehicle which fails an emissions test, receives emissions-related repairs that meet the cost limit (\$715 for model year 1968 and newer vehicles, and \$75 for 1967 and older vehicles), and then fails a subsequent emissions test. This type of waiver is referenced in C.R.S. 42-4-306(7)(a)(II)(A) and AQCC Regulation No. 11.
- An Economic Hardship Waiver may be issued once in each vehicle's lifetime if the vehicle owner has no other means of transportation and is receiving a recognized form of economic assistance. This type of waiver is referenced in C.R.S. 42-4-306(7)(a)(II)(C) and AQCC Regulation No. 11.
- A Diagnostic Waiver may be issued for a vehicle that fails a retest, has not met the repair cost limit, and a complete and documented physical and functional diagnosis of the vehicle (performed at one of the program's Emissions Technical Centers) concludes that no additional emissions-related repairs would be effective or needed. This type of waiver is referenced in C.R.S. 42-4-310(1)(d)(IX). Diagnostic waivers are rarely issued.

Waivers are not issued for vehicles that have tampered or missing emissions control equipment, or are visibly smoking. In addition, vehicles that fail the evaporative systems inspection (i.e., gas cap pressure) are also not eligible to receive a waiver.

A vehicle owner can request a waiver by calling the Division of Motor Vehicles at the Department of Revenue. As part of the waiver process, a vehicle may be evaluated by a CDPHE emissions technician to both verify the aforementioned criteria and make useful repair recommendations to the vehicle owner.

Additional information on waivers is available in the Department of Revenue's section of this report.

Remote Sensing Program Results

As part of the emissions inspection program, the State operates a remote-sensing based Clean Screen program (also called "RapidScreen.") This program permits vehicles that are seen two or more times in a year, and meet certain rigorous emissions standards, to pass a remote sensing emissions test as an alternative to the standard inspection at an Emissions Testing Station. For this program, Envirotest (the state contractor) operates a total of 22 RSD systems in the nine-county program area. These vans operated a total of 24,204 active van-hours in calendar year 2012, generating approximately 6.7 million valid records.

As part of the State Implementation Plan (SIP), RSD vehicle observations cannot exceed more than 50% of the emissions-testable fleet. An RSD vehicle observation is defined as any vehicle seen at least twice and qualifies to make a clean/dirty determination. For 2012, the overall RSD-observed fraction of testable vehicles was 39.83%. This was based on 855,429 total I/M eligible vehicles in the fleet, with 340,692 unique eligible vehicles observed by RSD. The number of unique eligible vehicles observed includes both vehicles that did and did not meet clean screen requirements.

There were 231,193 clean screen redeemed vehicles for calendar year 2012. The clean screen redeemed numbers were calculated from each individual vehicle that met clean screen requirement whose owner chose to use the passed clean screen status to register their vehicle in lieu of getting a traditional emissions test.

Cost-Effectiveness of the I/M Program

The purpose of the I/M Program is to improve air quality by reducing motor vehicle emissions. One way to evaluate the effectiveness of this program is to analyze its cost-effectiveness. Such analyses depend on assumptions made about the control strategy examined. The State typically looks at the program's benefit as measured in tons per day of emissions reduced and the program cost per day to operate, using appropriate methodology typically used in SIP development. A resulting cost per ton may then be obtained.

In looking at the cost of the program, the State examined the cost of vehicle inspection, the number of vehicles inspected, registration fees connected to the operation of the I/M Program, the average cost of repairs for vehicles undergoing repair, and the fuel economy benefit obtained from repairing excessively emitting vehicles.

Cost of Inspections

The total cost of inspections is defined as the cost of inspecting an individual vehicle multiplied by the number of vehicles undergoing paid inspections. The cost of I/M240 emissions inspections and Two Speed Idle (TSI) inspections for 1982 and newer vehicles costs \$25 per inspection. Tests for 1981 and older vehicles cost \$15 per test at the state contractor's facilities, and a maximum of \$15 per test at independent pre-82 inspection stations.

Failing vehicles are entitled to a free retest within ten (10) calendar days. Subsequent inspections (third, fifth, etc.) are considered to be new inspections requiring payment. Clean Screen inspections cost \$25 for eligible vehicles whose owners wish to participate in this program, and this fee is then added to the vehicle's registration bill.

In 2012 there were a total of 1,158,260 initial inspections conducted. Of these inspections, 848,816 were initial I/M240 tests, 78,251 were initial TSI tests, and 231,193 were for vehicles that went through the Clean Screen process.

Assuming that certain failing vehicles will undergo more than one paid I/M test before passing, the State estimates that the program's inspection costs amounted to \$29,454,050 in 2012. Table 3 shows overall inspection costs per type of inspection.

Table 3 – Overall Inspection Cost by Test Type (2012)

Test Type	Initial Tests	Est. Total Paid Tests	Cost
I/M240	848,816	871,562	\$21,789,050
Idle	78,251	81,928	\$1,885,175
Clean Screen	231,193	231,193	\$5,779,825
TOTAL	1,158,260	1,184,683	29,454,050

Registration Fees

To help fund operations, administration, assisting motorists and industry with program outreach activities, and county registration activities, a \$2.20 vehicle fee is added to I/M program area's motor vehicle registration fees. This fee is shared between county clerks that administer vehicle registration renewals, and the Colorado Departments of Revenue and Public Health and Environment that design, administer, evaluate, and enforce the program.

With an estimated 2,787,590 I/M-eligible gasoline-powered vehicles registered in the enhanced nine-county I/M Program area, this equates to a total registration-fee cost of \$6,132,698 for the entire program.

Repair Costs

Vehicles that failed their emissions inspection are required to undergo repair. Repair costs vary depending on the types of repairs and the shops performing them. To determine repair costs, the state collects data on the repair costs for failing vehicles. In 2012, the average emissions repair cost for vehicles failing the I/M240 test was \$320.81. For vehicles receiving a TSI inspection, the average repair costs were \$175.29 for model year 1981 and older vehicles, and \$328.19 for model year 1982 and newer vehicles. For vehicles failing the gas cap pressure check element of the I/M inspection, the assumed replacement gas cap cost is \$10.00 each.

In 2012, 72,618 vehicles failed their initial I/M240 inspections with 42,616 failing for either excess emissions and/or visual inspection, and 34,504 failing the gas cap pressure test. Some vehicles failed for both and are included in both the excess emissions/visual failure group and gas cap failure group. For TSI inspections, 7,083 vehicles failed their initial inspection. 6,194 of these vehicles failed the exhaust and/or visual component of the inspection process, and 1,222 vehicles failed the gas cap pressure test. Again, some vehicles fell into both groups. Table 4 details the total repair cost by test type.

Table 4 – Total Repair Costs by Test Type (2012)

Test Type	Excess Emissions/Visual		Gas Cap		TOTAL
	Count	Cost	Count	Cost	
I/M240	42,616	\$13,671,639	34,504	\$345,040	\$14,016,679
Idle	6,194	\$1,484,890	1,222	\$12,220	\$1,497,110
TOTAL	48,810	\$15,156,529	35,726	\$357,260	\$15,513,789

Fuel Savings

Vehicles that received emissions-related repairs demonstrated an estimated 7-9% improvement in fuel economy, depending on the age of the vehicle and what test type was used.

For the I/M240-inspected vehicles, 1996 and newer and 1995 and older model year vehicles showed an average of 7.1% and 9.3%, respectively, based on initial and final I/M240 tests.

Using these fuel savings estimates, and assuming that the repairs on these vehicles will last for an entire two-year emissions testing cycle, fixing exhaust and gas cap failures results in an estimated savings of 2,345,685 gallons of gasoline. At an average cost of \$3.53 per gallon (Colorado annual average from U.S. Energy Information Administration), vehicles undergoing emission repairs saved an estimated \$8,280,268 as a result of reduced fuel usage.

Overall Program Costs

Overall program costs include inspection fees, vehicle registration fees, repair costs, and fuel economy savings. Table 5 details these costs, and the overall cost of the program.

Table 5 – Overall Program Cost (2012)

Annual I/M Program Cost (dollars)	
Inspection Fees	\$29,454,050
Registration Fees	\$6,132,698
Repair Costs	\$15,513,789
Fuel Economy Savings	-\$8,280,268
Total	\$42,820,268

Emission Benefits

The modeled benefit for calendar year 2012 of 35.3 tons per day (tpd) is much larger than the modeled benefit in 2011 of 16.3 tons/day. To generate the 2012 I/M benefit, the State used EPA's latest mobile source emissions model, Motor Vehicle Emission Simulator (MOVES). This new model is based on more contemporary data, and represents the most up-to-date assessments of mobile source emissions. Along with using MOVES, the State also updated multiple inputs used by the model to generate more accurate emissions inventories. Due to significant differences between Mobile 6.2 (which the State used in 2011) and MOVES with the updated local input assumptions, a comparison between the two years would be misleading.

Based on the MOVES model, Colorado's current AIR Program reduces total gaseous hydrocarbon (TGH) emissions by 15.9 tpd, carbon monoxide emissions by 175.6 tpd, and nitrogen oxide emissions by 16.4 tpd. Table 6 details the overall emissions program benefit by pollutant.

Table 6 – Model Program Benefit (2012)

MOVES Emission Inventories and Program Benefit (tons/day)				
	TGH	CO	NOx	TGH + (1/60)CO + NOx
No IM	132.4	989.2	168.6	317.5
Current IM	116.5	813.6	152.2	282.2
TPD Benefit	15.9	175.6	16.4	35.3
%Benefit	12.03%	17.75%	9.73%	11.10%

Both total gaseous hydrocarbon and nitrogen oxide emissions are ozone precursors. Carbon monoxide is a weak ozone precursor. The combined TGH +1/60 CO + NOx ozone precursor reduction would be equal to 35.3 tons per day. The generalized TGH + (1/60) CO + NOx formula has been used for California and other states to quantify ozone precursor emissions from motor vehicles. For this analysis, projections assume the use of 7.8 lb. Reid Vapor Pressure (RVP) gasoline with a 100% market share for ethanol-blended gasoline.

Cost-Effectiveness

The AIR program's cost-effectiveness is the ratio of the program's cost to its benefits. As stated, the State calculates the entire program cost to be approximately \$42.8 million in 2012. This cost includes inspection costs, repair costs, and registration renewal fees used to fund administrative costs. It does not include the "convenience expense" of motorists' time or mileage costs.

The State estimates the cost-effectiveness of the inspection program at \$3,328 per ton of removed ozone precursors. For this analysis, the full benefit of NO_x and TGH, and 1/60 benefit of CO are added together. A reduced CO benefit is used because of the lower reactivity of CO for ozone formation. For carbon monoxide, the cost-effectiveness is estimated at \$668 per ton. Table 7 gives the specific breakdown of cost per ton removed by pollutant.

Table 7 – AIR Program Cost Effectiveness (2012)

Cost Benefit Results	
Emission	Cost/Benefit (\$/ton)
HC	7,366
CO	668
NO _x	7,153
TGH + (1/60) CO + NO _x	3,328

As with the total program benefit, this \$3,328 cost per ton result differs significantly from the cost reported in the 2011 annual report of \$7,370. This is due to the 2011 emissions inventory results being generated using EPA's Mobile 6.2 emissions factor model, while 2012 results were generated using EPA's new "Motor Emission Simulator (MOVES)" model.

2012 Annual Report from the Colorado Department of Revenue

The Colorado Department of Revenue (DOR) continues to operate the enhanced Colorado Vehicle Emissions Inspection and Maintenance (I/M) Program which has been in place since 1995. During 2012, DOR maintained quality assurance, auditing, licensing, and enforcement activities consistent with Colorado Revised Statutes (C.R.S.) and the Code of Colorado Regulations (C.C.R.).

New Program Developments

The passage of Senate Bill 12-012 implemented the recommendations of the Office of the State Auditor regarding DOR's audits of facilities that conduct automobile emission inspections. Specifically, the bill aligned Colorado state law with federal law by reducing facility audits from every 90 days to at least twice per year, as required by the Environmental Protection Agency (EPA). The bill also authorized DOR to conduct risk-based audits for stations and facilities employing inspectors or mechanics suspected of violating rules.

2012 Audit Results

Pursuant to C.R.S. 42-5-305(6)(a), DOR oversees an ongoing quality assurance program. The objective of this program is to discover, correct, and prevent fraud, as well as to ensure proper calibration of emissions test equipment and adherence to proper testing procedures.

Record Audits

DOR performed 372 record audits on all contractor-operated inspection centers and inspection-only facilities. Record audits were used to identify and correct anomalies in the vehicle inspection database, as well as to prompt for additional risk-based equipment audits. The record audit process also included an evaluation of approximately 9.5 million statewide vehicle registration records; this ensured that county clerks maintained a reasonable level of record accuracy.

Performance Audits

DOR executed overt performance audits pursuant to C.R.S. 42-4-305(6)(b)(I). Prior to Senate Bill 12-012, DOR completed performance audits every 90 days on each test lane at all contractor and independent inspection-only facilities. Senate Bill 12-012 changed the audit frequency to at least twice per year at each inspection facility.

Performance audits were conducted contemporaneously with equipment audits at enhanced inspection centers, resulting in 873 performance audits completed. 88 overt performance evaluations were completed at independent inspection-only facilities and fleet testing facilities. Less than one percent of these performance audits resulted in violations.

Equipment Audits

DOR executed overt performance audits pursuant to C.R.S. 42-4-305(6)(e)(I). Prior to Senate Bill 12-012, DOR conducted performance audits a minimum of every 90 days on all contractor and independent inspection-only facility lanes, and every 180 days on all fleet inspection facility lanes. Senate Bill 12-012 changed the equipment audit frequency to at least twice per year on each test lane at each inspection-only facility, enhanced inspection center, and fleet inspection station.

During 2012, 326 lane equipment audits were performed on 97 contractor-operated enhanced inspection lanes, 10 equipment audits were performed at independent inspection-only stations, and 27 equipment audits were performed at fleet inspection stations. There were 89 initial audit deficiencies, 14 of which resulted in the suspension of a testing lane. Upon verification of repair and a passing audit, failing lanes were released within two days of being suspended. The remaining initial audit deficiencies were corrected at the time of the audit and returned to service the same day. Table 8 categorizes the initial audit failures by equipment category.

Table 8 – Audit failures by equipment category (2012)

2012 Initial Equipment Audit Failures by Category	
Analyzer	58
Dynamometer	28
Gap Cap Integrity Equipment	3

Covert Audits

Pursuant to C.R.S. 42-4-305(6)(c)(I), all enhanced inspection centers were subject to covert audits, using an unmarked motor vehicle, at least once per year per number of inspectors at each inspection-only facility and enhanced inspection center. All covert vehicles used in the audit process were tampered to fail the visual emission component inspection. Possible tampers included (but were not limited to) removed or tampered catalytic converters, air injection systems, oxygen sensors, and Check Engine lights.

294 covert inspections were conducted at enhanced inspection centers in 2012, resulting in 227 tests conducted properly and 67 tests conducted improperly. Multiple tests had more than one emissions control component incorrectly identified, resulting in 70 emission control component violations. Table 9 categorizes these violations and the number of times components were incorrectly identified. In 20 of the 70 improper tests, the failing vehicle received passing results.

Table 9 – Emission components incorrectly identified as a result of covert vehicles (2012)

Emission Component Tampered	Number of Times Incorrectly Identified
Oxygen Sensor	23
Catalytic Converter	16
Air Injection System	22
Check Engine Light	9

Note: Covert inspection results may have had multiple components incorrectly identified.

Risk-Based Audits

In July 2012, DOR began risk-based performance, equipment, and covert audits. Risk-based audits were prompted by suspicious emissions testing activity, data analysis, or consumer complaints

As a result of the above-named methods of detection, DOR conducted 229 risk-based equipment audits, resulting in six (6) initial failures. A risk-based equipment audit only involves auditing specific pieces of what would, in its entirety, be included in a scheduled equipment audit.

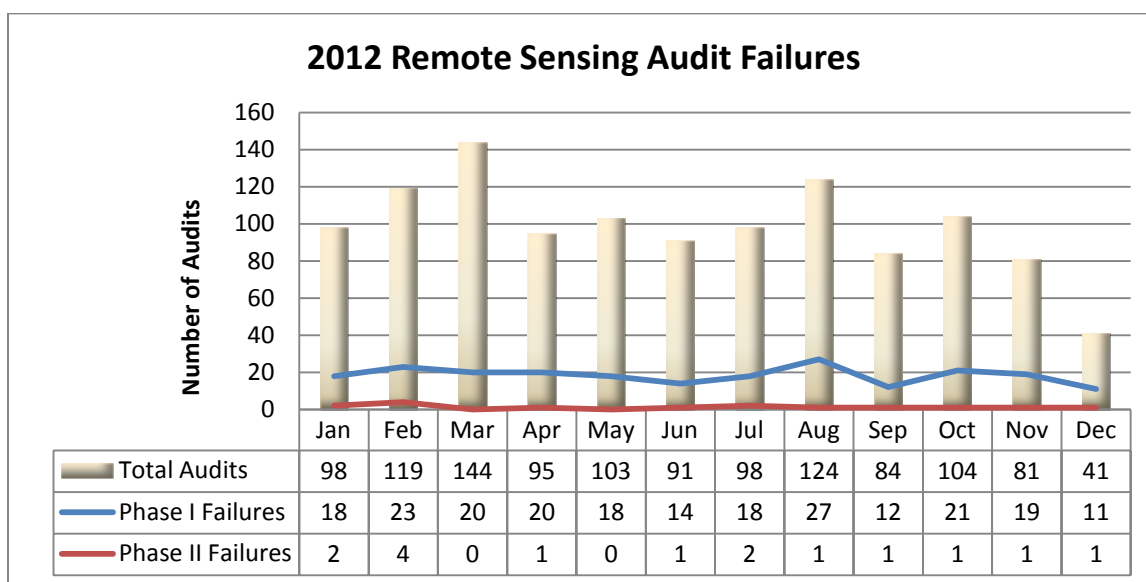
Eleven (11) risk-based covert audits were conducted, resulting in one (1) violation. Eighteen (18) risk-based performance audits were conducted with no deficiencies detected.

Remote Sensing Audits

Remote Sensing (i.e., Clean Screen, RapidScreen, or RSD) mobile emissions testing equipment audits were also performed by DOR for quality assurance purposes. A Phase I audit includes nine (9) gas readings from three different known gas blends. In the event that a gas reading is outside the allowable tolerance, a Phase II audit was initiated. A Phase II audit includes six (6) additional gas readings from the gas blend that was outside the allowable tolerance.

DOR performed 1,182 audits in 2012, resulting in 221 Phase I failures, or an 18.7% initial failure rate. All but fifteen (15) of the Phase I failures were immediately returned to service after passing a Phase II audit. Figure 10 shows the monthly number of audits completed in relation to Phase I and Phase II remote sensing device audit failures.

Figure 10 – Remote Sensing Audit Failures (2012)



Note: The overall audit result is not a failure unless a secondary audit (Phase II) also fails.

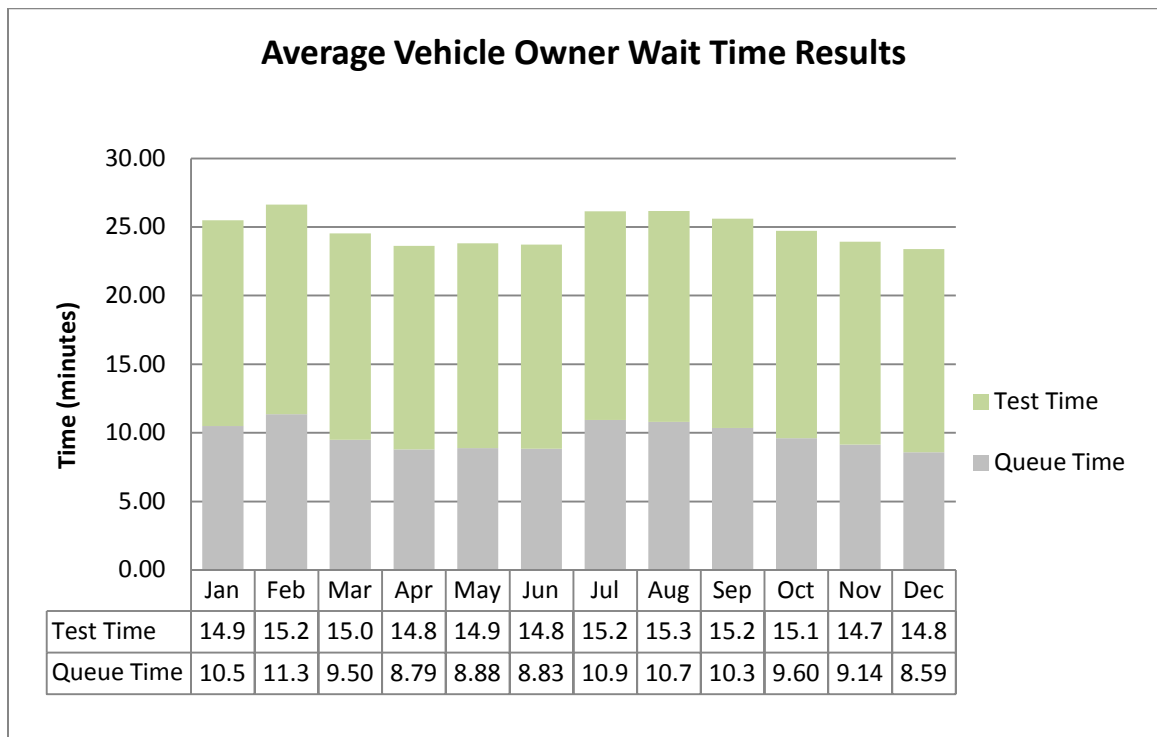
2012 Enforcement Results

Hearings and Fines

In 2012, 257 hearings were conducted as a result of improper vehicle emission inspections. 68 inspectors were placed on probation, one inspector was suspended, and 14 inspector licenses were revoked. Fines totaling \$117,100 were collected as a result of improper vehicle inspections.

\$146,836 in wait-time violations were collected when motorist wait times at contractor inspection centers exceeded 20 minutes when averaged over a two-hour period. Figure 11 shows the average vehicle owner wait time in relation to the amount of time spent in the queue and test time within the facility. The wait time calculation includes time spent in the queue and test time, whichever is greater, and the days of the month when staffing levels are below 78%. The fines assessed were consistent with C.R.S. and the terms of the contract held with Envirotest. All fines collected in 2012 totaled \$263,936.

Figure 11 – Average Vehicle Owner Wait Time Results (2012, per Envirotest)



Complaints

A total of 413 complaints were opened against inspection stations operated by Envirotest in 2012. DOR involvement in the complaint mitigation process resulted in \$60,476 in refunds to consumers. DOR responded to 44 emissions-related complaints against independent inspection stations and auto dealerships. A total of \$64,637 was refunded to consumers from those proceedings. Table 10 shows the total complaints opened, sorted by category.

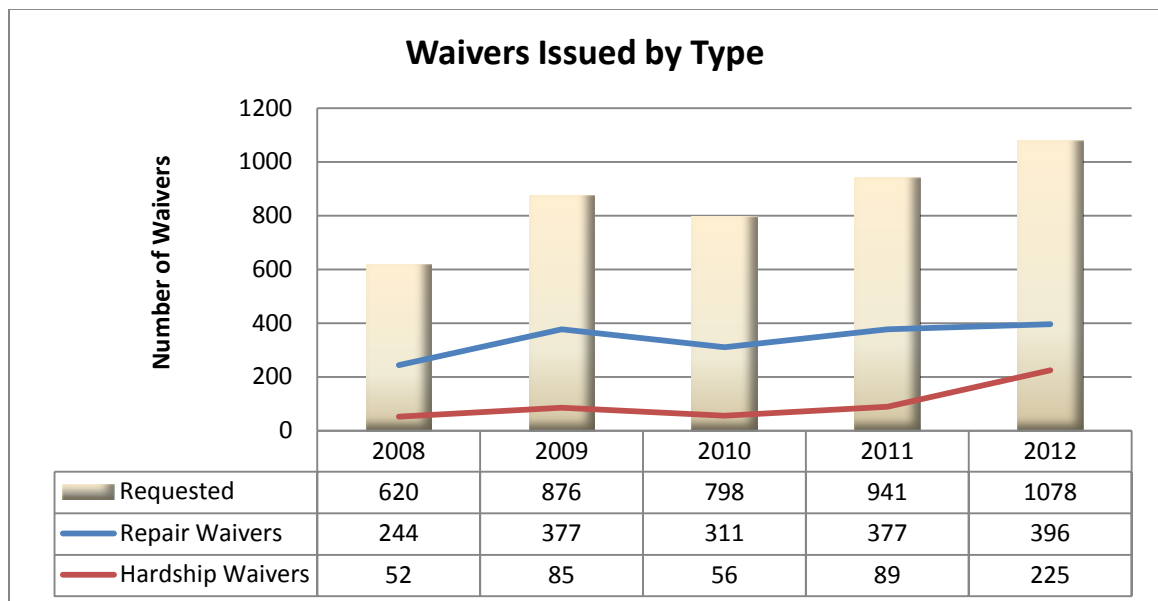
Table 10 – Complaints opened, by category (2012)

2012 Complaints opened by Category	
Vehicle Damage	386
Procedural Claims	28
Statutory Non-Compliance	43

Waivers

1,078 waiver applications were submitted to and processed by DOR in 2012. 396 of these applications resulted in the issuance of Repair Waivers, and 225 resulted in Economic Hardship Waivers. Figure 12 shows the total amount of emission waivers requested and issued by waiver type over a five-year period.

Figure 12 – Waivers Issued, by Type (2008 – 2012)



The following program changes directly impacted the amount of waivers issued by DOR:

- May 2008: the allowable emission standards were lowered, resulting in a higher vehicle emissions failure rate.
- November 2010: portions of Larimer and Weld counties were added to the enhanced emissions program.
- January 2012: the allowable emission standards were lowered in Larimer and Weld counties to mirror the standards of the Denver Metro Area. The original standards were less restrictive in order to accommodate the 2011 implementation of the enhanced program in the Northern Front Range.

The following were the most common reasons a waiver was *not* issued:

- **Waiver not pursued** - after completing the waiver application, the vehicle owner withdrew the request or did not respond to requests for information or availability.
- **Vehicle passed the inspection** - after requesting a waiver, additional repairs were made resulting in a passing emissions test. Vehicle owners are encouraged to use CDPHE's Emissions Technical Centers for a free diagnosis of their vehicle. CDPHE technicians are often able to assist the owner and recommend minor repairs that allow the vehicle to pass the emissions inspection.
- **Improper repairs to the vehicle** – repairs were performed that did not address the cause of the emissions failure. C.R.S 42-4-306(7)(b)(I)
- **Vehicle was tampered or emitting smoke** - when presented for a waiver, the vehicle was not equipped with the manufacturer's required emission control equipment, or was emitting visible smoke above 5% opacity. C.R.S 42-4-306(7)(b)(I)
- **Minimum waiver limits for dollars spent to repair the vehicle had not been met** - vehicle owner had not incurred the minimum \$715 in repair costs to bring the vehicle into compliance. C.R.S 42-4-310(1)(d)(VI)

2012 Licensing Results

Pursuant to C.R.S. 42-4-305, DOR is responsible for issuing biennial inspection licenses to independent, fleet, and contractor emissions inspection stations, as well as to inspectors who work in those stations. DOR also licenses RapidScreen remote sensing devices and the inspectors who operate them. All RapidScreen testing site licenses are issued annually in conjunction with the Colorado Department of Transportation (CDOT), as testing sites require frequent review due to road configuration changes.

Table 11 shows the number of initial and renewed licenses by license type for 2012.

Table 11 – Licenses Issued and Renewed, by Type (2012)

License Type	Number of Initial Licenses	Number of Licenses Renewed
Fleet Inspector	16	36
Contractor employed Inspectors	212	117
RSD Inspector	2	12
Independent Station	0	1
Fleet Station	0	8
RSD Site	0	162
Total	230	336

Appendix – Additional Reports

In addition to this report, the following detailed data reports are available:

Report	Content
A I/M240 Initial Inspection Report	Initial inspection pass/fail statistics, including average emissions results for overall total, passing and failing inspections by model year and vehicle class.
B I/M240 Initial Failure Report	Initial inspection failure statistics, including average emissions results for inspections which failed for both exhaust and visual components, exhaust only, and visual only by model year and vehicle class.
C I/M240 Initial Exhaust Failure Report	Initial exhaust failure statistics by model year, vehicle class, and pollutant.
D I/M240 Initial Visual Failure Report (Mandatory)	Initial visual mandatory failure statistics by model year, vehicle class, and emissions component.
E I/M240 Initial Visual Failure Report (Advisory)	Initial visual advisory failure statistics by model year, vehicle class, and emissions component.
F I/M240 Retest Pass Reduction Report	Passing retest inspection statistics by model year and vehicle class.
G I/M240 Retest Frequency Report	Retest inspection statistics.
H I/M240 Fleet Characterization Summary Report – Initial Inspection Component	Initial inspection pass/fail statistics from vehicles that passed or failed with a final result of pass or waiver, including average emissions results by model year and vehicle class.
I I/M240 Fleet Characterization Summary Report – Final Inspection Component	Final inspection statistics from vehicles that passed or failed with a final result of pass or waiver, including average emissions results by model year and vehicle class.

J I/M240 Fleet Characterization Summary Report – Emissions Reduction Component	Emissions reduction statistics from vehicles that passed or failed with a final result of pass or waiver by model year and vehicle class.
K Idle Initial Inspection Report Enhanced Area	Initial idle inspection pass/fail statistics, including average emissions results for passing and failing inspections by model year.
L Idle Initial Failure Report Enhanced Area	Initial idle inspection failure statistics, including average emissions results for inspections which failed for both exhaust and visual components, exhaust only, and visual only by model year.
M Idle Initial Exhaust Failure Report Enhanced Area	Initial idle exhaust failure statistics by model year, vehicle class, and pollutant.
N Idle Initial Visual Failure Report (Mandatory)	Idle initial mandatory visual failure statistics by model year, vehicle class, and emissions component.
O Idle Initial Visual Failure Report (Advisory)	Idle initial advisory visual failure statistics by model year, vehicle class, and emissions component.
P Idle Retest Pass Reduction Report	Passing idle retest inspection statistics by model year and vehicle class.
Q Idle Retest Frequency Report	Retest idle inspection statistics.
R I/M Eligible Vehicle Report, Evaluated Vehicles	Clean Screen observations performed in 2012 by model years and vehicle type.

