

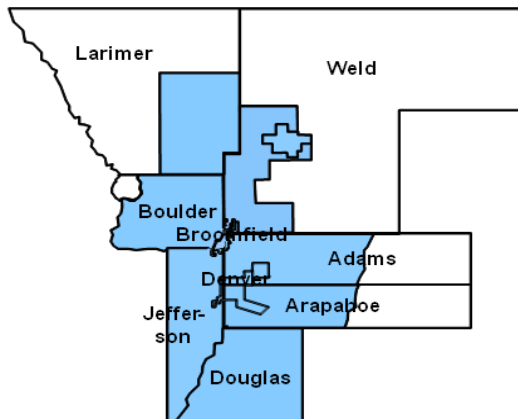


COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Automobile Inspection and Readjustment (AIR) Program Annual Report Calendar Year 2019



July 1, 2020

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Executive Summary

The purpose of the Automobile Inspection and Readjustment Program is to improve air quality through the detection and repair of excessively emitting gasoline-powered vehicles. Mobile source emissions constitute one of the larger categories of controllable emissions that contribute to summertime ozone concentrations. Lowering vehicle emissions by repairing high emitting vehicles contributes to a cleaner motor vehicle fleet and improves the air quality throughout Colorado's Front Range.

The State of Colorado operates a registration denial based motor vehicle emissions inspection program in the nine-county Front Range area. This includes all, or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties.

Vehicles are exempt from inspection for the first seven model years. Newer model year vehicles that undergo ownership change during this period are also exempt from inspection if they have at least 12 months remaining in their seven-year exemption period.

The Inspection and Maintenance network consists of 18 Air Care Colorado emissions inspection stations with 97 inspection lanes located throughout the nine-county program area. These centralized inspection stations inspect gasoline-powered vehicles regardless of age. Air Care Colorado also operates the Remote Sensing Clean Screen program, which consists of 23 on-road Remote Sensing Device units. There are also two independent test-only stations that only inspect 1981 and older gasoline-powered vehicles. Additionally, there are 20 licensed vehicle fleet owners who self-inspect their own qualifying commercial and government vehicles.

The Colorado Automobile Inspection and Readjustment (AIR) Program includes four primary inspections types, which are administered depending on the vehicle model year, weight, and dynamometer compatibility. The inspection types are:

- On-Board Diagnostic (OBD) - electronic query of the vehicle's computer control system for vehicles that are 11 years old and newer.
- I/M240 - dynamometer based emissions inspection for light-duty gasoline-powered vehicles that are model years 1982 through 12 years old.
- Two-Speed Idle (TSI) - measures vehicle emissions at idle and raised idle. TSI inspections are administered to light-duty vehicles that are 1981 and older and all model year heavy-duty gasoline-powered vehicles.
- Remote Sensing - measures tailpipe emissions while a vehicle passes by an on-road remote sensing unit. Vehicles that meet the Clean Screen standards can forgo the traditional OBD or I/M240 dynamometer inspection performed at the Air Care Colorado testing facilities.

The AIR Program also includes a visual inspection to check for required emissions control equipment on vehicles that are model year 1995 and older. Additionally,

vehicles receive a gas cap pressure test (light-duty only) along with an inspection for visible smoke.

In calendar year 2019, there were 286,115 initial OBD inspections, 575,184 initial I/M240 inspections and 42,809 Two-Speed Idle inspections conducted throughout the AIR Program network. The OBD failure rate was 6.52%, the I/M240 inspection failure rate was 8.18%, and the Idle inspection failure rate was 7.25%. Remote sensing units observed 168,186 unique vehicles that met clean screen program requirements. Of these, 136,304 vehicles participated in the program.

The state estimates that the net cost of the total AIR program during 2019 was approximately \$63.0 million. This equates to \$8,746 per ton of ozone precursors removed from Colorado's airsheds. The net cost is a combination of vehicle inspection costs, repair costs, vehicle registration fees, motorist inconvenience, and estimated fuel savings.

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 Inspection and Maintenance Program that uses an electronic query of the On-Board Diagnostic system for light-duty gasoline-powered vehicles that are 11 years old and newer. A dynamometer-based I/M240 emissions inspection is used for model year 1982 through 12 years old light-duty gasoline-powered vehicles. It includes a Two-Speed Idle emissions inspection for 1981 and older light-duty and all model year heavy-duty gasoline-powered vehicles. A visual emissions control system inspection is conducted on all 1975 through 1995 model year vehicles. A gas cap pressure test (light-duty only) and a visual opacity (smoke) inspection are performed on all 1975 and newer light-duty vehicles.

The AIR Program is comprised of the nine-county Front Range area, including all or portions of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties. Vehicles registered in the latter two North Front Range counties began to be inspected on November 1, 2010.

The inspection frequency is contingent on the vehicle model year. Model year 1982 and newer vehicles are inspected biennially (every two years), while 1981 and older model year vehicles are inspected annually. The inspection cycle for new vehicles begins after a seven-model year exemption period. This allows the newest and cleanest model year vehicles to forgo periodic emissions inspections. Vehicles sold during their exemption period are also exempt from inspection as long as there are at least 12 months remaining in the exemption period.

To further improve motorist convenience, the AIR program includes a Clean Screen Program using remote sensing devices. The program monitors vehicle emissions while simultaneously photographing the license plate as a vehicle passes through infrared and ultraviolet beams of light. Vehicle owners are notified by their local County Clerk via registration renewal card if their vehicles have met the program criteria. Vehicles that pass the remote sensing inspection process are not required to be inspected at a traditional inspection facility and can continue through the vehicle registration process.

The contractor for the program is Envirotest Systems Corp. (Envirotest is an operating subsidiary of Opus Inspection). They operate and maintain all of the Air Care Colorado vehicle emissions inspection stations, the Clean Screen testing units and manage all related data and communication services. 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 Emissions

section in the Division of Motor Vehicles at the Colorado Department of Revenue regulates the emissions inspection facilities and inspectors working in the emissions program areas. The AIR Program is enforced through the denial of vehicle registration by the County Clerks. Proof of a passing emissions inspection is a prerequisite to renewing a vehicle's registration.

Automobile Inspection and Readjustment Program

AIR Program Network

The AIR Program network consists of 18 Air Care Colorado emissions inspection stations with a total of 97 inspection lanes, two independent test-only stations that inspect model year 1981 and older gasoline-powered vehicles, and 20 fleet stations that are licensed to inspect qualifying commercial and governmental fleet vehicles. Fleet inspection stations are licensed to only test qualifying commercial and governmental fleet vehicles that they own.

The Clean Screen roadside inspection program consists of, on average, 12 remote sensing units deployed within the program area. The units were rotated among 104 locations throughout the program area, with the primary locations being highway on ramps.

The division operates six Emissions Technical Centers throughout the AIR program area to help both the motoring public and the repair industry.

New Program Developments

On January 17, 2019, Governor Polis signed Executive Order B 2019 002, Supporting a Transition to Zero Emission Vehicles (ZEV), which required CDPHE to develop a rule to establish a ZEV program. On August 16, 2019, the Colorado Air Quality Control Commission (AQCC) voted to adopt an alternate ZEV Rule presented jointly by the Colorado Department of Transportation and the Colorado Energy Office. Beginning with automotive model year 2023, automakers must make a minimum percentage of Zero Emission Vehicles available for sale as part of their total light-duty vehicle offerings in Colorado.

The purpose of this executive order was to ensure progress toward reducing greenhouse gas emissions from motor vehicles in Colorado. Although the ZEV Regulation does not directly affect the AIR Program, Mobile Sources staff was

involved with the development process and will provide oversight and enforcement beginning in 2022.

A challenge to any modern vehicle emissions program is identifying vehicles that have been modified to erroneously pass the OBD inspection through the use of emissions defeat devices or software programming. In 2019, Mobile Sources staff implemented additional software validation measures to identify vehicles that do not meet the original manufacturer profile. When a vehicle's profile does not match what is expected, the vehicle is required to visit an Emissions Technical Center where a pass/fail determination is made. In 2019, there were 387 vehicles identified and referred to the Emissions Technical Centers.

In 2019, Mobile Sources staff began a project to evaluate excess evaporative emissions related to OBD diagnostic trouble codes. Vehicles with specific OBD trouble codes were recruited from the emissions testing stations. The evaporative emissions from thirty-one vehicles were measured pre and post repair. At the time of this report, the results were still being evaluated. This research may help contribute to program modifications that will reduce excess hydrocarbon emissions. Mobile Sources staff will begin phase two of this study in 2020.

Emissions Technical Centers

Pursuant to Colorado Revised Statutes, the division is required to operate Emissions Technical Centers throughout the program area. The division operates six centers that provide assistance to the motoring public, repair industry and the emissions testing contractor. These centers also provide technical support for the Department of Revenue in assessing requirements for repair and hardship waivers.

In 2019, these technical centers performed approximately 4,763 vehicle evaluations. Vehicle evaluations are completed to help assist the motoring public with proper emissions related repairs and to address potential vehicle tampering problems. In addition to vehicle evaluations, technical center staff received approximately 13,500 phone calls to answer questions from both the motoring public and repair industry.

In 2019, technical center staff conducted four repair industry training seminars. Repair industry training is completed to help educate technicians on proper emissions related repairs and to inform the industry of any impactful program changes.

The Emissions Technical Centers are a vital part to the success of the AIR Program. Technical center staff provide frontline vehicle owner support and provide valuable input that has helped shape the current emissions program.

On-Board Diagnostic Inspection Program

In 2019, vehicles model year 2009 through 2012 were required to receive an On-Board Diagnostic (OBD) inspection. Additionally, vehicles model year 1996 through 2008 received an alternate OBD inspection if the vehicle was incompatible with the I/M240 dynamometer, allowing OBD fail rates to be measured for these vehicles, as explained in the I/M240 section.

The OBD inspection involves a visual assessment of the Malfunction Indicator Light (MIL), also known as a check engine light, and an electronic query of the computer control system to determine if there are emissions problems. A vehicle's OBD system will command the MIL on if the emissions output is elevated at least 1.5 times the Environmental Protection Agency certification levels.

The OBD inspection process also includes a functional inspection of the gas cap and a visual inspection of the exhaust for opacity (smoke).

OBD – Initial Inspection Results

There were a total of 286,115 initial OBD inspections conducted in 2019. A vehicle will fail the OBD inspection if the Malfunction Indicator Lamp is illuminated or not functioning (Visual Fail) and/or the MIL is commanded on by the OBD system. Furthermore, a failing test may occur if the vehicle is emitting visual opacity (smoke), or has a faulty or missing gas cap. In 2019, there were 18,646 vehicles that failed their initial OBD inspections, which included failures for the MIL commanded on, visual inspection of the MIL, gas cap pressure, and visual opacity, resulting in an OBD initial failure rate of 6.52%. Vehicles that fail their initial inspection must undergo repairs and then return to an emissions station for a post-repair emissions inspection. Figure 1 shows the overall OBD initial failure rates by model year and vehicle type. Additional information regarding initial OBD failures is available in the Initial OBD Inspection Report within Appendix A2.

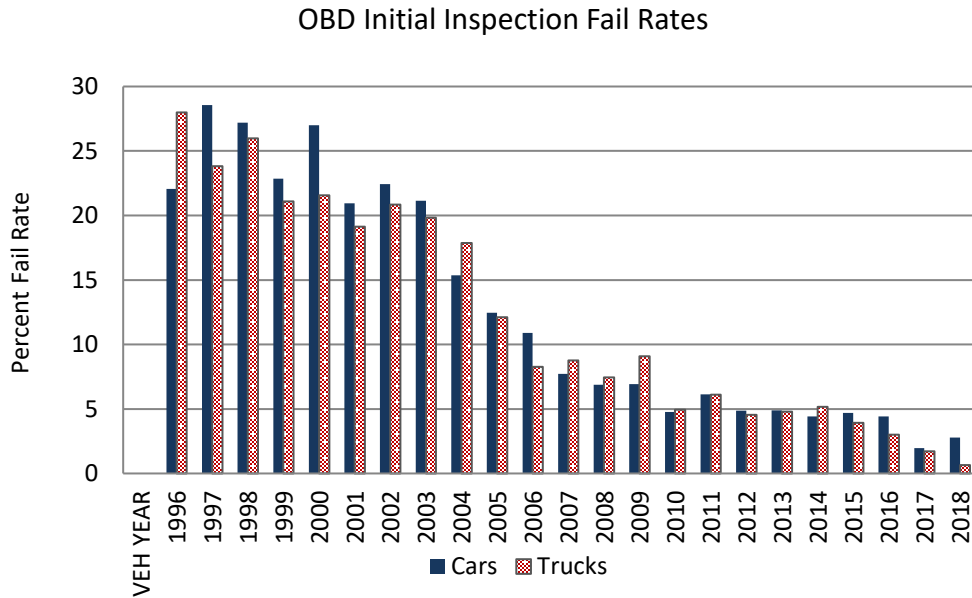


Figure 1 – OBD Initial Inspection Fail Rates by Model Year and Vehicle Type

Figure 1 demonstrates that the lowest failure rates are associated with the newest model year vehicles. This has prompted the state to exempt all new vehicles from periodic emissions inspections for the first seven model years. Nevertheless, some motorists had their vehicles inspected during the model year exemption period. This permits failure rates to be measured for 2013 and newer model year vehicles as shown in Figure 1.

Of the 18,646 overall failures, 12,110 vehicles failed their initial OBD MIL inspection resulting in an OBD MIL initial failure rate of 4.23%. Figure 2 shows the MIL failure rates by model year and vehicle type. These MIL failures include vehicles that failed for the MIL being commanded on and/or the visual MIL inspection, which is explained in the OBD visual inspection results section. Vehicles that failed for MIL and Gas Cap, as explained in OBD Initial Inspection Failure Report (Appendix A3), are also included.

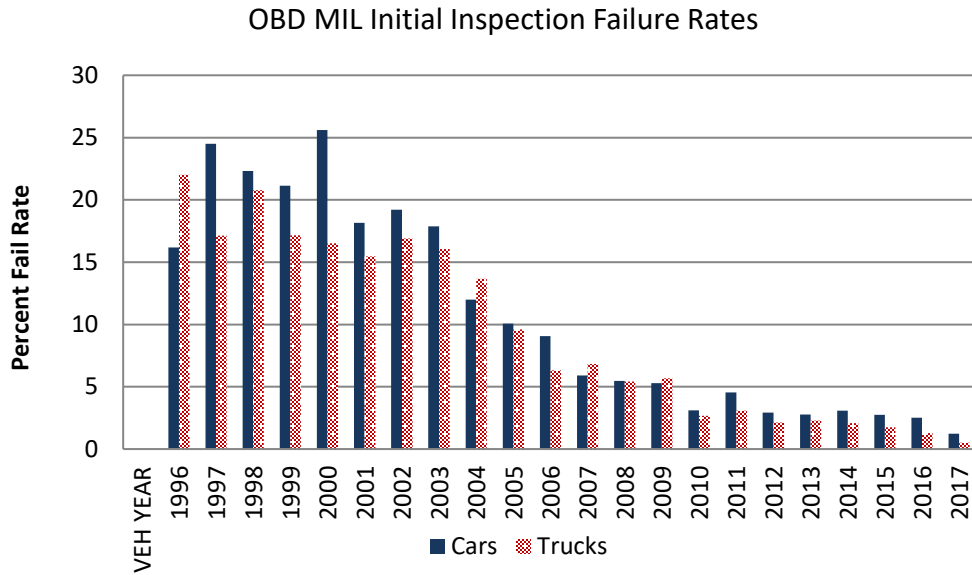


Figure 2 – OBD MIL Fail Rates by Model Year and Vehicle Type

Additional information on MIL inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

A vehicle’s OBD system may not communicate with the inspection equipment. If the MIL passes the visual inspection but the OBD system does not communicate the vehicle is given an alternate I/M240 inspection. In 2019, 2,677 vehicles did not communicate and received an alternate I/M240 inspection. The pass/fail results and emissions rates for these vehicles are included in the I/M240 section of this report. The purpose of administering an alternate I/M240 inspection is to maximize customer convenience, as it reduces the number of required trips to the inspection station.

In order for a vehicle’s emissions system to be properly evaluated, certain vehicle equipment parameters must be met before the diagnostic process can begin. These parameters are evaluated by the OBD system and will report the status of supported emissions systems through various “readiness monitors.” A vehicle will receive an OBD inspection if the supported readiness monitors are set to “Ready.” If the MIL passes the visual inspection but the required readiness monitors are not set to “Ready,” the vehicle is given an alternate I/M240 inspection. The readiness monitor standard varies by model year grouping so some vehicles may receive an OBD inspection with one or two readiness monitors set to “Not Ready.” In 2019, 12,080 vehicles were “Not Ready” to receive an OBD inspection and received an alternate I/M240 inspection instead. The pass/fail results and emissions rates for these vehicles are included in the I/M240 section of this report.

Some vehicles are not compatible with the alternate I/M240 inspection due to the vehicle's configuration, such as hybrids or all-wheel drive trucks with a wheel base that exceeds the limitations of the dynamometer. If the MIL passes the visual inspection, but the OBD system is "Not Ready" or a problem exists with the vehicle's OBD system and the vehicle is not compatible with the dynamometer, then the vehicle receives an incomplete inspection. Vehicles that receive an incomplete inspection must have the OBD systems communication issue resolved or have the readiness monitors meet the "Ready" criteria. There were 13,735 (4.58%) initial incomplete inspections in 2019. Additional information regarding incomplete OBD inspections is available in the Initial OBD Incomplete Inspection Report within Appendix A10.

In addition to the mandatory OBD inspection performed on model year vehicles 2009 through 2012, an advisory OBD inspection was completed on all 1996 through 2008 vehicles subject to the I/M240 inspection. The advisory OBD inspection included a visual MIL examination and a check of the MIL command status. These OBD inspection statistics are available in the OBD Initial Inspection Emissions Report in Appendix A9.

OBD – Gas Cap Inspection Results

Another element of the OBD Program inspection is a visual and functional inspection of gas caps. Inspectors verify that a gas cap is present, and then connect each gas cap to a device that pressurizes the cap and measures the decay of that pressure over time, which indicates a fuel vapor leak. If the gas cap is missing or if the pressure decay exceeds the standard, then the gas cap fails the inspection and the motorist is required to install a functional gas cap.

The benefit of this inspection 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 one ton of hydrocarbons per day in Colorado.