Appendix A

I/M240 Initial Inspection Report

Initial Inspection Report (V1.01)

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
1982	LDGV	450	2.2431	28.9284	2.1542	335	74.44%	1.5587	18.6166	2.1267	115	25.56%	4.2367	58.9670	2.2343
	LDGT1	393	3.3101	41.7428	2.9338	244	62.09%	2.3336	28.1744	3.0853	149	37.91%	4.9094	63.9622	2.6857
	LDGT2	115	3.5500	58.6785	2.6629	56	48.70%	2.2861	33.9399	2.5167	59	51.30%	4.7497	82.1592	2.8016
1982 Total		958	2.8377	37.7565	2.5351	635	66.28%	1.9206	23.6405	2.5294	323	33.72%	4.6407	65.5076	2.5462
1983	LDGV	479	2.0903	26.6092	2.0149	329	68.68%	1.3487	12.9582	2.0479	150	31.32%	3.7167	56.5503	1.9423
	LDGT1	367	4.0616	49.8211	2.3112	222	60.49%	3.0889	32.3293	2.4413	145	39.51%	5.5509	76.6016	2.1119
	LDGT2	151	3.7579	56.2081	3.1526	83	54.97%	2.3992	34.4847	2.9233	68	45.03%	5.4164	82.7235	3.4325
1983 Total		997	3.0685	39.6365	2.2962	634	63.59%	2.0956	22.5593	2.3003	363	36.41%	4.7678	69.4627	2.2892
1984	LDGV	1283	1.7537	19.7954	1.9472	1006	78.41%	1.2378	11.0090	1.9492	277	21.59%	3.6274	51.7057	1.9398
	LDGT1	954	2.7961	37.7919	2.4627	637	66.77%	2.0220	24.3702	2.4372	317	33.23%	4.3514	64.7624	2.5140
	LDGT2	400	3.7134	52.4642	3.1970	206	51.50%	2.1940	27.0250	3.1845	194	48.50%	5.3266	79.4770	3.2103
1984 Total		2637	2.4281	31.2616	2.3233	1849	70.12%	1.6145	17.3965	2.2550	788	29.88%	4.3370	63.7953	2.4836
1985	LDGV	1249	1.5718	18.1417	1.9710	941	75.34%	1.0309	10.6659	1.9395	308	24.66%	3.2244	40.9817	2.0672
	LDGT1	953	2.4934	30.6249	2.6978	672	70.51%	1.8722	18.2373	2.7126	281	29.49%	3.9788	60.2492	2.6624
	LDGT2	327	3.2275	41.1291	3.0832	199	60.86%	1.9513	23.8554	2.9734	128	39.14%	5.2116	67.9843	3.2537
1985 Total		2529	2.1332	25.8180	2.3887	1812	71.65%	1.4440	14.9223	2.3398	717	28.35%	3.8748	53.3534	2.5123
1986	LDGV	2243	1.3422	13.5493	1.8921	1835	81.81%	0.8927	7.7636	1.8400	408	18.19%	3.3639	39.5708	2.1265
	LDGT1	1932	2.0605	22.3512	2.5065	1502	77.74%	1.5826	15.7135	2.4810	430	22.26%	3.7298	45.5371	2.5957
	LDGT2	509	3.4700	39.9665	2.9767	272	53.44%	1.7023	19.4293	2.8109	237	46.56%	5.4988	63.5366	3.1670
1986 Total		4684	1.8697	20.0505	2.2634	3609	77.05%	1.2409	11.9514	2.1799	1075	22.95%	3.9810	47.2410	2.5436
1987	LDGV	1943	1.2560	12.7816	1.8659	1606	82.66%	0.8532	7.7196	1.8209	337	17.34%	3.1756	36.9050	2.0806
	LDGT1	1492	1.9119	21.9041	2.3237	1130	75.74%	1.4620	14.7100	2.2972	362	24.26%	3.3162	44.3609	2.4067
	LDGT2	462	2.6518	22.6654	3.0619	329	71.21%	1.7890	13.4626	2.8847	133	28.79%	4.7860	45.4300	3.5003
1987 Total		3897	1.6726	17.4460	2.1830	3065	78.65%	1.1781	10.9133	2.1107	832	21.35%	3.4942	41.5118	2.4494
1988	LDGV	3487	1.0343	11.9354	1.6133	2923	83.83%	0.7184	7.7924	1.5553	564	16.17%	2.6716	33.4071	1.9140
	LDGT1	2833	1.7219	17.2788	2.2086	2244	79.21%	1.2643	11.8424	2.0970	589	20.79%	3.4650	37.9904	2.6336
	LDGT2	962	2.0466	19.8548	2.8617	671	69.75%	1.3997	12.3500	2.6495	291	30.25%	3.5383	37.1597	3.3508
1988 Total		7282	1.4356	15.0604	2.0098	5838	80.17%	1.0066	9.8730	1.8893	1444	19.83%	3.1699	36.0328	2.4971
1989	LDGV	3410	1.0045	11.5409	1.6716	2838	83.23%	0.7241	7.9667	1.6160	572	16.77%	2.3957	29.2746	1.9475
	LDGT1	2450	1.7016	18.4006	2.1941	1916	78.20%	1.1826	12.7363	2.0164	534	21.80%	3.5635	38.7242	2.8318
	LDGT2	897	2.0875	17.0670	2.9037	689	76.81%	1.4894	12.6853	2.7449	208	23.19%	4.0686	31.5815	3.4298
1989 Total		6757	1.4010	14.7617	2.0246	5443	80.55%	0.9824	10.2429	1.8998	1314	19.45%	3.1351	33.4800	2.5415
1990	LDGV	6943	0.9440	10.7504	1.6676	5975	86.06%	0.6779	7.6768	1.5840	968	13.94%	2.5866	29.7224	2.1837
	LDGT1	3613	1.4295	14.7226	2.1484	2888	79.93%	1.0733	10.5381	2.0112	725	20.07%	2.8485	31.3916	2.6949
	LDGT2	1378	1.8927	17.3812	2.7520	1077	78.16%	1.4193	13.3567	2.6172	301	21.84%	3.5865	31.7812	3.2343
1990 Total		11934	1.2005	12.7186	1.9384	9940	83.29%	0.8731	9.1235	1.8201	1994	16.71%	2.8328	30.6401	2.5281
1991	LDGV	6827	0.8923	10.0047	1.5967	5818	85.22%	0.6034	6.8909	1.4904	1009	14.78%	2.5580	27.9592	2.2095
	LDGT1	3571	1.2404	14.4943	1.8671	3001	84.04%	0.9345	10.8640	1.7641	570	15.96%	2.8511	33.6075	2.4097
	LDGT2	953	1.8178	19.6724	2.5761	723	75.87%	1.2650	14.6171	2.4214	230	24.13%	3.5554	35.5634	3.0622
1991 Total		11351	1.0795	12.2288	1.7640	9542	84.06%	0.7576	8.7259	1.6470	1809	15.94%	2.7772	30.7058	2.3810
1992	LDGV	9944	0.7794	9.3438	1.4926	8424	84.71%	0.5466	6.1741	1.4111	1520	15.29%	2.0699	26.9107	1.9441

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
	LDGT1	4908	1.1701	13.2074	1.8493	4145	84.45%	0.8804	9.9011	1.7366	763	15.55%	2.7439	31.1690	2.4612
	LDGT2	2059	2.0032	19.0349	2.6845	1533	74.45%	1.3523	13.5226	2.5212	526	25.55%	3.9001	35.1001	3.1606
1992 Total		16911	1.0418	11.6450	1.7412	14102	83.39%	0.7323	8.0684	1.6275	2809	16.61%	2.5957	29.6009	2.3124
1993	LDGV	9457	0.7730	8.4880	1.5447	8168	86.37%	0.5448	5.8979	1.4573	1289	13.63%	2.2187	24.9010	2.0990
	LDGT1	5715	1.1742	12.5917	2.1392	4901	85.76%	0.9209	9.8568	2.0333	814	14.24%	2.6992	29.0584	2.7771
	LDGT2	1936	1.8549	18.5676	2.6338	1477	76.29%	1.3798	14.1308	2.4673	459	23.71%	3.3840	32.8446	3.1693
1993 Total		17108	1.0295	10.9995	1.8666	14546	85.02%	0.7563	8.0677	1.7539	2562	14.98%	2.5802	27.6450	2.5062
1994	LDGV	13371	0.6241	7.0577	1.2812	11635	87.02%	0.4197	5.0646	1.1791	1736	12.98%	1.9937	20.4158	1.9651
	LDGT1	8910	0.9784	10.7604	1.9029	7511	84.30%	0.7180	8.1067	1.7256	1399	15.70%	2.3764	25.0080	2.8546
	LDGT2	3940	1.4670	14.4372	2.3904	2921	74.14%	0.9425	10.5151	2.0769	1019	25.86%	2.9703	25.6800	3.2891
1994 Total		26221	0.8711	9.4248	1.6591	22067	84.16%	0.5905	6.8215	1.4839	4154	15.84%	2.3622	23.2537	2.5895
1995	LDGV	15553	0.5710	6.5470	1.1252	13685	87.99%	0.3976	4.8106	1.0272	1868	12.01%	1.8415	19.2674	1.8429
	LDGT1	8618	0.9054	10.2329	1.9150	7250	84.13%	0.6744	7.8143	1.7276	1368	15.87%	2.1301	23.0509	2.9078
	LDGT2	4038	1.3553	13.9876	2.2701	3080	76.28%	0.8858	10.2943	2.0231	958	23.72%	2.8647	25.8618	3.0641
1995 Total		28209	0.7854	8.7381	1.5303	24015	85.13%	0.5438	6.4207	1.3664	4194	14.87%	2.1693	22.0078	2.4692
1996	LDGV	19989	0.3943	5.0162	0.8990	17901	89.55%	0.2971	3.7371	0.8133	2088	10.45%	1.2285	15.9821	1.6342
	LDGT1	11882	0.4905	6.4131	1.5123	10226	86.06%	0.3740	5.0554	1.3498	1656	13.94%	1.2100	14.7973	2.5158
	LDGT2	4814	0.6770	8.1834	1.5117	4001	83.11%	0.4805	5.8795	1.3222	813	16.89%	1.6439	19.5212	2.4443
1996 Total		36685	0.4626	5.8842	1.1781	32128	87.58%	0.3444	4.4235	1.0474	4557	12.42%	1.2959	16.1829	2.0991
1997	LDGV	19917	0.3881	5.0553	0.8541	17813	89.44%	0.2991	3.8417	0.7724	2104	10.56%	1.1415	15.3302	1.5463
	LDGT1	13329	0.4602	6.6213	1.4400	11350	85.15%	0.3452	4.9688	1.2724	1979	14.85%	1.1199	16.0985	2.4013
	LDGT2	4905	0.5903	7.4186	1.5453	4070	82.98%	0.3963	5.5355	1.3328	835	17.02%	1.5359	16.5977	2.5809
1997 Total		38151	0.4393	5.9063	1.1477	33233	87.11%	0.3267	4.4341	1.0118	4918	12.89%	1.1998	15.8546	2.0660
1998	LDGV	27013	0.3028	4.3531	0.7127	24311	90.00%	0.2227	3.2972	0.6293	2702	10.00%	1.0235	13.8533	1.4625
	LDGT1	20048	0.3783	5.3258	1.1837	17591	87.74%	0.2947	4.3191	1.0489	2457	12.26%	0.9765	12.5331	2.1489
	LDGT2	7245	0.4909	6.1119	1.3906	6180	85.30%	0.3218	4.3774	1.1617	1065	14.70%	1.4720	16.1766	2.7186
1998 Total		54306	0.3558	4.9468	0.9770	48082	88.54%	0.2618	3.8099	0.8512	6224	11.46%	1.0817	13.7297	1.9484
1999	LDGV	24011	0.2733	3.9141	0.6755	21447	89.32%	0.1959	3.0005	0.5849	2564	10.68%	0.9212	11.5568	1.4327
	LDGT1	16132	0.2963	4.6039	0.9254	14256	88.37%	0.2245	3.5904	0.7807	1876	11.63%	0.8417	12.3052	2.0247
	LDGT2	7946	0.3976	4.8403	1.1356	6793	85.49%	0.2575	3.2770	0.8918	1153	14.51%	1.2231	14.0501	2.5716
1999 Total		48089	0.3016	4.2985	0.8353	42496	88.37%	0.2153	3.2426	0.6997	5593	11.63%	0.9568	12.3218	1.8660
2000	LDGV	35287	0.1926	3.0648	0.5150	32258	91.42%	0.1378	2.3694	0.4324	3029	8.58%	0.7770	10.4715	1.3941
	LDGT1	23613	0.2403	3.5626	0.7768	21351	90.42%	0.1935	2.8573	0.6778	2262	9.58%	0.6818	10.2203	1.7115
	LDGT2	9209	0.2880	3.9884	0.8252	8225	89.31%	0.1953	2.8440	0.6910	984	10.69%	1.0635	13.5547	1.9474
2000 Total		68109	0.2221	3.3623	0.6477	61834	90.79%	0.1647	2.6010	0.5516	6275	9.21%	0.7876	10.8644	1.5952
2001	LDGV	26685	0.1438	2.7037	0.3805	24750	92.75%	0.0999	2.0713	0.3100	1935	7.25%	0.7056	10.7935	1.2822
	LDGT1	16746	0.1431	3.0758	0.4830	15477	92.42%	0.1120	2.5222	0.4218	1269	7.58%	0.5224	9.8276	1.2292
	LDGT2	7049	0.2460	3.3968	0.7019	6353	90.13%	0.1956	2.7771	0.6018	696	9.87%	0.7054	9.0540	1.6155
2001 Total		50480	0.1578	2.9239	0.4594	46580	92.27%	0.1170	2.3173	0.3870	3900	7.73%	0.6460	10.1688	1.3245
2002	LDGV	35527	0.1057	2.5546	0.2985	33484	94.25%	0.0796	2.2705	0.2452	2043	5.75%	0.5328	7.2107	1.1710
	LDGT1	25932	0.1131	3.4579	0.3736	24542	94.64%	0.0881	2.8569	0.3366	1390	5.36%	0.5541	14.0691	1.0260

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
	LDGT2	8500	0.1883	2.6568	0.6612	7799	91.75%	0.1431	2.0689	0.5818	701	8.25%	0.6917	9.1980	1.5450
2002 Total		69959	0.1185	2.9018	0.3704	65825	94.09%	0.0903	2.4653	0.3192	4134	5.91%	0.5669	9.8537	1.1856
2003	LDGV	23333	0.0815	1.6654	0.2494	22075	94.61%	0.0572	1.3578	0.2084	1258	5.39%	0.5071	7.0629	0.9692
	LDGT1	15338	0.0860	1.9354	0.3132	14429	94.07%	0.0702	1.5878	0.2788	909	5.93%	0.3369	7.4536	0.8608
	LDGT2	6357	0.1546	2.3431	0.4363	5924	93.19%	0.1166	1.6606	0.3749	433	6.81%	0.6733	11.6795	1.2750
2003 Total		45028	0.0934	1.8530	0.2975	42428	94.23%	0.0700	1.4783	0.2556	2600	5.77%	0.4753	7.9684	0.9822
2004	LDGV	30501	0.0606	1.2886	0.1609	29093	95.38%	0.0432	1.0707	0.1340	1408	4.62%	0.4199	5.7922	0.7160
	LDGT1	26126	0.0568	1.3891	0.1722	25063	95.93%	0.0485	1.2074	0.1552	1063	4.07%	0.2524	5.6746	0.5731
	LDGT2	11173	0.0800	1.4074	0.1944	10640	95.23%	0.0655	1.2138	0.1646	533	4.77%	0.3693	5.2727	0.7900
2004 Total		67800	0.0623	1.3469	0.1708	64796	95.57%	0.0489	1.1470	0.1472	3004	4.43%	0.3516	5.6584	0.6786
2005	LDGV	19860	0.0530	1.2008	0.1460	18879	95.06%	0.0356	0.9351	0.1214	981	4.94%	0.3886	6.3137	0.6195
	LDGT1	15870	0.0472	1.0380	0.1175	15364	96.81%	0.0435	0.9426	0.1051	506	3.19%	0.1597	3.9349	0.4955
	LDGT2	5952	0.0846	1.3586	0.1871	5733	96.32%	0.0716	1.1742	0.1524	219	3.68%	0.4243	6.1858	1.0964
2005 Total		41682	0.0553	1.1613	0.1410	39976	95.91%	0.0438	0.9723	0.1196	1706	4.09%	0.3253	5.5917	0.6439
2006	LDGV	28892	0.0434	1.1623	0.1410	27893	96.54%	0.0331	1.0019	0.0930	999	3.46%	0.3301	5.6390	1.4816
	LDGT1	21891	0.0370	1.0039	0.1130	21215	96.91%	0.0334	0.9510	0.0945	676	3.09%	0.1488	2.6644	0.6947
	LDGT2	9023	0.0612	0.9525	0.1203	8758	97.06%	0.0510	0.8188	0.1004	265	2.94%	0.3981	5.3715	0.7791
2006 Total		59806	0.0437	1.0727	0.1276	57866	96.76%	0.0359	0.9555	0.0946	1940	3.24%	0.2762	4.5660	1.1114
2007	LDGV	16408	0.0362	1.0065	0.1254	15935	97.12%	0.0286	0.8847	0.0858	473	2.88%	0.2911	5.1099	1.4605
	LDGT1	12908	0.0291	0.9072	0.0998	12438	96.36%	0.0280	0.8617	0.0857	470	3.64%	0.0569	2.1118	0.4746
	LDGT2	6330	0.0488	0.7420	0.0855	6153	97.20%	0.0423	0.6648	0.0754	177	2.80%	0.2754	3.4238	0.4352
2007 Total		35646	0.0359	0.9236	0.1091	34526	96.86%	0.0309	0.8372	0.0839	1120	3.14%	0.1903	3.5853	0.8847
2008	LDGV	32779	0.0341	0.9763	0.1128	31985	97.58%	0.0273	0.8879	0.0769	794	2.42%	0.3067	4.5409	1.5564
	LDGT1	26178	0.0263	0.8094	0.0903	25462	97.26%	0.0260	0.7951	0.0813	716	2.74%	0.0375	1.3184	0.4117
	LDGT2	12273	0.0356	0.8380	0.0728	11885	96.84%	0.0335	0.7114	0.0680	388	3.16%	0.1010	4.7169	0.2188
2008 Total		71230	0.0315	0.8912	0.0976	69332	97.34%	0.0279	0.8235	0.0770	1898	2.66%	0.1631	3.3612	0.8511
2009	LDGV	5742	0.0319	0.9612	0.1030	5633	98.10%	0.0275	0.8888	0.0761	109	1.90%	0.2593	4.7013	1.4904
	LDGT1	3222	0.0265	0.8623	0.0883	3130	97.14%	0.0262	0.8401	0.0810	92	2.86%	0.0358	1.6179	0.3361
	LDGT2	1542	0.0343	0.5863	0.0705	1513	98.12%	0.0307	0.5766	0.0661	29	1.88%	0.2242	1.0954	0.3013
2009 Total		10506	0.0306	0.8759	0.0937	10276	97.81%	0.0275	0.8280	0.0761	230	2.19%	0.1655	3.0133	0.8787
2010	LDGV	2821	0.0269	1.0182	0.0699	2786	98.76%	0.0246	0.9758	0.0663	35	1.24%	0.2047	4.3904	0.3534
	LDGT1	1772	0.0242	0.8088	0.0675	1738	98.08%	0.0241	0.7982	0.0653	34	1.92%	0.0282	1.3502	0.1807
	LDGT2	944	0.0315	0.6128	0.0584	929	98.41%	0.0315	0.6137	0.0586	15	1.59%	0.0333	0.5570	0.0437
2010 Total		5537	0.0268	0.8821	0.0672	5453	98.48%	0.0257	0.8575	0.0647	84	1.52%	0.1026	2.4753	0.2282
2011	LDGV	1886	0.0320	1.0606	0.0697	1856	98.41%	0.0254	1.0339	0.0627	30	1.59%	0.4403	2.7121	0.4996
	LDGT1	859	0.0276	0.9179	0.0569	850	98.95%	0.0277	0.9197	0.0563	9	1.05%	0.0235	0.7499	0.1152
	LDGT2	508	0.0316	0.6260	0.0533	499	98.23%	0.0305	0.5891	0.0486	9	1.77%	0.0905	2.6740	0.3174
2011 Total		3253	0.0308	0.9551	0.0638	3205	98.52%	0.0268	0.9344	0.0588	48	1.48%	0.2965	2.3370	0.3934
2012	LDGV	606	0.0299	0.8810	0.0568	601	99.17%	0.0249	0.8837	0.0570	5	0.83%	0.6304	0.5618	0.0383
	LDGT1	238	0.0232	0.7839	0.0541	235	98.74%	0.0231	0.7784	0.0542	3	1.26%	0.0272	1.2209	0.0471
	LDGT2	185	0.0316	0.5393	0.0430	184	99.46%	0.0317	0.5380	0.0431	1	0.54%	0.0186	0.7612	0.0366

Vehicle		All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
Year	Type	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
2012 Total		1029	0.0287	0.7971	0.0537	1020	99.13%	0.0257	0.7971	0.0538	9	0.87%	0.3614	0.8036	0.0411
2013	LDGV	23	0.0193	0.6651	0.0488	23	100.00%	0.0193	0.6651	0.0488	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	12	0.0152	0.4741	0.0427	12	100.00%	0.0152	0.4741	0.0427	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	10	0.0351	0.5571	0.0461	10	100.00%	0.0351	0.5571	0.0461	0	0.00%	0.0000	0.0000	0.0000
2013 Total		45	0.0217	0.5902	0.0466	45	100.00%	0.0217	0.5902	0.0466	0	0.00%	0.0000	0.0000	0.0000
Overall Total		848816	0.3251	4.3142	0.6832	776198	91.44%	0.2184	3.0457	0.5750	72618	8.56%	1.4660	17.8736	1.8393

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle Type	All Initial Inspections				Passing Initial Inspections					Failing Initial Inspections				
	Total	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)	Total	Total %	Avg HC (gpm)	Avg CO (gpm)	Avg NOx (gpm)
LDGV	427919	0.2722	3.7413	0.5759	394241	92.13%	0.1848	2.6824	0.4928	33678	7.87%	1.2955	16.1369	1.5488
LDGT1	298805	0.3454	4.7153	0.7555	272992	91.36%	0.2425	3.4146	0.6429	25813	8.64%	1.4330	18.4710	1.9471
LDGT2	122092	0.4611	5.3408	0.8822	108965	89.25%	0.2795	3.4357	0.7027	13127	10.75%	1.9684	21.1545	2.3726
Overall Total	848816	0.3251	4.3142	0.6832	776198	91.44%	0.2184	3.0457	0.5750	72618	8.56%	1.4660	17.8736	1.8393

Appendix B

I/M240 Initial Failure Report

Appendix C

I/M240 Initial Exhaust Failure Report

Vehicle		HC Failures					CO Failures					NOX Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1992 Total		1,202	61.74%	4.7444	48.1058	2.2585	1,264	64.92%	3.8654	53.2697	1.7660	522	26.81%	2.2374	15.5456	5.0784
1993	LDGV	595	61.72%	3.9805	39.9235	2.0183	611	63.38%	3.2955	44.5770	1.5342	269	27.90%	1.5900	11.3099	4.5773
	LDGT1	261	53.48%	5.8366	55.0783	2.8091	276	56.56%	4.8302	62.7034	1.9212	188	38.52%	2.4854	17.7760	5.6263
	LDGT2	185	58.36%	6.2909	54.9273	2.6849	182	57.41%	5.4091	60.7461	2.4985	115	36.28%	2.4197	17.1709	5.8701
1993 Total		1,041	58.85%	4.8565	46.3895	2.3350	1,069	60.43%	4.0516	52.0098	1.7983	572	32.33%	2.0511	14.6135	5.1820
1994	LDGV	869	70.59%	3.4526	31.4347	2.1042	658	53.45%	3.2692	42.8192	1.5564	417	33.87%	1.7914	11.6799	4.1179
	LDGT1	495	53.92%	4.9992	45.7486	3.1044	489	53.27%	4.3455	52.6316	2.3486	430	46.84%	1.9966	16.3184	5.3511
	LDGT2	492	66.31%	5.0218	37.2584	3.5545	427	57.55%	4.8921	44.2811	2.9947	344	46.36%	2.3404	19.1714	5.6732
1994 Total		1,856	64.20%	4.2810	36.7960	2.7554	1,574	54.44%	4.0438	46.2642	2.1927	1,191	41.20%	2.0241	15.5184	5.0123
1995	LDGV	847	65.76%	3.4603	32.2837	2.0257	645	50.08%	3.2040	43.9133	1.3669	557	43.25%	1.7250	10.9544	3.6168
	LDGT1	462	50.38%	4.5549	41.2943	3.2873	484	52.78%	3.6467	46.9614	2.4268	437	47.66%	1.8905	15.8820	5.4846
	LDGT2	467	68.37%	4.8047	37.6311	3.2843	453	66.33%	4.4255	41.3587	2.9093	287	42.02%	2.4992	20.8587	5.5374
1995 Total		1,776	61.50%	4.0986	36.0338	2.6849	1,582	54.78%	3.6892	44.1144	2.1328	1,281	44.36%	1.9549	14.8544	4.6843
1996	LDGV	644	50.16%	2.9886	33.9893	1.8621	558	43.46%	2.4127	45.0766	1.2286	697	54.28%	1.1506	9.6768	3.1324
	LDGT1	519	58.91%	2.8895	28.4705	3.6168	492	55.85%	2.3909	33.6033	2.8006	456	51.76%	1.4949	13.6843	5.0386
	LDGT2	310	67.83%	3.4117	36.3629	3.3746	308	67.40%	3.0640	39.7811	3.0850	206	45.08%	1.9449	16.3099	5.0766
1996 Total		1,473	56.18%	3.0428	32.5443	2.7987	1,358	51.79%	2.5525	39.7188	2.2192	1,359	51.83%	1.3865	12.0269	4.0667
1997	LDGV	563	45.18%	3.0982	35.3238	1.7829	549	44.06%	2.1536	43.9679	1.1505	655	52.57%	1.1060	9.1051	3.1624
	LDGT1	501	43.45%	3.0856	36.1397	3.3353	619	53.69%	2.2739	37.1161	2.5662	681	59.06%	1.3118	12.6026	4.3758
	LDGT2	276	53.80%	3.6572	31.3042	3.3925	310	60.43%	2.9752	32.6876	3.0403	293	57.12%	1.7656	17.0724	4.4737
1997 Total		1,340	46.02%	3.2086	34.8009	2.6948	1,478	50.76%	2.3763	38.7323	2.1398	1,629	55.94%	1.3107	12.0002	3.9055
1998	LDGV	694	43.13%	2.9427	32.2627	1.9486	627	38.97%	2.1045	42.9969	1.1508	1,021	63.46%	1.1936	9.7656	2.8069
	LDGT1	512	37.59%	3.2531	32.1761	3.0265	535	39.28%	2.6626	36.5181	2.5013	966	70.93%	1.0924	11.0800	3.7572
	LDGT2	329	45.50%	3.7580	31.3377	3.7792	392	54.22%	2.9738	32.1026	3.4119	524	72.48%	1.7519	16.3505	4.1689
1998 Total		1,535	41.55%	3.2209	32.0356	2.7005	1,554	42.07%	2.5159	38.0183	2.1861	2,511	67.98%	1.2712	11.6454	3.4567
1999	LDGV	514	37.11%	3.2898	31.5737	2.0672	465	33.57%	2.5390	42.2997	1.1972	968	69.89%	1.1175	9.6707	2.7678
	LDGT1	359	35.09%	2.9476	35.4928	3.2334	387	37.83%	2.4071	39.8263	2.4116	781	76.34%	0.9726	10.9068	3.7067
	LDGT2	363	41.82%	2.9553	27.7250	3.5886	328	37.79%	2.4302	32.9954	3.1957	707	81.45%	1.2503	12.5862	3.5583
1999 Total		1,236	37.73%	3.0922	31.5817	2.8527	1,180	36.02%	2.4655	38.9022	2.1510	2,456	74.97%	1.1096	10.9031	3.2939
2000	LDGV	545	35.00%	3.1217	31.6312	2.2127	498	31.98%	2.3085	42.3707	1.1032	1,112	71.42%	1.0694	8.7473	2.9384
	LDGT1	305	28.99%	3.1480	38.0488	2.6181	373	35.46%	2.2488	39.5115	1.8924	768	73.00%	0.8268	9.9038	3.5758
	LDGT2	202	38.85%	3.8835	40.0053	3.1963	185	35.58%	3.6985	48.9721	2.6587	416	80.00%	1.3117	11.9092	3.6143
2000 Total		1,052	33.62%	3.2756	35.0998	2.5191	1,056	33.75%	2.5309	42.5173	1.6545	2,296	73.38%	1.0322	9.7071	3.2741
2001	LDGV	324	34.65%	3.0620	36.3289	1.9895	333	35.61%	2.1203	44.8315	1.1108	630	67.38%	0.8638	8.6784	3.1401
	LDGT1	130	30.16%	3.3337	51.8149	1.8440	178	41.30%	2.2040	49.6685	1.2889	274	63.57%	0.7982	9.1018	3.8918
	LDGT2	103	36.52%	3.0781	31.7825	3.0081	96	34.04%	2.6129	36.3512	3.0195	229	81.21%	1.0376	11.3305	3.6062
2001 Total		557	33.80%	3.1284	39.1025	2.1439	607	36.83%	2.2227	44.9087	1.4649	1,133	68.75%	0.8831	9.3168	3.4161
2002	LDGV	266	34.46%	2.8636	26.7960	2.5898	235	30.44%	2.2241	36.4690	1.6269	594	76.94%	1.0582	9.1935	3.3083
	LDGT1	155	29.08%	3.4854	66.0786	1.6123	295	55.35%	1.7988	53.5363	0.8638	255	47.84%	0.7286	8.9782	3.8390
	LDGT2	94	37.30%	3.5391	37.7770	3.5112	93	36.90%	3.1275	43.1746	3.2841	200	79.37%	1.0201	12.0480	3.7705
2002 Total		515	33.08%	3.1740	40.6232	2.4638	623	40.01%	2.1576	45.5516	1.5129	1,049	67.37%	0.9708	9.6854	3.5254
2003	LDGV	162	38.30%	2.8436	30.9781	2.4211	131	30.97%	2.2487	44.3867	1.5693	318	75.18%	1.0795	9.8544	3.0584
	LDGT1	73	32.30%	2.5935	43.6985	2.5777	112	49.56%	1.4148	43.7857	1.1274	124	54.87%	0.7692	9.0488	4.0911
	LDGT2	65	43.33%	3.2522	53.6969	2.7178	65	43.33%	2.8000	56.1211	2.2357	103	68.67%	0.9208	12.4245	3.7044

Vehicle		HC Failures					CO Failures					NOX Failures				
Year	Type	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2003 Total		300	37.55%	2.8712	38.9958	2.5235	308	38.55%	2.0618	46.6446	1.5492	545	68.21%	0.9789	10.1568	3.4155
2004	LDGV	133	36.84%	3.3112	31.2061	2.4671	143	39.61%	2.0600	38.2394	1.7193	250	69.25%	1.1387	10.7680	3.2561
	LDGT1	45	21.43%	3.5695	50.3443	2.5106	114	54.29%	1.3334	37.9946	0.8460	105	50.00%	0.7159	7.6747	4.0137
	LDGT2	40	40.40%	3.1936	36.9750	3.9928	45	45.45%	2.5572	39.1208	3.0570	78	78.79%	1.4630	13.4204	4.1183
2004 Total		218	32.54%	3.3430	36.2151	2.7560	302	45.07%	1.8598	38.2783	1.5890	433	64.63%	1.0946	10.4957	3.5951
2005	LDGV	89	34.36%	3.0107	32.1841	2.3713	131	50.58%	1.6563	36.0223	1.3531	155	59.85%	0.9947	11.3221	3.2464
	LDGT1	15	17.24%	1.7999	34.0012	2.5616	41	47.13%	0.9193	30.2583	1.0062	52	59.77%	0.5409	7.2490	3.5704
	LDGT2	22	31.43%	2.3733	23.4759	4.0634	36	51.43%	1.5472	21.9444	3.0306	58	82.86%	1.1555	15.1778	3.3698
2005 Total		126	30.29%	2.7553	30.8800	2.6894	208	50.00%	1.4922	32.4496	1.5751	265	63.70%	0.9409	11.3667	3.3370
2006	LDGV	92	23.71%	2.5986	32.3752	2.7173	118	30.41%	1.6651	37.0492	1.8142	303	78.09%	0.5719	6.3401	4.5974
	LDGT1	10	9.17%	5.3333	45.1338	2.0764	28	25.69%	1.0482	36.8236	1.0436	85	77.98%	0.2456	3.3752	4.6527
	LDGT2	27	48.21%	2.8415	29.9340	4.0589	32	57.14%	2.3665	32.4915	3.3851	46	82.14%	1.6502	16.1518	3.8565
2006 Total		129	23.33%	2.8614	32.8533	2.9484	178	32.19%	1.6941	36.1943	1.9754	434	78.48%	0.6223	6.7994	4.5297
2007	LDGV	39	21.67%	2.5057	28.4353	3.3532	59	32.78%	1.6642	30.7235	2.3300	150	83.33%	0.5859	7.3156	4.3850
	LDGT1	3	6.12%	2.7996	98.0225	0.1503	10	20.41%	1.0841	51.2712	0.1229	39	79.59%	0.0987	1.1534	4.9538
	LDGT2	10	66.67%	3.8392	39.1320	4.7437	11	73.33%	2.0697	41.1999	4.3764	10	66.67%	1.8655	16.9958	6.2460
2007 Total		52	21.31%	2.7791	34.5070	3.4358	80	32.79%	1.6474	34.7324	2.3355	199	81.56%	0.5547	6.5943	4.5900
2008	LDGV	65	20.12%	2.8459	27.0795	2.8967	84	26.01%	1.6530	32.6777	2.1068	267	82.66%	0.5226	5.8330	4.4645
	LDGT1	1	1.54%	1.8108	70.3559	0.2986	12	18.46%	0.5985	29.3344	0.4064	54	83.08%	0.0795	1.3253	4.7689
	LDGT2	5	8.06%	2.2662	23.1983	3.7849	57	91.94%	0.4065	22.7233	0.7918	9	14.52%	1.4974	15.1526	3.4705
2008 Total		71	15.78%	2.7905	27.4157	2.9227	153	34.00%	1.1059	28.7070	1.4835	330	73.33%	0.4767	5.3496	4.4872
2009	LDGV	10	23.26%	2.1851	31.2176	3.3009	12	27.91%	1.6672	33.5091	2.3573	36	83.72%	0.5353	5.7529	4.3945
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	3	42.86%	0.3701	24.4466	0.1383	4	57.14%	0.0521	0.1107	6.2241
	LDGT2	1	50.00%	5.3259	4.1630	0.0655	0	0.00%	0.0000	0.0000	0.0000	1	50.00%	0.0303	0.0799	7.0202
2009 Total		11	21.15%	2.4706	28.7581	3.0068	15	28.85%	1.4078	31.6966	1.9135	41	78.85%	0.4759	5.0641	4.6370
2010	LDGV	2	50.00%	2.2483	33.5353	3.5302	4	100.00%	1.5511	28.6822	2.6029	3	75.00%	1.8769	27.8220	3.4650
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	50.00%	0.2685	23.5357	0.0012	1	50.00%	0.0398	0.3932	4.6359
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2010 Total		2	33.33%	2.2483	33.5353	3.5302	5	83.33%	1.2946	27.6529	2.0825	4	66.67%	1.4176	20.9648	3.7577
2011	LDGV	2	40.00%	5.6640	13.8622	2.2866	2	40.00%	2.0166	23.2096	2.2646	3	60.00%	1.4577	9.1909	3.6894
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.5283	16.3912	2.5629	1	100.00%	0.5283	16.3912	2.5629
2011 Total		2	33.33%	5.6640	13.8622	2.2866	3	50.00%	1.5205	20.9368	2.3640	4	66.67%	1.2254	10.9910	3.4078
2012	LDGV	1	100.00%	3.0947	0.4406	0.0042	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2012 Total		1	100.00%	3.0947	0.4406	0.0042	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2013	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2013 Total		0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
Grand Total		18,681	48.26%	4.2278	43.0655	2.5444	19,546	50.49%	3.4430	50.4828	1.9194	19,900	51.41%	1.3856	11.7846	3.9970

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle Type	HC Failures					CO Failures					NOX Failures				
	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
LDGV	9,323	49.73%	3.6668	38.7067	2.0650	8,875	47.34%	2.9886	47.8325	1.4010	9,439	50.35%	1.2533	9.8273	3.4497
LDGT1	5,485	43.71%	4.6065	49.2110	2.8354	6,582	52.45%	3.5263	53.7588	2.0373	6,355	50.65%	1.3064	12.1250	4.4659
LDGT2	3,873	52.21%	5.0422	44.8546	3.2860	4,089	55.12%	4.2951	50.9619	2.8548	4,106	55.35%	1.8121	15.7575	4.5296
Grand Total	18,681	48.26%	4.2278	43.0655	2.5444	19,546	50.49%	3.4430	50.4828	1.9194	19,900	51.41%	1.3856	11.7846	3.9970

Appendix D

I/M240 Initial Visual Failure Report

(Mandatory)

Appendix E

I/M240 Initial Visual Failure Report

(Advisory)

Initial Visual Failure Report (Advisory) (V1.01)

Vehicle		Cap Pressure				Eng Light				OBD				Evap System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
1982	LDGV	346	89.87%	39	10.13%	222	87.06%	33	12.94%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	274	78.96%	73	21.04%	54	84.38%	10	15.63%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	81	76.42%	25	23.58%	14	66.67%	7	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1982 Total		701	83.65%	137	16.35%	290	85.29%	50	14.71%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1983	LDGV	381	92.70%	30	7.30%	234	80.97%	55	19.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	271	79.71%	69	20.29%	57	73.08%	21	26.92%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	114	82.01%	25	17.99%	14	87.50%	2	12.50%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1983 Total		766	86.07%	124	13.93%	305	79.63%	78	20.37%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1984	LDGV	1124	92.97%	85	7.03%	751	85.83%	124	14.17%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	752	85.07%	132	14.93%	206	74.37%	71	25.63%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	281	77.20%	83	22.80%	45	76.27%	14	23.73%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1984 Total		2157	87.79%	300	12.21%	1,002	82.74%	209	17.26%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1985	LDGV	1106	94.05%	70	5.95%	732	82.15%	159	17.85%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	783	87.58%	111	12.42%	399	84.18%	75	15.82%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	270	87.38%	39	12.62%	77	77.00%	23	23.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1985 Total		2159	90.75%	220	9.25%	1,208	82.46%	257	17.54%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1986	LDGV	2051	95.62%	94	4.38%	1,310	80.12%	325	19.88%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	1654	89.16%	201	10.84%	939	85.13%	164	14.87%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	406	81.69%	91	18.31%	147	83.05%	30	16.95%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1986 Total		4111	91.42%	386	8.58%	2,396	82.20%	519	17.80%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1987	LDGV	1789	95.46%	85	4.54%	1,244	81.52%	282	18.48%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	1288	90.96%	128	9.04%	785	80.02%	196	19.98%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	407	90.44%	43	9.56%	326	90.56%	34	9.44%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1987 Total		3484	93.16%	256	6.84%	2,355	82.14%	512	17.86%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1988	LDGV	3221	95.16%	164	4.84%	2,574	85.66%	431	14.34%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	2548	91.46%	238	8.54%	2,090	86.54%	325	13.46%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	821	87.06%	122	12.94%	851	94.14%	53	5.86%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1988 Total		6590	92.63%	524	7.37%	5,515	87.21%	809	12.79%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1989	LDGV	3133	94.40%	186	5.60%	2,827	88.45%	369	11.55%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	2194	91.45%	205	8.55%	1,821	85.41%	311	14.59%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	806	91.18%	78	8.82%	821	94.15%	51	5.85%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1989 Total		6133	92.90%	469	7.10%	5,469	88.21%	731	11.79%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1990	LDGV	6495	95.68%	293	4.32%	6,218	91.13%	605	8.87%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	3238	91.86%	287	8.14%	2,807	85.42%	479	14.58%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	1221	90.38%	130	9.62%	1,301	95.10%	67	4.90%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1990 Total		10954	93.91%	710	6.09%	10,326	89.97%	1,151	10.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1991	LDGV	6409	96.04%	264	3.96%	6,223	91.51%	577	8.49%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	3279	93.69%	221	6.31%	3,146	90.79%	319	9.21%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	856	91.16%	83	8.84%	881	92.74%	69	7.26%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1991 Total		10544	94.89%	568	5.11%	10,250	91.40%	965	8.60%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1992	LDGV	9365	95.71%	420	4.29%	9,020	91.38%	851	8.62%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	4508	93.04%	337	6.96%	4,387	90.90%	439	9.10%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	1865	91.51%	173	8.49%	1,936	94.07%	122	5.93%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1992 Total		15738	94.42%	930	5.58%	15,343	91.57%	1,412	8.43%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1993	LDGV	8978	96.54%	322	3.46%	8,682	92.19%	736	7.81%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	5264	93.95%	339	6.05%	5,347	93.91%	347	6.09%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Vehicle		Cap Pressure				Eng Light				OBD				Evap System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
	LDGT1	15221	97.37%	411	2.63%	14,844	93.53%	1,026	6.47%	14,084	93.64%	956	6.36%	0	0.00%	0	0.00%
	LDGT2	5705	97.47%	148	2.53%	5,478	92.04%	474	7.96%	4,927	93.05%	368	6.95%	0	0.00%	0	0.00%
2005 Total		39679	96.91%	1,265	3.09%	38,829	93.16%	2,853	6.84%	36,556	93.34%	2,607	6.66%	0	0.00%	0	0.00%
2006	LDGV	27736	97.91%	591	2.09%	27,724	95.96%	1,168	4.04%	26,516	96.09%	1,079	3.91%	0	0.00%	0	0.00%
	LDGT1	21003	97.38%	565	2.62%	21,105	96.41%	786	3.59%	20,256	96.54%	725	3.46%	0	0.00%	0	0.00%
	LDGT2	8677	97.65%	209	2.35%	8,673	96.12%	350	3.88%	8,170	96.73%	276	3.27%	0	0.00%	0	0.00%
2006 Total		57416	97.68%	1,365	2.32%	57,502	96.15%	2,304	3.85%	54,942	96.35%	2,080	3.65%	0	0.00%	0	0.00%
2007	LDGV	15832	98.24%	283	1.76%	15,889	96.84%	519	3.16%	15,191	96.88%	489	3.12%	0	0.00%	0	0.00%
	LDGT1	12314	96.71%	419	3.29%	12,574	97.41%	334	2.59%	12,086	97.48%	313	2.52%	0	0.00%	0	0.00%
	LDGT2	6077	97.37%	164	2.63%	6,157	97.27%	173	2.73%	5,840	97.17%	170	2.83%	0	0.00%	0	0.00%
2007 Total		34223	97.53%	866	2.47%	34,620	97.12%	1,026	2.88%	33,117	97.15%	972	2.85%	0	0.00%	0	0.00%
2008	LDGV	31680	98.57%	460	1.43%	32,314	98.58%	465	1.42%	31,241	98.69%	415	1.31%	0	0.00%	0	0.00%
	LDGT1	25203	97.50%	645	2.50%	25,838	98.70%	340	1.30%	25,252	98.93%	274	1.07%	0	0.00%	0	0.00%
	LDGT2	11513	97.12%	341	2.88%	12,123	98.78%	150	1.22%	11,729	98.81%	141	1.19%	0	0.00%	0	0.00%
2008 Total		68396	97.93%	1,446	2.07%	70,275	98.66%	955	1.34%	68,222	98.80%	830	1.20%	0	0.00%	0	0.00%
2009	LDGV	5508	98.87%	63	1.13%	5,690	99.09%	52	0.91%	5,499	99.10%	50	0.90%	0	0.00%	0	0.00%
	LDGT1	2914	97.30%	81	2.70%	3,189	98.98%	33	1.02%	3,107	99.01%	31	0.99%	0	0.00%	0	0.00%
	LDGT2	1250	97.89%	27	2.11%	1,532	99.35%	10	0.65%	1,474	99.19%	12	0.81%	0	0.00%	0	0.00%
2009 Total		9672	98.26%	171	1.74%	10,411	99.10%	95	0.90%	10,080	99.09%	93	0.91%	0	0.00%	0	0.00%
2010	LDGV	2482	98.85%	29	1.15%	2,791	98.94%	30	1.06%	2,727	99.13%	24	0.87%	0	0.00%	0	0.00%
	LDGT1	1536	97.96%	32	2.04%	1,757	99.15%	15	0.85%	1,717	99.54%	8	0.46%	0	0.00%	0	0.00%
	LDGT2	683	97.99%	14	2.01%	937	99.26%	7	0.74%	923	99.78%	2	0.22%	0	0.00%	0	0.00%
2010 Total		4701	98.43%	75	1.57%	5,485	99.06%	52	0.94%	5,367	99.37%	34	0.63%	0	0.00%	0	0.00%
2011	LDGV	1560	98.61%	22	1.39%	1,877	99.52%	9	0.48%	1,824	99.51%	9	0.49%	0	0.00%	0	0.00%
	LDGT1	721	98.90%	8	1.10%	852	99.19%	7	0.81%	831	99.40%	5	0.60%	0	0.00%	0	0.00%
	LDGT2	391	97.99%	8	2.01%	503	99.02%	5	0.98%	487	99.59%	2	0.41%	0	0.00%	0	0.00%
2011 Total		2672	98.60%	38	1.40%	3,232	99.35%	21	0.65%	3,142	99.49%	16	0.51%	0	0.00%	0	0.00%
2012	LDGV	452	99.12%	4	0.88%	605	99.83%	1	0.17%	585	99.83%	1	0.17%	0	0.00%	0	0.00%
	LDGT1	200	98.52%	3	1.48%	238	100.00%	0	0.00%	231	100.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	149	99.33%	1	0.67%	183	98.92%	2	1.08%	181	99.45%	1	0.55%	0	0.00%	0	0.00%
2012 Total		801	99.01%	8	0.99%	1,026	99.71%	3	0.29%	997	99.80%	2	0.20%	0	0.00%	0	0.00%
2013	LDGV	19	100.00%	0	0.00%	23	100.00%	0	0.00%	23	100.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	8	100.00%	0	0.00%	12	100.00%	0	0.00%	12	100.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	6	100.00%	0	0.00%	10	100.00%	0	0.00%	8	100.00%	0	0.00%	0	0.00%	0	0.00%
2013 Total		33	100.00%	0	0.00%	45	100.00%	0	0.00%	43	100.00%	0	0.00%	0	0.00%	0	0.00%
Grand Total		797655	95.85%	34,504	4.15%	743,278	88.49%	96,649	11.51%	584,725	88.56%	75,539	11.44%	0	0.00%	0	0.00%

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle Type	Cap Pressure				Eng Light				OBD				Evap System			
	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
LDGV	404592	96.52%	14569	3.48%	373312	87.89%	51458	12.11%	288406	88.05%	39133	11.95%	0	0.00%	0	0.00%
LDGT1	279912	95.31%	13776	4.69%	262315	89.10%	32090	10.90%	212530	89.11%	25970	10.89%	0	0.00%	0	0.00%
LDGT2	113151	94.84%	6159	5.16%	107651	89.15%	13101	10.85%	83789	88.92%	10436	11.08%	0	0.00%	0	0.00%
Grand Total	797655	95.85%	34504	4.15%	743278	88.49%	96649	11.51%	584725	88.56%	75539	11.44%	0	0.00%	0	0.00%

Appendix F

I/M240 Retest Pass Reduction Report

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions						Average Repair Costs
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
2004	LDGV	1613	0.5311	6.7283	1.0035	1323	82.02%	0.0801	1.7716	0.1983	0.3007	78.97%	3.1731	64.17%	0.4583	69.80%	253.00
	LDGT1	1142	0.2914	6.6115	0.6599	1031	90.28%	0.0787	2.0727	0.2143	0.1568	66.56%	3.3575	61.83%	0.3119	59.28%	247.35
	LDGT2	567	0.4092	6.3521	0.9657	496	87.48%	0.1098	2.2269	0.2902	0.1562	58.72%	2.3643	51.50%	0.3991	57.90%	124.00
2004 Total		3322	0.4279	6.6239	0.8789	2850	85.79%	0.0848	1.9598	0.2201	0.2235	72.50%	3.0991	61.26%	0.3951	64.22%	238.77
2005	LDGV	1069	0.4705	8.3323	0.7967	914	85.50%	0.0709	1.5920	0.1703	0.2442	77.50%	3.9545	71.30%	0.3895	69.58%	300.58
	LDGT1	557	0.2410	4.9719	0.7338	503	90.31%	0.0712	1.6510	0.1981	0.1119	61.12%	2.3319	58.55%	0.3126	61.20%	233.00
	LDGT2	270	0.5561	7.8704	1.3604	204	75.56%	0.1414	2.6286	0.3868	0.2596	64.74%	3.6545	58.16%	0.5504	58.73%	445.50
2005 Total		1896	0.4153	7.2793	0.8585	1621	85.50%	0.0799	1.7408	0.2062	0.2051	71.98%	3.4132	66.22%	0.3859	65.18%	305.22
2006	LDGV	1070	0.3997	6.3585	1.6260	925	86.45%	0.0664	1.2933	0.1610	0.2125	76.20%	3.6577	73.88%	1.2370	88.48%	189.20
	LDGT1	700	0.2162	3.1157	0.7893	655	93.57%	0.0519	1.0691	0.1464	0.0901	63.46%	1.2378	53.66%	0.5496	78.97%	19.50
	LDGT2	286	0.4553	6.7062	0.9400	249	87.06%	0.0855	1.4423	0.2110	0.1815	67.98%	2.7081	65.25%	0.3578	62.91%	164.00
2006 Total		2056	0.3450	5.3028	1.2457	1829	88.96%	0.0638	1.2333	0.1626	0.1644	72.05%	2.6618	68.34%	0.8711	84.27%	144.82
2007	LDGV	514	0.3829	6.9002	1.6652	455	88.52%	0.0651	1.3988	0.1379	0.2427	78.87%	4.0934	74.53%	1.2962	90.38%	306.00
	LDGT1	479	0.0631	2.3059	0.5483	471	98.33%	0.0342	1.1733	0.0845	0.0265	43.69%	1.0921	48.21%	0.4089	82.88%	20.67
	LDGT2	183	0.3559	6.3912	0.5193	170	92.90%	0.0723	1.6244	0.1287	0.1530	67.91%	0.6107	27.32%	0.2601	66.90%	22.00
2007 Total		1176	0.2484	4.9497	1.0320	1096	93.20%	0.0529	1.3369	0.1135	0.1359	71.98%	2.2634	62.87%	0.7542	86.92%	218.31
2008	LDGV	828	0.3931	5.2831	1.5591	752	90.82%	0.0562	1.3184	0.1050	0.2052	78.51%	2.7411	67.52%	1.3565	92.82%	196.00
	LDGT1	720	0.0428	1.4727	0.4249	708	98.33%	0.0236	0.8135	0.0506	0.0162	40.66%	0.5658	41.02%	0.3546	87.52%	35.33
	LDGT2	392	0.1038	5.6563	0.2199	364	92.86%	0.0603	3.0802	0.0976	0.0262	30.29%	1.3026	29.72%	0.0901	48.02%	157.00
2008 Total		1940	0.2046	3.9443	0.8676	1824	94.02%	0.0444	1.4740	0.0824	0.0961	68.42%	1.6097	52.20%	0.7149	89.67%	116.13
2009	LDGV	102	0.3121	5.3093	1.5875	96	94.12%	0.0487	1.1164	0.1031	0.1618	76.87%	3.4964	75.80%	1.3038	92.67%	0.00
	LDGT1	90	0.0303	1.1700	0.4086	89	98.89%	0.0248	0.9361	0.0565	0.0056	18.48%	0.2421	20.55%	0.3560	86.30%	0.00
	LDGT2	30	0.2167	1.0589	0.2913	30	100.00%	0.0333	1.5585	0.0832	0.1834	84.64%	-0.4996	-47.18%	0.2081	71.44%	0.00
2009 Total		222	0.1850	3.0568	0.9344	215	96.85%	0.0367	1.1035	0.0810	0.1002	73.21%	1.5917	59.06%	0.7586	90.35%	0.00
2010	LDGV	28	0.1594	2.9435	0.3409	28	100.00%	0.0447	1.1238	0.0650	0.1147	71.95%	1.8197	61.82%	0.2759	80.94%	0.00
	LDGT1	31	0.0292	1.4313	0.1914	31	100.00%	0.0186	0.5773	0.0293	0.0106	36.40%	0.8540	59.67%	0.1621	84.70%	0.00
	LDGT2	13	0.0349	0.5688	0.0446	13	100.00%	0.0307	0.8355	0.0674	0.0042	12.00%	-0.2667	-46.89%	-0.0228	-51.03%	0.00
2010 Total		72	0.0809	1.8636	0.2230	72	100.00%	0.0309	0.8364	0.0500	0.0500	61.76%	1.0272	55.12%	0.1730	77.56%	0.00
2011	LDGV	28	0.2937	1.7054	0.2063	28	100.00%	0.0198	1.0996	0.0718	0.2740	93.27%	0.6059	35.52%	0.1345	65.20%	0.00
	LDGT1	10	0.0242	0.8036	0.1068	10	100.00%	0.0243	0.9937	0.0206	-0.0001	-0.58%	-0.1901	-23.65%	0.0863	80.74%	0.00
	LDGT2	8	0.0935	2.8010	0.3496	7	87.50%	0.0201	0.4592	0.0211	0.0838	80.64%	2.6954	85.44%	0.3733	94.66%	0.00
2011 Total		46	0.2003	1.6999	0.2096	45	97.83%	0.0208	0.9764	0.0525	0.1835	89.80%	0.7540	43.57%	0.1609	75.39%	0.00
2012	LDGV	3	0.0132	0.5265	0.0488	3	100.00%	0.0168	0.5574	0.0195	-0.0036	-27.20%	-0.0309	-5.86%	0.0293	60.04%	0.00
	LDGT1	5	0.0212	1.0217	0.0460	3	60.00%	0.0102	0.4895	0.0198	0.0171	62.67%	0.7314	59.91%	0.0273	57.92%	0.00
	LDGT2	1	0.0186	0.7612	0.0366	1	100.00%	0.0187	1.4172	0.0627	-0.0001	-0.54%	-0.6560	-86.18%	-0.0261	-71.31%	0.00
2012 Total		9	0.0182	0.8277	0.0459	7	77.78%	0.0142	0.6511	0.0258	0.0058	28.79%	0.2065	24.08%	0.0205	44.30%	0.00
Grand Total		100772	1.8084	21.9960	2.1277	64041	63.55%	0.4638	5.3985	1.0690	0.7812	62.74%	10.4450	65.93%	0.6632	38.29%	320.81

Records 1 - 93 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle Type	Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions						Average Repair Costs
	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total%	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Avg HC(gpm)	Avg HC%(gpm)	Avg CO(gpm)	Avg CO%(gpm)	Avg NOx(gpm)	Avg NOx%(gpm)	
LDGV	46251	1.5849	19.4332	1.7835	29255	63.25%	0.3578	4.2119	0.8202	0.7397	67.40%	10.0813	70.53%	0.6221	43.13%	328.80
LDGT1	34780	1.7626	23.2560	2.2615	23284	66.95%	0.5151	6.1117	1.2080	0.7180	58.23%	10.3181	62.80%	0.6455	34.83%	310.33
LDGT2	19741	2.4127	25.7804	2.6987	11502	58.26%	0.6297	6.9731	1.4206	1.0144	61.70%	11.6273	62.51%	0.8035	36.13%	321.88
Grand Total	100772	1.8084	21.9960	2.1277	64041	63.55%	0.4638	5.3985	1.0690	0.7812	62.74%	10.4450	65.93%	0.6632	38.29%	320.81

Appendix G

I/M240 Retest Frequency Report

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
	LDGT1	479	1	471	98.33%	463	98.30%	7	1.46%	7	100.00%	1	0.21%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	183	1.1	171	93.44%	165	96.49%	7	3.83%	3	42.86%	3	1.64%	0	0.00%	2	1.09%	2	100.00%	0	0.00%	0	0.00%
2007 Total		1176	1.1	1102	93.71%	1048	95.10%	52	4.42%	35	67.31%	15	1.28%	7	46.67%	6	0.51%	5	83.33%	1	0.09%	1	100.00%
2008	LDGV	828	1.1	755	91.18%	714	94.57%	40	4.83%	20	50.00%	18	2.17%	9	50.00%	9	1.09%	5	55.56%	6	0.72%	4	66.67%
	LDGT1	720	1	710	98.61%	699	98.45%	10	1.39%	9	90.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	392	1.1	368	93.88%	348	94.57%	18	4.59%	12	66.67%	4	1.02%	2	50.00%	2	0.51%	2	100.00%	0	0.00%	0	0.00%
2008 Total		1940	1.1	1833	94.48%	1761	96.07%	68	3.51%	41	60.29%	22	1.13%	11	50.00%	11	0.57%	7	63.64%	6	0.31%	4	66.67%
2009	LDGV	102	1	98	96.08%	92	93.88%	4	3.92%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	90	1	89	98.89%	88	98.88%	1	1.11%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	30	1	30	100.00%	30	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2009 Total		222	1	217	97.75%	210	96.77%	5	2.25%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2010	LDGV	28	1	28	100.00%	28	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	31	1	31	100.00%	31	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	13	1	13	100.00%	13	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2010 Total		72	1	72	100.00%	72	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2011	LDGV	28	1	28	100.00%	28	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	10	1	10	100.00%	10	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	8	1.1	7	87.50%	6	85.71%	1	12.50%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2011 Total		46	1	45	97.83%	44	97.78%	1	2.17%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2012	LDGV	3	1	3	100.00%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	5	1.7	3	60.00%	2	66.67%	1	20.00%	0	0.00%	1	20.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	1	1	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2012 Total		9	1.3	7	77.78%	6	85.71%	1	11.11%	0	0.00%	1	11.11%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Overall Total		100772	1.4	68093	67.57%	49460	72.64%	16613	16.49%	7993	48.11%	7679	7.62%	3332	43.39%	3,879	3.85%	1,625	41.89%	4508	4.47%	1,631	36.18%

Summary by Vehicle Type (V1.01)

Vehicle		Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5				
Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	
LDGV	46251	1.4	31279	67.63%	22591	72.22%	7659	16.56%	3691	48.19%	3500	7.57%	1496	42.74	1,785	3.86%	740	41.46%	2028	4.38%	737	36.34%	
LDGT1	34780	1.4	24471	70.36%	18509	75.64%	5383	15.48%	2676	49.71%	2414	6.94%	1110	45.98	1,160	3.34%	500	43.10%	1352	3.89%	489	36.17%	
LDGT2	19741	1.6	12343	62.52%	8360	67.73%	3571	18.09%	1626	45.53%	1765	8.94%	726	41.13	934	4.73%	385	41.22%	1128	5.71%	405	35.90%	
Overall Total		100772	1.4	68093	67.57%	49460	72.64%	16613	16.49%	7993	48.11%	7679	7.62%	3332	43.39	3,879	3.85%	1,625	41.89%	4508	4.47%	1,631	36.18%

Appendix H

I/M240 Fleet Characterization Summary Report

Initial Inspection Component

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
	LDGT2	8455	0.1783	2.5509	0.6496	7799	92.24%	0.1431	2.0689	0.5818	656	7.76%	0.5970	8.2812	1.4563
2002 Total		69673	0.1123	2.8251	0.3623	65825	94.48%	0.0903	2.4653	0.3192	3848	5.52%	0.4883	8.9813	1.1006
2003	LDGV	23255	0.0769	1.6230	0.2453	22075	94.93%	0.0572	1.3578	0.2084	1180	5.07%	0.4437	6.5846	0.9358
	LDGT1	15267	0.0837	1.8923	0.3046	14429	94.51%	0.0702	1.5878	0.2788	838	5.49%	0.3146	7.1359	0.7498
	LDGT2	6322	0.1449	2.2007	0.4259	5924	93.70%	0.1166	1.6606	0.3749	398	6.30%	0.5648	10.2386	1.1841
2003 Total		44844	0.0888	1.7961	0.2909	42428	94.61%	0.0700	1.4783	0.2556	2416	5.39%	0.4189	7.3778	0.9122
2004	LDGV	30420	0.0580	1.2411	0.1571	29093	95.64%	0.0432	1.0707	0.1340	1327	4.36%	0.3832	4.9762	0.6626
	LDGT1	26094	0.0559	1.3742	0.1699	25063	96.05%	0.0485	1.2074	0.1552	1031	3.95%	0.2355	5.4303	0.5262
	LDGT2	11139	0.0747	1.3683	0.1886	10640	95.52%	0.0655	1.2138	0.1646	499	4.48%	0.2698	4.6618	0.7008
2004 Total		67653	0.0599	1.3134	0.1672	64796	95.78%	0.0489	1.1470	0.1472	2857	4.22%	0.3101	5.0851	0.6200
2005	LDGV	19797	0.0487	1.1513	0.1421	18879	95.36%	0.0356	0.9351	0.1214	918	4.64%	0.3175	5.5985	0.5684
	LDGT1	15870	0.0480	1.0422	0.1184	15364	96.81%	0.0435	0.9426	0.1051	506	3.19%	0.1867	4.0663	0.5214
	LDGT2	5937	0.0829	1.3497	0.1793	5733	96.56%	0.0716	1.1742	0.1524	204	3.44%	0.4010	6.2831	0.9372
2005 Total		41604	0.0533	1.1380	0.1384	39976	96.09%	0.0438	0.9723	0.1196	1628	3.91%	0.2873	5.2081	0.6000
2006	LDGV	28821	0.0411	1.1309	0.1351	27893	96.78%	0.0331	1.0019	0.0930	928	3.22%	0.2821	5.0076	1.4033
	LDGT1	21870	0.0367	0.9916	0.1125	21215	97.01%	0.0334	0.9510	0.0945	655	2.99%	0.1419	2.3069	0.6960
	LDGT2	9007	0.0570	0.9109	0.1133	8758	97.24%	0.0510	0.8188	0.1004	249	2.76%	0.2670	4.1504	0.5688
2006 Total		59698	0.0419	1.0467	0.1235	57866	96.93%	0.0359	0.9555	0.0946	1832	3.07%	0.2299	3.9255	1.0370
2007	LDGV	16390	0.0364	1.0126	0.1232	15935	97.22%	0.0286	0.8847	0.0858	455	2.78%	0.3078	5.4922	1.4341
	LDGT1	12909	0.0292	0.9129	0.1005	12438	96.35%	0.0280	0.8617	0.0857	471	3.65%	0.0606	2.2654	0.4933
	LDGT2	6323	0.0472	0.7071	0.0838	6153	97.31%	0.0423	0.6648	0.0754	170	2.69%	0.2252	2.2351	0.3888
2007 Total		35622	0.0357	0.9223	0.1080	34526	96.92%	0.0309	0.8372	0.0839	1096	3.08%	0.1888	3.6003	0.8677
2008	LDGV	32737	0.0327	0.9607	0.1087	31985	97.70%	0.0273	0.8879	0.0769	752	2.30%	0.2614	4.0595	1.4615
	LDGT1	26170	0.0263	0.8109	0.0900	25462	97.29%	0.0260	0.7951	0.0813	708	2.71%	0.0398	1.3794	0.4052
	LDGT2	12249	0.0351	0.8205	0.0715	11885	97.03%	0.0335	0.7114	0.0680	364	2.97%	0.0865	4.3828	0.1877
2008 Total		71156	0.0308	0.8815	0.0954	69332	97.44%	0.0279	0.8235	0.0770	1824	2.56%	0.1405	3.0837	0.7973
2009	LDGV	5729	0.0305	0.9512	0.0984	5633	98.32%	0.0275	0.8888	0.0761	96	1.68%	0.2105	4.6128	1.4069
	LDGT1	3219	0.0263	0.8495	0.0902	3130	97.24%	0.0262	0.8401	0.0810	89	2.76%	0.0305	1.1783	0.4125
	LDGT2	1543	0.0343	0.5860	0.0704	1513	98.06%	0.0307	0.5766	0.0661	30	1.94%	0.2167	1.0589	0.2913
2009 Total		10491	0.0298	0.8663	0.0918	10276	97.95%	0.0275	0.8280	0.0761	215	2.05%	0.1368	2.6952	0.8396
2010	LDGV	2814	0.0260	0.9954	0.0691	2786	99.00%	0.0246	0.9758	0.0663	28	1.00%	0.1594	2.9435	0.3409
	LDGT1	1769	0.0242	0.8093	0.0675	1738	98.25%	0.0241	0.7982	0.0653	31	1.75%	0.0292	1.4313	0.1914
	LDGT2	942	0.0316	0.6131	0.0584	929	98.62%	0.0315	0.6137	0.0586	13	1.38%	0.0349	0.5688	0.0446
2010 Total		5525	0.0264	0.8706	0.0667	5453	98.70%	0.0257	0.8575	0.0647	72	1.30%	0.0809	1.8636	0.2230
2011	LDGV	1884	0.0294	1.0439	0.0649	1856	98.51%	0.0254	1.0339	0.0627	28	1.49%	0.2937	1.7054	0.2063
	LDGT1	860	0.0276	0.9183	0.0569	850	98.84%	0.0277	0.9197	0.0563	10	1.16%	0.0242	0.8036	0.1068
	LDGT2	506	0.0315	0.6246	0.0534	499	98.62%	0.0305	0.5891	0.0486	7	1.38%	0.1040	3.1546	0.3943
2011 Total		3250	0.0293	0.9454	0.0610	3205	98.62%	0.0268	0.9344	0.0588	45	1.38%	0.2043	1.7305	0.2134
2012	LDGV	604	0.0249	0.8819	0.0569	601	99.50%	0.0249	0.8837	0.0570	3	0.50%	0.0132	0.5265	0.0488
	LDGT1	238	0.0232	0.7839	0.0541	235	98.74%	0.0231	0.7784	0.0542	3	1.26%	0.0272	1.2209	0.0471
	LDGT2	185	0.0316	0.5393	0.0430	184	99.46%	0.0317	0.5380	0.0431	1	0.54%	0.0186	0.7612	0.0366

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Initial Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2012 Total		1027	0.0257	0.7975	0.0538	1020	99.32%	0.0257	0.7971	0.0538	7	0.68%	0.0200	0.8576	0.0463
2013	LDGV	23	0.0193	0.6651	0.0488	23	100.00%	0.0193	0.6651	0.0488	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	12	0.0152	0.4741	0.0427	12	100.00%	0.0152	0.4741	0.0427	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	10	0.0351	0.5571	0.0461	10	100.00%	0.0351	0.5571	0.0461	0	0.00%	0.0000	0.0000	0.0000
2013 Total		45	0.0217	0.5902	0.0466	45	100.00%	0.0217	0.5902	0.0466	0	0.00%	0.0000	0.0000	0.0000
Grand Total		840762	0.2986	4.0449	0.6645	776198	92.32%	0.2184	3.0457	0.5750	64564	7.68%	1.2633	16.0583	1.7404