For vehicles receiving an OBD inspection, there were 7,221 gas cap failures (2.52%) in 2019. Additional information on Gas Cap inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

Figure 3 shows the percentage of gas cap failures by model year

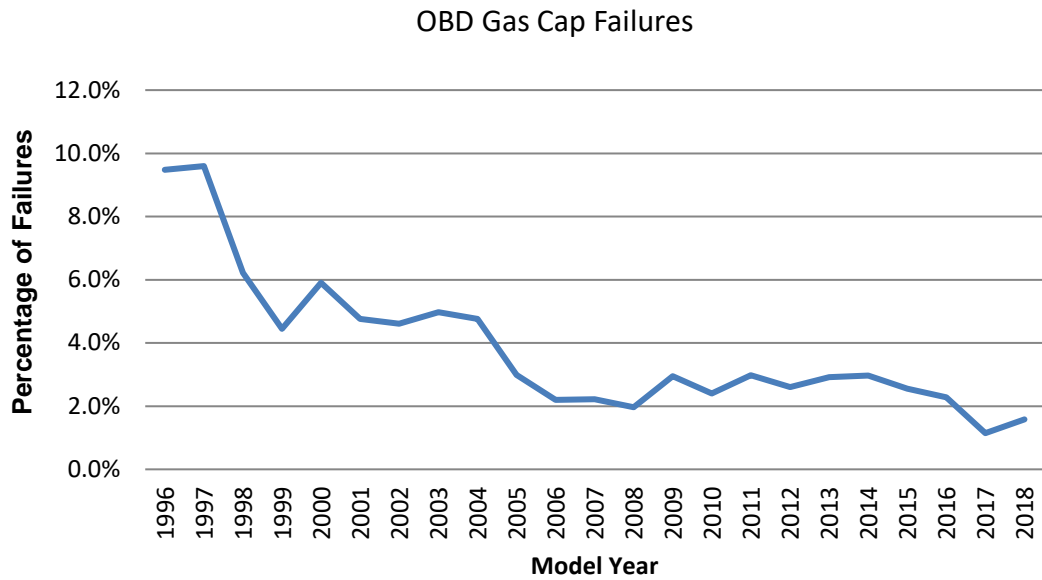


Figure 3 – OBD Gas Cap Failure Percentage by Model Year (1996-2018)

This chart only accounts for the gas cap failures associated with the OBD inspection.

OBD – Visual Inspection Results

Vehicles receiving an OBD inspection can fail for a visual inspection of its Malfunction Indicator Light. If the MIL bulb does not illuminate with the key on and engine off, or if it does not turn off after the engine is started, then the visual MIL inspection fails. Visual MIL failures can be in addition to the MIL commanded on failures. In 2019, 9,088 vehicles (3.18%) failed the visual MIL inspection. These vehicles are included in the overall OBD initial failure section. Additional information on visual MIL inspection activity is available in the Initial OBD Inspection Failure Report in Appendix A3.

OBD – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some of the vehicles that fail their initial OBD inspection may continue to fail after their initial repair attempt. In 2019, 16,767 vehicles were given an OBD post-repair retest. Of these vehicles, 2,317 failed a second time, resulting in a 13.82% OBD initial retest failure rate. Additional information

on retest activity is available in the OBD Retest Frequency Report in Appendix A6.

As previously noted, a vehicle's OBD system must have the required readiness monitors set to "Ready" in order to get an OBD inspection. The program found 7,928 vehicles (26.95% of all initial OBD retest inspections) were "Not Ready" or had OBD communication issues during their initial post-repair inspections and received incomplete retests. When a vehicle has its battery disconnected or has its Diagnostic Trouble Codes manually cleared, the readiness monitors will remain in a "Not Ready" status until a manufacturer specific drive cycle is completed. The division has an extensive outreach program to educate and inform motorists and repair shops how to properly set readiness monitors after repairs are completed. The goal of this outreach is to reduce the number of vehicles that return for a retest without having the required readiness monitors set to "Ready". Additional information is provided in the OBD Retest Incomplete Inspection Report in Appendix A11.

OBD – Post-Repair Inspection Results

Vehicles that fail their OBD emissions inspection potentially have higher emissions than vehicles that pass OBD inspection. The improved emissions from repairing these vehicles generate the OBD program's air quality benefit. Additional information on retest activity is available in the OBD Retest Frequency Report in Appendix A6.

OBD – Tampering Identification Results

In 2019, vehicles receiving an OBD inspection had to meet specific criteria to ensure that the OBD system had not been tampered. It's not uncommon for the OBD system to be modified to report normal operating conditions when aftermarket emissions defeat devices have been installed. When a vehicle is identified as being tampered it is referred to an Emissions Technical Center where the vehicle is subject to an evaluation and the vehicle owner is advised on what repairs need to be completed to obtain a passing inspection.

In 2019, 387 vehicles were identified and referred to the Emissions Technical Centers. Of those 387 vehicles, 210 were evaluated, repaired and received a passing emissions inspection. There were 177 vehicles that were unresolved at the time of this report.

I/M240 Program Results

The I/M240 element of the program uses a 240-second loaded-mode transient dynamometer inspection cycle to measure exhaust emissions. This emissions inspection cycle is a derivative of the Federal Test Procedure that is used to certify new vehicles for emissions. The I/M240 inspection also includes a visual inspection of emissions control equipment for 1995 and older model year vehicles, a visual and pressure test of the gas cap and a visual inspection of the exhaust for opacity (smoke). Vehicles model year 1996 and newer that are I/M240 tested also receive a visual inspection of the OBD Malfunction Indicator Light as an advisory check.

I/M240 – Initial Inspection Results

In 2019, there were 575,184 initial I/M240 inspections conducted. The majority of vehicles pass this initial I/M inspection. Vehicles that fail their initial inspections must undergo repairs and then return to an emissions inspection station for additional testing.

Vehicles can fail for a number of reasons, including missing or broken emission control equipment (1995 and older model year vehicles), excess exhaust emissions, visual opacity (smoke), or faulty or missing gas caps. In 2019, 47,043 vehicles failed their initial I/M240 inspections, resulting in an initial failure rate of 8.18%. Of these, 22,623 vehicles failed for excess exhaust emissions, or an exhaust emissions failure rate of 3.93%.

There were a small number of vehicles that were tested within their exemption period that are not included in Figures 4, 5, 6, 7, and 8. There were not enough vehicles for model years 2013 and newer to accurately represent average emissions rates.

Figure 4 shows the overall I/M240 initial failure rates by model year and vehicle type. Overall failures consist of vehicles with excessive exhaust emissions, gas cap pressure failures, opacity and/or visual equipment test failures.

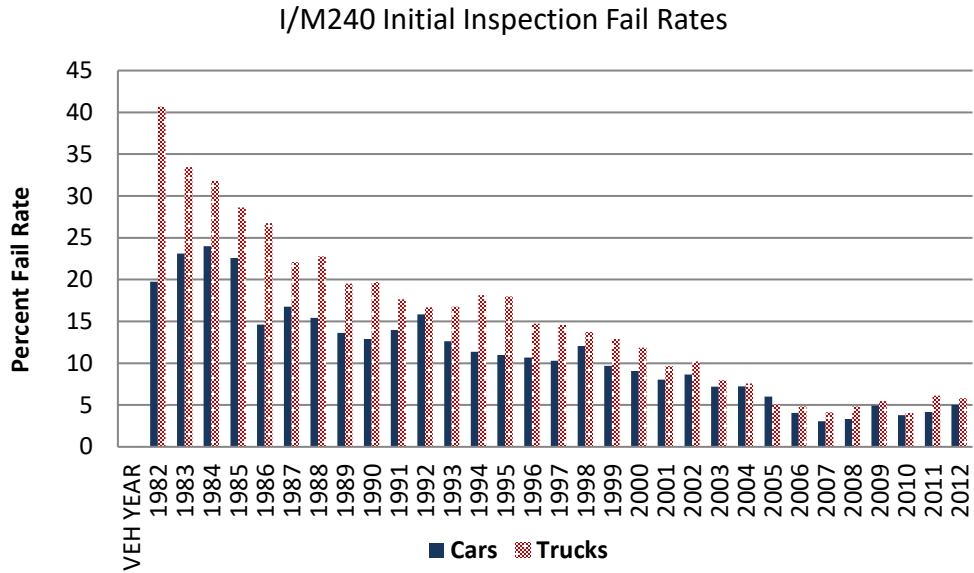


Figure 4– I/M240 Initial Inspection Fail Rates by Model Year and Vehicle Type (1982-2012)

In 2019, model year 2008 and older vehicles were required to receive I/M240 inspections, however; model year 2008 and newer vehicles may have received alternate I/M240 inspections if the vehicles’ OBD systems were “Not Ready” or did not communicate and therefore allowing I/M240 exhaust fail rates to be measured for these vehicles.

Figure 5 shows rates of vehicles that failed for excessive exhaust emissions, sorted by model year and vehicle type.

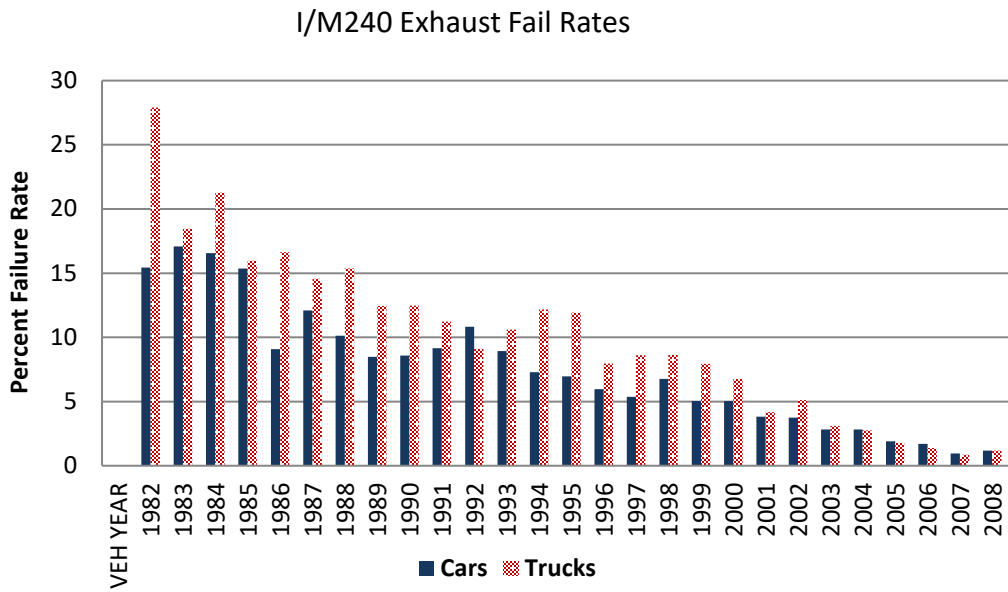


Figure 5 – I/M240 Exhaust Fail Rates by Model Year and Vehicle Type (1982-2008)

Figures 6, 7, and 8 show the initial exhaust emission results for hydrocarbons, carbon monoxide, and nitrogen oxides, respectively.

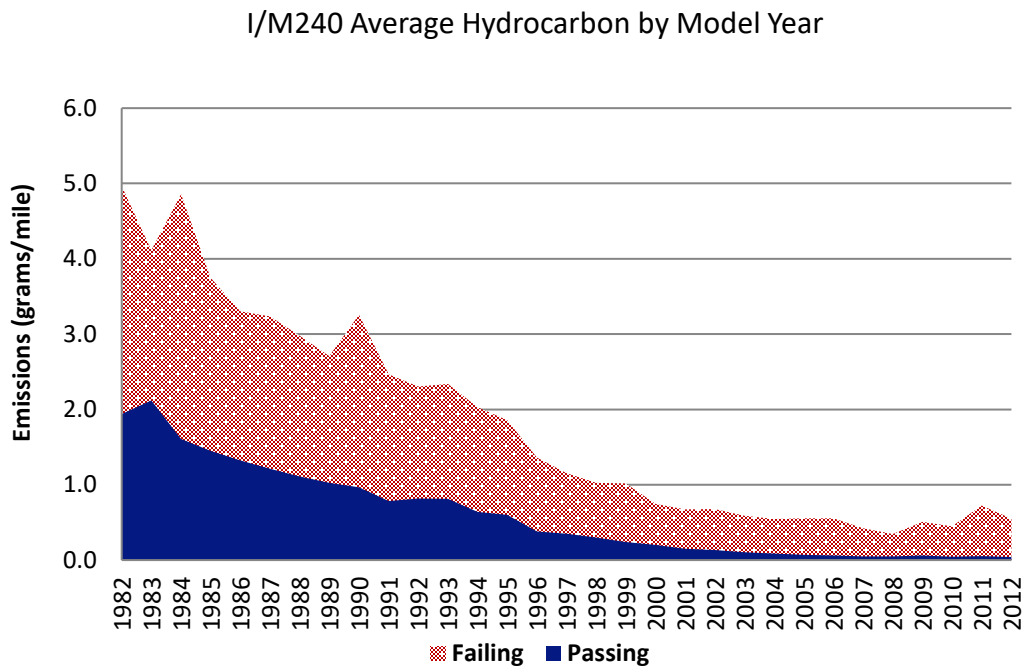


Figure 6 – I/M240 Average Hydrocarbon Emissions by Model Year (1982-2012)

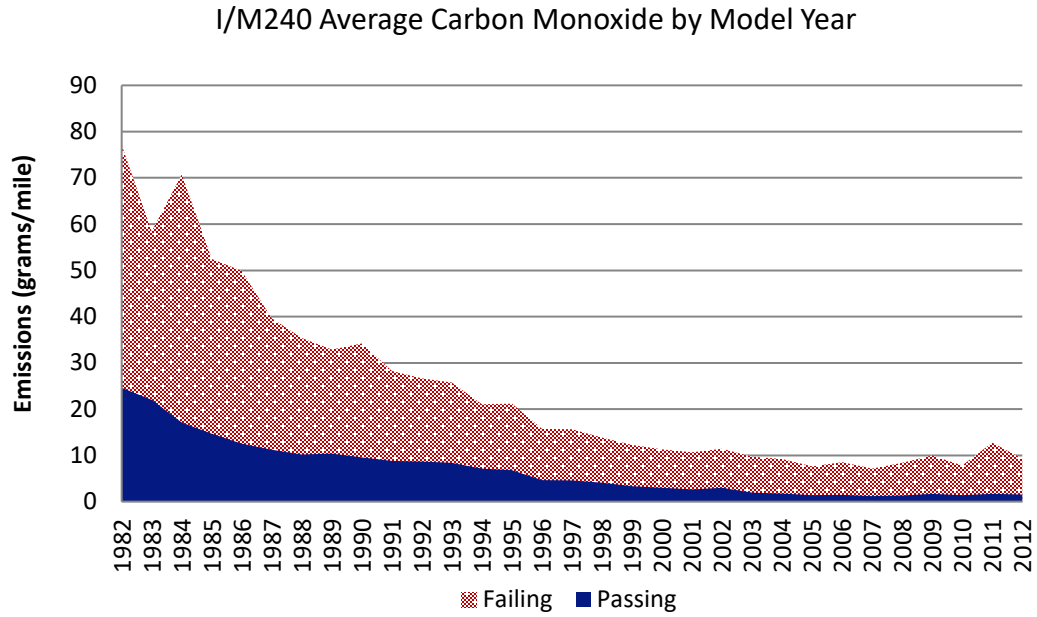


Figure 7 – I/M240 Average Carbon Monoxide Emissions by Model Year (1982-2012)

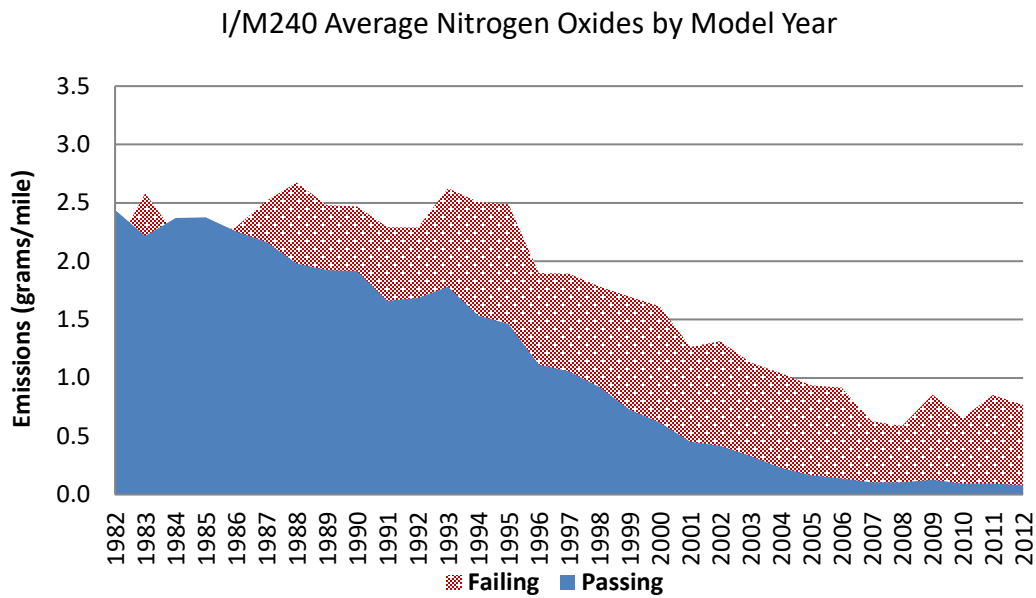


Figure 8 – I/M240 Average Nitrogen Oxides Emissions by Model Year (1982-2012)

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

As these figures show, HC, CO, and NO_x emissions are highest for the oldest vehicles. As expected, average exhaust emissions drop significantly for newer vehicles (in terms of both passing and failing emissions).

I/M240 – Gas Cap Pressure Inspection Results

The inspection program includes a visual and functional test of each vehicle’s gas cap. Inspectors install each gas cap on a pressurizing device that measures pressure decay over time. If the pressure decay exceeds the standard, then the gas cap fails and the motorist is required to install a functional gas cap.

The benefit of this test is a reduction of gasoline vapors venting to the atmosphere, a significant factor in ground-level ozone formation. EPA’s emissions model, MOVES, estimates that a functional gas cap testing program removes approximately one ton of hydrocarbons each day in Colorado.

There were 25,378 vehicles subjected to the I/M240 inspection that failed the gas cap test in 2019; resulting in a failure rate of 4.41%. Figure 9 shows the number of gas cap pressure failures by model year.

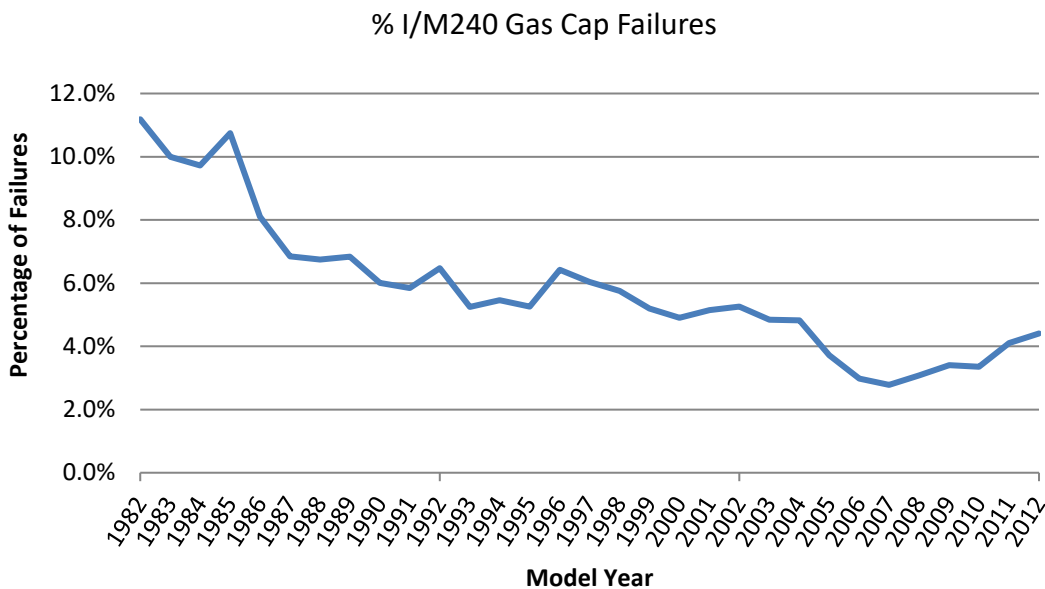


Figure 9 – I/M240 Gas Cap Failure Percentage by Model Year (1982-2012)

This chart only accounts for the gas cap failures associated with the I/M240 inspection.

I/M240 – Visual Inspection Results

All model year 1982 through 1995 vehicles are subjected to a visual inspection of their secondary air injection system, catalytic converter(s), and/or oxygen sensor(s).

In 2019, 335 vehicles failed for missing or improperly installed catalytic converter(s), 358 vehicles failed for a missing or tampered air injection system and 201 vehicles failed for a missing or tampered oxygen sensor(s).

I/M240 – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some vehicles that fail their initial I/M240 inspections may continue to fail even after initial repairs.

In 2019, 43,661 vehicles received an initial post-repair I/M240 retest. Of these, 10,141 failed again, thus resulting in a 23.23% I/M240 initial retest failure rate. Additional information on retest activity is available in the I/M240 Retest Frequency Report in Appendix B6.

I/M240 – Post-Repair Inspection Results

Vehicles that fail their emissions inspection 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 failed their initial I/M240 inspections and received a subsequent retest, average emissions from vehicles that passed a subsequent retest, and the percent reduction by pollutants and vehicle types in grams per mile.

Table 1 - I/M240 Passed Retest Inspection Results (2019)

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	1.10	14.37	1.43	0.27	3.54	0.60	64.15	65.62	44.68
Trucks	1.38	19.02	1.95	0.40	5.11	0.96	56.56	61.41	37.16
TOTAL	1.28	17.30	1.76	0.35	4.51	0.82	59.08	62.77	39.46

Two-Speed Idle Inspection Results

The AIR Program requires non-exempt¹ model year 1981 and older gasoline-powered vehicles to undergo annual Two-Speed Idle inspections. Fleet-owned vehicles model year 1995 and older are Idle inspected annually. Fleet-owned vehicles model year 1996 and newer are OBD inspected annually (these vehicles are included in the OBD section). Heavy-duty gasoline-powered vehicles newer than model year 1981 undergo Idle inspection, but on a biennial (every two years) basis.

The Idle inspection measures vehicle emissions at idle and raised (2500 rpm) idle. Only hydrocarbon and carbon monoxide emissions are measured, with no engine load placed on the vehicle. NOx emissions are not measured as part of the two-speed idle inspection protocol because NOx is not produced in significant amounts at idle and when the vehicle is not under load. These inspections measure vehicle exhaust pollutant concentration levels in parts per million for hydrocarbon and percent for carbon monoxide, not the actual mass of emissions. The Two-Speed Idle inspection also includes a visual inspection of emissions control equipment (for 1975 through 1995 newer model year vehicles), a visual and pressure test of the gas cap (light-duty only) and a visual inspection of the exhaust for opacity (smoke).

¹ Exempt vehicles include vehicles registered as collector series, street rods, farm vehicles, or horseless carriage.

Two-Speed Idle – Initial Inspection Results

In 2019, 42,809 vehicles underwent Idle inspections within the program area. Of these vehicles, 3,105 (or 7.25%) failed their initial inspections, with 2,543 (5.94%) failing the exhaust portion of the inspection.

Figures 10, 11, and 12 show failure rates by model year, along with the average emissions of passing and failing vehicles by pollutant. Model year 1974 in these figures include all failing vehicles of model year 1974 and earlier. There were a small group of vehicles that were tested within their exemption period that are not included in Figures 10, 11, and 12. There were not enough vehicles for model years 2013 and newer to accurately represent average emissions rates.

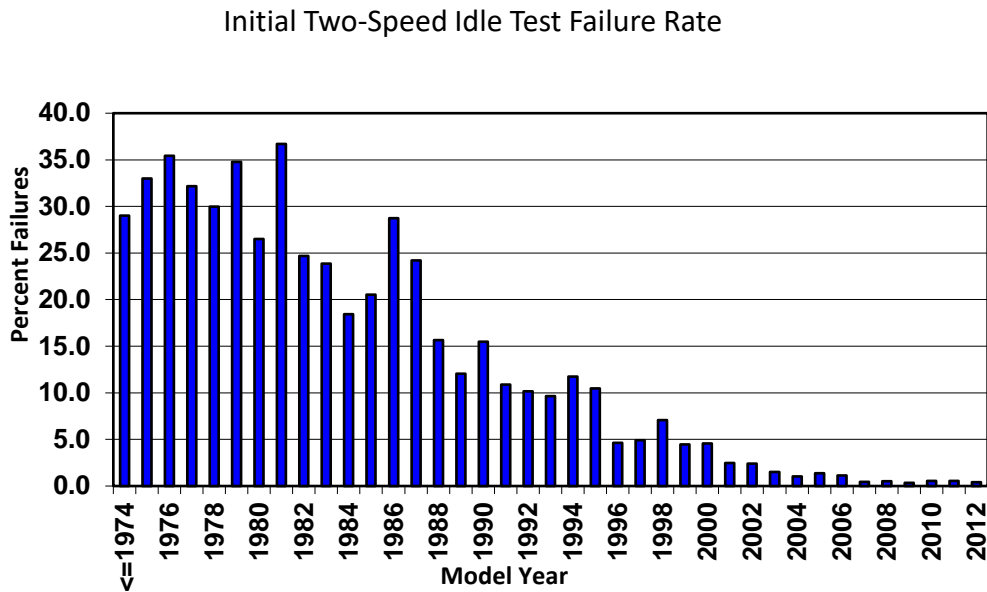


Figure 10 – Two-Speed Idle Inspection Initial Inspection Fail Rate by Model Year

Two-Speed Idle Test - Hydrocarbon

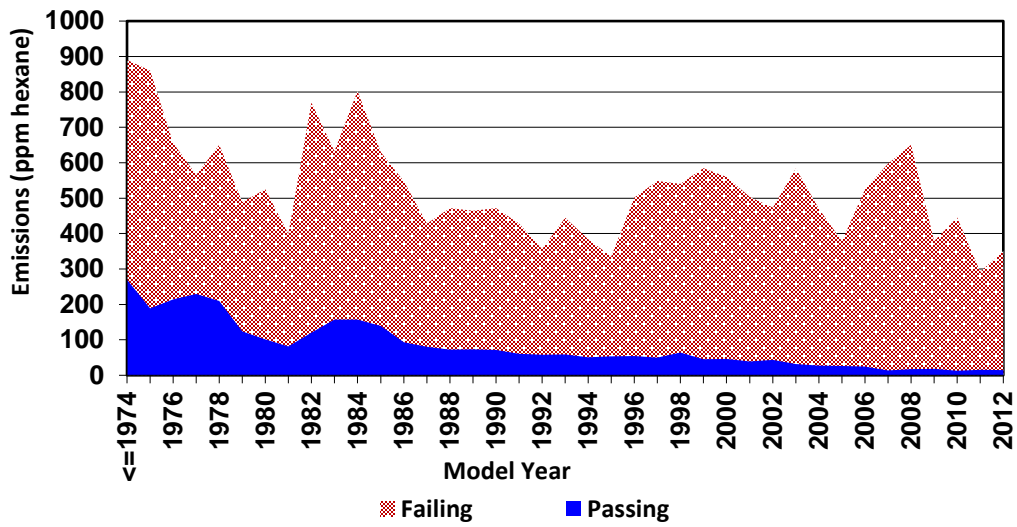


Figure 11 – Two-Speed Idle Inspection Average Hydrocarbon by Model Year

Two-Speed Idle Test - Carbon Monoxide

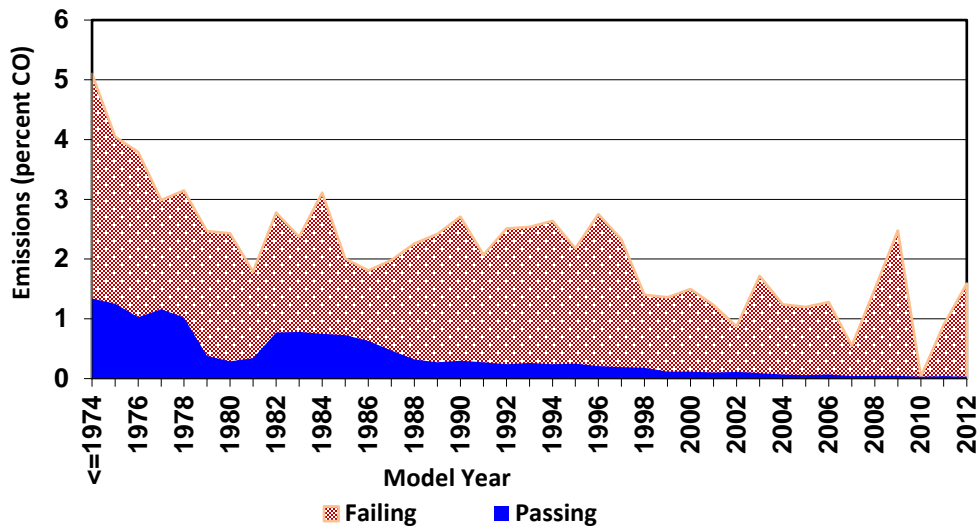


Figure 12 – Two-Speed Idle Inspection Average Carbon Monoxide by Model Year

Two-Speed Idle – Gas Cap 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. Two-Speed Idle tested light-duty vehicles (model year 1975 and newer) must undergo a gas cap pressure inspection. Inspectors install 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, then the vehicle fails the inspection and motorists are required to install a functional cap. There were 450 gas cap failures during two-speed idle inspections in 2019. This is a failure rate of 12.03% of vehicles subjected to gas cap inspection.

Two-Speed Idle – Visual Inspection Results

Two-Speed Idle inspected vehicles undergo a visual inspection of the secondary air injection system, catalytic converter, and oxygen sensor. There were 3,105 vehicles that failed the Two-Speed Idle inspection in 2019. Of these, 169 vehicles failed for missing or improperly installed catalytic converter(s), 261 failed for a missing or tampered air injection system, and 22 failed for missing oxygen sensor(s).

Two-Speed Idle – Multiple Retests

Failing vehicles are required to undergo retesting after repairs are made. Some vehicles that failed their initial Idle inspections may continue to fail after their initial repairs. There were 2,644 vehicles given initial post repair retests in 2019. Of these vehicles, 950 failed again, resulting in a 35.93% initial Idle retest failure rate. Additional information on retest activity is available in the Idle Retest Frequency Report in Appendix C6.

Two-Speed Idle – Post-Repair Inspection Results

Vehicles that fail their initial Idle exhaust emissions inspections generally have much higher emissions than vehicles that pass the inspection initially. After failing their emissions inspections, vehicles must undergo repairs until they pass the inspection.

Table 2 shows the average emissions (in part per million and percent) at idle and raised idle (2500 rpm) from all vehicles that failed their initial Idle inspections and received subsequent retests, average emissions from vehicles that passed subsequent retests and the percent reduction by pollutant.

Table 2 - Two-Speed Idle Passed Retest Inspection Results (2019)

Vehicle Type	Failed Initial Idle		Failed Initial 2500		Passed Retest Idle		Passed Retest 2500		% Reduction Idle		% Reduction 2500	
	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC (ppm)	CO (%)	HC	CO	HC	CO
Cars	647.27	3.36	463.36	3.24	166.23	0.59	178.28	1.47	65.94	79.02	52.47	49.66
Trucks	671.54	2.86	446.59	2.38	152.40	0.73	138.69	1.14	74.01	72.19	63.40	45.64
Total	666.70	2.96	449.93	2.56	154.95	0.70	145.98	1.20	72.69	73.57	61.38	46.61

Unresolved Vehicles

A concern for any inspection program is “unresolved vehicles” which fail an initial inspection, never receive a passing inspection, and disappear from the registered fleet. Approximately 17.31% of vehicles that failed their initial inspection in 2019 did not receive a passing retest by March 2020. Out of the 68,794 initial failures, there were 11,912 vehicles that were unresolved as of March 2020. It is assumed that the vast majority of these vehicles are successfully repaired outside of the analysis period (calendar year 2019), move out of the program area, or are retired.

Smoking Vehicles

Smoking vehicles tend to be excessive emitters. They are of concern to the state for overall air quality reasons, and to the nearby motorists exposed to emissions from these vehicles.

CDPHE operates a Smoking Vehicle Hotline for motorists to report any excessively smoking vehicles they observe. Once reported, CDPHE provides registered owners of these vehicles with a brochure informing them that if their vehicle emits any visible smoke during their next regular emissions inspection, it will fail.

The brochure is designed to educate owners on the causes of visible smoke, its health effects, and potential danger, not only to other motorists but also to those in the smoking vehicle. The brochure also provides information regarding where a motorist may receive diagnostic help in determining and repairing their vehicle’s problem. Although the

smoking vehicle program is voluntary, the state encourages smoking vehicle owners to take advantage of diagnostic services available at State-operated Emission Centers.

Vehicle information reported on the hotline is also transferred to Air Care Colorado 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 inspection. In 2019, 561 vehicles failed the visible smoke portion of the emissions inspection (134 OBD inspections, 372 I/M240 inspections and 55 Two-Speed Idle inspections).

Waivers

A Certificate of Emissions Waiver (or “waiver”) is an emissions control document that satisfies the emissions inspection 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 Cost Waiver may be issued for a vehicle which fails an emissions inspection, receives emissions-related repairs that meet the minimum repair cost limit (\$715 for model year 1968 and newer vehicles, and \$75 for 1967 and older vehicles), and then fails a subsequent emissions inspection. In order to qualify for a repair cost waiver, repair expenses must pertain to the specific causes of the emissions failure. Documentation of this fact is required. This type of waiver is referenced in C.R.S. 42-4-306(7)(a)(II)(A) and AQCC Regulation No. 11. In 2019, there were 319 Repair Waivers issued by Department of Revenue (DOR).
- 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. In 2019, there were 269 Economic Hardship Waivers issued by DOR.
- 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). In 2019, there were no Diagnostic Waivers issued by CDPHE Technical Center staff.

Waivers are not issued for vehicles that have been tampered with (i.e. missing emissions control equipment), and/or are visibly smoking. Vehicles that fail the gas cap inspection 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 State Emissions Technical Center technician may evaluate the vehicle 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.

Clean Screen Program Results

The state also operates a remote sensing based roadside emissions inspection program called Clean Screen or 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 inspection as an alternative to the standard inspection at an emissions inspection station.

The state's emissions inspection contractor, on average, deploys 12 units daily in the nine county program area. These units operated a total of 23,726 hours in 2019, collecting approximately 3.4 million valid emissions records.

In 2019, the overall remote sensing evaluated fraction of testable vehicles was 25.24% (based on 795,761 total I/M eligible vehicles in the fleet, with 200,818 unique eligible vehicles assessed by remote sensing devices). The number of unique eligible vehicles evaluated includes both vehicles that did and did not pass Clean Screen standards.

Of the 200,818 vehicles evaluated by remote sensing units, 171,508 (85.40%) were identified as passing Clean Screen standards. Two percent of the vehicles passing Clean Screen standards are required to be tested at brick and mortar facilities. Therefore, 168,186 vehicles were issued a Clean Screen notice. Of those Clean Screen notices, 136,304 or 81.10% were redeemed. The redeemed numbers are calculated from each individual vehicle that passed Clean Screen requirements whose owners chose to use the passing Clean Screen results to register their vehicles in lieu of getting the traditional emissions inspections.

Clean Screen Average Vehicle Emissions Results

The Clean Screen program measures vehicle emissions under actual operating conditions. While there is variability to these measurements, when aggregated as a group, vehicle emissions trends may be observed. The following three graphs

(Figure 13,14, and 15) detail the emissions results of remote sensing monitoring for each of the three pollutants measured (HC, CO, and NOx), grouped by vehicle model year.

The fleet average emissions are shown by the middle green line in each of the charts. It represents the average emissions for the model year 1982 and newer vehicle fleet that are evaluated through remote sensing. As defined on the charts, average fleet emissions for all three pollutants (HC, CO, and NOx) show a pronounced downward trend to the newest vehicles that are the cleanest portion of the fleet.

The bottom blue line indicates the average emissions by model year for vehicles that met all the Clean Screen requirements and pass Clean Screen standards. It is noticeable that the average emission rates are much lower than the fleet as a whole, reflecting the tighter emissions standards these vehicles must meet. The red line shows the average emissions by model year for vehicles that met Clean Screen requirements but did not pass the Clean Screen standards.