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle	Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest Initial Exhaust Emissions				
Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
LDGV	423767	0.2498	3.5073	0.5596	394241	93.03%	0.1848	2.6824	0.4928	29526	6.97%	1.1172	14.5218	1.4518
LDGT1	296413	0.3215	4.4537	0.7391	272992	92.10%	0.2425	3.4146	0.6429	23421	7.90%	1.2420	16.5660	1.8611
LDGT2	120582	0.4142	4.9294	0.8499	108965	90.37%	0.2795	3.4357	0.7027	11617	9.63%	1.6773	18.9395	2.2306
Grand Total	840762	0.2986	4.0449	0.6645	776198	92.32%	0.2184	3.0457	0.5750	64564	7.68%	1.2633	16.0583	1.7404

Appendix I

I/M240 Fleet Characterization Summary Report

Final Inspection Component

IM240 Fleet Final Inspection Report (V1.01)

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1982	LDGV	430	1.6095	19.6033	2.1156	92	21.40%	1.6916	20.7105	2.1291	3	0.70%	4.7677	95.8317	0.4717
	LDGT1	359	2.3440	27.5100	2.9356	114	31.75%	2.3536	25.2992	2.6403	1	0.28%	3.8071	117.4430	0.0696
	LDGT2	93	2.3377	34.8501	2.6753	37	39.78%	2.4159	36.2277	2.9155	0	0.00%	0.0000	0.0000	0.0000
1982 Total		882	1.9853	24.4292	2.5084	243	27.55%	2.1124	25.2259	2.4887	4	0.45%	4.5275	101.2345	0.3712
1983	LDGV	448	1.3428	13.5910	2.0448	117	26.12%	1.3007	14.6077	2.0385	2	0.45%	2.8349	58.2103	1.8918
	LDGT1	353	2.8566	31.9535	2.4363	131	37.11%	2.4630	31.3166	2.4278	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	133	2.3636	35.3758	2.9278	50	37.59%	2.3046	36.8549	2.9352	0	0.00%	0.0000	0.0000	0.0000
1983 Total		934	2.0603	23.6331	2.3185	298	31.91%	1.9801	25.6857	2.3601	2	0.21%	2.8349	58.2103	1.8918
1984	LDGV	1220	1.2667	11.9388	1.9410	209	17.13%	1.3012	13.1501	1.9383	5	0.41%	5.6324	148.3736	0.3914
	LDGT1	885	2.0629	24.7539	2.4859	245	27.68%	2.1458	24.8550	2.6300	3	0.34%	3.9595	97.9577	1.0520
	LDGT2	353	2.1550	27.6277	3.2650	144	40.79%	2.0179	25.9353	3.4293	3	0.85%	6.0502	150.2434	0.9075
1984 Total		2458	1.6809	18.8060	2.3273	598	24.33%	1.8198	21.0243	2.5807	11	0.45%	5.2901	135.1338	0.7123
1985	LDGV	1190	1.1254	11.3860	1.9216	240	20.17%	1.1498	9.7552	1.9020	9	0.76%	10.3481	130.1715	0.5672
	LDGT1	926	1.8662	19.1522	2.7159	248	26.78%	1.7448	19.5248	2.7441	6	0.65%	6.2036	106.2224	1.9301
	LDGT2	306	1.9926	25.4460	2.8992	101	33.01%	1.9386	23.2182	2.8345	6	1.96%	4.2745	115.7043	1.5242
1985 Total		2422	1.5182	16.1316	2.3488	589	24.32%	1.5356	16.1773	2.4165	21	0.87%	7.4287	119.1954	1.2300
1986	LDGV	2166	0.9248	8.1433	1.8287	325	15.00%	1.0377	9.3441	1.7753	6	0.28%	4.6360	59.2126	1.2614
	LDGT1	1867	1.5995	16.1027	2.5125	362	19.39%	1.6664	17.0345	2.6392	3	0.16%	1.9614	98.5494	2.9762
	LDGT2	471	1.7378	20.1207	2.9091	197	41.83%	1.7727	19.5946	3.0714	2	0.42%	3.1424	165.9699	0.2775
1986 Total		4504	1.2895	12.6951	2.2251	884	19.63%	1.4589	14.7776	2.4179	11	0.24%	3.6350	89.3512	1.5502
1987	LDGV	1900	0.8884	8.0471	1.7972	288	15.16%	1.0335	9.1399	1.6708	6	0.32%	3.3334	43.2579	1.5267
	LDGT1	1450	1.4566	14.8897	2.2816	318	21.93%	1.4132	14.7708	2.2357	2	0.14%	5.3334	135.3286	0.7687
	LDGT2	446	1.7286	13.3164	2.9017	116	26.01%	1.5630	12.5914	2.9717	1	0.22%	1.0419	49.3161	0.3870
1987 Total		3796	1.2042	11.2800	2.1120	722	19.02%	1.2858	12.1746	2.1286	9	0.24%	3.5233	64.3912	1.2317
1988	LDGV	3376	0.7432	7.9886	1.5637	443	13.12%	0.8494	8.1777	1.6238	10	0.30%	3.2905	56.9393	1.3532
	LDGT1	2738	1.2717	11.9328	2.1167	492	17.97%	1.3029	12.2545	2.2012	2	0.07%	1.8034	34.2526	3.3517
	LDGT2	924	1.3956	12.1183	2.6616	253	27.38%	1.3847	11.5037	2.6935	0	0.00%	0.0000	0.0000	0.0000
1988 Total		7038	1.0345	10.0652	1.9229	1188	16.88%	1.1512	10.5744	2.0907	12	0.17%	3.0427	53.1582	1.6862
1989	LDGV	3330	0.7516	8.1142	1.6258	483	14.50%	0.8820	8.3065	1.6736	9	0.27%	2.4161	44.3017	2.1512
	LDGT1	2366	1.2133	12.7909	2.0618	444	18.77%	1.3176	12.3672	2.2509	6	0.25%	3.2889	61.5944	2.5894
	LDGT2	869	1.5249	12.9284	2.7249	171	19.68%	1.5709	12.6104	2.6466	9	1.04%	3.3668	37.5786	2.6844
1989 Total		6565	1.0203	10.4369	1.9284	1098	16.73%	1.1654	10.6188	2.0586	24	0.37%	2.9908	46.1037	2.4607
1990	LDGV	6787	0.6937	7.7401	1.5910	802	11.82%	0.7852	7.8484	1.6236	10	0.15%	2.7829	36.8477	3.1422
	LDGT1	3514	1.1013	10.8068	2.0324	619	17.62%	1.2018	11.7625	2.1208	7	0.20%	3.7821	37.1545	2.9654
	LDGT2	1311	1.4204	13.1097	2.6006	230	17.54%	1.3545	11.5291	2.5308	4	0.31%	5.5300	37.4799	2.1447
1990 Total		11612	0.8991	9.2743	1.8386	1651	14.22%	1.0207	9.8287	1.9364	21	0.18%	3.6392	37.0704	2.8933
1991	LDGV	6644	0.6205	7.0036	1.5006	818	12.31%	0.7212	7.3970	1.5666	8	0.12%	2.7978	48.6974	2.2067
	LDGT1	3496	0.9449	10.8497	1.7757	492	14.07%	0.9970	10.5693	1.8393	3	0.09%	2.7884	42.4948	3.0142
	LDGT2	933	1.2684	14.0500	2.4524	207	22.19%	1.2290	11.9541	2.5489	3	0.32%	4.8148	22.0020	3.2599

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
1991 Total		11073	0.7775	8.8116	1.6677	1517	13.70%	0.8799	9.0477	1.7891	14	0.13%	3.2280	41.6479	2.6054
1992	LDGV	9695	0.5645	6.2343	1.4204	1254	12.93%	0.6298	6.4087	1.4703	17	0.18%	4.6370	23.2077	2.3298
	LDGT1	4788	0.9036	9.9627	1.7637	638	13.32%	1.0185	10.0171	1.9370	5	0.10%	5.4365	54.1429	2.1289
	LDGT2	1984	1.3597	13.2766	2.4925	447	22.53%	1.3456	12.0853	2.4054	4	0.20%	5.7558	52.1588	1.2191
1992 Total		16467	0.7589	8.1669	1.6494	2339	14.20%	0.8726	8.4778	1.7763	26	0.16%	4.9629	33.6108	2.1203
1993	LDGV	9272	0.5602	6.0151	1.4689	1091	11.77%	0.6474	6.5588	1.5409	13	0.14%	2.9248	34.0192	2.7169
	LDGT1	5646	0.9376	9.9896	2.0342	737	13.05%	1.0055	10.2934	2.0206	8	0.14%	4.9244	63.3628	3.8627
	LDGT2	1884	1.3705	13.7111	2.4533	399	21.18%	1.3373	12.1118	2.3452	8	0.42%	1.3130	15.9858	5.2632
1993 Total		16802	0.7779	8.2136	1.7692	2227	13.25%	0.8895	8.7896	1.8438	29	0.17%	3.0318	37.1392	3.7354
1994	LDGV	13028	0.4335	5.1220	1.1959	1378	10.58%	0.5267	5.4281	1.3192	15	0.12%	2.5695	21.5280	2.8631
	LDGT1	8761	0.7326	8.1781	1.7499	1241	14.17%	0.8081	8.4880	1.8798	9	0.10%	2.4970	25.0939	4.1249
	LDGT2	3788	0.9758	10.4170	2.0590	848	22.39%	0.9771	9.4022	1.9854	19	0.50%	6.0295	40.6326	2.5980
1994 Total		25577	0.6163	6.9531	1.5135	3467	13.56%	0.7376	7.4954	1.6828	43	0.17%	4.0832	30.7159	3.0101
1995	LDGV	15225	0.4099	4.8604	1.0440	1517	9.96%	0.4922	5.1161	1.1701	23	0.15%	2.3385	17.5895	2.7482
	LDGT1	8460	0.6859	7.8714	1.7470	1200	14.18%	0.7433	8.0389	1.8507	10	0.12%	2.1500	29.2114	3.3414
	LDGT2	3914	0.8981	10.2542	1.9938	827	21.13%	0.9160	9.7312	1.8824	7	0.18%	4.1945	54.4180	2.2625
1995 Total		27599	0.5638	6.5483	1.3942	3544	12.84%	0.6761	7.1827	1.5668	40	0.14%	2.6161	26.9400	2.8115
1996	LDGV	19686	0.3060	3.8062	0.8260	1773	9.01%	0.3858	4.3437	0.9465	12	0.06%	1.9219	27.4943	1.9680
	LDGT1	11706	0.3809	5.0916	1.3744	1473	12.58%	0.4131	5.2678	1.5376	7	0.06%	3.7647	20.8608	3.0240
	LDGT2	4739	0.4845	5.8638	1.3404	734	15.49%	0.4979	5.7169	1.4204	4	0.08%	1.9793	17.1081	4.8897
1996 Total		36131	0.3537	4.4925	1.0711	3980	11.02%	0.4166	4.9390	1.2527	23	0.06%	2.4928	23.6691	2.7975
1997	LDGV	19680	0.3074	3.9297	0.7861	1848	9.39%	0.3679	4.4422	0.9001	19	0.10%	2.1793	36.6425	2.5427
	LDGT1	13125	0.3530	5.0501	1.2909	1763	13.43%	0.3940	5.4938	1.3989	12	0.09%	1.7329	16.7786	2.9867
	LDGT2	4825	0.4102	5.6164	1.3611	747	15.48%	0.4491	5.8618	1.4956	8	0.17%	3.8407	23.8795	3.1754
1997 Total		37630	0.3365	4.5368	1.0359	4358	11.58%	0.3924	5.1110	1.2040	39	0.10%	2.3828	27.9125	2.8091
1998	LDGV	26642	0.2272	3.3418	0.6353	2306	8.66%	0.2643	3.7543	0.6767	25	0.09%	1.2249	8.6418	2.6485
	LDGT1	19794	0.3003	4.3615	1.0667	2190	11.06%	0.3403	4.5811	1.1966	13	0.07%	1.0442	24.7954	3.3889
	LDGT2	7066	0.3274	4.4486	1.1781	883	12.50%	0.3622	4.9110	1.2764	3	0.04%	1.6656	15.0308	5.9942
1998 Total		53502	0.2675	3.8652	0.8666	5379	10.05%	0.3113	4.2808	0.9868	41	0.08%	1.1999	14.2312	3.1281
1999	LDGV	23708	0.2002	3.0437	0.5936	2245	9.47%	0.2339	3.3547	0.6650	16	0.07%	1.2587	17.4251	2.2304
	LDGT1	15951	0.2300	3.6142	0.8023	1684	10.56%	0.2737	3.7349	0.9734	11	0.07%	0.6687	16.0125	2.5839
	LDGT2	7821	0.2708	3.3988	0.9257	1014	12.97%	0.3446	4.0821	1.1238	14	0.18%	1.3904	12.9949	2.9885
1999 Total		47480	0.2218	3.2939	0.7184	4943	10.41%	0.2702	3.6334	0.8642	41	0.09%	1.1454	15.5334	2.5841
2000	LDGV	34950	0.1436	2.4249	0.4439	2671	7.64%	0.1947	3.0277	0.5617	21	0.06%	2.5998	11.1020	3.0013
	LDGT1	23435	0.1988	2.9263	0.6983	2072	8.84%	0.2495	3.6078	0.8948	12	0.05%	0.8900	7.9714	3.2683
	LDGT2	9112	0.2054	2.9547	0.7171	878	9.64%	0.2765	3.8100	0.9402	9	0.10%	2.4916	20.7067	2.8713
2000 Total		67497	0.1711	2.6705	0.5691	5621	8.33%	0.2277	3.3638	0.7436	42	0.06%	2.0881	12.2657	3.0497
2001	LDGV	26531	0.1044	2.1264	0.3206	1764	6.65%	0.1618	2.8148	0.4370	17	0.06%	0.7594	10.9964	3.5939
	LDGT1	16682	0.1153	2.5550	0.4323	1199	7.19%	0.1566	2.9169	0.5569	6	0.04%	0.5247	14.9921	2.6818
	LDGT2	6992	0.2013	2.8751	0.6233	638	9.12%	0.2533	3.6344	0.8375	1	0.01%	3.1012	141.4368	0.8045

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2001 Total		50205	0.1215	2.3731	0.3999	3601	7.17%	0.1763	2.9940	0.5479	24	0.05%	0.7983	17.4303	3.2497
2002	LDGV	35385	0.0822	2.2683	0.2510	1893	5.35%	0.1257	2.2091	0.3392	8	0.02%	0.6392	7.1843	3.7195
	LDGT1	25833	0.0899	2.8637	0.3429	1286	4.98%	0.1211	2.9125	0.4547	5	0.02%	0.6761	23.4608	2.5606
	LDGT2	8455	0.1488	2.1408	0.5978	649	7.68%	0.2000	2.8337	0.7735	7	0.08%	1.7268	17.9735	2.1249
2002 Total		69673	0.0931	2.4736	0.3272	3828	5.49%	0.1368	2.5513	0.4516	20	0.03%	1.0291	15.0297	2.8716
2003	LDGV	23255	0.0604	1.3927	0.2145	1174	5.05%	0.1152	1.9635	0.3237	6	0.03%	0.8592	18.0203	1.6251
	LDGT1	15267	0.0723	1.6318	0.2863	835	5.47%	0.1059	2.3581	0.4097	3	0.02%	0.8444	11.0751	2.2390
	LDGT2	6322	0.1205	1.7394	0.3886	398	6.30%	0.1779	2.9115	0.5923	0	0.00%	0.0000	0.0000	0.0000
2003 Total		44844	0.0729	1.5229	0.2635	2407	5.37%	0.1224	2.2572	0.3979	9	0.02%	0.8543	15.7052	1.8297
2004	LDGV	30420	0.0451	1.1031	0.1372	1323	4.35%	0.0801	1.7716	0.1983	4	0.01%	2.0797	15.9999	2.4677
	LDGT1	26094	0.0497	1.2415	0.1576	1031	3.95%	0.0787	2.0727	0.2143	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	11139	0.0677	1.2630	0.1709	496	4.45%	0.1098	2.2269	0.2902	3	0.03%	0.8836	16.3162	2.9920
2004 Total		67653	0.0506	1.1828	0.1506	2850	4.21%	0.0848	1.9598	0.2201	7	0.01%	1.5671	16.1355	2.6924
2005	LDGV	19797	0.0374	0.9689	0.1240	914	4.62%	0.0709	1.5920	0.1703	4	0.02%	0.8571	18.0424	2.0130
	LDGT1	15870	0.0445	0.9682	0.1085	503	3.17%	0.0712	1.6510	0.1981	3	0.02%	0.7936	17.8487	2.4203
	LDGT2	5937	0.0740	1.2241	0.1604	204	3.44%	0.1414	2.6286	0.3868	0	0.00%	0.0000	0.0000	0.0000
2005 Total		41604	0.0453	1.0051	0.1233	1621	3.90%	0.0799	1.7408	0.2062	7	0.02%	0.8299	17.9594	2.1875
2006	LDGV	28821	0.0343	1.0132	0.0956	925	3.21%	0.0664	1.2933	0.1610	3	0.01%	1.1077	19.6043	4.3000
	LDGT1	21870	0.0340	0.9545	0.0960	655	2.99%	0.0519	1.0691	0.1464	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	9007	0.0520	0.8361	0.1034	249	2.76%	0.0855	1.4423	0.2110	0	0.00%	0.0000	0.0000	0.0000
2006 Total		59698	0.0368	0.9650	0.0969	1829	3.06%	0.0638	1.2333	0.1626	3	0.01%	1.1077	19.6043	4.3000
2007	LDGV	16390	0.0296	0.8990	0.0872	455	2.78%	0.0651	1.3988	0.1379	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	12909	0.0283	0.8731	0.0856	471	3.65%	0.0342	1.1733	0.0845	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	6323	0.0431	0.6906	0.0768	170	2.69%	0.0723	1.6244	0.1287	0	0.00%	0.0000	0.0000	0.0000
2007 Total		35622	0.0315	0.8526	0.0848	1096	3.08%	0.0529	1.3369	0.1135	0	0.00%	0.0000	0.0000	0.0000
2008	LDGV	32737	0.0280	0.8977	0.0776	752	2.30%	0.0562	1.3184	0.1050	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	26170	0.0259	0.7956	0.0804	708	2.71%	0.0236	0.8135	0.0506	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	12249	0.0343	0.7817	0.0689	364	2.97%	0.0603	3.0802	0.0976	0	0.00%	0.0000	0.0000	0.0000
2008 Total		71156	0.0283	0.8402	0.0771	1824	2.56%	0.0444	1.4740	0.0824	0	0.00%	0.0000	0.0000	0.0000
2009	LDGV	5729	0.0278	0.8926	0.0766	96	1.68%	0.0487	1.1164	0.1031	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	3219	0.0262	0.8428	0.0803	89	2.76%	0.0248	0.9361	0.0565	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1543	0.0308	0.5957	0.0664	30	1.94%	0.0333	1.5585	0.0832	0	0.00%	0.0000	0.0000	0.0000
2009 Total		10491	0.0277	0.8337	0.0762	215	2.05%	0.0367	1.1035	0.0810	0	0.00%	0.0000	0.0000	0.0000
2010	LDGV	2814	0.0248	0.9773	0.0663	28	1.00%	0.0447	1.1238	0.0650	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1769	0.0240	0.7944	0.0647	31	1.75%	0.0186	0.5773	0.0293	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	942	0.0315	0.6167	0.0588	13	1.38%	0.0307	0.8355	0.0674	0	0.00%	0.0000	0.0000	0.0000
2010 Total		5525	0.0257	0.8573	0.0645	72	1.30%	0.0309	0.8364	0.0500	0	0.00%	0.0000	0.0000	0.0000
2011	LDGV	1884	0.0253	1.0349	0.0629	28	1.49%	0.0198	1.0996	0.0718	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	860	0.0276	0.9205	0.0559	10	1.16%	0.0243	0.9937	0.0206	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	506	0.0304	0.5873	0.0482	7	1.38%	0.0201	0.4592	0.0211	0	0.00%	0.0000	0.0000	0.0000

Vehicle		Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Year	Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
2011 Total		3250	0.0267	0.9349	0.0588	45	1.38%	0.0208	0.9764	0.0525	0	0.00%	0.0000	0.0000	0.0000
2012	LDGV	604	0.0249	0.8821	0.0568	3	0.50%	0.0168	0.5574	0.0195	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	238	0.0230	0.7747	0.0538	3	1.26%	0.0102	0.4895	0.0198	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	185	0.0316	0.5428	0.0432	1	0.54%	0.0187	1.4172	0.0627	0	0.00%	0.0000	0.0000	0.0000
2012 Total		1027	0.0257	0.7961	0.0536	7	0.68%	0.0142	0.6511	0.0258	0	0.00%	0.0000	0.0000	0.0000
2013	LDGV	23	0.0193	0.6651	0.0488	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	12	0.0152	0.4741	0.0427	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	10	0.0351	0.5571	0.0461	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2013 Total		45	0.0217	0.5902	0.0466	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
Grand Total		840762	0.2387	3.2445	0.6140	64041	7.62%	0.4638	5.3985	1.0690	523	0.06%	2.7503	34.5216	2.6464

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle	Overall Final Exhaust Emissions				Pass Retest Exhaust Emissions					Waived Exhaust Emissions				
Type	Total	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)	Total	Total %	Avg HC(gpm)	Avg CO(gpm)	Avg NOx(gpm)
LDGV	423767	0.1983	2.8064	0.5166	29255	6.90%	0.3578	4.2119	0.8202	271	0.06%	2.6244	31.4547	2.4366
LDGT1	296413	0.2649	3.6416	0.6883	23284	7.86%	0.5151	6.1117	1.2080	137	0.05%	2.3970	36.2898	2.9268
LDGT2	120582	0.3160	3.8077	0.7732	11502	9.54%	0.6297	6.9731	1.4206	115	0.10%	3.4679	39.6423	2.8069
Grand Total	840762	0.2387	3.2445	0.6140	64041	7.62%	0.4638	5.3985	1.0690	523	0.06%	2.7503	34.5216	2.6464