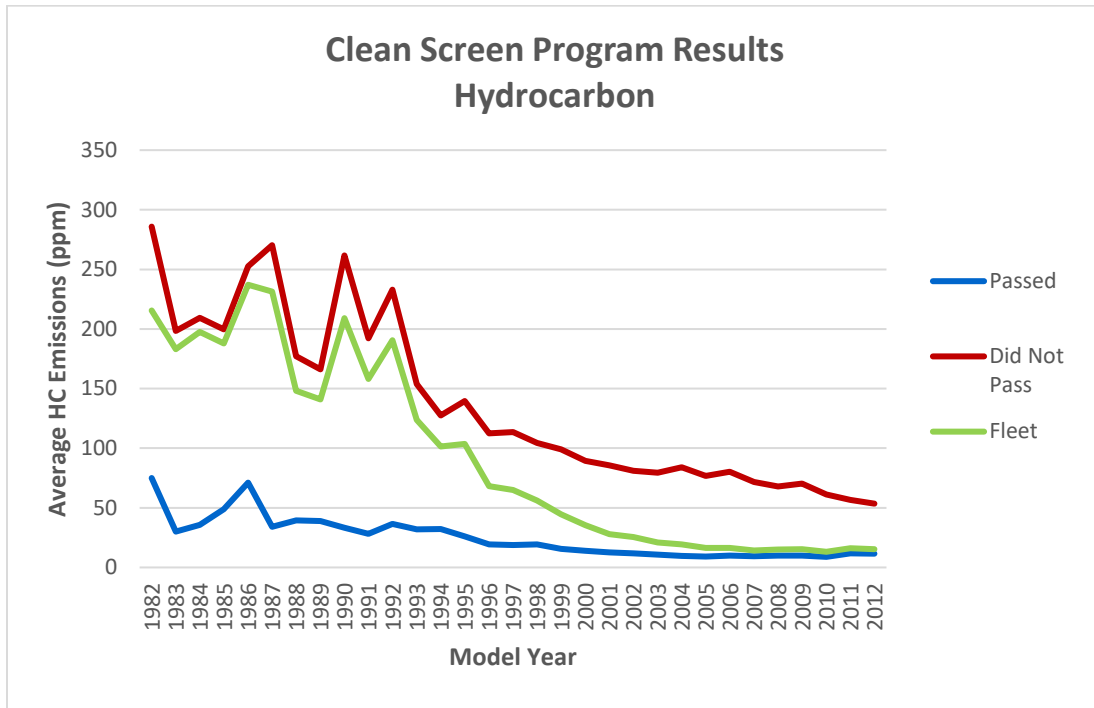


Figure 13 – Clean Screen Program Results – Average Hydrocarbon Emissions by Model Year (1982-2012)

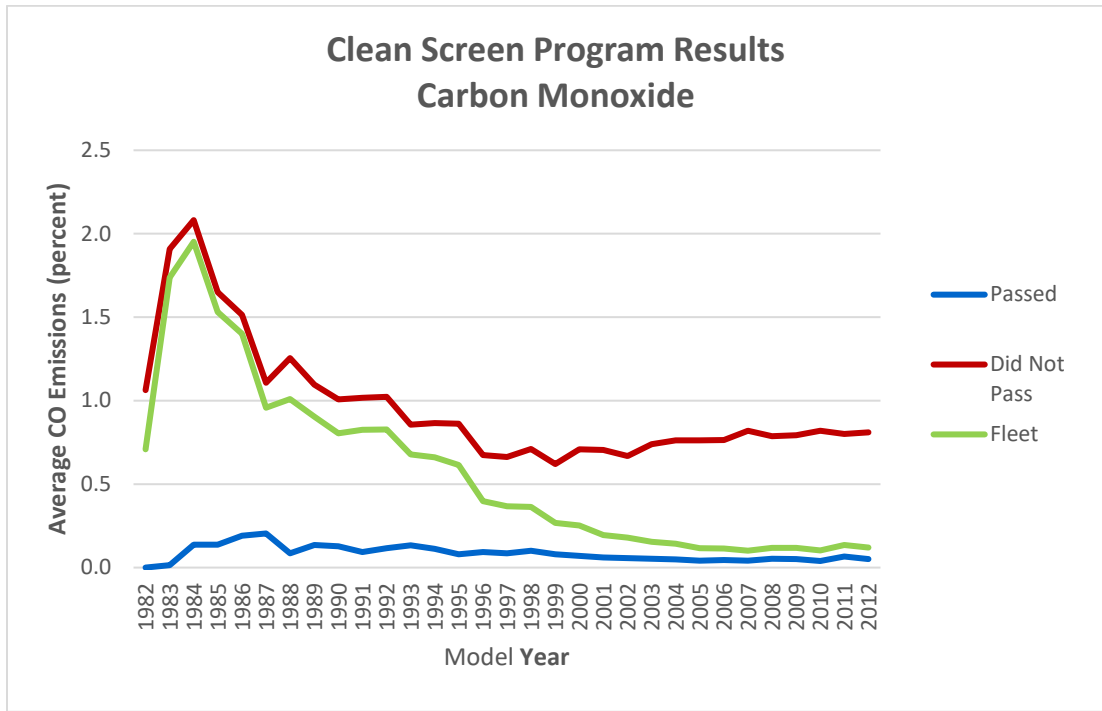


Figure 14 – Clean Screen Program Results – Average Carbon Monoxide Emissions by model year (1982-2012)

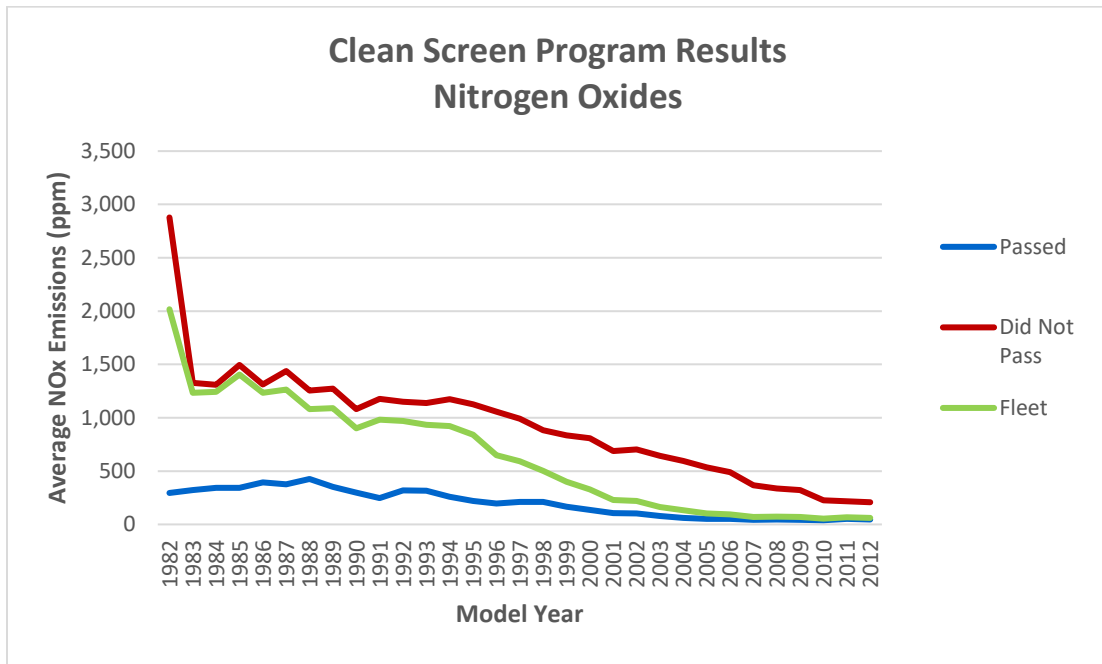


Figure 15 – Clean Screen Program Results – Average Nitrogen Oxides Emissions by model year (1982-2012)

Cost-Effectiveness of the AIR Program

As with any public program, it's important to evaluate the value that the AIR Program provides in relation to the overall program costs. Such analysis depends on assumptions about the program design and the financial impact to the motorist.

The state looks at the program's benefit as measured in tons per day of emissions reduced and the daily program operating costs. The analysis is completed using methodologies consistent with that used in the development of the State Implementation Plan.

This analysis included the inspection costs, the number of vehicles inspected, registration fees associated with the operation of the AIR Program, the average cost of repairs for vehicles undergoing repair, and the fuel economy benefit obtained from repairing excessively emitting vehicles. Motorist inconvenience costs are also provided.

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 OBD, I/M240, and Two Speed Idle (TSI) emissions inspections for 1982 and newer vehicles is \$25.00 per inspection. Inspections for 1981 and older vehicles cost \$15.00 per inspection.

Failing vehicles are entitled to a free retest within ten (10) calendar days after the initial inspection. Subsequent inspections (third, fifth, etc.) are considered to be new inspections requiring additional payment. In addition, some motorists undergo inspection after the ten day period and must pay for a new inspection. This cost is included in the total program inspection costs.

Clean Screen inspections cost \$25.00 for eligible vehicles whose owners wish to participate in this program. This fee is then added to the vehicle's registration renewal.

In 2019 there were 1,040,412 initial inspections (including redeemed clean screen) conducted. Of these inspections, 286,115 were initial OBD inspections, 575,184 were initial I/M240 inspections, 42,809 were initial TSI inspections, and 136,304 were vehicles that redeemed a Clean Screen inspection.

The state estimates that the program's inspection costs amounted to \$26,688,785 in 2019.

Table 3 shows overall inspection costs per type of inspection.

Table 3 - Overall Inspection Cost by Inspection Type (2019)

Inspection Type	Initial Inspections	Total Paid Inspections	Cost
OBD	286,115	292,952	\$7,323,800
I/M240	575,184	596,597	\$14,914,925
Idle	42,809	44,174	\$1,042,460
Clean Screen	136,304	136,304	\$3,407,600
TOTAL	1,040,412	1,070,027	\$26,688,785

Registration Fees

As part of the total vehicle registration cost, the state collects a \$2.20 vehicle emissions fee from gasoline motor vehicles registered in the I/M program area. This helps to fund AIR program operations, program administration, motorist and repair industry assistance, outreach activities, and county registration activities. This fee is shared between County Clerks that administer vehicle registration renewals, and with the Colorado Departments of Revenue and Public Health and Environment that design, administer, evaluate, and enforce the program.

There were an estimated 3,207,812 I/M fee-eligible gasoline-powered vehicles registered in the enhanced nine-county I/M Program area as of December 31, 2019. This equates to a total registration-fee cost of \$7,057,186 for the entire program.

Repair Costs

Vehicles that failed their emissions inspections 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 2019, the average emissions repair cost for vehicles failing the OBD inspection was \$392.10 and for the I/M240 inspection was \$380.66. For vehicles receiving the Idle inspection, the average repair costs were \$389.38 for model year 1981 and older vehicles, and \$357.45 for model year 1982 and newer vehicles. For vehicles failing the gas cap portion of the I/M inspection, the assumed replacement gas cap cost is \$20 each.

For the OBD inspected vehicles, 18,646 failed their initial OBD inspections. Of these vehicles, 12,244 failed for the MIL commanded on and/or visual MIL

inspection, and other non-gas cap failures. There were 7,221 OBD inspected vehicles that failed the gas cap pressure inspection. Some vehicles failed for both OBD inspection and gas cap and are included in both the groups.

Of the I/M240 vehicles inspected, 47,043 vehicles failed their initial I/M240 inspections, with 21,665 of these vehicles failing for excess emissions only, or excess emissions in combination with failing a visual inspection. Vehicles were also failed for excess opacity. For the gas cap portion of the test, there were 25,378 I/M240 vehicles that failed. There were some vehicles that failed for both excess emissions and gas cap. These vehicles are included in both the excess emissions/visual failure group and gas cap failure group.

In the two-speed idle tested vehicle group, 3,105 vehicles failed their initial Idle inspections. Of these vehicles, 2,916 failed for exhaust only, a combination of the exhaust and visual components of the inspection process, or excess opacity. For the gas cap portion of the test, there were 450 vehicles that failed the gas cap inspection. Some of these vehicles failed for both excess emissions and gas cap and are included in both the excess emissions/visual failure group and gas cap failure group.

Table 4 details the total repair costs by inspection type.

Table 4 - Total Repair Costs by Inspection Type (2019)

Inspection Type	Excess Emissions/Visual		Gas Cap		TOTAL
	Count	Cost	Count	Cost	
OBD	12,244	\$4,800,872	7,221	\$144,420	\$4,945,292
I/M240	21,665	\$8,246,999	25,378	\$507,560	\$8,754,559
Idle	2,916	\$1,091,113	450	\$9,000	\$1,100,113
TOTAL	36,825	\$14,138,984	33,049	\$660,980	\$14,799,965

Fuel Savings

Vehicles that received emissions-related repairs achieve better fuel economy on average. The amount of the fuel economy improvement is highly dependent on the individual vehicle, the type of repair, and the effectiveness of that repair. When a vehicle receives an I/M240 inspection, fuel economy is measured. Based on Colorado’s I/M240 testing, a fuel economy improvement of 5.09% was achieved for all vehicles failing their initial I/M240 test and passing their final retest.

Using the estimated fuel savings, and assuming that these repairs prevent excessive emissions for the entire two-year emissions testing cycle, fixing exhaust and gas cap failures result in an estimated savings of 1,231,067 gallons of gasoline. Using a 2019 average cost of \$2.64 per gallon (Denver / Front Range annual average from the U.S. Energy Information Administration), vehicles undergoing emission repairs saved an estimated \$3,250,016 on gasoline as a result of reduced fuel usage.

Motorist Inconvenience Costs

Vehicle owners incur an inconvenience cost, which generally represents the time and effort expended in order to complete the emissions test at a brick-and-mortar test facility. These costs include:

- Vehicle operation costs associated with travel to and from the emissions inspection center.
- Time spent traveling to and from an emissions inspection center.
- Time waiting for and during the emission test.

To calculate direct vehicle operation costs, an average cost of 58 cents per mile was assumed, representing the 2019 IRS standard business mileage rate. The average travel to an inspection center was seven miles. Based on the number of vehicles undergoing IM inspections, average per mile cost of operation, and average travel to and from an emissions inspection center, a vehicle operation cost of \$8,017,047 was calculated.

Travel to and from an emissions inspection center averaged 22.24 minutes. Assuming half the hourly consumer wage rate of \$27.73 per hour (based on U.S. Bureau of Labor Statistics May 2019 state occupational employment and wage estimates for Colorado), this equates to a motorist travel time cost of \$5,074,132.

The average motorist experienced an average wait time before their vehicle is inspected of 8.37 minutes in 2019. Applying the same discounted average hourly consumer wage as above to the total wait times, produces a motorist wait time cost of \$1,910,139.

For 2019, the average emissions inspection took 11.93 minutes to complete. Once again applying the discounted hourly consumer wage rate to total test time, results in a motorist test time cost of \$2,722,631.

Inconvenience cost is the total of vehicle operation costs and motorist personal time costs, or a total of \$17,723,948.

There are no inconvenience costs for the Clean Screen inspection. Vehicles are inspected during on-road travel that incurs no inconvenience cost to the motorist. Vehicle owners are notified by the receipt of their vehicle registration renewal postcard, and payment is mailed in with the registration renewal payment.

Overall Program Costs

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

Table 5 - Overall Program Cost (2019)

Annual I/M Program Cost (dollars)	
Inspection Fees	\$26,688,785
Registration Fees	\$7,057,186
Repair Costs	\$14,799,965
Fuel Economy Savings	-\$3,250,016
Inconvenience Costs	\$17,723,948
Total	\$63,019,868

Emission Benefits

Based on the U.S. EPA's MOVES model, Colorado's current AIR Program reduces total gaseous hydrocarbon emissions by 9.23 tons per day (tpd), carbon monoxide emissions by 118.27 tpd, nitrogen oxide (NO_x) emissions by 8.54 tpd, and overall ozone precursors (TGH + [1/60]CO + NO_x) by 19.74 tpd. Table 6 details the overall emissions program benefit by pollutant developed by the EPA's MOVES model.

Table 6 - Modeled Program Benefit (2019)

MOVES Emission Inventories and Program Benefit (tons/day)				
	TGH	CO	NO _x	TGH + (1/60)CO + NO _x
No IM	64.02	743.75	81.94	158.36
Current IM	54.79	625.48	73.40	138.61
TPD Benefit	9.23	118.27	8.54	19.74
%Benefit	14.42%	15.90%	10.42%	12.47%

Both total gaseous hydrocarbon (TGH) and nitrogen oxide emissions can be ozone precursors. Carbon monoxide can be a weak ozone precursor. The combined TGH + (1/60) CO + NO_x ozone precursor reduction would be equal to

19.74 tons per day. The generalized $TGH + (1/60) CO + NO_x$ 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 gasoline with a one pound waiver for ethanol and 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 \$63.0 million in 2019. This cost includes inspection costs, repair costs, motorist inconvenience costs, and registration renewal fees used to fund administrative expenses.

The State estimates the cost-effectiveness of the inspection program at \$8,746 per ton of ozone precursors removed from the AIR program area. Table 7 gives the specific breakdown of cost per ton removed by pollutant.

Table 7 - AIR Program Cost Effectiveness in Dollars per Ton (2019)

Cost Benefit Results	
Emission	Cost/Benefit (\$/ton)
TGH	18,706
CO	1,460
NO _x	20,218
TGH + (1/60) CO + NO _x	8,746

2019 ANNUAL REPORT FROM THE COLORADO DEPARTMENT OF REVENUE

The Colorado Department of Revenue (DOR), in conjunction with the Colorado Department of Public Health and Environment (CHPHE), continues to operate the enhanced Colorado Vehicle Emissions Inspection and Maintenance (I/M) Program, which has been in place since 1995, designed to meet the requirements of the federal “Clean Air Act”, as amended by the federal “Clean Air Act Amendments of 1990”, 42 U.S.C. sec. 7401 et seq. 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.) during 2019.

2019 Audit Results

Pursuant to C.R.S. 42-4-305(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

Pursuant to C.R.S. 42-4-305(6)(b)(I), DOR performed 240 record audits on all contractor-operated inspection centers and inspection-only facilities. Record audits are 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 includes an ongoing evaluation of approximately 4.7 million vehicles currently registered statewide; this ensures that county clerks maintain a reasonable level of record accuracy.

Performance Audits

Pursuant to C.R.S. 42-4-305(6)(b)(I), DOR executed overt performance audits which were conducted contemporaneously with equipment audits at the enhanced inspection centers, resulting in 583 performance audits completed. Forty-two overt performance audits were completed at the independent inspection-only facilities and fleet testing facilities.

Equipment Audits

Pursuant to C.R.S. 42-4-305(6)(e)(I), DOR executed overt performance audits twice per year for each testing lane.

During 2019, 206 initial lane equipment audits were performed on 97 contractor-operated enhanced inspection lanes, 4 initial equipment audits performed at 2 independent inspection only stations, and 44 initial equipment audits performed at 20 operational fleet inspection stations. There were 3 occasions where a fleet testing facility was inoperable as a result of equipment failure. An equipment audit was unable to be conducted until repairs were completed. The facility was then returned to service.

There were 96 initial equipment audit failures (see Table 1), 6 of which resulted in the suspension of a testing lane. Some equipment audits may fail for multiple reasons. (Note: A lane is suspended and unable to test until its failures are mitigated.)

Table 8 – Audit Failures by Equipment Category (2019)

2019 Initial Equipment Audit Failures by Category	
Emissions Analyzer	83
Dynamometer	18
Gas Cap Analyzer	2

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.

Throughout 2019, 253 covert inspections were conducted at enhanced inspection centers, resulting in 210 tests conducted properly and 43 deficiencies. In these

covert tests, emissions control components were not correctly identified, resulting in 43 emission control component violations. Table 2 categorizes these violations and the number of times components were incorrectly identified. In 19 of the 43 improper tests, the failing vehicles received passing results.

Table 9 – Emission Components Incorrectly Identified During Covert Audits (2019)

Emission Component Tampered	Number of Times Incorrectly Identified
Air Injection System	24
Catalytic Converter	12
Check Engine Light	0
Oxygen Sensor	7

Risk-Based Audits

Risk-based audits were prompted by suspicious emissions testing activity, data analysis, or consumer complaints.