Appendix J

I/M240 Fleet Characterization Summary Report

Emissions Reduction Component

IM240 Fleet Emission Reduction Report (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
1982	LDGV	430	2.2260	28.8701	2.1040	430	1.6095	19.6033	2.1156	0.6165	27.69%	9.2668	32.10%	-0.0116	-0.55%
	LDGT1	359	2.8570	37.5255	2.9751	359	2.3440	27.5100	2.9356	0.5129	17.95%	10.0154	26.69%	0.0395	1.33%
	LDGT2	93	3.3314	56.4412	2.5294	93	2.3377	34.8501	2.6753	0.9937	29.83%	21.5911	38.25%	-0.1459	-5.77%
1982 Total		882	2.5994	35.3003	2.5034	882	1.9853	24.4292	2.5084	0.6141	23.63%	10.8710	30.80%	-0.0050	-0.20%
1983	LDGV	448	1.9736	23.3884	2.0316	448	1.3428	13.5910	2.0448	0.6308	31.96%	9.7974	41.89%	-0.0132	-0.65%
	LDGT1	353	3.8630	46.4075	2.3210	353	2.8566	31.9535	2.4363	1.0064	26.05%	14.4541	31.15%	-0.1153	-4.97%
	LDGT2	133	3.0302	46.7244	2.9833	133	2.3636	35.3758	2.9278	0.6666	22.00%	11.3486	24.29%	0.0555	1.86%
1983 Total		934	2.8382	35.4114	2.2765	934	2.0603	23.6331	2.3185	0.7778	27.41%	11.7782	33.26%	-0.0420	-1.85%
1984	LDGV	1220	1.5932	17.1276	1.9433	1220	1.2667	11.9388	1.9410	0.3265	20.49%	5.1888	30.30%	0.0023	0.12%
	LDGT1	885	2.5407	33.0969	2.5062	885	2.0629	24.7539	2.4859	0.4779	18.81%	8.3430	25.21%	0.0203	0.81%
	LDGT2	353	2.9743	44.1618	3.2430	353	2.1550	27.6277	3.2650	0.8193	27.55%	16.5341	37.44%	-0.0220	-0.68%
1984 Total		2458	2.1327	26.7598	2.3326	2458	1.6809	18.8060	2.3273	0.4518	21.18%	7.9538	29.72%	0.0053	0.23%
1985	LDGV	1190	1.4224	15.4519	1.9809	1190	1.1254	11.3860	1.9216	0.2970	20.88%	4.0658	26.31%	0.0593	2.99%
	LDGT1	926	2.3411	27.9817	2.7267	926	1.8662	19.1522	2.7159	0.4749	20.29%	8.8295	31.55%	0.0108	0.40%
	LDGT2	306	2.7927	38.7035	2.9825	306	1.9926	25.4460	2.8992	0.8000	28.65%	13.2575	34.25%	0.0833	2.79%
1985 Total		2422	1.9468	23.1801	2.3926	2422	1.5182	16.1316	2.3488	0.4286	22.02%	7.0484	30.41%	0.0438	1.83%
1986	LDGV	2166	1.1944	11.6105	1.8825	2166	0.9248	8.1433	1.8287	0.2696	22.57%	3.4673	29.86%	0.0539	2.86%
	LDGT1	1867	1.9067	20.0305	2.5253	1867	1.5995	16.1027	2.5125	0.3073	16.11%	3.9278	19.61%	0.0128	0.51%
	LDGT2	471	2.9054	37.0302	2.9842	471	1.7378	20.1207	2.9091	1.1675	40.19%	16.9095	45.66%	0.0751	2.52%
1986 Total		4504	1.6686	17.7590	2.2642	4504	1.2895	12.6951	2.2251	0.3791	22.72%	5.0639	28.51%	0.0391	1.73%
1987	LDGV	1900	1.1293	11.4075	1.8735	1900	0.8884	8.0471	1.7972	0.2409	21.33%	3.3603	29.46%	0.0762	4.07%
	LDGT1	1450	1.7627	20.5772	2.3048	1450	1.4566	14.8897	2.2816	0.3061	17.37%	5.6874	27.64%	0.0232	1.01%
	LDGT2	446	2.3995	21.3356	3.0297	446	1.7286	13.3164	2.9017	0.6709	27.96%	8.0192	37.59%	0.1280	4.23%
1987 Total		3796	1.5205	16.0766	2.1741	3796	1.2042	11.2800	2.1120	0.3163	20.80%	4.7966	29.84%	0.0621	2.85%
1988	LDGV	3376	0.9451	10.8966	1.5920	3376	0.7432	7.9886	1.5637	0.2019	21.36%	2.9080	26.69%	0.0284	1.78%
	LDGT1	2738	1.5735	15.9354	2.1977	2738	1.2717	11.9328	2.1167	0.3018	19.18%	4.0026	25.12%	0.0811	3.69%
	LDGT2	924	1.8961	17.1615	2.8309	924	1.3956	12.1183	2.6616	0.5005	26.40%	5.0432	29.39%	0.1694	5.98%
1988 Total		7038	1.3144	13.6793	1.9903	7038	1.0345	10.0652	1.9229	0.2800	21.30%	3.6142	26.42%	0.0674	3.39%
1989	LDGV	3330	0.9386	10.8578	1.6556	3330	0.7516	8.1142	1.6258	0.1870	19.92%	2.7436	25.27%	0.0298	1.80%
	LDGT1	2366	1.5565	16.7974	2.1826	2366	1.2133	12.7909	2.0618	0.3432	22.05%	4.0065	23.85%	0.1208	5.53%
	LDGT2	869	1.9103	16.6983	2.8108	869	1.5249	12.9284	2.7249	0.3854	20.18%	3.7699	22.58%	0.0859	3.05%
1989 Total		6565	1.2899	13.7715	1.9984	6565	1.0203	10.4369	1.9284	0.2695	20.90%	3.3346	24.21%	0.0700	3.50%
1990	LDGV	6787	0.8531	9.9363	1.6495	6787	0.6937	7.7401	1.5910	0.1594	18.68%	2.1962	22.10%	0.0585	3.55%
	LDGT1	3514	1.3930	14.1239	2.1216	3514	1.1013	10.8068	2.0324	0.2917	20.94%	3.3171	23.49%	0.0892	4.20%
	LDGT2	1311	1.7217	16.5893	2.7111	1311	1.4204	13.1097	2.6006	0.3012	17.50%	3.4797	20.98%	0.1105	4.07%
1990 Total		11612	1.1145	11.9546	1.9122	11612	0.8991	9.2743	1.8386	0.2154	19.33%	2.6803	22.42%	0.0736	3.85%
1991	LDGV	6644	0.8117	9.4148	1.5604	6644	0.6205	7.0036	1.5006	0.1912	23.55%	2.4112	25.61%	0.0598	3.83%
	LDGT1	3496	1.1658	13.7956	1.8556	3496	0.9449	10.8497	1.7757	0.2209	18.95%	2.9459	21.35%	0.0798	4.30%
	LDGT2	933	1.6858	18.5761	2.5848	933	1.2684	14.0500	2.4524	0.4174	24.76%	4.5261	24.36%	0.1324	5.12%
1991 Total		11073	0.9971	11.5699	1.7399	11073	0.7775	8.8116	1.6677	0.2196	22.03%	2.7583	23.84%	0.0722	4.15%
1992	LDGV	9695	0.7352	8.7051	1.4692	9695	0.5645	6.2343	1.4204	0.1707	23.21%	2.4708	28.38%	0.0488	3.32%
	LDGT1	4788	1.0672	12.2943	1.8286	4788	0.9036	9.9627	1.7637	0.1637	15.34%	2.3316	18.96%	0.0648	3.55%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
	LDGT2	1984	1.8417	17.7144	2.6733	1984	1.3597	13.2766	2.4925	0.4820	26.17%	4.4377	25.05%	0.1808	6.76%
1992 Total		16467	0.9650	10.8342	1.7188	16467	0.7589	8.1669	1.6494	0.2061	21.36%	2.6673	24.62%	0.0694	4.04%
1993	LDGV	9272	0.7188	8.1018	1.5256	9272	0.5602	6.0151	1.4689	0.1585	22.06%	2.0867	25.76%	0.0567	3.72%
	LDGT1	5646	1.1244	12.2270	2.1283	5646	0.9376	9.9896	2.0342	0.1867	16.61%	2.2374	18.30%	0.0941	4.42%
	LDGT2	1884	1.7057	17.3701	2.6244	1884	1.3705	13.7111	2.4533	0.3352	19.65%	3.6590	21.06%	0.1710	6.52%
1993 Total		16802	0.9657	10.5273	1.8513	16802	0.7779	8.2136	1.7692	0.1878	19.45%	2.3137	21.98%	0.0821	4.43%
1994	LDGV	13028	0.5546	6.4918	1.2488	13028	0.4335	5.1220	1.1959	0.1211	21.83%	1.3697	21.10%	0.0530	4.24%
	LDGT1	8761	0.9125	10.2490	1.8759	8761	0.7326	8.1781	1.7499	0.1798	19.71%	2.0708	20.21%	0.1260	6.72%
	LDGT2	3788	1.3603	13.5869	2.3155	3788	0.9758	10.4170	2.0590	0.3845	28.27%	3.1699	23.33%	0.2565	11.08%
1994 Total		25577	0.7965	8.8295	1.6216	25577	0.6163	6.9531	1.5135	0.1802	22.63%	1.8765	21.25%	0.1081	6.67%
1995	LDGV	15225	0.5166	6.1661	1.1008	15225	0.4099	4.8604	1.0440	0.1067	20.65%	1.3057	21.18%	0.0568	5.16%
	LDGT1	8460	0.8607	9.7610	1.8872	8460	0.6859	7.8714	1.7470	0.1748	20.31%	1.8896	19.36%	0.1402	7.43%
	LDGT2	3914	1.2392	13.1522	2.2169	3914	0.8981	10.2542	1.9938	0.3411	27.53%	2.8979	22.03%	0.2231	10.06%
1995 Total		27599	0.7245	8.2588	1.5001	27599	0.5638	6.5483	1.3942	0.1608	22.19%	1.7105	20.71%	0.1059	7.06%
1996	LDGV	19686	0.3693	4.7364	0.8798	19686	0.3060	3.8062	0.8260	0.0633	17.13%	0.9302	19.64%	0.0538	6.12%
	LDGT1	11706	0.4652	6.1877	1.4819	11706	0.3809	5.0916	1.3744	0.0843	18.11%	1.0961	17.71%	0.1075	7.25%
	LDGT2	4739	0.6229	7.6095	1.4843	4739	0.4845	5.8638	1.3404	0.1384	22.22%	1.7457	22.94%	0.1439	9.70%
1996 Total		36131	0.4336	5.5835	1.1542	36131	0.3537	4.4925	1.0711	0.0799	18.43%	1.0909	19.54%	0.0830	7.19%
1997	LDGV	19680	0.3739	4.8700	0.8368	19680	0.3074	3.9297	0.7861	0.0665	17.79%	0.9403	19.31%	0.0507	6.06%
	LDGT1	13125	0.4317	6.2544	1.4151	13125	0.3530	5.0501	1.2909	0.0787	18.23%	1.2042	19.25%	0.1242	8.78%
	LDGT2	4825	0.5568	7.1344	1.5119	4825	0.4102	5.6164	1.3611	0.1466	26.33%	1.5180	21.28%	0.1508	9.97%
1997 Total		37630	0.4175	5.6432	1.1250	37630	0.3365	4.5368	1.0359	0.0810	19.41%	1.1064	19.61%	0.0892	7.92%
1998	LDGV	26642	0.2810	4.0857	0.6925	26642	0.2272	3.3418	0.6353	0.0538	19.14%	0.7440	18.21%	0.0572	8.25%
	LDGT1	19794	0.3560	5.1662	1.1587	19794	0.3003	4.3615	1.0667	0.0557	15.65%	0.8047	15.58%	0.0920	7.94%
	LDGT2	7066	0.4312	5.6220	1.3343	7066	0.3274	4.4486	1.1781	0.1038	24.08%	1.1734	20.87%	0.1562	11.70%
1998 Total		53502	0.3286	4.6884	0.9497	53502	0.2675	3.8652	0.8666	0.0611	18.60%	0.8232	17.56%	0.0831	8.75%
1999	LDGV	23708	0.2499	3.7583	0.6558	23708	0.2002	3.0437	0.5936	0.0497	19.90%	0.7146	19.01%	0.0621	9.48%
	LDGT1	15951	0.2794	4.4127	0.9049	15951	0.2300	3.6142	0.8023	0.0494	17.68%	0.7985	18.10%	0.1026	11.34%
	LDGT2	7821	0.3707	4.6667	1.0908	7821	0.2708	3.3988	0.9257	0.0999	26.94%	1.2679	27.17%	0.1652	15.14%
1999 Total		47480	0.2797	4.1278	0.8111	47480	0.2218	3.2939	0.7184	0.0579	20.69%	0.8339	20.20%	0.0927	11.43%
2000	LDGV	34950	0.1812	2.9064	0.5004	34950	0.1436	2.4249	0.4439	0.0376	20.77%	0.4814	16.57%	0.0566	11.30%
	LDGT1	23435	0.2307	3.4500	0.7623	23435	0.1988	2.9263	0.6983	0.0319	13.81%	0.5238	15.18%	0.0639	8.39%
	LDGT2	9112	0.2663	3.8209	0.7995	9112	0.2054	2.9547	0.7171	0.0610	22.89%	0.8662	22.67%	0.0823	10.30%
2000 Total		67497	0.2099	3.2186	0.6317	67497	0.1711	2.6705	0.5691	0.0388	18.48%	0.5481	17.03%	0.0626	9.91%
2001	LDGV	26531	0.1384	2.6173	0.3713	26531	0.1044	2.1264	0.3206	0.0340	24.57%	0.4909	18.75%	0.0508	13.68%
	LDGT1	16682	0.1403	3.0313	0.4753	16682	0.1153	2.5550	0.4323	0.0250	17.79%	0.4763	15.71%	0.0430	9.04%
	LDGT2	6992	0.2390	3.3450	0.6817	6992	0.2013	2.8751	0.6233	0.0377	15.78%	0.4699	14.05%	0.0584	8.56%
2001 Total		50205	0.1531	2.8562	0.4491	50205	0.1215	2.3731	0.3999	0.0315	20.59%	0.4831	16.91%	0.0492	10.96%
2002	LDGV	35385	0.0995	2.5049	0.2906	35385	0.0822	2.2683	0.2510	0.0173	17.39%	0.2366	9.44%	0.0396	13.62%
	LDGT1	25833	0.1081	3.3535	0.3665	25833	0.0899	2.8637	0.3429	0.0183	16.92%	0.4898	14.61%	0.0236	6.44%
	LDGT2	8455	0.1783	2.5509	0.6496	8455	0.1488	2.1408	0.5978	0.0295	16.56%	0.4101	16.08%	0.0519	7.98%
2002 Total		69673	0.1123	2.8251	0.3623	69673	0.0931	2.4736	0.3272	0.0192	17.06%	0.3515	12.44%	0.0352	9.70%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
2003	LDGV	23255	0.0769	1.6230	0.2453	23255	0.0604	1.3927	0.2145	0.0165	21.44%	0.2303	14.19%	0.0307	12.53%
	LDGT1	15267	0.0837	1.8923	0.3046	15267	0.0723	1.6318	0.2863	0.0113	13.52%	0.2605	13.77%	0.0183	6.01%
	LDGT2	6322	0.1449	2.2007	0.4259	6322	0.1205	1.7394	0.3886	0.0244	16.82%	0.4613	20.96%	0.0373	8.75%
2003 Total		44844	0.0888	1.7961	0.2909	44844	0.0729	1.5229	0.2635	0.0158	17.83%	0.2732	15.21%	0.0274	9.42%
2004	LDGV	30420	0.0580	1.2411	0.1571	30420	0.0451	1.1031	0.1372	0.0130	22.33%	0.1379	11.11%	0.0200	12.70%
	LDGT1	26094	0.0559	1.3742	0.1699	26094	0.0497	1.2415	0.1576	0.0062	11.08%	0.1327	9.65%	0.0123	7.26%
	LDGT2	11139	0.0747	1.3683	0.1886	11139	0.0677	1.2630	0.1709	0.0070	9.32%	0.1053	7.69%	0.0177	9.37%
2004 Total		67653	0.0599	1.3134	0.1672	67653	0.0506	1.1828	0.1506	0.0094	15.62%	0.1305	9.94%	0.0166	9.95%
2005	LDGV	19797	0.0487	1.1513	0.1421	19797	0.0374	0.9689	0.1240	0.0113	23.17%	0.1825	15.85%	0.0181	12.73%
	LDGT1	15870	0.0480	1.0422	0.1184	15870	0.0445	0.9682	0.1085	0.0035	7.38%	0.0739	7.10%	0.0099	8.35%
	LDGT2	5937	0.0829	1.3497	0.1793	5937	0.0740	1.2241	0.1604	0.0089	10.75%	0.1256	9.30%	0.0189	10.55%
2005 Total		41604	0.0533	1.1380	0.1384	41604	0.0453	1.0051	0.1233	0.0080	14.99%	0.1329	11.68%	0.0151	10.90%
2006	LDGV	28821	0.0411	1.1309	0.1351	28821	0.0343	1.0132	0.0956	0.0068	16.63%	0.1177	10.41%	0.0396	29.28%
	LDGT1	21870	0.0367	0.9916	0.1125	21870	0.0340	0.9545	0.0960	0.0027	7.35%	0.0371	3.74%	0.0165	14.63%
	LDGT2	9007	0.0570	0.9109	0.1133	9007	0.0520	0.8361	0.1034	0.0050	8.80%	0.0749	8.22%	0.0099	8.73%
2006 Total		59698	0.0419	1.0467	0.1235	59698	0.0368	0.9650	0.0969	0.0050	12.05%	0.0817	7.80%	0.0266	21.55%
2007	LDGV	16390	0.0364	1.0126	0.1232	16390	0.0296	0.8990	0.0872	0.0067	18.52%	0.1136	11.22%	0.0360	29.20%
	LDGT1	12909	0.0292	0.9129	0.1005	12909	0.0283	0.8731	0.0856	0.0010	3.31%	0.0398	4.36%	0.0149	14.84%
	LDGT2	6323	0.0472	0.7071	0.0838	6323	0.0431	0.6906	0.0768	0.0041	8.72%	0.0164	2.32%	0.0070	8.34%
2007 Total		35622	0.0357	0.9223	0.1080	35622	0.0315	0.8526	0.0848	0.0042	11.71%	0.0696	7.55%	0.0232	21.48%
2008	LDGV	32737	0.0327	0.9607	0.1087	32737	0.0280	0.8977	0.0776	0.0047	14.42%	0.0630	6.55%	0.0312	28.66%
	LDGT1	26170	0.0263	0.8109	0.0900	26170	0.0259	0.7956	0.0804	0.0004	1.66%	0.0153	1.89%	0.0096	10.66%
	LDGT2	12249	0.0351	0.8205	0.0715	12249	0.0343	0.7817	0.0689	0.0008	2.22%	0.0387	4.72%	0.0027	3.74%
2008 Total		71156	0.0308	0.8815	0.0954	71156	0.0283	0.8402	0.0771	0.0025	8.01%	0.0413	4.68%	0.0183	19.20%
2009	LDGV	5729	0.0305	0.9512	0.0984	5729	0.0278	0.8926	0.0766	0.0027	8.88%	0.0586	6.16%	0.0218	22.19%
	LDGT1	3219	0.0263	0.8495	0.0902	3219	0.0262	0.8428	0.0803	0.0002	0.59%	0.0067	0.79%	0.0098	10.92%
	LDGT2	1543	0.0343	0.5860	0.0704	1543	0.0308	0.5957	0.0664	0.0036	10.39%	-0.0097	-1.66%	0.0040	5.74%
2009 Total		10491	0.0298	0.8663	0.0918	10491	0.0277	0.8337	0.0762	0.0021	6.89%	0.0326	3.77%	0.0155	16.94%
2010	LDGV	2814	0.0260	0.9954	0.0691	2814	0.0248	0.9773	0.0663	0.0011	4.39%	0.0181	1.82%	0.0027	3.98%
	LDGT1	1769	0.0242	0.8093	0.0675	1769	0.0240	0.7944	0.0647	0.0002	0.77%	0.0150	1.85%	0.0028	4.21%
	LDGT2	942	0.0316	0.6131	0.0584	942	0.0315	0.6167	0.0588	0.0001	0.18%	-0.0037	-0.60%	-0.0003	-0.54%
2010 Total		5525	0.0264	0.8706	0.0667	5525	0.0257	0.8573	0.0645	0.0007	2.47%	0.0134	1.54%	0.0023	3.38%
2011	LDGV	1884	0.0294	1.0439	0.0649	1884	0.0253	1.0349	0.0629	0.0041	13.85%	0.0090	0.86%	0.0020	3.08%
	LDGT1	860	0.0276	0.9183	0.0569	860	0.0276	0.9205	0.0559	-0.0000	-0.01%	-0.0022	-0.24%	0.0010	1.76%
	LDGT2	506	0.0315	0.6246	0.0534	506	0.0304	0.5873	0.0482	0.0012	3.68%	0.0373	5.97%	0.0052	9.68%
2011 Total		3250	0.0293	0.9454	0.0610	3250	0.0267	0.9349	0.0588	0.0025	8.68%	0.0104	1.10%	0.0022	3.65%
2012	LDGV	604	0.0249	0.8819	0.0569	604	0.0249	0.8821	0.0568	-0.0000	-0.07%	-0.0002	-0.02%	0.0001	0.26%
	LDGT1	238	0.0232	0.7839	0.0541	238	0.0230	0.7747	0.0538	0.0002	0.93%	0.0092	1.18%	0.0003	0.64%
	LDGT2	185	0.0316	0.5393	0.0430	185	0.0316	0.5428	0.0432	-0.0000	-0.00%	-0.0035	-0.66%	-0.0001	-0.33%
2012 Total		1027	0.0257	0.7975	0.0538	1027	0.0257	0.7961	0.0536	0.0000	0.15%	0.0014	0.18%	0.0001	0.26%
2013	LDGV	23	0.0193	0.6651	0.0488	23	0.0193	0.6651	0.0488	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	12	0.0152	0.4741	0.0427	12	0.0152	0.4741	0.0427	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%

Vehicle		Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Year	Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
	LDGT2	10	0.0351	0.5571	0.0461	10	0.0351	0.5571	0.0461	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2013 Total		45	0.0217	0.5902	0.0466	45	0.0217	0.5902	0.0466	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
Grand Total		840762	0.2986	4.0449	0.6645	840762	0.2387	3.2445	0.6140	0.0600	20.08%	0.8005	19.79%	0.0506	7.61%

Records 1 - 96 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle	Overall Initial Exhaust Emissions				Overall Final Exhaust Emissions				Emission Reduction					
Type	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Total	Avg HC (gpm)	Avg CO(gpm)	Avg NOx (gpm)	Avg HC (gpm)	% Improvement	Avg CO (gpm)	% Improvement	Avg NOx(gpm)	% Improvement
LDGV	423767	0.2498	3.5073	0.5596	423767	0.1983	2.8064	0.5166	0.0515	20.60%	0.7009	19.98%	0.0430	7.68%
LDGT1	296413	0.3215	4.4537	0.7391	296413	0.2649	3.6416	0.6883	0.0566	17.60%	0.8121	18.23%	0.0508	6.87%
LDGT2	120582	0.4142	4.9294	0.8499	120582	0.3160	3.8077	0.7732	0.0982	23.71%	1.1217	22.76%	0.0767	9.03%
Grand Total	840762	0.2986	4.0449	0.6645	840762	0.2387	3.2445	0.6140	0.0600	20.08%	0.8005	19.79%	0.0506	7.61%

Appendix K

Idle Initial Inspection Report

Enhanced Area

Vehicle		All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
2009	LDGV	132	4.39	0.01	7.57	0.03	129	97.73%	4.39	0.01	7.34	0.02	3	2.27%	4.47	0.02	17.43	0.51
	LDGT	180	1.93	0.01	3.6	0.03	177	98.33%	1.94	0.01	3.59	0.03	3	1.67%	1.33	0.01	3.93	0.03
	HDGT	302	21.24	0.03	18.22	0.07	300	99.34%	19.03	0.03	17.96	0.07	2	0.66%	352.5	0.03	58.5	0
2009 Total		614	11.96	0.02	11.65	0.05	606	98.70%	10.93	0.02	11.5	0.05	8	1.30%	90.3	0.02	22.64	0.2
2010	LDGV	65	2.16	0.01	4.14	0.05	63	96.92%	1.83	0.01	2.86	0.01	2	3.08%	12.6	0.01	44.55	1.42
	LDGT	130	4.56	0.01	7.43	0.03	123	94.62%	2.76	0.01	5.63	0.03	7	5.38%	36.19	0.03	38.93	0.04
	HDGT	253	34.13	0.01	35.95	0.03	252	99.60%	32.25	0.01	35.89	0.03	1	0.40%	508	0.01	51	0
2010 Total		448	20.91	0.01	23.06	0.03	438	97.77%	19.59	0.01	22.64	0.03	10	2.23%	78.65	0.02	41.26	0.31
2011	LDGV	25	2.71	0	5.08	0.03	25	100.00%	2.71	0	5.08	0.03	0	0.00%	0	0	0	0
	LDGT	57	4.32	0.01	7.6	0.02	57	100.00%	4.32	0.01	7.6	0.02	0	0.00%	0	0	0	0
	HDGT	104	8.6	0.02	7.75	0.1	103	99.04%	8.65	0.02	7.65	0.1	1	0.96%	3.6	0.01	17.8	0.62
2011 Total		186	6.5	0.02	7.35	0.07	185	99.46%	6.51	0.02	7.29	0.06	1	0.54%	3.6	0.01	17.8	0.62
2012	LDGV	7	1.94	0.01	4.86	0.05	7	100.00%	1.94	0.01	4.86	0.05	0	0.00%	0	0	0	0
	LDGT	24	16.01	0.03	7.81	0.04	23	95.83%	3.62	0.02	3.63	0.01	1	4.17%	301	0.31	104	0.66
	HDGT	48	11.97	0.02	5.81	0.05	47	97.92%	12.1	0.02	5.87	0.05	1	2.08%	5.7	0	3.2	0.01
2012 Total		79	12.31	0.02	6.34	0.05	77	97.47%	8.64	0.02	5.11	0.04	2	2.53%	153.35	0.16	53.6	0.34
2013	LDGT	1	20	0.01	61	0.17	1	100.00%	20	0.01	61	0.17	0	0.00%	0	0	0	0
	HDGT	1	1.6	0.01	1.6	0.02	1	100.00%	1.6	0.01	1.6	0.02	0	0.00%	0	0	0	0
2013 Total		2	10.8	0.01	31.3	0.1	2	100.00%	10.8	0.01	31.3	0.1	0	0.00%	0	0	0	0
Grand Total		78,251	94.04	0.45	76.46	0.55	71,168	90.95%	56.56	0.25	49.57	0.38	7,083	9.05%	470.61	2.4	346.54	2.23

Summary by Vehicle (V1.01)

Vehicle Type	All Initial Inspections					Passing Initial Inspections						Failing Initial Inspections					
	Total	Avg HC	Avg CO Idle	Avg HC	Avg CO	Total	Total%	Avg HC	Avg CO	Avg HC	Avg CO	Total	Total%	Avg HC	Avg CO	Avg HC	Avg CO
LDGV	9410	162.27	0.8	142.27	1.13	7607	80.84%	80.04	0.31	78.01	0.68	1803	19.16%	509.22	2.87	413.42	2.98
LDGT	24424	63.15	0.29	55.64	0.37	21912	89.72%	34.28	0.12	33.59	0.22	2512	10.28%	315.06	1.74	248.04	1.72
HDGT	44417	96.56	0.46	73.95	0.52	41649	93.77%	64	0.31	52.79	0.41	2768	6.23%	586.62	2.68	392.38	2.19
Grand Total	78251	94.04	0.45	76.46	0.55	71168	90.95%	56.56	0.25	49.57	0.38	7083	9.05%	470.61	2.4	346.54	2.23

Appendix L

Idle Initial Failure Report

Enhanced Area

Vehicle		Failure For Both Exhaust And Visual						Failure For Exhaust Only						Failure For Visual Only					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	HDGT	2	0.11%	320.15	1.4	82.8	1.01	47	2.58%	520.76	1.51	369.89	1.11	10	0.55%	75.48	0.46	63.87	0.53
1997 Total		2	0.10%	320.15	1.4	82.8	1.01	48	2.46%	510.29	1.48	365.91	1.12	11	0.56%	75.99	0.42	66.63	0.48
1998	LDGV	0	0.00%	0	0	0	0	5	6.02%	211.74	0.38	124.92	1.14	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	4	3.01%	242.35	0.6	182.33	0.61	0	0.00%	0	0	0	0
	HDGT	3	0.17%	470.67	0.57	450.7	0.86	109	6.06%	617.04	1.44	274.69	0.91	6	0.33%	107.4	0.55	48.17	0.52
1998 Total		3	0.15%	470.67	0.57	450.7	0.86	118	5.86%	587.16	1.37	265.21	0.91	6	0.30%	107.4	0.55	48.17	0.52
1999	LDGV	0	0.00%	0	0	0	0	3	2.59%	542.07	3.54	755	4.57	1	0.86%	3.2	0	5.6	0
	LDGT	0	0.00%	0	0	0	0	21	2.52%	221.5	1.16	125.62	0.8	6	0.72%	84.55	0.35	43.93	0.29
	HDGT	2	0.08%	1195.1	0.84	1217.2	0.94	89	3.59%	578.79	1.35	313.61	0.96	19	0.77%	85.87	0.28	76.09	0.31
1999 Total		2	0.06%	1195.1	0.84	1217.2	0.94	113	3.30%	511.42	1.37	290.39	1.03	26	0.76%	82.39	0.28	65.96	0.29
2000	LDGV	0	0.00%	0	0	0	0	1	0.69%	61.6	0.39	128	1.89	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	24	0.98%	210.2	1.27	159.68	0.97	8	0.33%	77.55	0.37	74.74	0.28
	HDGT	4	0.12%	809.7	2.44	377.2	2.32	71	2.15%	661.14	1.43	354.97	0.8	24	0.73%	77.18	0.25	69.41	0.61
2000 Total		4	0.07%	809.7	2.44	377.2	2.32	96	1.63%	542.16	1.38	303.78	0.85	32	0.54%	77.27	0.28	70.74	0.53
2001	LDGV	0	0.00%	0	0	0	0	1	0.54%	227	0.28	109	0.54	1	0.54%	130	0.07	51	0.33
	LDGT	0	0.00%	0	0	0	0	37	1.62%	133.11	1.73	94.4	0.71	8	0.35%	50.09	0.17	32.2	0.16
	HDGT	0	0.00%	0	0	0	0	16	0.68%	438.99	2.75	508.24	3.99	19	0.81%	61.2	0.27	42.13	0.16
2001 Total		0	0.00%	0	0	0	0	54	1.12%	225.48	2.01	217.29	1.68	28	0.58%	60.48	0.23	39.61	0.17
2002	LDGV	2	0.88%	188.45	0.48	121.65	0.9	1	0.44%	289.7	2.38	311	3.36	1	0.44%	162.6	0.61	106.4	0.69
	LDGT	0	0.00%	0	0	0	0	74	2.43%	117.48	1.4	64.87	0.8	6	0.20%	29.3	0.1	17.75	0.05
	HDGT	0	0.00%	0	0	0	0	23	0.79%	539.23	1.97	503.15	2.05	16	0.55%	74	0.28	38.43	0.23
2002 Total		2	0.03%	188.45	0.48	121.65	0.9	98	1.59%	218.22	1.54	170.24	1.12	23	0.37%	66.19	0.25	35.99	0.2
2003	LDGV	2	0.60%	305.85	0.76	398.75	1.23	8	2.40%	312.94	1.28	212.54	1	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	43	2.40%	149.63	1.48	137.81	1.04	3	0.17%	13.1	0	7.97	0.01
	HDGT	1	0.05%	2000	11.62	2000	10.23	17	0.90%	499.12	2.83	295.74	2.21	5	0.26%	19.72	0.03	15	0.14
2003 Total		3	0.07%	870.57	4.38	932.5	4.23	68	1.69%	256.22	1.8	186.08	1.33	8	0.20%	17.24	0.02	12.36	0.09
2004	LDGV	2	0.59%	129.1	1.09	121.3	1.71	3	0.89%	133.73	0.33	228.73	1.61	2	0.59%	46.4	0.32	39.7	0.22
	LDGT	1	0.04%	119.8	0.9	269.6	1.27	11	0.41%	161.37	1.57	62.47	0.83	6	0.23%	26.07	0.05	22.68	0.11
	HDGT	0	0.00%	0	0	0	0	9	0.31%	255.33	2.89	152.42	3.28	12	0.41%	65.43	0.17	34.37	0.26
2004 Total		3	0.05%	126	1.02	170.73	1.56	23	0.39%	194.53	1.92	119.36	1.89	20	0.34%	51.72	0.15	31.4	0.21
2005	LDGV	0	0.00%	0	0	0	0	10	3.15%	105.58	0.7	205.82	3.22	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	7	0.51%	118.79	0.81	107.81	1.78	1	0.07%	40.3	0.01	47.9	0.04
	HDGT	0	0.00%	0	0	0	0	3	0.22%	252.53	1.93	90.3	0.32	2	0.14%	51.15	0.05	11.7	0.01
2005 Total		0	0.00%	0	0	0	0	20	0.65%	132.25	0.92	154.19	2.28	3	0.10%	47.53	0.04	23.77	0.02
2006	LDGV	0	0.00%	0	0	0	0	6	1.25%	133.95	1.45	520.77	5.09	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	2	0.14%	168.45	2.43	130.35	3.32	1	0.07%	64.2	0.07	132.2	0.1
	HDGT	0	0.00%	0	0	0	0	4	0.17%	813.78	1.07	890.83	0.57	14	0.58%	38.73	0.06	21.87	0.12
2006 Total		0	0.00%	0	0	0	0	12	0.28%	366.31	1.48	579.05	3.29	15	0.34%	40.43	0.06	29.23	0.12
2007	LDGV	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	1	0.25%	5	0	9	0
	LDGT	0	0.00%	0	0	0	0	2	0.18%	669.45	0.72	736.2	1.33	1	0.09%	2.4	0	5.3	0
	HDGT	0	0.00%	0	0	0	0	2	0.18%	1177.8	0.39	640.1	0.06	1	0.09%	35.1	0.01	16.1	0.07
2007 Total		0	0.00%	0	0	0	0	4	0.15%	923.63	0.55	688.15	0.69	3	0.11%	14.17	0	10.13	0.02
2008	LDGV	0	0.00%	0	0	0	0	12	1.41%	137.23	0.89	220.97	2.34	2	0.23%	53.85	0.18	52.95	0.22
	LDGT	0	0.00%	0	0	0	0	3	0.16%	349.3	0.5	243.53	3	1	0.05%	1.6	0	1.9	0
	HDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	6	0.24%	10.28	0.01	6.32	0.01
2008 Total		0	0.00%	0	0	0	0	15	0.28%	179.64	0.81	225.48	2.47	9	0.17%	19	0.05	16.19	0.06

Vehicle		Failure For Both Exhaust And Visual						Failure For Exhaust Only						Failure For Visual Only					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg HC 2500 rpm
2009	LDGV	0	0.00%	0	0	0	0	1	0.76%	1.1	0.01	34.6	1.52	1	0.76%	6.3	0.01	7.6	0.01
	LDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	HDGT	0	0.00%	0	0	0	0	2	0.66%	352.5	0.03	58.5	0	0	0.00%	0	0	0	0
2009 Total		0	0.00%	0	0	0	0	3	0.49%	235.37	0.02	50.53	0.51	1	0.16%	6.3	0.01	7.6	0.01
2010	LDGV	0	0.00%	0	0	0	0	2	3.08%	12.6	0.01	44.55	1.42	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	1	0.77%	248	0.16	268	0.24	2	1.54%	0	0	0	0.01
	HDGT	0	0.00%	0	0	0	0	1	0.40%	508	0.01	51	0	0	0.00%	0	0	0	0
2010 Total		0	0.00%	0	0	0	0	4	0.89%	195.3	0.05	102.03	0.77	2	0.45%	0	0	0	0.01
2011	LDGV	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	HDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	1	0.96%	3.6	0.01	17.8	0.62
2011 Total		0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	1	0.54%	3.6	0.01	17.8	0.62
2012	LDGV	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	LDGT	0	0.00%	0	0	0	0	1	4.17%	301	0.31	104	0.66	0	0.00%	0	0	0	0
	HDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	1	2.08%	5.7	0	3.2	0.01
2012 Total		0	0.00%	0	0	0	0	1	1.27%	301	0.31	104	0.66	1	1.27%	5.7	0	3.2	0.01
2013	LDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
	HDGT	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
2013 Total		0	0.00%	0	0	0	0	0	0.00%	0	0	0	0	0	0.00%	0	0	0	0
Grand Total		444	0.57%	660.39	3.39	490.89	3.18	4,996	6.38%	577.48	2.97	419.31	2.65	754	0.96%	149.02	0.64	136.82	1.08

Summary by Vehicle Type (V1.02)

Vehicle Type	Failure For Both Exhaust And Visual						Failure For Exhaust Only						Failure For Visual Only					
	Total	Total%	Avg HC	Avg CO	Avg HC	Avg CO	Total	Total%	Avg HC	Avg CO	Avg HC	Avg CO	Total	Total%	Avg HC	Avg CO	Avg HC	Avg HC
LDGV	120	1.28%	600.02	3.3	474.82	3.49	1,448	15.39%	565.99	3.25	455.4	3.26	104	1.11%	148.38	0.48	162.62	1.35
LDGT	155	0.63%	601.19	3.04	427.95	3.04	1,448	5.93%	447.44	2.59	351.09	2.42	151	0.62%	124.92	0.4	144.79	1.09
HDGT	169	0.38%	757.56	3.77	560.04	3.09	2,100	4.73%	675.08	3.05	441.46	2.4	499	1.12%	156.44	0.74	129.02	1.02
Grand Total	444	0.57%	660.39	3.39	490.89	3.18	4,996	6.38%	577.48	2.97	419.31	2.65	754	0.96%	149.02	0.64	136.82	1.08

Appendix M

Idle Initial Exhaust Failure Report

Vehicle		Overall Exhaust Failures						HC Failures						CO Failures					
Year	Type	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
	HDGT	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
2013 Total		0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
Grand Total		5,186	34.29%	678.70	3.55	470.71	2.98	2,942	56.73%	854.23	2.60	585.47	2.43	3,388	65.33%	526.29	4.37	371.06	3.46

Records 1 - 120 (All Records)

Summary by Vehicle Type (V1.01)

Vehicle Type	Overall Exhaust Failures						HC Failures						CO Failures					
	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total %	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm
LDGV	1,462	51.62%	697.70	3.88	534.30	3.62	668	45.69%	968.84	3.08	728.04	3.25	1,113	76.13%	534.96	4.36	418.02	3.85
LDGT	1,455	44.27%	573.38	3.26	414.71	2.74	724	49.76%	756.07	2.38	521.94	2.31	1,017	69.90%	443.32	3.88	338.38	3.05
HDGT	2,269	25.20%	731.96	3.51	465.10	2.73	1,550	68.31%	850.68	2.49	553.70	2.13	1,258	55.44%	585.69	4.78	355.93	3.46
Grand Total	5,186	34.29%	678.70	3.55	470.71	2.98	2,942	56.73%	854.23	2.60	585.47	2.43	3,388	65.33%	526.29	4.37	371.06	3.46

Appendix N

Idle Initial Visual Failure Report

(Mandatory)

Vehicle		Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
Year	Type	Total	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
	HDGT	1	1	100.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	1	100.00%	0	0.00%	1	100.00%	0	0.00%	1	100.00%	0	0.00%
2013 Total		2	2	100.00%	0	0.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	2	100.00%	0	0.00%	2	100.00%	0	0.00%	2	100.00%	0	0.00%
Grand Total		78,251	77,053	98.50%	1,198	1.50%	54,119	99.20%	427	0.80%	14,166	96.00%	591	4.00%	49,276	99.70%	139	0.30%	74,988	99.90%	101	0.10%	78,102	99.80%	149	0.20%

Summary by Vehicle Type (V1.01)

Vehicle Type	Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
	Total	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
LDGV	9410	9186	97.60%	224	2.40%	5900	98.30%	102	1.70%	2818	95.80%	123	4.20%	3348	99.30%	22	0.70%	8118	100.00%	4	0.00%	9383	99.70%	27	0.30%
LDGT	24424	24118	98.70%	306	1.30%	11378	98.90%	122	1.10%	2231	92.90%	171	7.10%	9166	99.90%	11	0.10%	23542	99.90%	34	0.10%	24386	99.80%	38	0.20%
HDGT	44417	43749	98.50%	668	1.50%	36841	99.50%	203	0.50%	9117	96.80%	297	3.20%	36762	99.70%	106	0.30%	43328	99.90%	63	0.10%	44333	99.80%	84	0.20%
Grand Total	78251	77053	98.50%	1,198	1.50%	54119	99.20%	427	0.80%	14166	96.00%	591	4.00%	49276	99.70%	139	0.30%	74988	99.90%	101	0.10%	78102	99.80%	149	0.20%

Appendix O

Idle Initial Visual Failure Report

(Advisory)

Idle Initial Visual Failure Report (Advisory) (V1.02)