Utilizing the above-named methods of detection, DOR conducted 465 risk-based equipment audits. While there were 72 initial equipment failures, 71 issues were resolved on the retest. Only one failure could not be immediately resolved, resulting in a lane suspension. Six risk-based covert audits were conducted, resulting in three violations.

Remote Sensing Audits

DOR performed Remote Sensing (i.e., Clean Screen, RapidScreen, or RSD) mobile emissions testing equipment audits for quality assurance purposes (see Figure 1). A Phase I audit includes 9 gas readings from 3 different known gas blends. In the event that a gas reading is outside the allowable tolerance, a Phase II audit is initiated. A Phase II audit includes 6 additional gas readings from the specific gas blend that failed the Phase I audit.

DOR performed 717 audits in 2019, resulting in 113 Phase I failures, or a 15.76% initial failure rate. Of the 113 Phase I failures, 9 units failed the Phase II audit and

were suspended pending repairs and/or CDPHE evaluation. Note: The overall audit result is not a failure unless a secondary audit (Phase II) also fails.

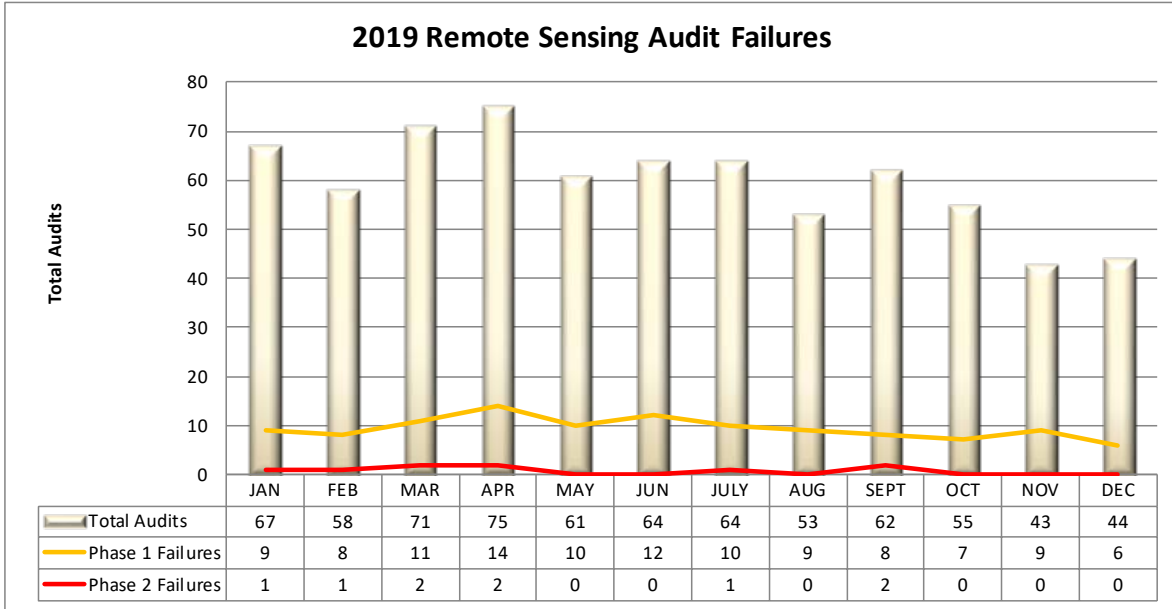


Figure 16 – Remote Sensing Audit Failures (2019)

2019 Enforcement Results

Hearings & Fines

In 2019, 74 hearings were conducted as a result of improper vehicle emission inspections. Hearing proceedings resulted in 32 inspectors placed on probation, with no inspector licenses revoked. Fines totaling \$69,300 were collected as a result of improper vehicle inspections.

Additionally, \$1,556,558 was collected as a result of wait-time violations. These violations occurred when motorist wait times at contractor inspection centers exceeded 15 minutes when averaged over a two-hour period. The wait-time calculation includes time spent in the queue and test time, whichever is greater. The fines assessed were consistent with C.R.S. and the terms of the contract held with OPUS. The total of all fines collected in 2019 was \$1,625,858. Figure 2 shows the average total motorist wait time in relation to the amount of time spent in the queue and within the facility.

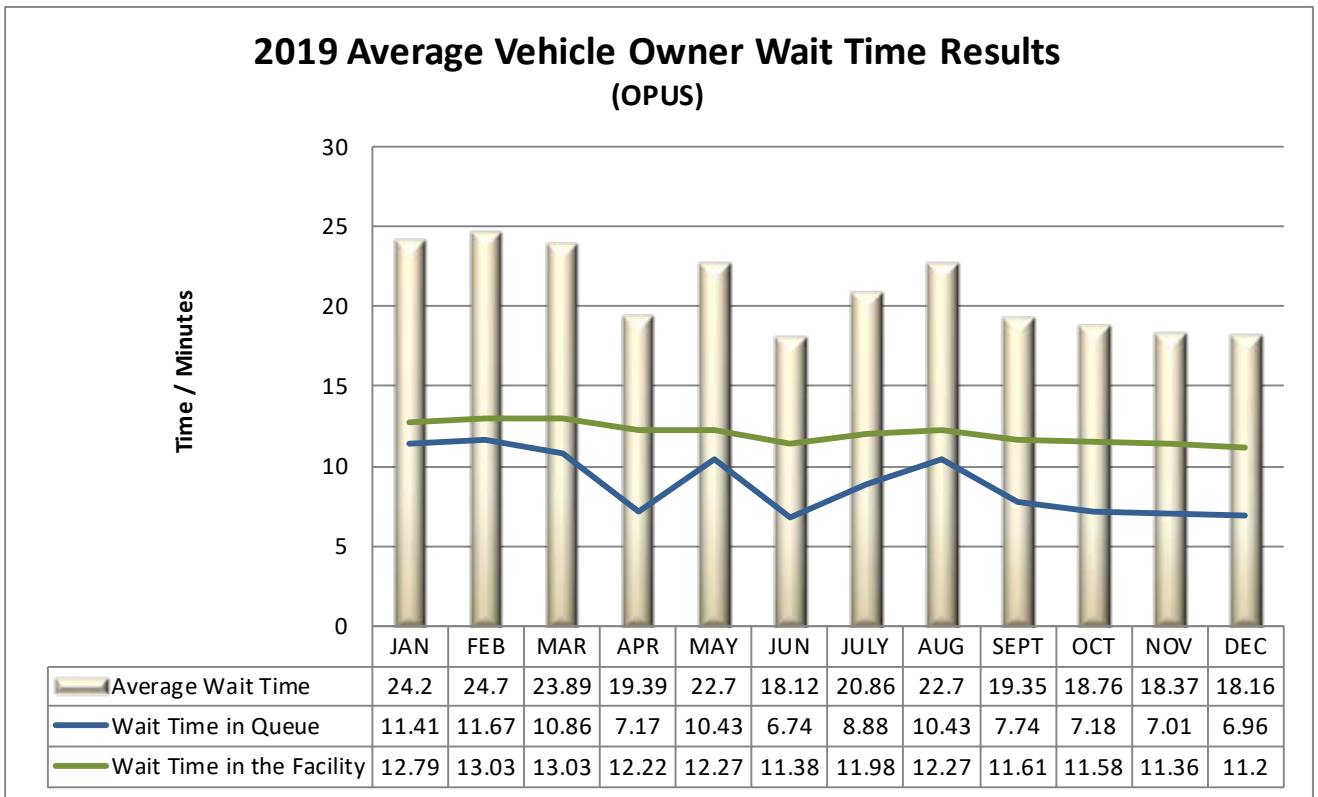


Figure 17 – Average Vehicle Owner Wait Time Results (2019, OPUS only)

Complaints

A total of 258 Vehicle Damage, Procedural and Statutory Non-Compliance complaints were opened against inspection stations operated by OPUS. DOR involvement in the complaint mitigation process resulted in \$78,918.48 in refunds to consumers. DOR responded to 15 emissions-related complaints against auto dealerships. A total of \$22,875.20 was refunded to consumers from those proceedings. Table 3 shows the 258 total complaints by category. Vehicle damage may occur when a consumer's vehicle was damaged through the negligence or omission of the contractor's agents. A Procedural Claim may occur when a consumer's vehicle was not properly inspected as directed by statute or regulation. A Statutory Non-Compliance claim may occur when a consumer experienced a violation of Title 42 (42-4-309 (6)(a)(b)(c)) of the Colorado Revised Statutes as it pertains to purchasing a vehicle without a passing emissions test or emission equipment that is required, missing, or tampered.

Table 10 – Complaints Opened, by Category (2019)

2019 Complaints Opened by Category	
Vehicle Damage	243
Procedural Claims	14
Statutory Non-Compliance	1

Waivers

In 2019, 982 waiver applications were submitted to and processed by DOR. Of the 982 applications, 33% resulted in the issuance of Repair Waivers and 27% resulted in the issuance of Economic Hardship Waivers. The remaining 40% were not issued waivers.

In 2019, the Colorado Department of Public Health and Environment, Colorado Department of Revenue, and Regional Air Quality Council (RAQC) continued to operate a Repair Assistance Program. This program provides emissions related repairs to gasoline-powered vehicles registered through counties in the Denver Metropolitan Area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson) that qualify for an Economic Hardship Waiver. As a result of this program, emissions related repairs were performed on 12 vehicles (4.27%) that otherwise would have been issued a hardship waiver.

Figure 3 shows the total amount of emission waivers requested and issued by waiver type over a five-year period.

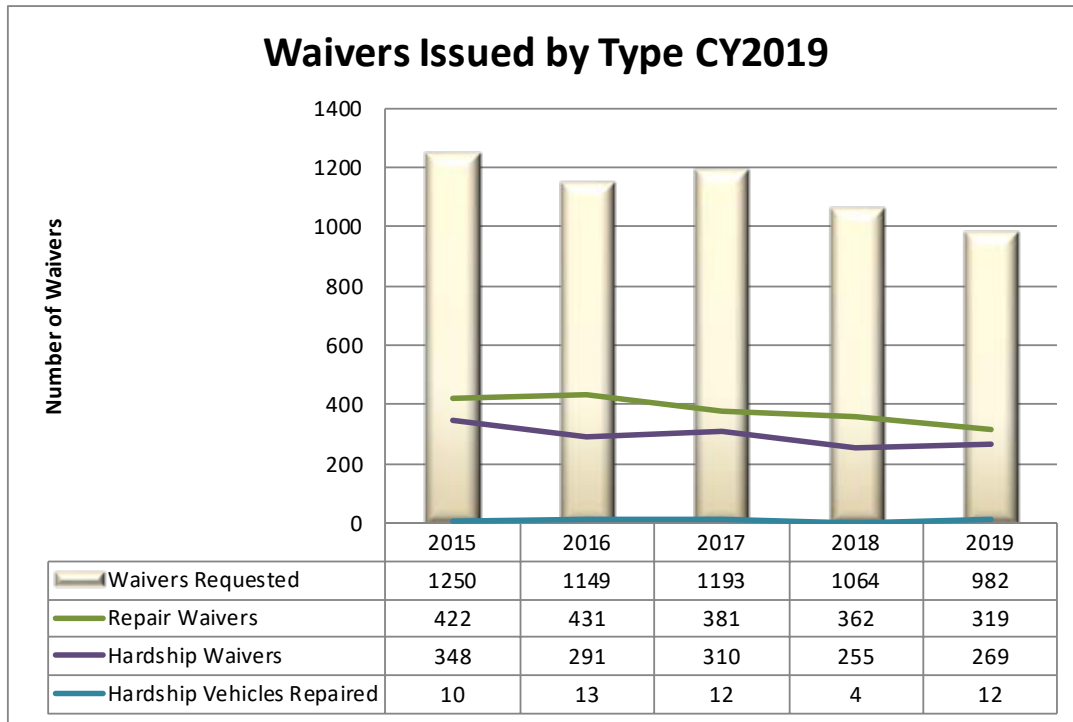


Figure 18 – Waivers Issued by Type (2015 – 2019)

The following program changes influenced the slight decrease in number of emissions waivers issued by DOR:

- January 2015: mandatory OBD testing was implemented, which impacted the vehicle failure rate.

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

- **36.5% of Waiver requests were not pursued** - after completing the waiver application, the vehicle owner withdrew the request or did not respond to requests for information or availability.
- **11.8% of Waiver requests passed 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.
- **10% of Waiver requests had 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)
- **17.5% of Waiver requests were 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)

- **18.7% of Waiver requests did not meet minimum waiver limits for dollars spent to repair the vehicle** - 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)
- **2.8% of Waiver request vehicles were repaired through CDPHEs Repair Assistance Program for vehicles otherwise eligible for Hardship Waivers.**
- **2.6% of Waiver requests had not yet been resolved at the completion of the calendar year.**

2019 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 that are employed by the inspection facilities.

All RapidScreen testing sites are authorized annually in conjunction with the Colorado Department of Transportation (CDOT), as testing sites require frequent review due to road or traffic configuration changes.

Table 4 shows the number of initial, renewed, and active licenses by license type for 2019.

Table 11 – Licenses Issued and Renewed, by Type (2019)

License Type	Number of Initial Licenses	Number of Licenses Renewed	Total Active Licenses
Fleet Inspector	15	22	70
Independent Inspector	0	1	2
Contractor Employed Inspectors	162	78	278
Independent Station	0	1	2
Fleet Station	0	11	20
Total	177	113	373

Authorized RSD Sites	171
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Appendix – Additional Reports

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

Report	Content
A1 Initial Inspection Report All Test Type	Initial inspection pass/fail statistics, by inspection type, model year and vehicle class with an overall summary by vehicle type.
A2 Initial OBD Inspection Report	Initial OBD inspection pass/fail statistics by model year and vehicle type.
A3 Initial OBD Inspection Failure Report	Initial OBD inspection failure statistics by failure type, model year and vehicle type.
A4 Initial OBD Fail DTC Report	Initial OBD failing statistics with DTCs present by model year and vehicle type.
A5 Initial OBD Fail Readiness Monitor Summary Report	Initial OBD failing statistics with unset readiness monitors by model year and vehicle type.
A6 OBD Retest Frequency Report	OBD retest inspection statistics including multiple retest frequency and readiness status at the time of retests by model year and vehicle class.
A7 Initial OBD Pass DTC Report	Initial OBD passing statistics with DTCs present by model year and vehicle type.
A8 Initial OBD Pass Readiness Monitor Summary Report	Initial OBD passing statistics with unset readiness monitors by model year and vehicle type.
A9 OBD Initial Inspection Emissions Report (Vehicles that are dual tested)	Initial OBD pass/fail statistics including average emissions results by model year and vehicle type.

A10 Initial OBD Incomplete Inspection Report	Initial OBD inspection incomplete test statistics by incomplete reason, model year and vehicle type.
A11 OBD Retest Incomplete Inspection Report	OBD retest inspection incomplete test statistics by incomplete reason, model year and vehicle type.
B1 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.
B2 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.
B3 I/M240 Initial Exhaust Failure Report	Initial exhaust failure statistics by model year, vehicle class, and pollutant.
B4 I/M240 Initial Failure for Other Report	Initial visual mandatory failure and gas cap pressure failure statistics by model year, vehicle class, and emissions component.
B5 I/M240 Retest Pass Reduction Report	Passing retest inspection statistics by model year and vehicle class.
B6 I/M240 Retest Frequency Report	Retest inspection statistics.
B7 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.

B8 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.
B9 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.
C1 Idle Initial Inspection Report	Initial idle inspection pass/fail statistics, including average emissions results for passing and failing inspections by model year.
C2 Idle Initial Failure Report	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.
C3 Idle Initial Exhaust Failure Report	Initial idle exhaust failure statistics by model year, vehicle class, and pollutant.
C4 Idle Initial Failure for Other Report	Idle initial mandatory visual failure and gas cap pressure failure statistics by model year, vehicle class, and emissions component.
C5 Idle Retest Pass Reduction Report	Passing idle retest inspection statistics by model year and vehicle class.
C6 Idle Retest Frequency Report	Retest idle inspection statistics.
D1 I/M Eligible Vehicle Report, Evaluated Vehicles	Clean Screen observations performed in 2019 by model year and vehicle type.