Vehicle		Cap Pressure				Eng Light				OBD				EVAP System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
1974	LDGV	0	0.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	0	0.00%	0	0.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1974 Total		0	0.00%	0	0.00%	3	75.00%	1	25.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1975	LDGV	48	84.21%	9	15.79%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	17	77.27%	5	22.73%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1975 Total		65	82.28%	14	17.72%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1976	LDGV	186	89.00%	23	11.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	89	72.36%	34	27.64%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	1	50.00%	1	50.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1976 Total		276	82.63%	58	17.37%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1977	LDGV	270	89.70%	31	10.30%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	97	82.91%	20	17.09%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1977 Total		367	87.38%	53	12.62%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1978	LDGV	353	91.93%	31	8.07%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	134	86.45%	21	13.55%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1978 Total		487	89.69%	56	10.31%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1979	LDGV	423	91.76%	38	8.24%	53	92.98%	4	7.02%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	581	84.57%	106	15.43%	29	87.88%	4	12.12%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	8	88.89%	1	11.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1979 Total		1,004	87.46%	144	12.54%	90	90.91%	9	9.09%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1980	LDGV	319	92.73%	25	7.27%	104	88.14%	14	11.86%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	313	86.70%	48	13.30%	23	92.00%	2	8.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	8	88.89%	1	11.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1980 Total		632	89.65%	73	10.35%	135	88.82%	17	11.18%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1981	LDGV	306	93.58%	21	6.42%	232	87.22%	34	12.78%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	331	82.13%	72	17.87%	53	86.89%	8	13.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	13	92.86%	1	7.14%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1981 Total		637	87.26%	93	12.74%	298	87.39%	43	12.61%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1982	LDGV	4	80.00%	1	20.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	10	83.33%	2	16.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1982 Total		6	85.71%	1	14.29%	11	84.62%	2	15.38%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1983	LDGV	5	100.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	1	33.33%	2	66.67%	1	33.33%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	10	90.91%	1	9.09%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1983 Total		6	75.00%	2	25.00%	12	80.00%	3	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1984	LDGV	7	100.00%	0	0.00%	3	75.00%	1	25.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	2	66.67%	1	33.33%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	1	100.00%	20	83.33%	4	16.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1984 Total		9	81.82%	2	18.18%	26	83.87%	5	16.13%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1985	LDGV	6	100.00%	0	0.00%	7	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	3	75.00%	1	25.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	3	100.00%	83	91.21%	8	8.79%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Vehicle		Cap Pressure				Eng Light				OBD				EVAP System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
1985 Total		9	69.23%	4	30.77%	92	92.00%	8	8.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1986	LDGV	10	100.00%	0	0.00%	4	80.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	8	80.00%	2	20.00%	7	87.50%	1	12.50%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	142	95.95%	6	4.05%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1986 Total		18	90.00%	2	10.00%	153	95.03%	8	4.97%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1987	LDGV	17	94.44%	1	5.56%	12	92.31%	1	7.69%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	5	100.00%	0	0.00%	35	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	175	93.58%	12	6.42%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1987 Total		22	95.65%	1	4.35%	222	94.47%	13	5.53%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1988	LDGV	11	100.00%	0	0.00%	11	91.67%	1	8.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	12	92.31%	1	7.69%	78	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	4	100.00%	427	93.03%	32	6.97%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1988 Total		23	82.14%	5	17.86%	516	93.99%	33	6.01%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1989	LDGV	13	100.00%	0	0.00%	14	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	6	100.00%	0	0.00%	71	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	576	94.27%	35	5.73%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1989 Total		19	90.48%	2	9.52%	661	94.97%	35	5.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1990	LDGV	20	100.00%	0	0.00%	25	89.29%	3	10.71%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	5	100.00%	0	0.00%	104	99.05%	1	0.95%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	1	100.00%	790	95.07%	41	4.93%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1990 Total		25	96.15%	1	3.85%	919	95.33%	45	4.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1991	LDGV	40	100.00%	0	0.00%	50	94.34%	3	5.66%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	5	83.33%	1	16.67%	108	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	556	93.76%	37	6.24%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1991 Total		45	97.83%	1	2.17%	714	94.69%	40	5.31%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1992	LDGV	35	94.59%	2	5.41%	41	97.62%	1	2.38%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	4	80.00%	1	20.00%	142	99.30%	1	0.70%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	977	95.04%	51	4.96%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1992 Total		39	88.64%	5	11.36%	1160	95.63%	53	4.37%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1993	LDGV	21	100.00%	0	0.00%	24	92.31%	2	7.69%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	9	100.00%	0	0.00%	51	94.44%	3	5.56%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	824	94.82%	45	5.18%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1993 Total		30	93.75%	2	6.25%	899	94.73%	50	5.27%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1994	LDGV	40	100.00%	0	0.00%	47	94.00%	3	6.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	29	85.29%	5	14.71%	140	98.59%	2	1.41%	25	100.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	5	100.00%	1347	96.01%	56	3.99%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
1994 Total		69	87.34%	10	12.66%	1534	96.18%	61	3.82%	26	100.00%	0	0.00%	0	0.00%	0	0.00%
1995	LDGV	55	98.21%	1	1.79%	64	91.43%	6	8.57%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	31	96.88%	1	3.13%	43	97.73%	1	2.27%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	4	100.00%	1388	95.72%	62	4.28%	2	100.00%	0	0.00%	0	0.00%	0	0.00%
1995 Total		86	93.48%	6	6.52%	1495	95.59%	69	4.41%	2	100.00%	0	0.00%	0	0.00%	0	0.00%
1996	LDGV	49	96.08%	2	3.92%	52	88.14%	7	11.86%	27	87.10%	4	12.90%	0	0.00%	0	0.00%
	LDGT	47	97.92%	1	2.08%	65	86.67%	10	13.33%	37	80.43%	9	19.57%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	1772	91.81%	158	8.19%	722	87.30%	105	12.70%	0	0.00%	0	0.00%
1996 Total		96	96.97%	3	3.03%	1889	91.52%	175	8.48%	786	86.95%	118	13.05%	0	0.00%	0	0.00%
1997	LDGV	41	100.00%	0	0.00%	49	90.74%	5	9.26%	29	93.55%	2	6.45%	0	0.00%	0	0.00%
	LDGT	48	96.00%	2	4.00%	71	91.03%	7	8.97%	35	94.59%	2	5.41%	0	0.00%	0	0.00%

Vehicle		Cap Pressure				Eng Light				OBD				EVAP System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
	HDGT	0	0.00%	3	100.00%	1629	89.55%	190	10.45%	711	84.14%	134	15.86%	0	0.00%	0	0.00%
1997 Total		89	94.68%	5	5.32%	1749	89.65%	202	10.35%	775	84.88%	138	15.12%	0	0.00%	0	0.00%
1998	LDGV	50	100.00%	0	0.00%	76	91.57%	7	8.43%	43	86.00%	7	14.00%	0	0.00%	0	0.00%
	LDGT	54	96.43%	2	3.57%	122	91.73%	11	8.27%	81	90.00%	9	10.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	1623	90.32%	174	9.68%	1,160	90.98%	115	9.02%	0	0.00%	0	0.00%
1998 Total		104	96.30%	4	3.70%	1821	90.46%	192	9.54%	1,284	90.74%	131	9.26%	0	0.00%	0	0.00%
1999	LDGV	73	98.65%	1	1.35%	105	90.52%	11	9.48%	59	89.39%	7	10.61%	0	0.00%	0	0.00%
	LDGT	728	95.92%	31	4.08%	681	81.65%	153	18.35%	575	82.97%	118	17.03%	0	0.00%	0	0.00%
	HDGT	1	16.67%	5	83.33%	2217	89.43%	262	10.57%	1,521	88.02%	207	11.98%	0	0.00%	0	0.00%
1999 Total		802	95.59%	37	4.41%	3003	87.58%	426	12.42%	2,155	86.65%	332	13.35%	0	0.00%	0	0.00%
2000	LDGV	89	98.89%	1	1.11%	132	91.67%	12	8.33%	77	87.50%	11	12.50%	0	0.00%	0	0.00%
	LDGT	2,149	94.88%	116	5.12%	2071	85.33%	356	14.67%	1,788	85.96%	292	14.04%	0	0.00%	0	0.00%
	HDGT	0	0.00%	5	100.00%	3078	93.30%	221	6.70%	2,197	93.81%	145	6.19%	0	0.00%	0	0.00%
2000 Total		2,238	94.83%	122	5.17%	5281	89.97%	589	10.03%	4,062	90.07%	448	9.93%	0	0.00%	0	0.00%
2001	LDGV	98	97.03%	3	2.97%	171	91.94%	15	8.06%	104	92.04%	9	7.96%	0	0.00%	0	0.00%
	LDGT	1,376	94.44%	81	5.56%	1922	87.32%	279	12.68%	1,681	86.92%	253	13.08%	0	0.00%	0	0.00%
	HDGT	0	0.00%	6	100.00%	2135	91.36%	202	8.64%	1,522	90.33%	163	9.67%	0	0.00%	0	0.00%
2001 Total		1,474	94.25%	90	5.75%	4228	89.50%	496	10.50%	3,307	88.61%	425	11.39%	0	0.00%	0	0.00%
2002	LDGV	111	99.11%	1	0.89%	213	94.25%	13	5.75%	118	95.93%	5	4.07%	0	0.00%	0	0.00%
	LDGT	2,687	95.49%	127	4.51%	2623	86.28%	417	13.72%	2,205	86.50%	344	13.50%	0	0.00%	0	0.00%
	HDGT	0	0.00%	1	100.00%	2693	92.73%	211	7.27%	2,017	93.51%	140	6.49%	0	0.00%	0	0.00%
2002 Total		2,798	95.59%	129	4.41%	5529	89.61%	641	10.39%	4,340	89.87%	489	10.13%	0	0.00%	0	0.00%
2003	LDGV	154	98.72%	2	1.28%	313	93.71%	21	6.29%	203	95.75%	9	4.25%	0	0.00%	0	0.00%
	LDGT	1,500	95.54%	70	4.46%	1518	84.66%	275	15.34%	1,213	84.88%	216	15.12%	0	0.00%	0	0.00%
	HDGT	0	0.00%	3	100.00%	1739	92.11%	149	7.89%	1,238	93.22%	90	6.78%	0	0.00%	0	0.00%
2003 Total		1,654	95.66%	75	4.34%	3570	88.92%	445	11.08%	2,654	89.39%	315	10.61%	0	0.00%	0	0.00%
2004	LDGV	178	98.89%	2	1.11%	310	91.99%	27	8.01%	195	96.53%	7	3.47%	0	0.00%	0	0.00%
	LDGT	2,429	96.54%	87	3.46%	2429	91.45%	227	8.55%	2,065	93.74%	138	6.26%	0	0.00%	0	0.00%
	HDGT	1	25.00%	3	75.00%	2700	93.10%	200	6.90%	1,963	94.33%	118	5.67%	0	0.00%	0	0.00%
2004 Total		2,608	96.59%	92	3.41%	5439	92.30%	454	7.70%	4,223	94.14%	263	5.86%	0	0.00%	0	0.00%
2005	LDGV	135	98.54%	2	1.46%	294	92.74%	23	7.26%	157	98.13%	3	1.88%	0	0.00%	0	0.00%
	LDGT	1,219	97.99%	25	2.01%	1271	92.57%	102	7.43%	1,047	95.01%	55	4.99%	0	0.00%	0	0.00%
	HDGT	0	0.00%	1	100.00%	1282	92.90%	98	7.10%	889	93.48%	62	6.52%	0	0.00%	0	0.00%
2005 Total		1,354	97.97%	28	2.03%	2847	92.74%	223	7.26%	2,093	94.58%	120	5.42%	0	0.00%	0	0.00%
2006	LDGV	228	97.85%	5	2.15%	462	96.65%	16	3.35%	297	97.38%	8	2.62%	0	0.00%	0	0.00%
	LDGT	1,235	96.86%	40	3.14%	1391	95.27%	69	4.73%	1,174	97.11%	35	2.89%	0	0.00%	0	0.00%
	HDGT	0	0.00%	2	100.00%	2258	93.62%	154	6.38%	1,520	93.42%	107	6.58%	0	0.00%	0	0.00%
2006 Total		1,463	96.89%	47	3.11%	4111	94.51%	239	5.49%	2,991	95.22%	150	4.78%	0	0.00%	0	0.00%
2007	LDGV	136	100.00%	0	0.00%	371	96.87%	12	3.13%	184	98.40%	3	1.60%	0	0.00%	0	0.00%
	LDGT	965	98.67%	13	1.33%	1090	96.72%	37	3.28%	952	97.84%	21	2.16%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	1063	94.57%	61	5.43%	650	92.72%	51	7.28%	0	0.00%	0	0.00%
2007 Total		1,101	98.83%	13	1.17%	2524	95.82%	110	4.18%	1,786	95.97%	75	4.03%	0	0.00%	0	0.00%
2008	LDGV	421	99.53%	2	0.47%	836	98.24%	15	1.76%	541	99.27%	4	0.73%	0	0.00%	0	0.00%
	LDGT	1,638	98.14%	31	1.86%	1886	98.59%	27	1.41%	1,712	99.07%	16	0.93%	0	0.00%	0	0.00%
	HDGT	0	0.00%	1	100.00%	2440	96.71%	83	3.29%	1,869	96.09%	76	3.91%	0	0.00%	0	0.00%
2008 Total		2,059	98.38%	34	1.62%	5162	97.64%	125	2.36%	4,122	97.72%	96	2.28%	0	0.00%	0	0.00%
2009	LDGV	49	98.00%	1	2.00%	128	96.97%	4	3.03%	59	98.33%	1	1.67%	0	0.00%	0	0.00%

Vehicle		Cap Pressure				Eng Light				OBD				EVAP System			
Year	Type	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
	LDGT	119	97.54%	3	2.46%	176	97.78%	4	2.22%	129	96.99%	4	3.01%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	292	96.69%	10	3.31%	167	95.43%	8	4.57%	0	0.00%	0	0.00%
2009 Total		168	97.67%	4	2.33%	596	97.07%	18	2.93%	355	96.47%	13	3.53%	0	0.00%	0	0.00%
2010	LDGV	13	100.00%	0	0.00%	61	96.83%	2	3.17%	53	98.15%	1	1.85%	0	0.00%	0	0.00%
	LDGT	92	95.83%	4	4.17%	129	99.23%	1	0.77%	105	99.06%	1	0.94%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	251	99.21%	2	0.79%	90	95.74%	4	4.26%	0	0.00%	0	0.00%
2010 Total		105	96.33%	4	3.67%	441	98.88%	5	1.12%	248	97.64%	6	2.36%	0	0.00%	0	0.00%
2011	LDGV	7	100.00%	0	0.00%	25	100.00%	0	0.00%	12	92.31%	1	7.69%	0	0.00%	0	0.00%
	LDGT	41	100.00%	0	0.00%	56	98.25%	1	1.75%	47	97.92%	1	2.08%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	104	100.00%	0	0.00%	73	98.65%	1	1.35%	0	0.00%	0	0.00%
2011 Total		48	100.00%	0	0.00%	185	99.46%	1	0.54%	132	97.78%	3	2.22%	0	0.00%	0	0.00%
2012	LDGV	3	100.00%	0	0.00%	7	100.00%	0	0.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT	19	100.00%	0	0.00%	24	100.00%	0	0.00%	19	100.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	48	100.00%	0	0.00%	22	100.00%	0	0.00%	0	0.00%	0	0.00%
2012 Total		22	100.00%	0	0.00%	79	100.00%	0	0.00%	46	100.00%	0	0.00%	0	0.00%	0	0.00%
2013	LDGT	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%
	HDGT	0	0.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2013 Total		0	0.00%	0	0.00%	1	100.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%
Grand Total		22,057	94.75%	1,222	5.25%	57396	92.23%	4,837	7.77%	35,388	91.89%	3,122	8.11%	0	0.00%	0	0.00%

Records 1 - 118 (All Records)

Summary by Vehicle Type (V1.02)

Vehicle Type	Cap Pressure				Eng Light				OBD				EVAP System			
	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%	Pass	Pass%	Fail	Fail%
LDGV	4024	95.15%	205	4.85%	4300	94.22%	264	5.78%	2164	96.35%	82	3.65%	0	0.00%	0	0.00%
LDGT	18030	94.97%	954	5.03%	18415	90.19%	2,002	9.81%	14891	90.77%	1,514	9.23%	0	0.00%	0	0.00%
HDGT	3	4.55%	63	95.45%	34681	93.10%	2,571	6.90%	18333	92.32%	1,526	7.68%	0	0.00%	0	0.00%
Grand Total	22057	94.75%	1,222	5.25%	57396	92.23%	4,837	7.77%	35388	91.89%	3,122	8.11%	0	0.00%	0	0.00%

Appendix P

Idle Retest Pass Reduction Report

Idle Retest Pass Reduction Report (V1.01)

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC 2500rpm	Avg HC %2500 rpm	Avg CO 2500 rpm	Avg CO %2500 rpm	Repair Costs
1974	LDGV	506	730.99	4.1	553.12	3.76	320	63.24%	359.03	1.54	318.95	2.77	248.85	40.94%	2.31	60.08%	117.23	26.88%	0.61	18.15%	134
	LDGT	276	700.69	4.05	489.22	3.51	193	69.93%	350.72	1.25	362.94	2.21	270.6	43.55%	2.69	68.22%	77.36	17.57%	0.92	29.29%	191.67
	HDGT	129	900.36	4.51	667.56	3.36	92	71.32%	382.47	2.22	464.84	2.52	499.01	56.61%	2.27	50.49%	221.71	32.29%	0.88	25.89%	0
1974 Total		911	745.79	4.15	549.97	3.63	605	66.41%	359.94	1.55	355.17	2.55	293.83	44.94%	2.42	61.01%	120.39	25.32%	0.75	22.72%	154.35
1975	LDGV	30	386.52	1.8	230.38	1.71	23	76.67%	192.29	0.79	153.43	1.62	164.55	46.11%	1.07	57.58%	82.66	35.01%	0.37	18.70%	0
	LDGT	24	611.41	4.1	354.67	3.45	12	50.00%	184.28	0.91	121.45	1.36	-11.87	-6.88%	1.8	66.38%	-35.87	-41.92%	-0.01	-0.80%	0
	HDGT	27	612.17	3.39	361.17	2.49	20	74.07%	366.31	1.38	434.31	1.62	225.62	38.12%	2.22	61.64%	-57.49	-15.26%	0.7	30.14%	0
1975 Total		81	528.37	3.01	310.8	2.49	55	67.90%	253.82	1.03	248.59	1.56	148.26	36.87%	1.65	61.51%	5.84	2.29%	0.41	20.69%	0
1976	LDGV	163	434.34	2.71	285.1	2.32	108	66.26%	167.22	0.74	170.63	2.02	199.31	54.38%	1.81	70.93%	80.46	32.04%	0.15	7.00%	91
	LDGT	110	388.33	2.46	285.43	1.9	70	63.64%	173.52	0.64	150.29	1.52	150.16	46.39%	1.7	72.66%	88.44	37.05%	0.29	16.25%	113.17
	HDGT	132	843.47	3.84	539.65	3.19	101	76.52%	330.8	1.91	347.67	2.75	389.64	54.08%	1.97	50.69%	83.3	19.33%	0.53	16.13%	224.67
1976 Total		405	555.19	3.01	368.15	2.49	279	68.89%	228.02	1.14	229.61	2.16	255.88	52.88%	1.84	61.73%	83.49	26.66%	0.32	13.06%	132.08
1977	LDGV	201	400.19	2.22	326.63	1.96	138	68.66%	134.53	0.39	146.58	1.39	211.8	61.15%	1.68	81.27%	117.18	44.43%	0.53	27.62%	391.5
	LDGT	89	459.27	2.88	284.22	2.05	58	65.17%	124.9	0.46	124.22	1.57	273.94	68.68%	2.13	82.09%	147.92	54.35%	0.34	17.58%	201
	HDGT	188	864.21	4	574.14	3.26	134	71.28%	363.57	2.09	337.43	2.57	457.64	55.73%	1.94	48.12%	166.2	33.00%	0.41	13.86%	50
1977 Total		478	593.69	3.05	416.08	2.49	330	69.04%	225.84	1.09	220.15	1.9	322.55	58.82%	1.86	63.07%	142.48	39.29%	0.45	19.10%	239.33
1978	LDGV	260	432.32	2.47	315.58	2.52	170	65.38%	125.87	0.41	151.37	1.48	210.32	62.56%	1.81	81.51%	100.94	40.01%	0.65	30.47%	345.13
	LDGT	134	439.22	2.57	307.44	2.68	77	57.46%	147.07	0.55	176.42	1.31	245.3	62.52%	1.39	71.57%	96.14	35.27%	0.78	37.46%	155.83
	HDGT	232	855.09	3.29	567.64	2.54	169	72.84%	345.07	1.71	301.4	2.24	393.17	53.26%	1.3	43.19%	202.15	40.14%	0.06	2.55%	155.33
1978 Total		626	590.48	2.79	407.25	2.56	416	66.45%	218.84	0.96	216.95	1.76	291.07	57.08%	1.52	61.26%	141.17	39.42%	0.43	19.81%	231.4
1979	LDGV	367	466.13	2.5	304.92	2.14	229	62.40%	134.24	0.39	138.96	1.53	241.54	64.28%	1.73	81.46%	112.68	44.78%	0.45	22.81%	174.63
	LDGT	570	439.21	2.35	319.15	2.2	345	60.53%	128.13	0.39	162.03	1.39	247.67	65.91%	1.58	80.21%	113.42	41.18%	0.52	27.31%	154.37
	HDGT	87	739.73	3.03	464.74	2.51	64	73.56%	235.08	1.19	171.46	1.79	275.25	53.94%	1.35	53.05%	130.96	43.30%	0.28	13.59%	100
1979 Total		1024	474.39	2.46	326.42	2.21	638	62.30%	141.05	0.47	154.69	1.48	248.24	63.77%	1.61	77.34%	114.91	42.62%	0.47	24.21%	156.21
1980	LDGV	165	402.76	2.22	283.88	2.24	111	67.27%	134.77	0.41	154.12	1.4	208.16	60.70%	1.62	79.69%	120.84	43.95%	0.86	38.10%	70
	LDGT	248	462.36	2.55	355.69	2.45	152	61.29%	133.17	0.39	160.06	1.64	261.42	66.25%	1.69	81.17%	125.06	43.86%	0.53	24.31%	160
	HDGT	35	505.61	2.61	309.88	2.75	30	85.71%	257.64	1.18	204.29	1.65	200.22	43.73%	1.38	53.99%	51.72	20.20%	0.73	30.82%	231
1980 Total		448	443.79	2.43	325.66	2.4	293	65.40%	146.52	0.48	162.34	1.55	234.98	61.59%	1.63	77.24%	115.95	41.67%	0.67	30.33%	147.89
1981	LDGV	303	330.28	1.61	368.59	2.63	152	50.17%	67.31	0.16	66.73	0.38	177.96	72.56%	0.97	85.91%	195.14	74.52%	1.59	80.61%	169.33
	LDGT	487	321.79	1.64	279.65	2.16	226	46.41%	76.79	0.18	62.25	0.31	206.76	72.92%	1.18	87.07%	165.74	72.70%	1.4	81.99%	147.62
	HDGT	81	578.73	2.9	306.56	1.68	48	59.26%	181.37	1.09	118.11	1.48	324.57	64.15%	1.51	58.12%	139.65	54.18%	0.22	13.12%	377.67
1981 Total		871	348.64	1.75	313.09	2.28	426	48.91%	85.19	0.27	70.14	0.47	209.75	71.12%	1.14	80.76%	173.29	71.19%	1.34	74.11%	184.91
1982	LDGV	7	487.71	2.25	412.01	2.14	5	71.43%	93.02	0.43	101.26	0.59	167.72	64.32%	2.33	84.57%	59.56	37.04%	1.88	76.24%	15
	LDGT	7	253.66	2.13	154.51	2.38	1	14.29%	46.5	0.06	98.1	0.71	-46.5	0.00%	-0.06	0.00%	-98.1	0.00%	-0.71	0.00%	0
	HDGT	73	789.14	3.53	421.63	2.88	45	61.64%	198.11	1.11	124.12	1.17	528.64	72.74%	1.75	61.34%	253.07	67.09%	1.04	47.00%	411.67
1982 Total		87	721.8	3.31	399.37	2.78	51	58.62%	184.84	1.02	121.37	1.1	481.97	72.28%	1.78	63.55%	227.21	65.18%	1.09	49.59%	312.5
1983	LDGV	8	341.88	2.16	184.09	1.85	2	25.00%	185.1	0.15	124.2	0.43	218	54.08%	3.75	96.15%	107.45	46.38%	2.88	87.12%	0
	LDGT	63	834.74	2.55	518.65	1.92	39	61.90%	203.67	1.09	140.82	1.14	514.31	71.63%	1.1	50.11%	308.21	68.64%	0.22	16.41%	255.67
	1983 Total		71	779.2	2.5	480.95	1.91	41	57.75%	202.76	1.05	140.01	1.11	499.85	71.14%	1.23	53.96%	298.41	68.07%	0.35	24.20%
1984	LDGV	1	303.8	1.08	145.5	0.73	1	100.00%	177.4	0.59	100.5	0.56	126.4	41.61%	0.49	45.37%	45	30.93%	0.17	23.29%	0
	LDGT	5	16.06	0.04	12.04	0.04	1	20.00%	43.4	0.02	65.9	0.23	36.9	45.95%	0.17	89.47%	-5.7	-9.47%	-0.05	-27.78%	0
	HDGT	125	862.62	3.18	474.36	2.28	78	62.40%	178.23	0.88	121.51	1.13	525.03	74.66%	1.82	67.41%	302.51	71.34%	0.87	43.52%	283.33
1984 Total		131	826.04	3.04	454.2	2.19	80	61.07%	176.53	0.87	120.55	1.12	513.95	74.43%	1.79	67.32%	295.44	71.02%	0.85	43.35%	283.33
1985	LDGV	13	471.77	2.21	493.82	2.66	3	23.08%	81.5	0.22	35.67	0.26	379.73	82.33%	3.34	93.73%	441.8	92.53%	3.54	93.15%	0
	LDGT	5	93.18	0.63	89.76	1.31	1	20.00%	13.3	0.01	6.6	0.01	142	91.44%	1.04	99.05%	143	95.59%	2.17	99.54%	0
	HDGT	81	701.66	2.15	432.12	1.57	48	59.26%	182.71	0.82	163.23	0.88	459.35	71.54%	1.12	57.51%	261.13	61.53%	0.71	44.70%	216.5
1985 Total		99	640.74	2.08	422.93	1.7	52	52.53%	173.61	0.77	152.86	0.83	448.65	72.10%	1.24	61.62%	269.28	63.79%	0.9	52.14%	216.5
1986	LDGV	3	698.9	0.91	694.37																

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions				Emission Reductions										Average	
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC 2500rpm	Avg HC %2500 rpm	Avg CO 2500 rpm	Avg CO %2500 rpm	Repair Costs
1988	LDGT	41	233.59	0.34	180.88	1.36	31	75.61%	68.68	0.2	96.55	0.38	137.23	66.64%	0.14	41.77%	41.79	30.21%	0.85	69.01%	0
	HDGT	140	443.79	2.34	346.92	2.39	82	58.57%	119.54	0.63	109.59	1.19	329.76	73.39%	1.75	73.43%	227.93	67.53%	0.89	42.78%	198.89
	Total	192	385.6	1.85	305.89	2.13	119	61.98%	102.81	0.5	104.12	0.94	266.2	72.14%	1.27	71.73%	171.13	62.17%	0.86	47.90%	198.89
1989	LDGV	7	329.23	1.79	342.76	1.65	4	57.14%	187.98	0.36	157.33	0.36	319.48	62.96%	1.95	84.29%	368.05	70.05%	1.67	82.14%	0
	LDGT	33	147.18	0.23	111.33	0.51	24	72.73%	76	0.27	96.63	0.43	85.96	53.07%	-0.03	-12.59%	33.75	25.89%	0.21	33.12%	100
	HDGT	136	634.75	2.42	388.14	1.99	73	53.68%	117.76	0.54	111.98	0.87	314.17	72.74%	1.51	73.66%	176.27	61.15%	0.74	45.90%	580
1989 Total	Total	176	531.18	1.99	334.43	1.7	101	57.39%	110.61	0.47	110.13	0.75	260.15	70.17%	1.16	71.25%	150	57.66%	0.65	46.59%	340
1990	LDGV	10	293.12	1.36	548.46	4.87	6	60.00%	86.15	0.35	53.1	0.26	163.62	65.51%	1.43	80.58%	295.83	84.78%	3.25	92.63%	0
	LDGT	50	222.96	0.67	189.58	1.24	33	66.00%	80.37	0.24	95.13	0.39	55.26	40.74%	0.06	19.81%	-7.56	-8.63%	0.43	52.01%	100
	HDGT	146	518.55	2.91	326.7	1.83	91	62.33%	120.54	0.64	121.46	1.05	293.53	70.89%	1.95	75.43%	142.08	53.91%	0.57	35.38%	291.2
1990 Total	Total	206	435.87	2.29	304.19	1.83	130	63.11%	108.76	0.52	111.62	0.84	227.05	67.61%	1.45	73.54%	111.19	49.90%	0.66	43.84%	259.33
1991	LDGV	8	117.94	0.91	85.38	0.76	6	75.00%	80.15	0.19	70.45	0.36	61.7	43.50%	0.73	79.42%	27.73	28.25%	0.35	49.41%	0
	LDGT	17	116.29	0.55	145.88	0.28	16	94.12%	78.66	0.3	73.59	0.35	44.91	36.34%	0.29	49.47%	81.41	52.52%	-0.06	-18.80%	0
	HDGT	129	453.34	2.72	225.61	1.94	71	55.04%	111.4	0.64	90.05	0.73	298.68	72.83%	1.95	75.16%	130.79	59.22%	1.23	62.81%	153
1991 Total	Total	154	398.71	2.39	209.52	1.69	93	60.39%	103.75	0.56	85.95	0.64	239.73	69.79%	1.59	74.06%	115.65	57.36%	0.95	59.83%	153
1992	LDGV	9	400.32	2.08	311.12	2.17	4	44.44%	16.9	0.04	18.68	0.11	158.23	90.35%	0.45	91.79%	63.5	77.27%	0.31	73.94%	0
	LDGT	20	89.97	0.19	47.07	0.17	16	80.00%	84.7	0.36	99.63	0.4	27.76	24.68%	-0.12	-51.18%	-40.79	-69.31%	-0.18	-83.24%	326
	HDGT	151	461.14	3.13	253.45	2.36	96	63.58%	118.42	0.63	124.09	1.14	336.15	73.95%	2.22	77.84%	133.91	51.90%	0.96	45.72%	481.86
1992 Total	Total	180	416.85	2.75	233.4	2.1	116	64.44%	110.27	0.57	117.08	1	287.48	72.28%	1.83	76.18%	107.38	47.84%	0.78	43.78%	447.22
1993	LDGV	6	413.43	0.43	470.83	0.84	5	83.33%	122.32	0.31	110.5	0.47	309.42	71.67%	0.12	28.50%	394.6	78.12%	0.43	47.54%	0
	LDGT	8	38.73	0.27	16.86	0.09	6	75.00%	74.83	0.16	53.17	0.2	-74.83	0.00%	-0.16	0.00%	-53.17	0.00%	-0.2	0.00%	1
	HDGT	121	600.34	3.02	458.79	2.17	63	52.07%	113.02	0.54	108.45	0.91	412.04	78.48%	2.21	80.47%	259.07	70.49%	0.92	50.31%	330.5
1993 Total	Total	135	558.75	2.75	433.14	1.99	74	54.81%	110.55	0.49	104.11	0.82	365.63	76.78%	1.88	79.30%	242.91	70.00%	0.8	49.21%	264.6
1994	LDGV	5	111.7	0.96	52.24	0.47	5	100.00%	74.7	0.27	69.46	0.25	37	33.12%	0.69	71.67%	-17.22	-32.96%	0.22	47.01%	0
	LDGT	11	173.8	0.69	138.75	0.62	8	72.73%	102.98	0.28	98.7	0.46	37.24	26.56%	0.18	38.15%	13.6	12.11%	-0.03	-7.94%	0
	HDGT	262	617.93	3.09	260.8	2.45	138	52.67%	121.25	0.64	89.54	1.11	426.59	77.87%	2	75.73%	175.19	66.18%	0.84	43.10%	437.23
1994 Total	Total	278	591.25	2.96	252.22	2.34	151	54.32%	118.74	0.61	89.36	1.05	393.06	76.80%	1.86	75.31%	160.26	64.20%	0.77	42.50%	437.23
1995	LDGV	4	622	1.56	260.88	0.51	4	100.00%	21.1	0.04	22.93	0.05	600.9	96.61%	1.53	97.60%	237.95	91.21%	0.46	91.09%	0
	LDGT	11	354.31	1.66	206.34	1.85	6	54.55%	70.68	0.29	71.23	0.28	194.58	73.35%	0.88	75.21%	56.48	44.23%	0.96	77.66%	0
	HDGT	311	729.18	3.46	252.45	3.23	144	46.30%	125.42	0.57	107.65	1.04	484.55	79.45%	2.1	78.77%	120.59	52.83%	1.35	56.46%	386.93
1995 Total	Total	326	715.22	3.37	251	3.15	154	47.24%	120.58	0.54	104.03	0.99	476.27	79.80%	2.04	79.01%	121.14	53.80%	1.32	57.10%	386.93
1996	LDGV	7	123.57	0.13	130.39	0.17	7	100.00%	23.26	0.03	20.91	0.05	100.31	81.18%	0.1	76.40%	109.47	83.96%	0.11	67.52%	0
	LDGT	2	38.05	0.2	12.45	0.13	2	100.00%	134.95	0.47	18.85	0.31	-96.9	-254.66%	-0.28	-141.03%	-6.4	-51.41%	-0.18	-138.46%	0
	HDGT	198	632.29	2.8	206.16	2.36	107	54.04%	109.67	0.48	90.22	0.73	424.12	79.45%	1.95	80.33%	81.08	47.33%	1.06	59.15%	300.2
1996 Total	Total	207	609.35	2.68	201.73	2.26	116	56.04%	104.89	0.45	84.81	0.68	395.6	79.04%	1.8	79.99%	81.28	48.94%	0.98	58.94%	300.2
1997	LDGT	5	54.7	0.31	22.14	0.15	5	100.00%	73.24	0.19	46.64	0.31	-18.54	-33.89%	0.12	40.00%	-24.5	-110.66%	-0.16	-109.59%	0
	HDGT	80	531.68	1.58	321.08	0.78	48	60.00%	109.18	0.36	75.16	0.39	358.58	76.66%	1.29	78.22%	214.97	74.10%	0.5	56.16%	155
1997 Total	Total	85	503.62	1.5	303.5	0.74	53	62.35%	105.79	0.34	72.47	0.38	323	75.33%	1.18	77.49%	192.38	72.64%	0.44	53.37%	155
1998	LDGV	6	80.75	0.26	87.5	0.63	4	66.67%	37.48	0.15	32.55	0.11	2.9	7.18%	-0.02	-11.54%	11.2	25.60%	0.21	66.67%	0
	LDGT	9	66.36	0.36	39.36	0.18	9	100.00%	75.46	0.27	48.94	0.25	-9.1	-13.71%	0.09	24.92%	-9.59	-24.36%	-0.07	-38.51%	0
	HDGT	182	747.72	1.88	248.58	0.81	104	57.14%	126.91	0.32	74.07	0.34	572.72	81.86%	1.52	82.67%	157.61	68.03%	0.41	55.01%	382.87
1998 Total	Total	197	696.28	1.76	234.12	0.77	117	59.39%	119.9	0.31	70.72	0.32	508.48	80.92%	1.36	81.46%	139.74	66.40%	0.37	53.33%	382.87
1999	LDGV	7	239.86	1.32	287.57	1.69	6	85.71%	39.18	0.05	71.17	0.34	-35.18	-879.58%	-0.05	-2900.00%	-69	-3184.62%	-0.34	0.00%	25
	LDGT	62	117.88	0.62	65.59	0.39	59	95.16%	50.15	0.14	32.78	0.15	57.72	53.50%	0.46	77.21%	22.14	40.32%	0.21	57.92%	222
	HDGT	163	669.04	1.59	266.97	0.7	103	63.19%	120.63	0.4	85.55	0.37	436.23	78.34%	1.01	71.82%	171.65	66.74%	0.35	48.34%	309.5
1999 Total	Total	232	508.79	1.32	213.78	0.64	168	72.41%	92.97	0.29	66.5	0.29	286.46	75.50%	0.78	72.71%	110.55	62.44%	0.27	48.36%	247.5
2000	LDGV	5	15.96	0.08	30.98	0.38	5	100.00%	29.22	0.1	29.14	0.11	-13.26	-83.08%	-0.02	-30.00%	1.84	5.94%	0.27	72.11%	430
	LDGT	139	62.46	0.38	45.77	0.23	134	96.40%	31.75	0.11	25.49	0.09	26.07	45.09%	0.24	68.76%	14.99	37.03%			