Appendix A1

Initial Inspection Report All Test Type

Date Range
Between 1/1/2019 and 12/31/2019

Initial Inspection Report All Test Types (V 1.02)

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
1974	HDGV	84	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	84	100.00	75	89.29	9	10.71
	LDGT1	239	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	239	100.00	166	69.46	73	30.54
	LDGT2	180	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	180	100.00	147	81.67	33	18.33
	LDGV	490	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	490	100.00	317	64.69	173	35.31
1974 Total		993	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	993	100.00	705	71.00	288	29.00
1975	HDGV	15	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	100.00	11	73.33	4	26.67
	LDGT1	15	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	100.00	9	60.00	6	40.00
	LDGT2	39	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	39	100.00	29	74.36	10	25.64
	LDGV	31	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	31	100.00	18	58.06	13	41.94
1975 Total		100	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	100	100.00	67	67.00	33	33.00
1976	HDGV	65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	65	100.00	49	75.38	16	24.62
	LDGT1	103	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	103	100.00	61	59.22	42	40.78
	LDGT2	233	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	233	100.00	164	70.39	69	29.61
	LDGV	175	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	175	100.00	98	56.00	77	44.00
1976 Total		576	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	576	100.00	372	64.58	204	35.42
1977	HDGV	97	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	97	100.00	82	84.54	15	15.46
	LDGT1	105	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	105	100.00	48	45.71	57	54.29
	LDGT2	311	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	311	100.00	231	74.28	80	25.72
	LDGV	227	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	227	100.00	141	62.11	86	37.89
1977 Total		740	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	740	100.00	502	67.84	238	32.16
1978	HDGV	109	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	109	100.00	93	85.32	16	14.68
	LDGT1	151	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	151	100.00	84	55.63	67	44.37
	LDGT2	403	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	403	100.00	286	70.97	117	29.03
	LDGV	271	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	271	100.00	191	70.48	80	29.52
1978 Total		934	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	934	100.00	654	70.02	280	29.98
1979	HDGV	119	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	119	100.00	89	74.79	30	25.21
	LDGT1	213	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	213	100.00	137	64.32	76	35.68
	LDGT2	266	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	266	100.00	169	63.53	97	36.47
	LDGV	328	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	328	100.00	209	63.72	119	36.28
1979 Total		926	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	926	100.00	604	65.23	322	34.77
1980	HDGV	72	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	72	100.00	64	88.89	8	11.11
	LDGT1	152	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	152	100.00	97	63.82	55	36.18

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT2	83	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	83	100.00	54	65.06	29	34.94
	LDGV	222	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	222	100.00	173	77.93	49	22.07
1980 Total		529	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	529	100.00	388	73.35	141	26.65
1981	HDGV	103	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	103	100.00	82	79.61	21	20.39
	LDGT1	147	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	147	100.00	77	52.38	70	47.62
	LDGT2	70	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	70	100.00	42	60.00	28	40.00
	LDGV	157	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	157	100.00	101	64.33	56	35.67
1981 Total		477	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	477	100.00	302	63.31	175	36.69
1982	HDGV	75	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	75	100.00	56	74.67	19	25.33
	LDGT1	138	0	0.00	0	0.00	0	0.00	136	98.55	85	62.50	51	37.50	2	1.45	2	100.00	0	0.00
	LDGT2	36	0	0.00	0	0.00	0	0.00	36	100.00	17	47.22	19	52.78	0	0.00	0	0.00	0	0.00
	LDGV	166	0	0.00	0	0.00	0	0.00	162	97.59	130	80.25	32	19.75	4	2.41	3	75.00	1	25.00
1982 Total		415	0	0.00	0	0.00	0	0.00	334	80.48	232	69.46	102	30.54	81	19.52	61	75.31	20	24.69
1983	HDGV	104	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	104	100.00	80	76.92	24	23.08
	LDGT1	187	0	0.00	0	0.00	0	0.00	187	100.00	129	68.98	58	31.02	0	0.00	0	0.00	0	0.00
	LDGT2	73	0	0.00	0	0.00	0	0.00	73	100.00	44	60.27	29	39.73	0	0.00	0	0.00	0	0.00
	LDGV	204	0	0.00	0	0.00	0	0.00	199	97.55	153	76.88	46	23.12	5	2.45	3	60.00	2	40.00
1983 Total		568	0	0.00	0	0.00	0	0.00	459	80.81	326	71.02	133	28.98	109	19.19	83	76.15	26	23.85
1984	HDGV	162	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	162	100.00	134	82.72	28	17.28
	LDGT1	299	0	0.00	0	0.00	0	0.00	299	100.00	218	72.91	81	27.09	0	0.00	0	0.00	0	0.00
	LDGT2	111	0	0.00	0	0.00	0	0.00	110	99.10	61	55.45	49	44.55	1	0.90	0	0.00	1	100.00
	LDGV	301	0	0.00	0	0.00	0	0.00	296	98.34	225	76.01	71	23.99	5	1.66	3	60.00	2	40.00
1984 Total		873	0	0.00	0	0.00	0	0.00	705	80.76	504	71.49	201	28.51	168	19.24	137	81.55	31	18.45
1985	HDGV	224	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	224	100.00	178	79.46	46	20.54
	LDGT1	518	0	0.00	0	0.00	0	0.00	518	100.00	389	75.10	129	24.90	0	0.00	0	0.00	0	0.00
	LDGT2	146	0	0.00	0	0.00	0	0.00	146	100.00	85	58.22	61	41.78	0	0.00	0	0.00	0	0.00
	LDGV	532	0	0.00	0	0.00	0	0.00	527	99.06	408	77.42	119	22.58	5	0.94	4	80.00	1	20.00
1985 Total		1,420	0	0.00	0	0.00	0	0.00	1,191	83.87	882	74.06	309	25.94	229	16.13	182	79.48	47	20.52
1986	HDGV	179	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	179	100.00	126	70.39	53	29.61
	LDGT1	673	0	0.00	0	0.00	0	0.00	673	100.00	517	76.82	156	23.18	0	0.00	0	0.00	0	0.00
	LDGT2	175	0	0.00	0	0.00	0	0.00	175	100.00	104	59.43	71	40.57	0	0.00	0	0.00	0	0.00
	LDGV	625	0	0.00	0	0.00	0	0.00	616	98.56	526	85.39	90	14.61	9	1.44	8	88.89	1	11.11
1986 Total		1,652	0	0.00	0	0.00	0	0.00	1,464	88.62	1,147	78.35	317	21.65	188	11.38	134	71.28	54	28.72
1987	HDGV	171	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	171	100.00	130	76.02	41	23.98
	LDGT1	890	0	0.00	0	0.00	0	0.00	884	99.33	705	79.75	179	20.25	6	0.67	3	50.00	3	50.00
	LDGT2	263	0	0.00	0	0.00	0	0.00	262	99.62	188	71.76	74	28.24	1	0.38	1	100.00	0	0.00

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGV	826	0	0.00	0	0.00	0	0.00	818	99.03	681	83.25	137	16.75	8	0.97	7	87.50	1	12.50
1987 Total		2,150	0	0.00	0	0.00	0	0.00	1,964	91.35	1,574	80.14	390	19.86	186	8.65	141	75.81	45	24.19
1988	HDGV	270	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	270	100.00	230	85.19	40	14.81
	LDGT1	938	0	0.00	0	0.00	0	0.00	933	99.47	737	78.99	196	21.01	5	0.53	3	60.00	2	40.00
	LDGT2	378	0	0.00	0	0.00	0	0.00	376	99.47	274	72.87	102	27.13	2	0.53	1	50.00	1	50.00
	LDGV	834	0	0.00	0	0.00	0	0.00	830	99.52	702	84.58	128	15.42	4	0.48	3	75.00	1	25.00
1988 Total		2,420	0	0.00	0	0.00	0	0.00	2,139	88.39	1,713	80.08	426	19.92	281	11.61	237	84.34	44	15.66
1989	HDGV	463	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	463	100.00	413	89.20	50	10.80
	LDGT1	1,488	0	0.00	0	0.00	0	0.00	1,477	99.26	1,194	80.84	283	19.16	11	0.74	9	81.82	2	18.18
	LDGT2	518	0	0.00	0	0.00	0	0.00	515	99.42	411	79.81	104	20.19	3	0.58	2	66.67	1	33.33
	LDGV	1,216	0	0.00	0	0.00	0	0.00	1,203	98.93	1,039	86.37	164	13.63	13	1.07	7	53.85	6	46.15
1989 Total		3,685	0	0.00	0	0.00	0	0.00	3,195	86.70	2,644	82.75	551	17.25	490	13.30	431	87.96	59	12.04
1990	HDGV	366	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	366	100.00	312	85.25	54	14.75
	LDGT1	1,243	0	0.00	0	0.00	0	0.00	1,235	99.36	988	80.00	247	20.00	8	0.64	6	75.00	2	25.00
	LDGT2	515	0	0.00	0	0.00	0	0.00	514	99.81	416	80.93	98	19.07	1	0.19	1	100.00	0	0.00
	LDGV	1,537	0	0.00	0	0.00	0	0.00	1,505	97.92	1,311	87.11	194	12.89	32	2.08	25	78.13	7	21.88
1990 Total		3,661	0	0.00	0	0.00	0	0.00	3,254	88.88	2,715	83.44	539	16.56	407	11.12	344	84.52	63	15.48
1991	HDGV	382	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	382	100.00	346	90.58	36	9.42
	LDGT1	1,845	0	0.00	0	0.00	0	0.00	1,834	99.40	1,565	85.33	269	14.67	11	0.60	4	36.36	7	63.64
	LDGT2	625	0	0.00	0	0.00	0	0.00	625	100.00	460	73.60	165	26.40	0	0.00	0	0.00	0	0.00
	LDGV	2,403	0	0.00	0	0.00	0	0.00	2,382	99.13	2,049	86.02	333	13.98	21	0.87	19	90.48	2	9.52
1991 Total		5,255	0	0.00	0	0.00	0	0.00	4,841	92.12	4,074	84.16	767	15.84	414	7.88	369	89.13	45	10.87
1992	HDGV	531	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	531	100.00	477	89.83	54	10.17
	LDGT1	1,648	0	0.00	0	0.00	0	0.00	1,639	99.45	1,398	85.30	241	14.70	9	0.55	7	77.78	2	22.22
	LDGT2	924	0	0.00	0	0.00	0	0.00	923	99.89	736	79.74	187	20.26	1	0.11	1	100.00	0	0.00
	LDGV	2,246	0	0.00	0	0.00	0	0.00	2,236	99.55	1,882	84.17	354	15.83	10	0.45	10	100.00	0	0.00
1992 Total		5,349	0	0.00	0	0.00	0	0.00	4,798	89.70	4,016	83.70	782	16.30	551	10.30	495	89.84	56	10.16
1993	HDGV	635	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	635	100.00	577	90.87	58	9.13
	LDGT1	2,826	0	0.00	0	0.00	0	0.00	2,819	99.75	2,434	86.34	385	13.66	7	0.25	5	71.43	2	28.57
	LDGT2	1,237	0	0.00	0	0.00	0	0.00	1,236	99.92	941	76.13	295	23.87	1	0.08	1	100.00	0	0.00
	LDGV	2,953	0	0.00	0	0.00	0	0.00	2,944	99.70	2,572	87.36	372	12.64	9	0.30	6	66.67	3	33.33
1993 Total		7,651	0	0.00	0	0.00	0	0.00	6,999	91.48	5,947	84.97	1,052	15.03	652	8.52	589	90.34	63	9.66
1994	HDGV	739	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	739	100.00	653	88.36	86	11.64
	LDGT1	3,320	0	0.00	0	0.00	0	0.00	3,310	99.70	2,814	85.02	496	14.98	10	0.30	9	90.00	1	10.00
	LDGT2	2,011	0	0.00	0	0.00	0	0.00	1,992	99.06	1,525	76.56	467	23.44	19	0.94	15	78.95	4	21.05
	LDGV	3,476	0	0.00	0	0.00	0	0.00	3,460	99.54	3,067	88.64	393	11.36	16	0.46	15	93.75	1	6.25

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
1994 Total		9,546	0	0.00	0	0.00	0	0.00	8,762	91.79	7,406	84.52	1,356	15.48	784	8.21	692	88.27	92	11.73
1995	HDGV	1,101	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,101	100.00	986	89.55	115	10.45
	LDGT1	4,161	0	0.00	0	0.00	0	0.00	4,159	99.95	3,543	85.19	616	14.81	2	0.05	2	100.00	0	0.00
	LDGT2	2,875	0	0.00	0	0.00	0	0.00	2,859	99.44	2,213	77.40	646	22.60	16	0.56	14	87.50	2	12.50
	LDGV	5,189	0	0.00	0	0.00	0	0.00	5,161	99.46	4,594	89.01	567	10.99	28	0.54	25	89.29	3	10.71
1995 Total		13,326	0	0.00	0	0.00	0	0.00	12,179	91.39	10,350	84.98	1,829	15.02	1,147	8.61	1,027	89.54	120	10.46
1996	HDGV	1,056	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,056	100.00	1,008	95.45	48	4.55
	LDGT1	4,067	26	0.64	23	88.46	3	11.54	4,038	99.29	3,478	86.13	560	13.87	3	0.07	3	100.00	0	0.00
	LDGT2	2,468	24	0.97	13	54.17	11	45.83	2,444	99.03	2,050	83.88	394	16.12	0	0.00	0	0.00	0	0.00
	LDGV	5,360	68	1.27	53	77.94	15	22.06	5,290	98.69	4,725	89.32	565	10.68	2	0.04	1	50.00	1	50.00
1996 Total		12,951	118	0.91	89	75.42	29	24.58	11,772	90.90	10,253	87.10	1,519	12.90	1,061	8.19	1,012	95.38	49	4.62
1997	HDGV	1,561	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,561	100.00	1,485	95.13	76	4.87
	LDGT1	7,759	41	0.53	33	80.49	8	19.51	7,715	99.43	6,646	86.14	1,069	13.86	3	0.04	3	100.00	0	0.00
	LDGT2	3,415	64	1.87	47	73.44	17	26.56	3,346	97.98	2,800	83.68	546	16.32	5	0.15	4	80.00	1	20.00
	LDGV	7,955	98	1.23	70	71.43	28	28.57	7,855	98.74	7,046	89.70	809	10.30	2	0.03	2	100.00	0	0.00
1997 Total		20,690	203	0.98	150	73.89	53	26.11	18,916	91.43	16,492	87.19	2,424	12.81	1,571	7.59	1,494	95.10	77	4.90
1998	HDGV	1,009	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,009	100.00	937	92.86	72	7.14
	LDGT1	8,745	46	0.53	38	82.61	8	17.39	8,693	99.41	7,550	86.85	1,143	13.15	6	0.07	6	100.00	0	0.00
	LDGT2	3,464	31	0.89	19	61.29	12	38.71	3,431	99.05	2,909	84.79	522	15.21	2	0.06	2	100.00	0	0.00
	LDGV	9,045	103	1.14	75	72.82	28	27.18	8,941	98.85	7,864	87.95	1,077	12.05	1	0.01	1	100.00	0	0.00
1998 Total		22,263	180	0.81	132	73.33	48	26.67	21,065	94.62	18,323	86.98	2,742	13.02	1,018	4.57	946	92.93	72	7.07
1999	HDGV	2,254	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,254	100.00	2,154	95.56	100	4.44
	LDGT1	11,396	64	0.56	52	81.25	12	18.75	11,328	99.40	10,011	88.37	1,317	11.63	4	0.04	4	100.00	0	0.00
	LDGT2	6,447	804	12.47	633	78.73	171	21.27	5,637	87.44	4,768	84.58	869	15.42	6	0.09	5	83.33	1	16.67
	LDGV	12,172	175	1.44	135	77.14	40	22.86	11,990	98.50	10,830	90.33	1,160	9.67	7	0.06	7	100.00	0	0.00
1999 Total		32,269	1,043	3.23	820	78.62	223	21.38	28,955	89.73	25,609	88.44	3,346	11.56	2,271	7.04	2,170	95.55	101	4.45
2000	HDGV	2,036	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,036	100.00	1,944	95.48	92	4.52
	LDGT1	11,806	226	1.91	188	83.19	38	16.81	11,571	98.01	10,199	88.14	1,372	11.86	9	0.08	8	88.89	1	11.11
	LDGT2	6,446	1,166	18.09	904	77.53	262	22.47	5,275	81.83	4,645	88.06	630	11.94	5	0.08	4	80.00	1	20.00
	LDGV	14,176	289	2.04	211	73.01	78	26.99	13,880	97.91	12,621	90.93	1,259	9.07	7	0.05	7	100.00	0	0.00
2000 Total		34,464	1,681	4.88	1,303	77.51	378	22.49	30,726	89.15	27,465	89.39	3,261	10.61	2,057	5.97	1,963	95.43	94	4.57
2001	HDGV	2,506	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,506	100.00	2,445	97.57	61	2.43
	LDGT1	15,101	500	3.31	425	85.00	75	15.00	14,593	96.64	13,212	90.54	1,381	9.46	8	0.05	7	87.50	1	12.50
	LDGT2	8,819	1,700	19.28	1,354	79.65	346	20.35	7,119	80.72	6,407	90.00	712	10.00	0	0.00	0	0.00	0	0.00
	LDGV	17,757	611	3.44	483	79.05	128	20.95	17,139	96.52	15,763	91.97	1,376	8.03	7	0.04	7	100.00	0	0.00
2001 Total		44,183	2,811	6.36	2,262	80.47	549	19.53	38,851	87.93	35,382	91.07	3,469	8.93	2,521	5.71	2,459	97.54	62	2.46

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
2002	HDGV	1,826	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,826	100.00	1,782	97.59	44	2.41
	LDGT1	15,492	180	1.16	143	79.44	37	20.56	15,308	98.81	13,807	90.19	1,501	9.81	4	0.03	4	100.00	0	0.00
	LDGT2	7,954	1,897	23.85	1,501	79.12	396	20.88	6,055	76.13	5,371	88.70	684	11.30	2	0.03	2	100.00	0	0.00
	LDGV	18,214	776	4.26	602	77.58	174	22.42	17,434	95.72	15,927	91.36	1,507	8.64	4	0.02	4	100.00	0	0.00
2002 Total		43,486	2,853	6.56	2,246	78.72	607	21.28	38,797	89.22	35,105	90.48	3,692	9.52	1,836	4.22	1,792	97.60	44	2.40
2003	HDGV	2,424	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,424	100.00	2,387	98.47	37	1.53
	LDGT1	18,927	86	0.45	71	82.56	15	17.44	18,827	99.47	17,372	92.27	1,455	7.73	14	0.07	14	100.00	0	0.00
	LDGT2	10,389	2,264	21.79	1,813	80.08	451	19.92	8,119	78.15	7,433	91.55	686	8.45	6	0.06	6	100.00	0	0.00
	LDGV	22,246	1,040	4.67	820	78.85	220	21.15	21,202	95.31	19,678	92.81	1,524	7.19	4	0.02	4	100.00	0	0.00
2003 Total		53,986	3,390	6.28	2,704	79.76	686	20.24	48,148	89.19	44,483	92.39	3,665	7.61	2,448	4.53	2,411	98.49	37	1.51
2004	HDGV	1,951	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,951	100.00	1,932	99.03	19	0.97
	LDGT1	18,849	109	0.58	90	82.57	19	17.43	18,731	99.37	17,388	92.83	1,343	7.17	9	0.05	9	100.00	0	0.00
	LDGT2	10,730	2,079	19.38	1,707	82.11	372	17.89	8,649	80.61	7,922	91.59	727	8.41	2	0.02	2	100.00	0	0.00
	LDGV	20,147	1,433	7.11	1,213	84.65	220	15.35	18,710	92.87	17,353	92.75	1,357	7.25	4	0.02	3	75.00	1	25.00
2004 Total		51,677	3,621	7.01	3,010	83.13	611	16.87	46,090	89.19	42,663	92.56	3,427	7.44	1,966	3.80	1,946	98.98	20	1.02
2005	HDGV	2,093	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,093	100.00	2,068	98.81	25	1.19
	LDGT1	25,159	232	0.92	217	93.53	15	6.47	24,908	99.00	23,761	95.40	1,147	4.60	19	0.08	18	94.74	1	5.26
	LDGT2	10,904	2,278	20.89	1,989	87.31	289	12.69	8,623	79.08	8,079	93.69	544	6.31	3	0.03	3	100.00	0	0.00
	LDGV	27,483	2,584	9.40	2,262	87.54	322	12.46	24,892	90.57	23,392	93.97	1,500	6.03	7	0.03	4	57.14	3	42.86
2005 Total		65,639	5,094	7.76	4,468	87.71	626	12.29	58,423	89.01	55,232	94.54	3,191	5.46	2,122	3.23	2,093	98.63	29	1.37
2006	HDGV	2,131	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,131	100.00	2,109	98.97	22	1.03
	LDGT1	21,243	1,562	7.35	1,505	96.35	57	3.65	19,669	92.59	18,812	95.64	857	4.36	12	0.06	10	83.33	2	16.67
	LDGT2	10,552	1,601	15.17	1,397	87.26	204	12.74	8,950	84.82	8,432	94.21	518	5.79	1	0.01	1	100.00	0	0.00
	LDGV	25,754	2,834	11.00	2,525	89.10	309	10.90	22,915	88.98	21,982	95.93	933	4.07	5	0.02	5	100.00	0	0.00
2006 Total		59,680	5,997	10.05	5,427	90.50	570	9.50	51,534	86.35	49,226	95.52	2,308	4.48	2,149	3.60	2,125	98.88	24	1.12
2007	HDGV	1,931	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,931	100.00	1,923	99.59	8	0.41
	LDGT1	27,004	1,412	5.23	1,326	93.91	86	6.09	25,573	94.70	24,598	96.19	975	3.81	19	0.07	18	94.74	1	5.26
	LDGT2	14,232	4,174	29.33	3,771	90.34	403	9.66	10,057	70.66	9,557	95.03	500	4.97	1	0.01	1	100.00	0	0.00
	LDGV	31,605	4,376	13.85	4,038	92.28	338	7.72	27,217	86.12	26,386	96.95	831	3.05	12	0.04	12	100.00	0	0.00
2007 Total		74,772	9,962	13.32	9,135	91.70	827	8.30	62,847	84.05	60,541	96.33	2,306	3.67	1,963	2.63	1,954	99.54	9	0.46
2008	HDGV	1,912	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,912	100.00	1,902	99.48	10	0.52
	LDGT1	21,502	1,684	7.83	1,613	95.78	71	4.22	19,809	92.13	19,108	96.46	701	3.54	9	0.04	9	100.00	0	0.00
	LDGT2	11,987	3,200	26.70	2,907	90.84	293	9.16	8,777	73.22	8,101	92.30	676	7.70	10	0.08	10	100.00	0	0.00
	LDGV	24,761	4,031	16.28	3,754	93.13	277	6.87	20,725	83.70	20,034	96.67	691	3.33	5	0.02	5	100.00	0	0.00
2008 Total		60,162	8,915	14.82	8,274	92.81	641	7.19	49,311	81.96	47,243	95.81	2,068	4.19	1,936	3.22	1,926	99.48	10	0.52
2009	HDGV	902	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	902	100.00	899	99.67	3	0.33