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions					Emission Reductions								Average	
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC 2500rpm	Avg HC %2500 rpm	Avg CO 2500 rpm	Avg CO %2500 rpm	Repair Costs
2002 Total		251	135.74	0.88	76.89	0.57	222	88.45%	35.22	0.12	27.35	0.16	74.72	67.96%	0.67	84.75%	35.61	56.55%	0.3	65.40%	209.71
2003	LDGV	18	167.84	0.37	139.12	0.46	14	77.78%	57.71	0.18	35.88	0.25	88.39	60.50%	0.11	39.31%	83.25	69.88%	0.12	33.08%	107
	LDGT	126	157.73	1.1	79.52	0.66	109	86.51%	31.41	0.11	22.93	0.13	80.87	72.02%	0.83	88.55%	42.44	64.92%	0.32	71.56%	229
	HDGT	40	598.91	2.79	326.86	2.18	29	72.50%	59.38	0.24	52.42	0.35	371.53	86.22%	1.98	89.11%	132.51	71.66%	1.37	79.68%	809.67
2003 Total		184	254.63	1.39	139.12	0.97	152	82.61%	39.17	0.14	29.75	0.18	137.02	77.77%	0.99	87.59%	63.38	68.06%	0.5	73.54%	460.43
2004	LDGV	12	46.11	0.39	74.12	0.65	8	66.67%	45.21	0.06	43.46	0.21	0.7	1.52%	0.28	83.21%	48.34	52.66%	0.55	72.47%	0
	LDGT	104	34.86	0.21	21.41	0.14	100	96.15%	13.93	0.05	10.77	0.04	20.38	59.40%	0.15	73.66%	10.33	48.96%	0.1	72.04%	130
	HDGT	24	250.03	2.34	102.18	2.34	19	79.17%	41.8	0.18	41	0.88	186.01	81.65%	1.87	91.23%	44.57	52.09%	0.93	51.51%	0
2004 Total		140	72.71	0.59	39.77	0.56	127	90.71%	20.07	0.07	17.35	0.18	43.92	68.64%	0.41	85.12%	17.85	50.70%	0.25	59.05%	130
2005	LDGV	16	98.76	0.96	162.94	2.34	11	68.75%	41.89	0.17	33.16	0.13	64.13	60.49%	0.81	83.07%	117.25	77.95%	2.25	94.50%	0
	LDGT	33	50.05	0.31	29.18	0.37	33	100.00%	22.27	0.13	15.94	0.07	27.78	55.51%	0.18	58.26%	13.23	45.36%	0.31	82.20%	0
	HDGT	5	205.32	1.25	58.86	0.19	5	100.00%	45.4	0.24	31.8	0.09	159.92	77.89%	1.01	80.61%	27.06	45.97%	0.1	51.55%	0
2005 Total		54	78.86	0.59	71.56	0.94	49	90.74%	29.03	0.15	21.43	0.08	49.43	63.00%	0.41	73.12%	37.99	63.94%	0.72	89.60%	0
2006	LDGV	12	253.57	1.27	416.92	3.36	5	41.67%	33.26	0.15	15.92	0.05	-25.3	-317.84%	0.07	30.63%	-4.6	-40.64%	0.23	83.33%	0
	LDGT	43	23.8	0.21	18.52	0.22	42	97.67%	11.15	0.02	13.86	0.05	5.66	33.67%	0.16	88.38%	2.3	14.25%	0.15	76.78%	0
	HDGT	19	256.01	0.35	153.89	0.23	17	89.47%	28.01	0.07	23.27	0.12	252.22	90.00%	0.31	81.80%	145.74	86.23%	0.12	49.76%	0
2006 Total		74	120.68	0.42	117.88	0.73	64	86.49%	17.36	0.04	16.52	0.07	68.73	79.84%	0.19	81.31%	39.87	70.70%	0.15	69.25%	0
2007	LDGV	2	0	0	0	0	2	100.00%	35.55	0.21	20.75	0.19	-35.55	0.00%	-0.21	0.00%	-20.75	0.00%	-0.19	0.00%	0
	LDGT	17	6.03	0.06	9	0.14	17	100.00%	6.55	0.01	9.39	0.08	-0.52	-8.68%	0.05	76.85%	-0.39	-4.38%	0.07	46.25%	0
	HDGT	4	617.3	0.24	325.45	0.05	3	75.00%	7.8	0	4.53	0	148.6	95.01%	0.31	98.94%	8.7	65.74%	0.07	100.00%	0
2007 Total		23	111.81	0.09	63.25	0.11	22	95.65%	9.36	0.03	9.76	0.08	16.63	63.98%	0.06	66.34%	-1	-11.47%	0.04	35.77%	0
2008	LDGV	23	181.27	0.65	148.11	1.6	17	73.91%	15.72	0.06	17.37	0.12	136.26	89.66%	0.46	88.30%	110.34	86.40%	0.75	85.80%	0
	LDGT	35	6.55	0.18	4.37	0.05	35	100.00%	5.55	0.03	6.09	0.06	0.99	15.19%	0.15	84.63%	-1.72	-39.32%	-0.01	-17.93%	0
	HDGT	5	12.28	0.01	6.48	0.01	5	100.00%	14.68	0.01	14.5	0.02	-2.4	-19.54%	0	-50.00%	-8.02	-123.77%	-0.01	-125.00%	0
2008 Total		63	70.79	0.34	57.02	0.61	57	90.48%	9.38	0.04	10.19	0.08	41.04	81.39%	0.23	86.42%	31.15	75.34%	0.22	73.89%	0
2009	LDGV	4	3.07	0.01	4.43	0	4	100.00%	46.98	0.3	31.97	0.29	-43.9	-1427.64%	-0.29	-2900.00%	-27.55	-622.60%	-0.29	-11600.00%	0
	LDGT	2	0.45	0.01	1.65	0.01	2	100.00%	3.1	0.02	1	0.01	-2.65	-588.89%	-0.01	-50.00%	0.65	39.39%	0.01	50.00%	0
	HDGT	3	347.23	0.18	78.87	0.06	2	66.67%	108.3	0.03	80.1	0.05	214.05	66.40%	0.22	87.76%	4.7	5.54%	0.04	44.44%	0
2009 Total		9	117.21	0.07	28.62	0.02	8	88.89%	51.34	0.16	36.26	0.16	30.9	37.57%	-0.09	-134.55%	-12.44	-52.20%	-0.13	-509.52%	0
2010	LDGV	2	15.15	0.02	44.55	1.42	2	100.00%	5.15	0.02	6.5	0.02	10	66.01%	0	0.00%	38.05	85.41%	1.4	98.94%	0
	LDGT	5	50.12	0.03	54.12	0.05	5	100.00%	0.28	0	0.96	0	49.84	99.44%	0.03	100.00%	53.16	98.23%	0.05	96.00%	130
	HDGT	2	255.3	0.09	25.75	0.01	2	100.00%	12.45	0.01	24.8	0	242.85	95.12%	0.08	94.12%	0.95	3.69%	0.01	100.00%	0
2010 Total		9	87.94	0.04	45.69	0.34	9	100.00%	4.07	0.01	7.49	0	83.88	95.38%	0.04	86.49%	38.2	83.61%	0.34	98.71%	130
2011	HDGT	1	3.6	0.01	17.8	0.62	1	100.00%	8	0	7.2	0.04	-4.4	-122.22%	0.01	100.00%	10.6	59.55%	0.58	93.55%	0
2011 Total		1	3.6	0.01	17.8	0.62	1	100.00%	8	0	7.2	0.04	-4.4	-122.22%	0.01	100.00%	10.6	59.55%	0.58	93.55%	0
2012	LDGT	1	301	0.31	104	0.66	1	100.00%	59	0.45	82	0.58	242	80.40%	-0.14	-45.16%	22	21.15%	0.08	12.12%	0
	HDGT	1	5.7	0	3.2	0.01	1	100.00%	1.6	0.01	2	0.01	4.1	71.93%	-0.01		1.2	37.50%	0	0.00%	0
2012 Total		2	153.35	0.16	53.6	0.34	2	100.00%	30.3	0.23	42	0.3	123.05	80.24%	-0.08	-48.39%	11.6	21.64%	0.04	11.94%	0
Grand Total		9242	499.57	2.42	318.76	2.1	5957	64.46%	148.83	0.63	141.28	1.14	263.11	63.87%	1.47	70.06%	121.68	46.27%	0.63	35.41%	260.99

Summary by Vehicle Type (V1.01)

Vehicle Type	Initial Exhaust Emissions					Passing Retest Exhaust Emissions					Emission Reductions								Average Repair Costs	
	Total	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC 2500 rpm	Avg CO 2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC 2500 rpm	Avg HC %2500 rpm	Avg CO 2500 rpm		Avg CO %2500 rpm
LDGV	2220	465.39	2.55	363.16	2.57	1403	63.20%	172.38	0.64	168.46	1.56	207.51	54.62%	1.65	72.02%	118.79	41.35%	0.69	30.72%	189.16
LDGT	3070	319.95	1.8	234.12	1.7	2139	69.67%	102.3	0.34	107.21	0.79	145.49	58.71%	1.09	76.29%	69.66	39.39%	0.49	38.45%	166.93
HDGT	3952	658.3	2.83	359.57	2.16	2415	61.11%	176.36	0.88	155.66	1.21	399.59	69.38%	1.71	65.99%	169.44	52.12%	0.71	36.81%	339.63
Grand Total	9242	499.57	2.42	318.76	2.1	5957	64.46%	148.83	0.63	141.28	1.14	263.11	63.87%	1.47	70.06%	121.68	46.27%	0.63	35.41%	260.99

Appendix Q

Idle Retest Frequency Report

Idle Retest Frequency Report (V1.01)

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
1974	LDGV	506	1.3	373	73.72%	237	63.54%	99	19.57%	62	62.63%	27	5.34%	18	66.67%	4	0.79%	2	50.00%	3	1	1	33.33%
	LDGT	276	1.3	204	73.91%	153	75.00%	47	17.03%	30	63.83%	14	5.07%	7	50.00%	4	1.45%	1	25.00%	7	3	2	28.57%
	HDGT	129	1.3	100	77.52%	72	72.00%	22	17.05%	16	72.73%	5	3.88%	4	80.00%	1	0.78%	0	0.00%	1	1	0	0.00%
1974 Total			1.3	677	74.31%	462	68.24%	168	18.44%	108	64.29%	46	5.05%	29	63.04%	9	0.99%	3	33.33%	11	1	3	27.27%
1975	LDGV	30	1.2	25	83.33%	20	80.00%	3	10.00%	1	33.33%	2	6.67%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	24	1.5	14	58.33%	7	50.00%	6	25.00%	4	66.67%	2	8.33%	1	50.00%	1	4.17%	0	0.00%	1	4	0	0.00%
	HDGT	27	1.1	22	81.48%	18	81.82%	3	11.11%	2	66.67%	2	7.41%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1975 Total			1.2	61	75.31%	45	73.77%	12	14.81%	7	58.33%	6	7.41%	3	50.00%	1	1.23%	0	0.00%	1	1	0	0.00%
1976	LDGV	163	1.4	118	72.39%	79	66.95%	33	20.25%	19	57.58%	11	6.75%	9	81.82%	1	0.61%	1	100.00%	0	0	0	0.00%
	LDGT	110	1.4	78	70.91%	50	64.10%	22	20.00%	13	59.09%	8	7.27%	6	75.00%	1	0.91%	0	0.00%	1	1	1	100.00%
	HDGT	132	1.2	109	82.58%	89	81.65%	15	11.36%	8	53.33%	4	3.03%	3	75.00%	2	1.52%	0	0.00%	2	2	1	50.00%
1976 Total			1.3	305	75.31%	218	71.48%	70	17.28%	40	57.14%	23	5.68%	18	78.26%	4	0.99%	1	25.00%	3	1	2	66.67%
1977	LDGV	201	1.5	138	68.66%	95	68.84%	39	19.40%	27	69.23%	13	6.47%	9	69.23%	7	3.48%	4	57.14%	4	2	3	75.00%
	LDGT	89	1.4	63	70.79%	39	61.90%	19	21.35%	13	68.42%	7	7.87%	6	85.71%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	188	1.3	141	75.00%	104	73.76%	33	17.55%	22	66.67%	8	4.26%	6	75.00%	2	1.06%	0	0.00%	4	2	2	50.00%
1977 Total			1.4	342	71.55%	238	69.59%	91	19.04%	62	68.13%	28	5.86%	21	75.00%	9	1.88%	4	44.44%	8	2	5	62.50%
1978	LDGV	260	1.5	177	68.08%	128	72.32%	41	15.77%	23	56.10%	18	6.92%	9	50.00%	8	3.08%	2	25.00%	16	6	8	50.00%
	LDGT	134	1.6	81	60.45%	55	67.90%	24	17.91%	9	37.50%	14	10.45%	8	57.14%	6	4.48%	2	33.33%	9	7	3	33.33%
	HDGT	232	1.3	183	78.88%	135	73.77%	37	15.95%	25	67.57%	10	4.31%	7	70.00%	2	0.86%	2	100.00%	0	0	0	0.00%
1978 Total			1.4	441	70.45%	318	72.11%	102	16.29%	57	55.88%	42	6.71%	24	57.14%	16	2.56%	6	37.50%	25	4	11	44.00%
1979	LDGV	367	1.4	253	68.94%	167	66.01%	68	18.53%	42	61.76%	23	6.27%	9	39.13%	13	3.54%	7	53.85%	10	3	4	40.00%
	LDGT	570	1.6	375	65.79%	231	61.60%	115	20.18%	64	55.65%	49	8.60%	29	59.18%	19	3.33%	13	68.42%	12	2	8	66.67%
	HDGT	87	1.4	64	73.56%	50	78.13%	14	16.09%	8	57.14%	5	5.75%	2	40.00%	4	4.60%	4	100.00%	0	0	0	0.00%
1979 Total			1.5	692	67.58%	448	64.74%	197	19.24%	114	57.87%	77	7.52%	40	51.95%	36	3.52%	24	66.67%	22	2	12	54.55%
1980	LDGV	165	1.4	119	72.12%	88	73.95%	27	16.36%	15	55.56%	9	5.45%	5	55.56%	3	1.82%	1	33.33%	7	4	2	28.57%
	LDGT	248	1.5	164	66.13%	113	68.90%	45	18.15%	21	46.67%	23	9.27%	14	60.87%	5	2.02%	1	20.00%	11	4	3	27.27%
	HDGT	35	1.5	25	71.43%	20	80.00%	8	22.86%	8	100.00%	0	0.00%	0	0.00%	1	2.86%	1	100.00%	1	3	1	100.00%
1980 Total			1.4	308	68.75%	221	71.75%	80	17.86%	44	55.00%	32	7.14%	19	59.38%	9	2.01%	3	33.33%	19	4	6	31.58%
1981	LDGV	303	1.8	168	55.45%	86	51.19%	71	23.43%	37	52.11%	34	11.22%	14	41.18%	15	4.95%	7	46.67%	15	5	8	53.33%
	LDGT	487	1.9	250	51.33%	135	54.00%	102	20.94%	43	42.16%	58	11.91%	15	25.86%	40	8.21%	19	47.50%	37	8	14	37.84%
	HDGT	81	1.5	53	65.43%	30	56.60%	20	24.69%	14	70.00%	4	4.94%	3	75.00%	1	1.23%	0	0.00%	3	4	1	33.33%
1981 Total			1.8	471	54.08%	251	53.29%	193	22.16%	94	48.70%	96	11.02%	32	33.33%	56	6.43%	26	46.43%	55	6	23	41.82%
1982	LDGV	7	1.4	5	71.43%	3	60.00%	2	28.57%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	7	3.0	2	28.57%	0	0.00%	2	28.57%	0	0.00%	2	28.57%	1	50.00%	1	14.29%	0	0.00%	0	0	0	0.00%
	HDGT	73	1.6	44	60.27%	30	68.18%	15	20.55%	8	53.33%	7	9.59%	2	28.57%	5	6.85%	3	60.00%	2	3	2	100.00%
1982 Total			1.6	51	58.62%	33	64.71%	19	21.84%	10	52.63%	9	10.34%	3	33.33%	6	6.90%	3	50.00%	2	2	2	100.00%
1983	LDGV	8	1.5	3	37.50%	1	33.33%	2	25.00%	1	50.00%	1	12.50%	0	0.00%	1	12.50%	0	0.00%	1	13	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	63	1.5	42	66.67%	30	71.43%	10	15.87%	5	50.00%	5	7.94%	2	40.00%	3	4.76%	0	0.00%	3	5	2	66.67%
1983 Total			1.5	45	63.38%	31	68.89%	12	16.90%	6	50.00%	6	8.45%	2	33.33%	4	5.63%	0	0.00%	4	6	2	50.00%
1984	LDGV	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	5	1.0	2	40.00%	1	50.00%	2	40.00%	0	0.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	125	1.4	86	68.80%	59	68.60%	23	18.40%	10	43.48%	10	8.00%	6	60.00%	3	2.40%	1	33.33%	3	2	2	66.67%
1984 Total			1.4	89	67.94%	61	68.54%	25	19.08%	10	40.00%	11	8.40%	6	54.55%	3	2.29%	1	33.33%	3	2	2	66.67%
1985	LDGV	13	2.3	5	38.46%	1	20.00%	3	23.08%	1	33.33%	2	15.38%	0	0.00%	2	15.38%	1	50.00%	1	8	0	0.00%
	LDGT	5	3.0	1	20.00%	0	0.00%	2	40.00%	0	0.00%	1	20.00%	1	100.00%	1	20.00%	0	0.00%	0	0	0	0.00%
	HDGT	81	1.3	53	65.43%	37	69.81%	15	18.52%	9	60.00%	4	4.94%	0	0.00%	4	4.94%	2	50.00%	5	6	0	0.00%
1985 Total			1.4	59	59.60%	38	64.41%	20	20.20%	10	50.00%	7	7.07%	1	14.29%	7	7.07%	3	42.86%	6	6	0	0.00%
1986	LDGV	3	2.0	1	33.33%	1	100.00%	1	33.33%	0	0.00%	1	33.33%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	6	1.8	4	66.67%	3	75.00%	0	0.00%	0	0.00%	1	16.67%	0	0.00%	1	16.67%	1	100.00%	0	0	0	0.00%
	HDGT	215	1.8	124	57.67%	67	54.03%	50	23.26%	31	62.00%	18	8.37%	5	27.78%	14	6.51%	9	64.29%	9	4	4	44.44%
1986 Total			1.8	129	57.59%	71	55.04%</																

Vehicle			Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
	HDGT	116	1.7	76	65.52%	46	60.53%	22	18.97%	11	50.00%	8	6.90%	4	50.00%	5	4.31%	5	100.00%	5	4	2	40.00%
1987 Total		134	1.6	90	67.16%	56	62.22%	25	18.66%	14	56.00%	9	6.72%	5	55.56%	5	3.73%	5	100.00%	5	4	2	40.00%
1988	LDGV	11	1.7	7	63.64%	5	71.43%	1	9.09%	0	0.00%	1	9.09%	0	0.00%	1	9.09%	0	0.00%	1	9	1	100.00%
	LDGT	41	1.4	30	73.17%	21	70.00%	10	24.39%	9	90.00%	1	2.44%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	140	1.5	89	63.57%	58	65.17%	29	20.71%	16	55.17%	12	8.57%	6	50.00%	4	2.86%	1	25.00%	6	4	1	16.67%
1988 Total		192	1.4	126	65.63%	84	66.67%	40	20.83%	25	62.50%	14	7.29%	7	50.00%	5	2.60%	1	20.00%	7	4	2	28.57%
1989	LDGV	7	1.8	4	57.14%	2	50.00%	2	28.57%	1	50.00%	1	14.29%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	33	1.4	24	72.73%	17	70.83%	7	21.21%	5	71.43%	2	6.06%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	136	1.7	78	57.35%	48	61.54%	29	21.32%	14	48.28%	15	11.03%	5	33.33%	8	5.88%	3	37.50%	6	4	3	50.00%
1989 Total		176	1.6	106	60.23%	67	63.21%	38	21.59%	20	52.63%	18	10.23%	8	44.44%	8	4.55%	3	37.50%	6	3	3	50.00%
1990	LDGV	10	1.7	6	60.00%	4	66.67%	2	20.00%	0	0.00%	2	20.00%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	50	1.3	33	66.00%	25	75.76%	9	18.00%	6	66.67%	4	8.00%	2	50.00%	1	2.00%	0	0.00%	3	6	0	0.00%
	HDGT	146	1.5	96	65.75%	62	64.58%	32	21.92%	17	53.13%	12	8.22%	9	75.00%	4	2.74%	1	25.00%	2	1	2	100.00%
1990 Total		206	1.5	135	65.53%	91	67.41%	43	20.87%	23	53.49%	18	8.74%	13	72.22%	5	2.43%	1	20.00%	5	2	2	40.00%
1991	LDGV	8	1.8	7	87.50%	5	71.43%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	13	1	100.00%
	LDGT	17	1.1	15	88.24%	15	100.00%	1	5.88%	0	0.00%	1	5.88%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	129	1.7	73	56.59%	43	58.90%	30	23.26%	14	46.67%	15	11.63%	5	33.33%	10	7.75%	8	80.00%	1	1	1	100.00%
1991 Total		154	1.6	95	61.69%	63	66.32%	31	20.13%	14	45.16%	16	10.39%	6	37.50%	10	6.49%	8	80.00%	2	1	2	100.00%
1992	LDGV	9	1.8	6	66.67%	1	16.67%	3	33.33%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	20	1.4	16	80.00%	12	75.00%	3	15.00%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	5	1	100.00%
	HDGT	151	1.5	101	66.89%	63	62.38%	36	23.84%	24	66.67%	9	5.96%	8	88.89%	1	0.66%	0	0.00%	4	3	1	25.00%
1992 Total		180	1.5	123	68.33%	76	61.79%	42	23.33%	30	71.43%	9	5.00%	8	88.89%	1	0.56%	0	0.00%	5	3	2	40.00%
1993	LDGV	6	2.6	3	50.00%	3	100.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	33	1	50.00%
	LDGT	8	1.2	6	75.00%	5	83.33%	2	25.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	121	1.9	66	54.55%	36	54.55%	27	22.31%	14	51.85%	13	10.74%	5	38.46%	8	6.61%	4	50.00%	7	6	4	57.14%
1993 Total		135	1.9	75	55.56%	44	58.67%	30	22.22%	16	53.33%	13	9.63%	5	38.46%	8	5.93%	4	50.00%	9	7	5	55.56%
1994	LDGV	5	1.4	4	80.00%	4	100.00%	0	0.00%	0	0.00%	1	20.00%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	11	1.4	8	72.73%	6	75.00%	1	9.09%	1	100.00%	2	18.18%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	262	1.6	145	55.34%	90	62.07%	60	22.90%	26	43.33%	28	10.69%	12	42.86%	13	4.96%	6	46.15%	16	6	4	25.00%
1994 Total		278	1.6	157	56.47%	100	63.69%	61	21.94%	27	44.26%	31	11.15%	14	45.16%	13	4.68%	6	46.15%	16	6	4	25.00%
1995	LDGV	4	1.0	4	100.00%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	11	1.3	7	63.64%	4	57.14%	3	27.27%	2	66.67%	1	9.09%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	311	2.0	147	47.27%	83	56.46%	65	20.90%	27	41.54%	39	12.54%	13	33.33%	24	7.72%	8	33.33%	36	12	13	36.11%
1995 Total		326	2.0	158	48.47%	91	57.59%	68	20.86%	29	42.65%	40	12.27%	13	32.50%	24	7.36%	8	33.33%	36	11	13	36.11%
1996	LDGV	7	1.7	6	85.71%	6	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	14	1	100.00%
	LDGT	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	198	1.8	111	56.06%	62	55.86%	48	24.24%	24	50.00%	22	11.11%	11	50.00%	10	5.05%	7	70.00%	7	4	3	42.86%
1996 Total		207	1.7	119	57.49%	70	58.82%	48	23.19%	24	50.00%	22	10.63%	11	50.00%	10	4.83%	7	70.00%	8	4	4	50.00%
1997	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	5	1.0	5	100.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	80	1.4	54	67.50%	38	70.37%	12	15.00%	5	41.67%	7	8.75%	2	28.57%	4	5.00%	2	50.00%	3	4	1	33.33%
1997 Total		85	1.4	59	69.41%	43	72.88%	12	14.12%	5	41.67%	7	8.24%	2	28.57%	4	4.71%	2	50.00%	3	4	1	33.33%
1998	LDGV	6	1.5	4	66.67%	3	75.00%	1	16.67%	0	0.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	9	1.1	8	88.89%	8	100.00%	1	11.11%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	182	1.6	115	63.19%	76	66.09%	33	18.13%	10	30.30%	20	10.99%	9	45.00%	11	6.04%	6	54.55%	3	2	3	100.00%
1998 Total		197	1.5	127	64.47%	87	68.50%	35	17.77%	11	31.43%	21	10.66%	10	47.62%	11	5.58%	6	54.55%	3	2	3	100.00%
1999	LDGV	7	1.8	6	85.71%	5	83.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	14	1	100.00%
	LDGT	62	1.2	54	87.10%	51	94.44%	5	8.06%	5	100.00%	1	1.61%	1	100.00%	1	1.61%	1	100.00%	1	2	1	100.00%
	HDGT	163	1.5	108	66.26%	77	71.30%	28	17.18%	16	57.14%	12	7.36%	3	25.00%	7	4.29%	4	57.14%	8	5	3	37.50%
1999 Total		232	1.4	168	72.41%	133	79.17%	33	14.22%	21	63.64%	13	5.60%	4	30.77%	8	3.45%	5	62.50%	10	4	5	50.00%
2000	LDGV	5	3.0	4	80.00%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	20	1	100.00%
	LDGT	139	1.1	132	94.96%	127	96.21%	5	3.60%	5	100.00%	1	0.72%	1	100.00%	1	0.72%	1	100.00%	0	0	0	0.00%
	HDGT	156	1.4	98	62.82%	66	67.35%	32	20.51%	20	62.50%	10	6.41%	4	40.00%	5	3.21%	1	20.00%	11	7	2	18.18%
2000 Total		300	1.3	234	78.00%	197	84.19%	37	12.33%	25	67.57%	11	3.67%	5	45.45%	6	2.00%	2	33.33%	12	4	3	25.00%

Vehicle			Avg Retest	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Year	Type	Total	#	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
2001	LDGV	7	1.0	6	85.71%	5	83.33%	1	14.29%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	123	1.1	111	90.24%	101	90.99%	10	8.13%	8	80.00%	2	1.63%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	44	1.2	35	79.55%	27	77.14%	7	15.91%	6	85.71%	2	4.55%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2001 Total		174	1.1	152	87.36%	133	87.50%	18	10.34%	14	77.78%	4	2.30%	3	75.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2002	LDGV	4	1.3	3	75.00%	2	66.67%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	202	1.1	185	91.58%	171	92.43%	15	7.43%	14	93.33%	1	0.50%	1	100.00%	0	0.00%	0	0.00%	1	0	1	100.00%
	HDGT	45	1.2	37	82.22%	28	75.68%	6	13.33%	3	50.00%	2	4.44%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2002 Total		251	1.1	225	89.64%	201	89.33%	22	8.76%	18	81.82%	3	1.20%	2	66.67%	0	0.00%	0	0.00%	1	0	1	100.00%
2003	LDGV	18	1.7	10	55.56%	7	70.00%	5	27.78%	4	80.00%	3	16.67%	3	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	126	1.2	107	84.92%	97	90.65%	12	9.52%	9	75.00%	3	2.38%	1	33.33%	2	1.59%	1	50.00%	2	2	1	50.00%
	HDGT	40	1.4	28	70.00%	24	85.71%	5	12.50%	1	20.00%	4	10.00%	1	25.00%	3	7.50%	3	100.00%	0	0	0	0.00%
2003 Total		184	1.3	145	78.80%	128	88.28%	22	11.96%	14	63.64%	10	5.43%	5	50.00%	5	2.72%	4	80.00%	2	1	1	50.00%
2004	LDGV	12	1.5	8	66.67%	6	75.00%	2	16.67%	1	50.00%	1	8.33%	0	0.00%	1	8.33%	1	100.00%	0	0	0	0.00%
	LDGT	104	1.0	100	96.15%	96	96.00%	4	3.85%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	24	1.3	19	79.17%	16	84.21%	3	12.50%	1	33.33%	2	8.33%	2	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2004 Total		140	1.1	127	90.71%	118	92.91%	9	6.43%	6	66.67%	3	2.14%	2	66.67%	1	0.71%	1	100.00%	0	0	0	0.00%
2005	LDGV	16	1.8	9	56.25%	7	77.78%	3	18.75%	1	33.33%	2	12.50%	1	50.00%	2	12.50%	2	100.00%	0	0	0	0.00%
	LDGT	33	1.0	33	100.00%	33	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	5	1.0	5	100.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2005 Total		54	1.2	47	87.04%	45	95.74%	3	5.56%	1	33.33%	2	3.70%	1	50.00%	2	3.70%	2	100.00%	0	0	0	0.00%
2006	LDGV	12	1.2	8	66.67%	4	50.00%	3	25.00%	1	33.33%	1	8.33%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	43	1.0	42	97.67%	41	97.62%	1	2.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	19	1.1	17	89.47%	16	94.12%	1	5.26%	0	0.00%	1	5.26%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2006 Total		74	1.1	67	90.54%	61	91.04%	5	6.76%	2	40.00%	2	2.70%	1	50.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2007	LDGV	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	17	1.0	17	100.00%	17	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	4	1.0	4	100.00%	3	75.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2007 Total		23	1.0	23	100.00%	22	95.65%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2008	LDGV	23	1.5	15	65.22%	11	73.33%	6	26.09%	5	83.33%	1	4.35%	0	0.00%	1	4.35%	1	100.00%	0	0	0	0.00%
	LDGT	35	1.0	35	100.00%	35	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	5	1.0	5	100.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2008 Total		63	1.1	55	87.30%	51	92.73%	6	9.52%	5	83.33%	1	1.59%	0	0.00%	1	1.59%	1	100.00%	0	0	0	0.00%
2009	LDGV	4	1.3	3	75.00%	3	100.00%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	3	1.5	2	66.67%	1	50.00%	1	33.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2009 Total		9	1.3	7	77.78%	6	85.71%	2	22.22%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2010	LDGV	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	5	1.0	5	100.00%	5	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2010 Total		9	1.0	9	100.00%	9	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2011	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2011 Total		1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2012	LDGV	0	0.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	1	1.0	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
2012 Total		2	1.0	2	100.00%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
Grand Total		9,242	1.4	6302	68.19%	4414	70.04%	1670	18.07%	939	56.23%	670	7.25%	329	49.10%	302	3.27%	150	49.67%	298	3	125	41.95%