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT1	10,525	9,483	90.10	8,766	92.44	717	7.56	1,039	9.87	986	94.90	53	5.10	3	0.03	3	100.00	0	0.00
	LDGT2	5,408	4,877	90.18	4,291	87.98	586	12.02	529	9.78	496	93.76	33	6.24	2	0.04	2	100.00	0	0.00
	LDGV	16,211	14,649	90.36	13,636	93.08	1,013	6.92	1,559	9.62	1,482	95.06	77	4.94	3	0.02	3	100.00	0	0.00
2009 Total		33,046	29,009	87.78	26,693	92.02	2,316	7.98	3,127	9.46	2,964	94.79	163	5.21	910	2.75	907	99.67	3	0.33
2010	HDGV	1,104	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,104	100.00	1,098	99.46	6	0.54
	LDGT1	24,246	22,384	92.32	21,489	96.00	895	4.00	1,859	7.67	1,789	96.23	70	3.77	3	0.01	3	100.00	0	0.00
	LDGT2	12,643	11,576	91.56	10,789	93.20	787	6.80	1,061	8.39	1,012	95.38	49	4.62	6	0.05	6	100.00	0	0.00
	LDGV	29,061	26,963	92.78	25,678	95.23	1,285	4.77	2,092	7.20	2,013	96.22	79	3.78	6	0.02	6	100.00	0	0.00
2010 Total		67,054	60,923	90.86	57,956	95.13	2,967	4.87	5,012	7.47	4,814	96.05	198	3.95	1,119	1.67	1,113	99.46	6	0.54
2011	HDGV	1,257	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1,257	100.00	1,250	99.44	7	0.56
	LDGT1	14,683	13,654	92.99	13,062	95.66	592	4.34	1,028	7.00	986	95.91	42	4.09	1	0.01	1	100.00	0	0.00
	LDGT2	8,990	8,290	92.21	7,542	90.98	748	9.02	698	7.76	634	90.83	64	9.17	2	0.02	2	100.00	0	0.00
	LDGV	15,140	13,984	92.36	13,125	93.86	859	6.14	1,155	7.63	1,107	95.84	48	4.16	1	0.01	1	100.00	0	0.00
2011 Total		40,070	35,928	89.66	33,729	93.88	2,199	6.12	2,881	7.19	2,727	94.65	154	5.35	1,261	3.15	1,254	99.44	7	0.56
2012	HDGV	2,602	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2,602	100.00	2,592	99.62	10	0.38
	LDGT1	33,867	32,402	95.67	31,299	96.60	1,103	3.40	1,457	4.30	1,402	96.23	55	3.77	8	0.02	8	100.00	0	0.00
	LDGT2	18,829	17,764	94.34	16,584	93.36	1,180	6.64	1,062	5.64	970	91.34	92	8.66	3	0.02	3	100.00	0	0.00
	LDGV	42,560	40,243	94.56	38,285	95.13	1,958	4.87	2,310	5.43	2,194	94.98	116	5.02	7	0.02	6	85.71	1	14.29
2012 Total		97,858	90,409	92.39	86,168	95.31	4,241	4.69	4,829	4.93	4,566	94.55	263	5.45	2,620	2.68	2,609	99.58	11	0.42
2013	HDGV	393	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	393	100.00	393	100.00	0	0.00
	LDGT1	5,240	4,936	94.20	4,783	96.90	153	3.10	304	5.80	297	97.70	7	2.30	0	0.00	0	0.00	0	0.00
	LDGT2	2,898	2,660	91.79	2,449	92.07	211	7.93	238	8.21	219	92.02	19	7.98	0	0.00	0	0.00	0	0.00
	LDGV	7,069	6,543	92.56	6,223	95.11	320	4.89	526	7.44	486	92.40	40	7.60	0	0.00	0	0.00	0	0.00
2013 Total		15,600	14,139	90.63	13,455	95.16	684	4.84	1,068	6.85	1,002	93.82	66	6.18	393	2.52	393	100.00	0	0.00
2014	HDGV	176	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	176	100.00	174	98.86	2	1.14
	LDGT1	1,589	1,510	95.03	1,467	97.15	43	2.85	79	4.97	78	98.73	1	1.27	0	0.00	0	0.00	0	0.00
	LDGT2	991	933	94.15	850	91.10	83	8.90	58	5.85	53	91.38	5	8.62	0	0.00	0	0.00	0	0.00
	LDGV	2,002	1,852	92.51	1,770	95.57	82	4.43	150	7.49	143	95.33	7	4.67	0	0.00	0	0.00	0	0.00
2014 Total		4,758	4,295	90.27	4,087	95.16	208	4.84	287	6.03	274	95.47	13	4.53	176	3.70	174	98.86	2	1.14
2015	HDGV	195	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	195	100.00	193	98.97	2	1.03
	LDGT1	1,010	950	94.06	928	97.68	22	2.32	60	5.94	60	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	446	427	95.74	395	92.51	32	7.49	19	4.26	19	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	1,086	1,023	94.20	975	95.31	48	4.69	63	5.80	53	84.13	10	15.87	0	0.00	0	0.00	0	0.00
2015 Total		2,737	2,400	87.69	2,298	95.75	102	4.25	142	5.19	132	92.96	10	7.04	195	7.12	193	98.97	2	1.03
2016	HDGV	103	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	103	100.00	103	100.00	0	0.00
	LDGT1	713	692	97.05	674	97.40	18	2.60	21	2.95	20	95.24	1	4.76	0	0.00	0	0.00	0	0.00

Model Year	Type	Overall Total	OBD						IM240						Two Speed Idle					
			Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%
	LDGT2	249	240	96.39	230	95.83	10	4.17	9	3.61	9	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	718	677	94.29	647	95.57	30	4.43	41	5.71	40	97.56	1	2.44	0	0.00	0	0.00	0	0.00
2016 Total		1,783	1,609	90.24	1,551	96.40	58	3.60	71	3.98	69	97.18	2	2.82	103	5.78	103	100.00	0	0.00
2017	HDGV	76	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	76	100.00	76	100.00	0	0.00
	LDGT1	427	416	97.42	409	98.32	7	1.68	11	2.58	10	90.91	1	9.09	0	0.00	0	0.00	0	0.00
	LDGT2	175	170	97.14	167	98.24	3	1.76	5	2.86	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	420	406	96.67	398	98.03	8	1.97	14	3.33	13	92.86	1	7.14	0	0.00	0	0.00	0	0.00
2017 Total		1,098	992	90.35	974	98.19	18	1.81	30	2.73	28	93.33	2	6.67	76	6.92	76	100.00	0	0.00
2018	HDGV	49	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	49	100.00	49	100.00	0	0.00
	LDGT1	231	225	97.40	223	99.11	2	0.89	6	2.60	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	89	87	97.75	87	100.00	0	0.00	2	2.25	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	111	108	97.30	105	97.22	3	2.78	3	2.70	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		480	420	87.50	415	98.81	5	1.19	11	2.29	11	100.00	0	0.00	49	10.21	49	100.00	0	0.00
2019	HDGV	25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	25	100.00	25	100.00	0	0.00
	LDGT1	72	67	93.06	67	100.00	0	0.00	5	6.94	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	23	23	100.00	23	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	34	32	94.12	32	100.00	0	0.00	2	5.88	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
2019 Total		154	122	79.22	122	100.00	0	0.00	7	4.55	7	100.00	0	0.00	25	16.23	25	100.00	0	0.00
2020	HDGV	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	1	100.00	0	0.00
	LDGV	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
2020 Total		2	1	50.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	1	100.00	0	0.00
Grand Total		904,108	286,115	31.65	267,469	93.48	18,646	6.52	575,184	63.62	528,141	91.82	47,043	8.18	42,809	4.73	39,704	92.75	3,105	7.25

Initial Inspection Report All Test Types - Summary by Veh (V 1.02)

Type	Overall Total	OBD						IM240						Two Speed Idle						
		Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	Total	% of Overall Total	Pass	%	Fail	%	
HDGV	37,639	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	37,639	100.00	36,172	96.10	1,467	3.90	
LDGT1	320,952	92,887	28.94	88,891	95.70	3,996	4.30	226,735	70.64	208,297	91.87	18,438	8.13	1,330	0.41	857	64.44	473	35.56	
LDGT2	170,020	68,329	40.19	61,462	89.95	6,867	10.05	100,005	58.82	89,368	89.36	10,637	10.64	1,686	0.99	1,211	71.83	475	28.17	
LDGV	375,497	124,899	33.26	117,116	93.77	7,783	6.23	248,444	66.16	230,476	92.77	17,968	7.23	2,154	0.57	1,464	67.97	690	32.03	
Grand Total		904,108	286,115	31.65	267,469	93.48	18,646	6.52	575,184	63.62	528,141	91.82	47,043	8.18	42,809	4.73	39,704	92.75	3,105	7.25

Appendix A2

Initial OBD Inspection Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Inspection Report (V 1.03)

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
1996	LDGT1	34	26	76.47	23	88.46	3	11.54
	LDGT2	52	24	46.15	13	54.17	11	45.83
	LDGV	133	68	51.13	53	77.94	15	22.06
1996 Total		219	118	53.88	89	75.42	29	24.58
1997	LDGT1	108	41	37.96	33	80.49	8	19.51
	LDGT2	123	64	52.03	47	73.44	17	26.56
	LDGV	172	98	56.98	70	71.43	28	28.57
1997 Total		403	203	50.37	150	73.89	53	26.11
1998	LDGT1	106	46	43.40	38	82.61	8	17.39
	LDGT2	42	31	73.81	19	61.29	12	38.71
	LDGV	166	103	62.05	75	72.82	28	27.18
1998 Total		314	180	57.32	132	73.33	48	26.67
1999	LDGT1	116	64	55.17	52	81.25	12	18.75
	LDGT2	1,028	804	78.21	633	78.73	171	21.27
	LDGV	228	175	76.75	135	77.14	40	22.86
1999 Total		1,372	1,043	76.02	820	78.62	223	21.38
2000	LDGT1	300	226	75.33	188	83.19	38	16.81
	LDGT2	1,549	1,166	75.27	904	77.53	262	22.47
	LDGV	421	289	68.65	211	73.01	78	26.99
2000 Total		2,270	1,681	74.05	1,303	77.51	378	22.49
2001	LDGT1	592	500	84.46	425	85.00	75	15.00
	LDGT2	2,234	1,700	76.10	1,354	79.65	346	20.35
	LDGV	770	611	79.35	483	79.05	128	20.95
2001 Total		3,596	2,811	78.17	2,262	80.47	549	19.53
2002	LDGT1	243	180	74.07	143	79.44	37	20.56
	LDGT2	2,392	1,897	79.31	1,501	79.12	396	20.88
	LDGV	1,054	776	73.62	602	77.58	174	22.42
2002 Total		3,689	2,853	77.34	2,246	78.72	607	21.28
2003	LDGT1	96	86	89.58	71	82.56	15	17.44
	LDGT2	2,859	2,264	79.19	1,813	80.08	451	19.92
	LDGV	1,365	1,040	76.19	820	78.85	220	21.15
2003 Total		4,320	3,390	78.47	2,704	79.76	686	20.24
2004	LDGT1	135	109	80.74	90	82.57	19	17.43
	LDGT2	2,778	2,079	74.84	1,707	82.11	372	17.89
	LDGV	1,815	1,433	78.95	1,213	84.65	220	15.35
2004 Total		4,728	3,621	76.59	3,010	83.13	611	16.87
2005	LDGT1	325	232	71.38	217	93.53	15	6.47
	LDGT2	2,920	2,278	78.01	1,989	87.31	289	12.69
	LDGV	3,064	2,584	84.33	2,262	87.54	322	12.46
2005 Total		6,309	5,094	80.74	4,468	87.71	626	12.29
2006	LDGT1	1,756	1,562	88.95	1,505	96.35	57	3.65
	LDGT2	1,977	1,601	80.98	1,397	87.26	204	12.74

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
	LDGV	3,352	2,834	84.55	2,525	89.10	309	10.90
2006 Total		7,085	5,997	84.64	5,427	90.50	570	9.50
2007	LDGT1	1,575	1,412	89.65	1,326	93.91	86	6.09
	LDGT2	4,821	4,174	86.58	3,771	90.34	403	9.66
	LDGV	4,937	4,376	88.64	4,038	92.28	338	7.72
2007 Total		11,333	9,962	87.90	9,135	91.70	827	8.30
2008	LDGT1	1,862	1,684	90.44	1,613	95.78	71	4.22
	LDGT2	3,757	3,200	85.17	2,907	90.84	293	9.16
	LDGV	4,609	4,031	87.46	3,754	93.13	277	6.87
2008 Total		10,228	8,915	87.16	8,274	92.81	641	7.19
2009	LDGT1	9,554	9,483	99.26	8,766	92.44	717	7.56
	LDGT2	5,158	4,877	94.55	4,291	87.98	586	12.02
	LDGV	14,982	14,649	97.78	13,636	93.08	1,013	6.92
2009 Total		29,694	29,009	97.69	26,693	92.02	2,316	7.98
2010	LDGT1	22,563	22,384	99.21	21,489	96.00	895	4.00
	LDGT2	11,902	11,576	97.26	10,789	93.20	787	6.80
	LDGV	27,381	26,963	98.47	25,678	95.23	1,285	4.77
2010 Total		61,846	60,923	98.51	57,956	95.13	2,967	4.87
2011	LDGT1	13,730	13,654	99.45	13,062	95.66	592	4.34
	LDGT2	8,606	8,290	96.33	7,542	90.98	748	9.02
	LDGV	14,261	13,984	98.06	13,125	93.86	859	6.14
2011 Total		36,597	35,928	98.17	33,729	93.88	2,199	6.12
2012	LDGT1	32,576	32,402	99.47	31,299	96.60	1,103	3.40
	LDGT2	18,092	17,764	98.19	16,584	93.36	1,180	6.64
	LDGV	40,787	40,243	98.67	38,285	95.13	1,958	4.87
2012 Total		91,455	90,409	98.86	86,168	95.31	4,241	4.69
2013	LDGT1	4,963	4,936	99.46	4,783	96.90	153	3.10
	LDGT2	2,761	2,660	96.34	2,449	92.07	211	7.93
	LDGV	6,671	6,543	98.08	6,223	95.11	320	4.89
2013 Total		14,395	14,139	98.22	13,455	95.16	684	4.84
2014	LDGT1	1,512	1,510	99.87	1,467	97.15	43	2.85
	LDGT2	985	933	94.72	850	91.10	83	8.90
	LDGV	1,893	1,852	97.83	1,770	95.57	82	4.43
2014 Total		4,390	4,295	97.84	4,087	95.16	208	4.84
2015	LDGT1	952	950	99.79	928	97.68	22	2.32
	LDGT2	435	427	98.16	395	92.51	32	7.49
	LDGV	1,033	1,023	99.03	975	95.31	48	4.69
2015 Total		2,420	2,400	99.17	2,298	95.75	102	4.25
2016	LDGT1	699	692	99.00	674	97.40	18	2.60
	LDGT2	247	240	97.17	230	95.83	10	4.17
	LDGV	687	677	98.54	647	95.57	30	4.43
2016 Total		1,633	1,609	98.53	1,551	96.40	58	3.60
2017	LDGT1	418	416	99.52	409	98.32	7	1.68
	LDGT2	174	170	97.70	167	98.24	3	1.76
	LDGV	413	406	98.31	398	98.03	8	1.97
2017 Total		1,005	992	98.71	974	98.19	18	1.81

Model Year	Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
					Count	%	Count	%
2018	LDGT1	227	225	99.12	223	99.11	2	0.89
	LDGT2	88	87	98.86	87	100.00	0	0.00
	LDGV	111	108	97.30	105	97.22	3	2.78
2018 Total		426	420	98.59	415	98.81	5	1.19
2019	LDGT1	67	67	100.00	67	100.00	0	0.00
	LDGT2	23	23	100.00	23	100.00	0	0.00
	LDGV	32	32	100.00	32	100.00	0	0.00
2019 Total		122	122	100.00	122	100.00	0	0.00
2020	LDGV	1	1	100.00	1	100.00	0	0.00
2020 Total		1	1	100.00	1	100.00	0	0.00
Grand Total		299,850	286,115	95.42	267,469	93.48	18,646	6.52

Initial OBD Inspection Report - Summary by Veh (V 1.03)

Type	OBD Total All	OBD Total Pass/Fail	OBD Total Pass/Fail %	Pass		Fail	
				Count	%	Count	%
LDGT1	94,509	92,887	98.28	88,891	95.70	3,996	4.30
LDGT2	75,003	68,329	91.10	61,462	89.95	6,867	10.05
LDGV	130,338	124,899	95.83	117,116	93.77	7,783	6.23
Grand Total	299,850	286,115	95.42	267,469	93.48	18,646	6.52

Appendix A3

Initial OBD Inspection Failure Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Inspection Failure Report (V 1.03)