Records 1 - 117 (All Records)

Idle Retest Frequency Report (V1.01)

RPT_PROGRAM_TYPE is equal to **Basic TAS Enhanced EnvirotestEnhanced TAS**
and Idle Retest Frequency Filter
and RPT_DATE is between 1/1/2012and 12/31/2012

Vehicle		Avg Retest #	Retest #1				Retest #2				Retest #3				Retest #4				Retest >= #5			
Type	Total		Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt %	Goal	Goal%	Cnt	Cnt%	Goal	Goal%	Cnt	Cnt%	Goal	Goal%
LDGV	2,220	1.5	1518	68.38%	1005	66.21%	423	19.05%	251	59.34%	156	7.03%	86	55.13%	59	2.66%	29	49.15%	64	3	32	50.00%
LDGT	3,070	1.4	2225	72.48%	1691	76.00%	476	15.50%	272	57.14%	199	6.48%	101	50.75%	84	2.74%	40	47.62%	86	3	35	40.70%
HDGT	3,952	1.5	2559	64.75%	1718	67.14%	771	19.51%	416	53.96%	315	7.97%	142	45.08%	159	4.02%	81	50.94%	148	4	58	39.19%
Grand Total	9,242	1.4	6302	68.19%	4414	70.04%	1670	18.07%	939	56.23%	670	7.25%	329	49.10%	302	3.27%	150	49.67%	298	3	125	41.95%

Appendix R

I/M Eligible Vehicle Report

Evaluated Vehicles

Colorado

I/M Eligible Vehicle Report, Evaluated Vehicles

Friday, 18-January-2013

Report Start: **Jan, 2012** Report Period: **Year**

County: **All Counties**

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1982															
P	74	74	0	37	1	0	36	Clean:	2	5.56%	0.2000	32.5250	465.5000	1.08	
			0.00%	50.00%	1.35%	0.00%	48.65%	Not Clean:	34	94.44%	1.3346	236.1691	1,287.4471	0.46	48.65%
T	95	95	0	56	1	0	38	Clean:	1	2.63%	0.2400	125.5000	560.2500	1.00	
			0.00%	58.95%	1.05%	0.00%	40.00%	Not Clean:	37	97.37%	2.6704	531.1324	1,560.5541	0.54	40.00%
U	1,266	1,266	1,262	3	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.68%	0.24%	0.00%	0.00%	0.08%	Not Clean:	1	100.00%	1.4700	4,040.8501	1,583.4000	0.15	0.08%
Total For 1982		1,435	1,262	96	2	0	75	Clean:	3	4.00%	0.2133	63.5167	497.0833	1.05	
			87.94%	6.69%	0.14%	0.00%	5.23%	Not Clean:	72	96.00%	2.0229	440.5903	1,431.9042	0.50	5.23%
1983															
P	60	60	0	30	2	0	28	Clean:	7	25.00%	0.1543	38.6429	498.9571	0.53	
			0.00%	50.00%	3.33%	0.00%	46.67%	Not Clean:	21	75.00%	3.5545	316.0667	926.7619	0.71	46.67%
T	77	77	0	44	1	0	32	Clean:	2	6.25%	0.0450	25.7000	380.8250	0.43	
			0.00%	57.14%	1.30%	0.00%	41.56%	Not Clean:	30	93.75%	2.3535	962.5817	1,542.4883	0.49	41.56%
U	839	839	836	3	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.64%	0.36%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1983		976	836	77	3	0	60	Clean:	9	15.00%	0.1300	35.7667	472.7055	0.51	
			85.66%	7.89%	0.31%	0.00%	6.15%	Not Clean:	51	85.00%	2.8480	696.3696	1,288.9539	0.58	6.15%
1984															
P	214	214	0	102	1	4	107	Clean:	19	17.12%	0.1442	39.7368	408.5368	0.61	
			0.00%	47.66%	0.47%	1.87%	50.00%	Not Clean:	92	82.88%	1.7011	354.9261	1,111.6397	0.67	51.87%
T	241	241	0	137	4	0	100	Clean:	2	2.00%	0.1950	22.8250	481.4000	0.10	
			0.00%	56.85%	1.66%	0.00%	41.49%	Not Clean:	98	98.00%	2.3290	602.5066	1,328.8862	0.80	41.49%
U	2,596	2,596	2,586	4	0	0	6	Clean:	1	16.67%	0.2950	84.5500	805.8000	-0.65	
			99.61%	0.15%	0.00%	0.00%	0.23%	Not Clean:	5	83.33%	2.1050	213.6200	1,428.8299	1.65	0.23%
Total For 1984		3,051	2,586	243	5	4	213	Clean:	22	10.14%	0.1557	40.2364	433.2182	0.50	
			84.76%	7.96%	0.16%	0.13%	6.98%	Not Clean:	195	89.86%	2.0271	475.7279	1,228.9531	0.76	7.11%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1985															
P	176	0	87	2	1	86	Clean:	13	14.94%	0.0877	37.9885	428.1731	0.39		
			0.00%	49.43%	1.14%	0.57%	48.86%	Not Clean:	74	85.06%	1.2276	249.4331	1,168.5723	0.74	49.43%
T	223	0	116	0	0	107	Clean:	6	5.61%	0.1858	57.0667	465.9750	-0.11		
			0.00%	52.02%	0.00%	0.00%	47.98%	Not Clean:	101	94.39%	2.0882	282.0624	1,363.0654	0.59	47.98%
U	1,858	1,852	5	1	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.68%	0.27%	0.05%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1985		2,257	1,852	208	3	1	193	Clean:	19	9.79%	0.1187	44.0132	440.1105	0.23	
			82.06%	9.22%	0.13%	0.04%	8.55%	Not Clean:	175	90.21%	1.7243	268.2649	1,280.8226	0.65	8.60%
1986															
P	472	0	224	1	8	239	Clean:	51	20.65%	0.1433	37.1676	325.7529	0.33		
			0.00%	47.46%	0.21%	1.69%	50.64%	Not Clean:	196	79.35%	1.1168	192.4462	1,239.5327	0.85	52.33%
T	474	0	232	2	9	231	Clean:	27	11.25%	0.0993	26.8963	301.7204	0.25		
			0.00%	48.95%	0.42%	1.90%	48.73%	Not Clean:	213	88.75%	1.6443	320.4758	1,477.8075	0.68	50.63%
U	4,128	4,123	3	0	0	2	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.88%	0.07%	0.00%	0.00%	0.05%	Not Clean:	2	100.00%	0.6600	76.2750	1,218.8250	0.75	0.05%
Total For 1986		5,074	4,123	459	3	17	472	Clean:	78	15.95%	0.1281	33.6122	317.4340	0.30	
			81.26%	9.05%	0.06%	0.34%	9.30%	Not Clean:	411	84.05%	1.3880	258.2320	1,362.9174	0.76	9.64%
1987															
P	426	0	195	2	1	228	Clean:	47	20.52%	0.1484	41.8245	355.4223	0.21		
			0.00%	45.77%	0.47%	0.23%	53.52%	Not Clean:	182	79.48%	1.0807	193.5879	1,263.3041	0.73	53.76%
T	397	0	203	3	2	189	Clean:	18	9.42%	0.1028	44.0250	304.4417	0.45		
			0.00%	51.13%	0.76%	0.50%	47.61%	Not Clean:	173	90.58%	1.4041	217.1621	1,484.5670	0.74	48.11%
U	2,376	2,373	2	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.87%	0.08%	0.00%	0.00%	0.04%	Not Clean:	1	100.00%	0.6350	171.4500	1,999.0500	-0.20	0.04%
Total For 1987		3,199	2,373	400	5	3	418	Clean:	65	15.44%	0.1358	42.4338	341.3046	0.28	
			74.18%	12.50%	0.16%	0.09%	13.07%	Not Clean:	356	84.56%	1.2366	204.9817	1,372.8947	0.73	13.16%
1988															
P	838	0	413	3	10	412	Clean:	95	22.51%	0.0966	28.9711	336.4426	0.69		
			0.00%	49.28%	0.36%	1.19%	49.16%	Not Clean:	327	77.49%	1.0637	310.2693	1,121.3252	0.78	50.36%
T	875	0	446	8	0	421	Clean:	53	12.59%	0.1633	47.8802	421.2755	0.54		
			0.00%	50.97%	0.91%	0.00%	48.11%	Not Clean:	368	87.41%	0.9816	225.0605	1,334.9189	0.74	48.11%
U	5,836	5,836	0	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			100.00%	0.00%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1988		7,549	5,836	859	11	10	833	Clean:	148	17.56%	0.1205	35.7426	366.8220	0.64	
			77.31%	11.38%	0.15%	0.13%	11.03%	Not Clean:	695	82.44%	1.0203	265.1515	1,234.4223	0.76	11.17%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1989															
P	805	0	350	2	17	436	Clean:	123	27.15%	0.0944	24.4130	269.1524	0.25		
		0.00%	43.48%	0.25%	2.11%	54.16%	Not Clean:	330	72.85%	1.3932	198.6932	1,185.3444	0.72	56.27%	
T	718	0	327	6	1	384	Clean:	55	14.29%	0.1288	43.9891	322.4655	0.78		
		0.00%	45.54%	0.84%	0.14%	53.48%	Not Clean:	330	85.71%	0.9426	210.7703	1,419.8185	0.79	53.62%	
U	4,040	4,039	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.98%	0.02%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%	
Total For 1989		5,563	4,039	678	8	18	820	Clean:	178	21.24%	0.1051	30.4618	285.6256	0.41	
								Not Clean:	660	78.76%	1.1679	204.7317	1,302.5814	0.76	15.06%
1990															
P	1,876	0	844	5	24	1,003	Clean:	309	30.09%	0.1162	27.9138	334.8600	0.65		
		0.00%	44.99%	0.27%	1.28%	53.46%	Not Clean:	718	69.91%	0.8866	154.0421	1,192.3526	0.83	54.74%	
T	1,262	0	610	17	1	634	Clean:	97	15.28%	0.1378	38.0969	332.5237	0.78		
		0.00%	48.34%	1.35%	0.08%	50.24%	Not Clean:	538	84.72%	1.0589	226.0754	1,357.2547	0.71	50.32%	
U	8,490	8,485	3	0	0	2	Clean:	1	50.00%	0.1650	10.0000	33.7500	1.95		
		99.94%	0.04%	0.00%	0.00%	0.02%	Not Clean:	1	50.00%	2.3250	176.0500	1,372.1500	1.70	0.02%	
Total For 1990		11,628	8,485	1,457	22	25	1,639	Clean:	407	24.46%	0.1214	30.2967	333.5634	0.69	
								Not Clean:	1,257	75.54%	0.9615	184.8901	1,263.0743	0.78	14.31%
1991															
P	1,749	0	757	10	14	968	Clean:	269	27.39%	0.1302	27.8784	357.2892	0.51		
		0.00%	43.28%	0.57%	0.80%	55.35%	Not Clean:	713	72.61%	0.9500	163.9430	1,184.4622	0.73	56.15%	
T	1,066	0	449	6	10	601	Clean:	130	21.28%	0.1152	31.5662	281.9131	0.52		
		0.00%	42.12%	0.56%	0.94%	56.38%	Not Clean:	481	78.72%	0.9936	182.6349	1,250.2115	0.78	57.32%	
U	5,834	5,831	2	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.95%	0.03%	0.00%	0.00%	0.02%	Not Clean:	1	100.00%	0.7100	633.1500	1,672.3501	0.05	0.02%	
Total For 1991		8,649	5,831	1,208	16	24	1,570	Clean:	399	25.03%	0.1253	29.0799	332.7306	0.52	
								Not Clean:	1,195	74.97%	0.9674	171.8593	1,211.3353	0.75	18.43%
1992															
P	2,926	0	1324	14	5	1,583	Clean:	550	34.63%	0.1250	25.4151	322.5240	0.59		
		0.00%	45.25%	0.48%	0.17%	54.10%	Not Clean:	1,038	65.37%	0.8132	147.2242	1,161.9386	0.93	54.27%	
T	2,020	0	962	16	3	1,039	Clean:	233	22.36%	0.1180	34.2876	340.2629	0.68		
		0.00%	47.62%	0.79%	0.15%	51.44%	Not Clean:	809	77.64%	0.9262	189.2215	1,260.9829	0.85	51.58%	
U	11,157	11,151	3	0	0	3	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.95%	0.03%	0.00%	0.00%	0.03%	Not Clean:	3	100.00%	0.5583	107.2167	1,158.5833	1.70	0.03%	
Total For 1992		16,103	11,151	2,289	30	8	2,625	Clean:	783	29.74%	0.1229	28.0553	327.8026	0.62	
								Not Clean:	1,850	70.26%	0.8622	165.5246	1,205.2449	0.90	16.35%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1993															
P	2,463	0	1088	10	18	1,347	Clean:	447	32.75%	0.1163	26.6706	337.3828	0.52		
			0.00%	44.17%	0.41%	0.73%	54.69%	Not Clean:	918	67.25%	0.7978	147.6803	1,136.2801	0.75	55.42%
T	2,109	0	911	14	4	1,180	Clean:	211	17.82%	0.1251	31.3768	367.7699	0.50		
			0.00%	43.20%	0.66%	0.19%	55.95%	Not Clean:	973	82.18%	0.7498	160.2589	1,268.0400	0.64	56.14%
U	8,692	8,686	1	0	0	5	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.93%	0.01%	0.00%	0.00%	0.06%	Not Clean:	5	100.00%	0.5120	40.5400	1,143.9000	1.52	0.06%
Total For 1993		13,264	8,686	2,000	24	22	2,532	Clean:	658	25.76%	0.1191	28.1797	347.1270	0.52	
			65.49%	15.08%	0.18%	0.17%	19.09%	Not Clean:	1,896	74.24%	0.7724	153.8530	1,203.9175	0.70	19.26%
1994															
P	4,269	0	1803	13	120	2,333	Clean:	1,062	43.29%	0.1146	23.8356	268.0768	0.64		
			0.00%	42.23%	0.30%	2.81%	54.65%	Not Clean:	1,391	56.71%	0.6969	148.7697	1,003.1738	0.81	57.46%
T	4,005	0	1853	34	4	2,114	Clean:	519	24.50%	0.1189	35.3566	359.0362	0.70		
			0.00%	46.27%	0.85%	0.10%	52.78%	Not Clean:	1,599	75.50%	0.7227	179.2281	1,219.7356	0.84	52.88%
U	15,908	15,905	1	0	0	2	Clean:	1	50.00%	0.3350	60.7500	695.0000	-0.20		
			99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	50.00%	0.4300	17.8500	2,106.8501	-0.10	0.01%
Total For 1994		24,182	15,905	3,657	47	124	4,449	Clean:	1,582	34.59%	0.1162	27.6386	298.1874	0.66	
			65.77%	15.12%	0.19%	0.51%	18.40%	Not Clean:	2,991	65.41%	0.7106	165.0091	1,119.3176	0.82	18.91%
1995															
P	4,623	0	1862	19	147	2,595	Clean:	1,317	48.03%	0.1091	22.9740	267.0841	0.59		
			0.00%	40.28%	0.41%	3.18%	56.13%	Not Clean:	1,425	51.97%	0.6658	145.5314	844.3769	0.82	59.31%
T	3,962	0	1544	34	55	2,329	Clean:	686	28.78%	0.1048	27.9961	311.0906	0.50		
			0.00%	38.97%	0.86%	1.39%	58.78%	Not Clean:	1,698	71.22%	0.7377	143.2399	1,187.3908	0.73	60.17%
U	13,230	13,222	6	0	0	2	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.94%	0.05%	0.00%	0.00%	0.02%	Not Clean:	2	100.00%	0.8200	57.7500	1,051.8500	1.82	0.02%
Total For 1995		21,815	13,222	3,412	53	202	4,926	Clean:	2,003	39.06%	0.1076	24.6940	282.1557	0.56	
			60.61%	15.64%	0.24%	0.93%	22.58%	Not Clean:	3,125	60.94%	0.7050	144.2301	1,030.8897	0.77	23.51%
1996															
P	7,005	0	2730	18	292	3,965	Clean:	2,540	59.67%	0.0949	20.0427	225.6831	0.63		
			0.00%	38.97%	0.26%	4.17%	56.60%	Not Clean:	1,717	40.33%	0.7339	129.1280	819.1991	0.98	60.77%
T	6,413	0	2640	53	77	3,643	Clean:	1,845	49.60%	0.1112	23.6765	275.3254	0.63		
			0.00%	41.17%	0.83%	1.20%	56.81%	Not Clean:	1,875	50.40%	0.5621	103.1386	1,098.0786	0.84	58.01%
U	21,650	21,641	2	0	0	7	Clean:	4	57.14%	0.0925	21.7750	172.9875	1.43		
			99.96%	0.01%	0.00%	0.00%	0.03%	Not Clean:	3	42.86%	0.4083	424.7000	768.5166	1.05	0.03%
Total For 1996		35,068	21,641	5,372	71	369	7,615	Clean:	4,389	54.97%	0.1018	21.5718	246.5031	0.63	
			61.71%	15.32%	0.20%	1.05%	21.71%	Not Clean:	3,595	45.03%	0.6440	115.8197	964.6086	0.90	22.77%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
1997															
P	6,734	0	2202	26	481	4,025	Clean:	2,789	61.90%	0.0866	17.5885	192.2959	0.52		
			0.00%	32.70%	0.39%	7.14%	59.77%	Not Clean:	1,717	38.10%	0.7646	102.8773	769.9690	0.88	66.91%
T	6,569	0	2253	53	326	3,937	Clean:	2,272	53.30%	0.0944	17.7391	241.7193	0.54		
			0.00%	34.30%	0.81%	4.96%	59.93%	Not Clean:	1,991	46.70%	0.5099	86.1452	1,054.2913	0.79	64.90%
U	17,286	17,272	6	0	0	8	Clean:	5	62.50%	0.0960	49.2800	138.6600	1.18		
			99.92%	0.03%	0.00%	0.00%	0.05%	Not Clean:	3	37.50%	1.7333	167.4833	1,212.1167	1.08	0.05%
Total For 1997		30,589	17,272	4,461	79	807	7,970	Clean:	5,066	57.72%	0.0901	17.6873	214.4084	0.53	
			56.46%	14.58%	0.26%	2.64%	26.06%	Not Clean:	3,711	42.28%	0.6287	93.9525	922.8691	0.83	28.69%
1998															
P	10,447	0	3832	29	499	6,087	Clean:	4,408	66.93%	0.0864	16.3599	178.9860	0.69		
			0.00%	36.68%	0.28%	4.78%	58.27%	Not Clean:	2,178	33.07%	0.7424	97.5437	672.5543	0.96	63.04%
T	12,003	0	4011	96	799	7,097	Clean:	4,981	63.08%	0.0816	15.0845	206.0997	0.61		
			0.00%	33.42%	0.80%	6.66%	59.13%	Not Clean:	2,915	36.92%	0.5061	94.3924	984.7975	0.89	65.78%
U	29,841	29,819	13	0	0	9	Clean:	8	88.89%	0.0825	20.4750	329.3500	0.60		
			99.93%	0.04%	0.00%	0.00%	0.03%	Not Clean:	1	11.11%	0.4950	36.0000	240.5500	2.45	0.03%
Total For 1998		52,291	29,819	7,856	125	1,298	13,193	Clean:	9,397	64.85%	0.0839	15.6873	193.4860	0.65	
			57.03%	15.02%	0.24%	2.48%	25.23%	Not Clean:	5,094	35.15%	0.6071	95.7283	851.1481	0.92	27.71%
1999															
P	8,477	0	2152	27	1,082	5,216	Clean:	4,546	72.18%	0.0669	13.1756	145.3257	0.53		
			0.00%	25.39%	0.32%	12.76%	61.53%	Not Clean:	1,752	27.82%	0.8056	95.6047	671.9276	0.91	74.30%
T	10,595	0	3335	72	662	6,526	Clean:	5,324	74.07%	0.0677	13.9351	173.4863	0.58		
			0.00%	31.48%	0.68%	6.25%	61.60%	Not Clean:	1,864	25.93%	0.5276	86.3828	889.4840	0.82	67.84%
U	21,235	21,220	7	0	0	8	Clean:	6	75.00%	0.0675	17.5250	144.5333	0.43		
			99.93%	0.03%	0.00%	0.00%	0.04%	Not Clean:	2	25.00%	0.9075	41.6250	716.5000	0.55	0.04%
Total For 1999		40,307	21,220	5,494	99	1,744	11,750	Clean:	9,876	73.19%	0.0673	13.5877	160.5062	0.56	
			52.65%	13.63%	0.25%	4.33%	29.15%	Not Clean:	3,618	26.81%	0.6624	90.8237	784.0377	0.86	33.48%
2000															
P	15,668	0	4135	43	1,920	9,570	Clean:	9,071	78.95%	0.0624	12.7009	105.1552	0.64		
			0.00%	26.39%	0.27%	12.25%	61.08%	Not Clean:	2,419	21.05%	0.7006	92.2573	655.5741	1.01	73.33%
T	19,197	0	4977	192	2,181	11,847	Clean:	11,165	79.59%	0.0592	12.2215	133.7279	0.62		
			0.00%	25.93%	1.00%	11.36%	61.71%	Not Clean:	2,863	20.41%	0.5381	79.9734	806.5368	0.87	73.07%
U	39,091	39,060	9	0	0	22	Clean:	14	63.64%	0.0639	17.3893	204.5071	0.35		
			99.92%	0.02%	0.00%	0.00%	0.06%	Not Clean:	8	36.36%	1.0200	250.1875	751.1063	1.25	0.06%
Total For 2000		73,956	39,060	9,121	235	4,101	21,439	Clean:	20,250	79.29%	0.0606	12.4398	120.9777	0.63	
			52.82%	12.33%	0.32%	5.55%	28.99%	Not Clean:	5,290	20.71%	0.6131	85.8480	737.4211	0.94	34.53%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
2001															
P	10,770	0	1212	40	2,620	6,898	Clean:	7,989	83.94%	0.0436	9.7175	67.6356	0.50		
			0.00%	11.25%	0.37%	24.33%	64.05%	Not Clean:	1,529	16.06%	0.6153	82.2422	605.2109	0.94	88.38%
T	12,515	0	1386	88	2,947	8,094	Clean:	9,518	86.21%	0.0466	9.8967	84.9898	0.51		
			0.00%	11.07%	0.70%	23.55%	64.67%	Not Clean:	1,523	13.79%	0.6184	86.1421	620.5776	0.85	88.22%
U	22,395	22,382	7	0	0	6	Clean:	4	66.67%	0.1075	20.7625	139.9750	0.88		
			99.94%	0.03%	0.00%	0.00%	0.03%	Not Clean:	2	33.33%	0.2775	33.9000	537.8000	0.10	0.03%
Total For 2001		45,680	22,382	2,605	128	5,567	14,998	Clean:	17,511	85.15%	0.0452	9.8175	77.0849	0.51	
			49.00%	5.70%	0.28%	12.19%	32.83%	Not Clean:	3,054	14.85%	0.6167	84.1554	612.8299	0.89	45.02%
2002															
P	18,659	0	1864	80	5,084	11,631	Clean:	14,573	87.19%	0.0392	8.4983	55.4352	0.55		
			0.00%	9.99%	0.43%	27.25%	62.33%	Not Clean:	2,142	12.81%	0.6749	101.0182	539.4410	1.04	89.58%
T	25,046	0	2314	182	6,582	15,968	Clean:	20,057	88.94%	0.0402	8.8057	72.1076	0.55		
			0.00%	9.24%	0.73%	26.28%	63.75%	Not Clean:	2,493	11.06%	0.5608	69.2268	625.2825	0.90	90.03%
U	42,582	42,551	11	0	0	20	Clean:	16	80.00%	0.0644	11.8625	151.8844	0.66		
			99.93%	0.03%	0.00%	0.00%	0.05%	Not Clean:	4	20.00%	0.2637	64.0625	1,503.2125	0.83	0.05%
Total For 2002		86,287	42,551	4,189	262	11,666	27,619	Clean:	34,646	88.19%	0.0398	8.6778	65.1316	0.55	
			49.31%	4.85%	0.30%	13.52%	32.01%	Not Clean:	4,639	11.81%	0.6132	83.9016	586.4032	0.96	45.53%
2003															
P	9,800	0	496	41	2,815	6,448	Clean:	8,176	88.27%	0.0354	7.9669	52.0751	0.53		
			0.00%	5.06%	0.42%	28.72%	65.80%	Not Clean:	1,087	11.73%	0.6438	83.1777	488.6080	1.00	94.52%
T	12,186	0	839	82	3,165	8,100	Clean:	10,266	91.13%	0.0394	8.3993	56.8407	0.53		
			0.00%	6.88%	0.67%	25.97%	66.47%	Not Clean:	999	8.87%	0.6275	123.5425	543.0081	0.81	92.44%
U	17,879	17,865	9	0	0	5	Clean:	4	80.00%	0.0875	14.8875	230.7125	0.34		
			99.92%	0.05%	0.00%	0.00%	0.03%	Not Clean:	1	20.00%	0.5250	229.2500	1,549.6000	-1.50	0.03%
Total For 2003		39,865	17,865	1,344	123	5,980	14,553	Clean:	18,446	89.84%	0.0376	8.2091	54.7661	0.53	
			44.81%	3.37%	0.31%	15.00%	36.51%	Not Clean:	2,087	10.16%	0.6359	102.5695	515.1565	0.91	51.51%
2004															
P	18,690	0	1057	63	5,812	11,758	Clean:	16,026	91.21%	0.0333	7.7545	39.2637	0.56		
			0.00%	5.66%	0.34%	31.10%	62.91%	Not Clean:	1,544	8.79%	0.6767	98.7656	452.8919	1.13	94.01%
T	32,145	0	1867	250	9,067	20,961	Clean:	28,359	94.44%	0.0303	7.5166	34.7612	0.57		
			0.00%	5.81%	0.78%	28.21%	65.21%	Not Clean:	1,669	5.56%	0.6141	83.0222	440.2795	0.97	93.41%
U	42,451	42,426	10	0	0	15	Clean:	13	86.67%	0.0612	22.6462	80.2731	0.66		
			99.94%	0.02%	0.00%	0.00%	0.04%	Not Clean:	2	13.33%	0.6675	25.8500	903.1250	0.87	0.04%
Total For 2004		93,286	42,426	2,934	313	14,879	32,734	Clean:	44,398	93.25%	0.0314	7.6069	36.3998	0.57	
			45.48%	3.15%	0.34%	15.95%	35.09%	Not Clean:	3,215	6.75%	0.6442	90.5474	446.6245	1.05	51.04%

Model Year	Veh. Type	Emis. Due Veh.	Meet Time and Location Criteria					Total	Percent	CO	HC	NOX	Accel	Emis. Due Veh. Evaluated	
			No			Yes									
			0 Hits	1 Hit	2+ Hits	1 Hit	2+ Hits								
2005															
	P	7,709	0	595	32	2,084	4,998	Clean:	6,543	92.39%	0.0337	7.6206	36.4026	0.55	
			0.00%	7.72%	0.42%	27.03%	64.83%	Not Clean:	539	7.61%	0.6098	74.4116	406.1809	1.05	91.87%
	T	10,798	0	579	65	2,723	7,431	Clean:	9,629	94.83%	0.0303	7.7033	35.0784	0.58	
			0.00%	5.36%	0.60%	25.22%	68.82%	Not Clean:	525	5.17%	0.5454	76.8376	423.1198	0.78	94.04%
	U	13,198	13,188	3	0	0	7	Clean:	6	85.71%	0.0892	24.9083	94.5000	0.87	
			99.92%	0.02%	0.00%	0.00%	0.05%	Not Clean:	1	14.29%	1.1600	65.2000	17.8500	2.85	0.05%
	Total For 2005	31,705	13,188	1,177	97	4,807	12,436	Clean:	16,178	93.82%	0.0317	7.6762	35.6360	0.57	
			41.60%	3.71%	0.31%	15.16%	39.22%	Not Clean:	1,065	6.18%	0.5786	75.5989	414.1664	0.92	54.39%
2006															
	P	18,534	0	1815	56	4,619	12,044	Clean:	15,586	93.54%	0.0319	8.4489	32.4061	0.61	
			0.00%	9.79%	0.30%	24.92%	64.98%	Not Clean:	1,077	6.46%	0.6351	101.9422	326.0751	1.06	89.91%
	T	27,105	0	1468	296	6,854	18,487	Clean:	24,167	95.37%	0.0287	7.6827	31.5925	0.59	
			0.00%	5.42%	1.09%	25.29%	68.21%	Not Clean:	1,174	4.63%	0.5222	80.4291	399.5609	0.98	93.49%
	U	33,129	33,104	10	0	0	15	Clean:	13	86.67%	0.0535	23.7154	100.8500	0.80	
			99.92%	0.03%	0.00%	0.00%	0.05%	Not Clean:	2	13.33%	0.5575	85.8750	296.5750	1.32	0.05%
	Total For 2006	78,768	33,104	3,293	352	11,473	30,546	Clean:	39,766	94.64%	0.0300	7.9883	31.9340	0.60	
			42.03%	4.18%	0.45%	14.57%	38.78%	Not Clean:	2,253	5.36%	0.5762	90.7178	364.3411	1.02	53.35%
2007															
	P	4,914	0	646	22	1,015	3,231	Clean:	3,987	93.90%	0.0331	8.0042	30.6080	0.65	
			0.00%	13.15%	0.45%	20.66%	65.75%	Not Clean:	259	6.10%	0.5718	83.4077	317.7485	1.07	86.41%
	T	7,015	0	511	51	1,511	4,942	Clean:	6,182	95.80%	0.0299	7.6578	29.3510	0.63	
			0.00%	7.28%	0.73%	21.54%	70.45%	Not Clean:	271	4.20%	0.6157	66.5714	268.7594	1.11	91.99%
	U	7,714	7,707	2	0	0	5	Clean:	5	100.00%	0.0500	14.5000	33.8800	0.69	
			99.91%	0.03%	0.00%	0.00%	0.06%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.06%
	Total For 2007	19,643	7,707	1,159	73	2,526	8,178	Clean:	10,174	95.05%	0.0312	7.7969	29.8458	0.64	
			39.24%	5.90%	0.37%	12.86%	41.63%	Not Clean:	530	4.95%	0.5942	74.7990	292.6993	1.09	54.49%
2008															
	P	23,453	0	4633	65	3,640	15,115	Clean:	17,669	94.21%	0.0360	8.9177	29.3575	0.73	
			0.00%	19.75%	0.28%	15.52%	64.45%	Not Clean:	1,086	5.79%	0.6169	81.7303	267.7017	1.16	79.97%
	T	37,545	0	4880	330	6,893	25,442	Clean:	30,818	95.31%	0.0371	8.2339	28.0852	0.70	
			0.00%	13.00%	0.88%	18.36%	67.76%	Not Clean:	1,517	4.69%	0.6021	96.6885	199.2707	1.03	86.12%
	U	42,241	42,140	30	0	0	71	Clean:	65	91.55%	0.0679	10.5892	42.3262	0.81	
			99.76%	0.07%	0.00%	0.00%	0.17%	Not Clean:	6	8.45%	0.7375	71.1667	1,031.2333	1.12	0.17%
	Total For 2008	103,239	42,140	9,543	395	10,533	40,628	Clean:	48,552	94.90%	0.0368	8.4859	28.5673	0.71	
			40.82%	9.24%	0.38%	10.20%	39.35%	Not Clean:	2,609	5.10%	0.6086	90.4034	229.6685	1.08	49.56%
	Overall Total	855,429	436,562	75,591	2,584	76,208	264,484	Clean:	285,003	83.65%	0.0435	9.7846	69.3227	0.60	
			51.03%	8.84%	0.30%	8.91%	30.92%	Not Clean:	55,689	16.35%	0.6923	115.5101	800.8986	0.90	39.83%