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
1996	LDGT1	3	0	0.00	0	0.00	1	33.33	1	33.33	0	0.00	0	0.00	1	33.33	0	0.00
	LDGT2	11	1	9.09	3	27.27	3	27.27	0	0.00	1	9.09	1	9.09	2	18.18	0	0.00
	LDGV	15	2	13.33	1	6.67	7	46.67	0	0.00	0	0.00	1	6.67	4	26.67	0	0.00
1996 Total		29	3	10.34	4	13.79	11	37.93	1	3.45	1	3.45	2	6.90	7	24.14	0	0.00
1997	LDGT1	8	0	0.00	0	0.00	2	25.00	2	25.00	0	0.00	1	12.50	3	37.50	0	0.00
	LDGT2	17	5	29.41	2	11.76	3	17.65	0	0.00	1	5.88	2	11.76	4	23.53	0	0.00
	LDGV	28	1	3.57	5	17.86	16	57.14	1	3.57	0	0.00	1	3.57	4	14.29	0	0.00
1997 Total		53	6	11.32	7	13.21	21	39.62	3	5.66	1	1.89	4	7.55	11	20.75	0	0.00
1998	LDGT1	8	0	0.00	2	25.00	2	25.00	0	0.00	0	0.00	1	12.50	3	37.50	0	0.00
	LDGT2	12	3	25.00	2	16.67	5	41.67	0	0.00	0	0.00	1	8.33	1	8.33	0	0.00
	LDGV	28	6	21.43	2	7.14	15	53.57	0	0.00	0	0.00	0	0.00	5	17.86	0	0.00
1998 Total		48	9	18.75	6	12.50	22	45.83	0	0.00	0	0.00	2	4.17	9	18.75	0	0.00
1999	LDGT1	12	0	0.00	0	0.00	7	58.33	0	0.00	0	0.00	0	0.00	5	41.67	0	0.00
	LDGT2	171	18	10.53	27	15.79	92	53.80	2	1.17	0	0.00	3	1.75	29	16.96	0	0.00
	LDGV	40	8	20.00	7	17.50	18	45.00	0	0.00	0	0.00	4	10.00	3	7.50	0	0.00
1999 Total		223	26	11.66	34	15.25	117	52.47	2	0.90	0	0.00	7	3.14	37	16.59	0	0.00
2000	LDGT1	38	2	5.26	6	15.79	11	28.95	1	2.63	1	2.63	2	5.26	14	36.84	1	2.63
	LDGT2	262	33	12.60	29	11.07	126	48.09	4	1.53	1	0.38	14	5.34	55	20.99	0	0.00
	LDGV	78	21	26.92	15	19.23	35	44.87	0	0.00	1	1.28	2	2.56	4	5.13	0	0.00
2000 Total		378	56	14.81	50	13.23	172	45.50	5	1.32	3	0.79	18	4.76	73	19.31	1	0.26
2001	LDGT1	75	14	18.67	4	5.33	27	36.00	0	0.00	0	0.00	7	9.33	22	29.33	1	1.33
	LDGT2	346	44	12.72	37	10.69	190	54.91	3	0.87	4	1.16	10	2.89	57	16.47	2	0.58
	LDGV	128	22	17.19	8	6.25	68	53.13	1	0.78	2	1.56	10	7.81	17	13.28	1	0.78
2001 Total		549	80	14.57	49	8.93	285	51.91	4	0.73	6	1.09	27	4.92	96	17.49	4	0.73
2002	LDGT1	37	4	10.81	3	8.11	23	62.16	0	0.00	0	0.00	1	2.70	6	16.22	0	0.00
	LDGT2	396	52	13.13	45	11.36	203	51.26	1	0.25	4	1.01	15	3.79	73	18.43	4	1.01
	LDGV	174	40	22.99	18	10.34	84	48.28	1	0.57	0	0.00	6	3.45	24	13.79	2	1.15
2002 Total		607	96	15.82	66	10.87	310	51.07	2	0.33	4	0.66	22	3.62	103	16.97	6	0.99
2003	LDGT1	15	3	20.00	2	13.33	9	60.00	0	0.00	0	0.00	0	0.00	1	6.67	0	0.00
	LDGT2	451	45	9.98	68	15.08	219	48.56	2	0.44	5	1.11	24	5.32	87	19.29	1	0.22
	LDGV	220	42	19.09	15	6.82	114	51.82	2	0.91	2	0.91	11	5.00	34	15.45	2	0.91
2003 Total		686	90	13.12	85	12.39	342	49.85	4	0.58	7	1.02	35	5.10	122	17.78	3	0.44
2004	LDGT1	19	2	10.53	1	5.26	11	57.89	0	0.00	0	0.00	0	0.00	5	26.32	0	0.00

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
	LDGT2	372	37	9.95	50	13.44	173	46.51	3	0.81	7	1.88	15	4.03	83	22.31	6	1.61
	LDGV	220	41	18.64	6	2.73	114	51.82	2	0.91	0	0.00	9	4.09	47	21.36	1	0.45
2004 Total		611	80	13.09	57	9.33	298	48.77	5	0.82	7	1.15	24	3.93	135	22.09	7	1.15
2005	LDGT1	15	3	20.00	0	0.00	5	33.33	0	0.00	0	0.00	1	6.67	6	40.00	0	0.00
	LDGT2	289	26	9.00	49	16.96	140	48.44	2	0.69	3	1.04	12	4.15	54	18.69	3	1.04
	LDGV	322	63	19.57	21	6.52	163	50.62	1	0.31	1	0.31	11	3.42	60	18.63	2	0.62
2005 Total		626	92	14.70	70	11.18	308	49.20	3	0.48	4	0.64	24	3.83	120	19.17	5	0.80
2006	LDGT1	57	10	17.54	0	0.00	33	57.89	0	0.00	0	0.00	3	5.26	10	17.54	1	1.75
	LDGT2	204	22	10.78	29	14.22	93	45.59	0	0.00	1	0.49	9	4.41	48	23.53	2	0.98
	LDGV	309	61	19.74	9	2.91	177	57.28	2	0.65	0	0.00	8	2.59	50	16.18	2	0.65
2006 Total		570	93	16.32	38	6.67	303	53.16	2	0.35	1	0.18	20	3.51	108	18.95	5	0.88
2007	LDGT1	86	20	23.26	3	3.49	26	30.23	1	1.16	0	0.00	2	2.33	33	38.37	1	1.16
	LDGT2	403	67	16.63	24	5.96	219	54.34	4	0.99	2	0.50	14	3.47	72	17.87	1	0.25
	LDGV	338	59	17.46	10	2.96	177	52.37	3	0.89	3	0.89	6	1.78	80	23.67	0	0.00
2007 Total		827	146	17.65	37	4.47	422	51.03	8	0.97	5	0.60	22	2.66	185	22.37	2	0.24
2008	LDGT1	71	5	7.04	2	2.82	26	36.62	1	1.41	0	0.00	0	0.00	36	50.70	1	1.41
	LDGT2	293	47	16.04	5	1.71	168	57.34	2	0.68	0	0.00	9	3.07	59	20.14	3	1.02
	LDGV	277	58	20.94	9	3.25	142	51.26	4	1.44	1	0.36	6	2.17	55	19.86	2	0.72
2008 Total		641	110	17.16	16	2.50	336	52.42	7	1.09	1	0.16	15	2.34	150	23.40	6	0.94
2009	LDGT1	717	115	16.04	15	2.09	284	39.61	8	1.12	0	0.00	19	2.65	273	38.08	3	0.42
	LDGT2	586	91	15.53	12	2.05	238	40.61	9	1.54	1	0.17	24	4.10	210	35.84	2	0.34
	LDGV	1,013	213	21.03	41	4.05	489	48.27	6	0.59	2	0.20	24	2.37	237	23.40	6	0.59
2009 Total		2,316	419	18.09	68	2.94	1,011	43.65	23	0.99	3	0.13	67	2.89	720	31.09	11	0.47
2010	LDGT1	895	104	11.62	23	2.57	314	35.08	10	1.12	2	0.22	30	3.35	407	45.47	5	0.56
	LDGT2	787	93	11.82	22	2.80	278	35.32	10	1.27	0	0.00	25	3.18	355	45.11	7	0.89
	LDGV	1,285	245	19.07	30	2.33	531	41.32	9	0.70	2	0.16	24	1.87	435	33.85	11	0.86
2010 Total		2,967	442	14.90	75	2.53	1,123	37.85	29	0.98	4	0.13	79	2.66	1,197	40.34	23	0.78
2011	LDGT1	592	110	18.58	11	1.86	231	39.02	6	1.01	0	0.00	15	2.53	216	36.49	3	0.51
	LDGT2	748	60	8.02	3	0.40	194	25.94	10	1.34	0	0.00	35	4.68	442	59.09	5	0.67
	LDGV	859	205	23.86	25	2.91	381	44.35	6	0.70	2	0.23	15	1.75	219	25.49	9	1.05
2011 Total		2,199	375	17.05	39	1.77	806	36.65	22	1.00	2	0.09	65	2.96	877	39.88	17	0.77
2012	LDGT1	1,103	149	13.51	21	1.90	381	34.54	7	0.63	0	0.00	33	2.99	507	45.97	5	0.45
	LDGT2	1,180	120	10.17	17	1.44	289	24.49	16	1.36	2	0.17	35	2.97	696	58.98	5	0.42
	LDGV	1,958	321	16.39	34	1.74	763	38.97	10	0.51	1	0.05	47	2.40	760	38.82	25	1.28
2012 Total		4,241	590	13.91	72	1.70	1,433	33.79	33	0.78	3	0.07	115	2.71	1,963	46.29	35	0.83
2013	LDGT1	153	25	16.34	5	3.27	51	33.33	0	0.00	0	0.00	2	1.31	69	45.10	1	0.65
	LDGT2	211	21	9.95	3	1.42	54	25.59	2	0.95	1	0.47	9	4.27	121	57.35	0	0.00

Model Year	Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity	
			MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%
	LDGV	320	44	13.75	9	2.81	117	36.56	3	0.94	0	0.00	8	2.50	136	42.50	3	0.94
2013 Total		684	90	13.16	17	2.49	222	32.46	5	0.73	1	0.15	19	2.78	326	47.66	4	0.58
2014	LDGT1	43	7	16.28	1	2.33	13	30.23	0	0.00	1	2.33	0	0.00	21	48.84	0	0.00
	LDGT2	83	6	7.23	1	1.20	18	21.69	0	0.00	1	1.20	3	3.61	53	63.86	1	1.20
	LDGV	82	16	19.51	1	1.22	38	46.34	1	1.22	0	0.00	1	1.22	24	29.27	1	1.22
2014 Total		208	29	13.94	3	1.44	69	33.17	1	0.48	2	0.96	4	1.92	98	47.12	2	0.96
2015	LDGT1	22	2	9.09	1	4.55	6	27.27	0	0.00	0	0.00	0	0.00	12	54.55	1	4.55
	LDGT2	32	4	12.50	1	3.13	8	25.00	0	0.00	0	0.00	2	6.25	17	53.13	0	0.00
	LDGV	48	9	18.75	2	4.17	14	29.17	1	2.08	0	0.00	2	4.17	20	41.67	0	0.00
2015 Total		102	15	14.71	4	3.92	28	27.45	1	0.98	0	0.00	4	3.92	49	48.04	1	0.98
2016	LDGT1	18	2	11.11	0	0.00	4	22.22	1	5.56	0	0.00	0	0.00	10	55.56	1	5.56
	LDGT2	10	1	10.00	1	10.00	3	30.00	0	0.00	0	0.00	0	0.00	5	50.00	0	0.00
	LDGV	30	8	26.67	1	3.33	6	20.00	1	3.33	0	0.00	1	3.33	13	43.33	0	0.00
2016 Total		58	11	18.97	2	3.45	13	22.41	2	3.45	0	0.00	1	1.72	28	48.28	1	1.72
2017	LDGT1	7	1	14.29	1	14.29	1	14.29	0	0.00	0	0.00	0	0.00	4	57.14	0	0.00
	LDGT2	3	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	66.67	1	33.33
	LDGV	8	1	12.50	2	25.00	2	25.00	0	0.00	0	0.00	0	0.00	3	37.50	0	0.00
2017 Total		18	2	11.11	3	16.67	3	16.67	0	0.00	0	0.00	0	0.00	9	50.00	1	5.56
2018	LDGT1	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00
	LDGV	3	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00
2018 Total		5	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00
Grand Total		18,646	2,860	15.34	802	4.30	7,655	41.05	162	0.87	55	0.29	576	3.09	6,428	34.47	134	0.72

Initial OBD Inspection Failure Report - Summary by Veh (V 1.03)

Type	Total Fail	Failed OBD Only						Failed Both OBD and Gas Cap						Failed Gas Cap Only		Failed Opacity		
		MIL Commanded on Count	MIL Commanded on %	Visual MIL Count	Visual MIL %	Both MIL Count	Both MIL %	Gas Cap and MIL on Count	Gas Cap and MIL on %	Gas Cap and Visual MIL Count	Gas Cap and Visual MIL %	Both MIL and Gas Cap Count	Both MIL and Gas Cap %	Count	%	Count	%	
LDGT1	3,996	578	14.46	101	2.53	1,468	36.74	38	0.95	4	0.10	117	2.93	1,666	41.69	24	0.60	
LDGT2	6,867	796	11.59	430	6.26	2,716	39.55	70	1.02	34	0.50	262	3.82	2,525	36.77	43	0.63	
LDGV	7,783	1,486	19.09	271	3.48	3,471	44.60	54	0.69	17	0.22	197	2.53	2,237	28.74	67	0.86	
Grand Total		18,646	2,860	15.34	802	4.30	7,655	41.05	162	0.87	55	0.29	576	3.09	6,428	34.47	134	0.72

Appendix A4

Initial OBD Fail DTC Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Fail DTC Report (V 1.03)

Model Year	Type	Total Fail	Count of Tests by Number of DTC Present												No DTCs Available	
			0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
1996	LDGT1	2	0	0.00	1	50.00	0	0.00	1	50.00	0	0.00	0	0.00	0	0.00
	LDGT2	9	2	22.22	2	22.22	2	22.22	1	11.11	0	0.00	1	11.11	1	11.11
	LDGV	11	0	0.00	4	36.36	2	18.18	3	27.27	1	9.09	0	0.00	1	9.09
1996 Total		22	2	9.09	7	31.82	4	18.18	5	22.73	1	4.55	1	4.55	2	9.09
1997	LDGT1	5	0	0.00	1	20.00	1	20.00	0	0.00	1	20.00	2	40.00	0	0.00
	LDGT2	13	4	30.77	3	23.08	2	15.38	4	30.77	0	0.00	0	0.00	0	0.00
	LDGV	24	0	0.00	9	37.50	3	12.50	7	29.17	0	0.00	1	4.17	4	16.67
1997 Total		42	4	9.52	13	30.95	6	14.29	11	26.19	1	2.38	3	7.14	4	9.52
1998	LDGT1	5	1	20.00	2	40.00	0	0.00	1	20.00	0	0.00	0	0.00	1	20.00
	LDGT2	11	1	9.09	5	45.45	1	9.09	1	9.09	2	18.18	0	0.00	1	9.09
	LDGV	23	1	4.35	10	43.48	5	21.74	3	13.04	2	8.70	2	8.70	0	0.00
1998 Total		39	3	7.69	17	43.59	6	15.38	5	12.82	4	10.26	2	5.13	2	5.13
1999	LDGT1	7	0	0.00	3	42.86	2	28.57	2	28.57	0	0.00	0	0.00	0	0.00
	LDGT2	142	22	15.49	52	36.62	35	24.65	16	11.27	7	4.93	7	4.93	3	2.11
	LDGV	37	4	10.81	14	37.84	6	16.22	4	10.81	4	10.81	2	5.41	3	8.11
1999 Total		186	26	13.98	69	37.10	43	23.12	22	11.83	11	5.91	9	4.84	6	3.23
2000	LDGT1	23	4	17.39	7	30.43	4	17.39	3	13.04	1	4.35	1	4.35	3	13.04
	LDGT2	207	11	5.31	81	39.13	46	22.22	21	10.14	21	10.14	10	4.83	17	8.21
	LDGV	74	5	6.76	32	43.24	16	21.62	7	9.46	1	1.35	4	5.41	9	12.16
2000 Total		304	20	6.58	120	39.47	66	21.71	31	10.20	23	7.57	15	4.93	29	9.54
2001	LDGT1	52	0	0.00	27	51.92	8	15.38	9	17.31	1	1.92	3	5.77	4	7.69
	LDGT2	288	18	6.25	116	40.28	58	20.14	41	14.24	10	3.47	21	7.29	24	8.33
	LDGV	111	7	6.31	37	33.33	30	27.03	16	14.41	6	5.41	9	8.11	6	5.41
2001 Total		451	25	5.54	180	39.91	96	21.29	66	14.63	17	3.77	33	7.32	34	7.54
2002	LDGT1	31	1	3.23	17	54.84	5	16.13	5	16.13	0	0.00	1	3.23	2	6.45
	LDGT2	320	26	8.13	137	42.81	64	20.00	43	13.44	12	3.75	12	3.75	26	8.13
	LDGV	149	6	4.03	50	33.56	32	21.48	17	11.41	9	6.04	21	14.09	14	9.40
2002 Total		500	33	6.60	204	40.80	101	20.20	65	13.00	21	4.20	34	6.80	42	8.40
2003	LDGT1	14	1	7.14	7	50.00	3	21.43	0	0.00	0	0.00	1	7.14	2	14.29
	LDGT2	363	27	7.44	124	34.16	86	23.69	40	11.02	23	6.34	21	5.79	42	11.57
	LDGV	186	23	12.37	64	34.41	42	22.58	22	11.83	15	8.06	13	6.99	7	3.76
2003 Total		563	51	9.06	195	34.64	131	23.27	62	11.01	38	6.75	35	6.22	51	9.06

			Count of Tests by Number of DTC Present												No DTCs Available	
Model Year	Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
2004	LDGT1	14	1	7.14	3	21.43	7	50.00	1	7.14	0	0.00	2	14.29	0	0.00
	LDGT2	285	16	5.61	104	36.49	56	19.65	37	12.98	15	5.26	21	7.37	36	12.63
	LDGV	172	8	4.65	71	41.28	37	21.51	21	12.21	12	6.98	18	10.47	5	2.91
2004 Total		471	25	5.31	178	37.79	100	21.23	59	12.53	27	5.73	41	8.70	41	8.70
2005	LDGT1	9	1	11.11	5	55.56	0	0.00	1	11.11	1	11.11	1	11.11	0	0.00
	LDGT2	232	21	9.05	93	40.09	43	18.53	28	12.07	5	2.16	13	5.60	29	12.50
	LDGV	260	29	11.15	77	29.62	73	28.08	36	13.85	21	8.08	19	7.31	5	1.92
2005 Total		501	51	10.18	175	34.93	116	23.15	65	12.97	27	5.39	33	6.59	34	6.79
2006	LDGT1	46	0	0.00	22	47.83	16	34.78	4	8.70	1	2.17	3	6.52	0	0.00
	LDGT2	154	14	9.09	50	32.47	35	22.73	17	11.04	8	5.19	16	10.39	14	9.09
	LDGV	257	20	7.78	106	41.25	55	21.40	30	11.67	10	3.89	32	12.45	4	1.56
2006 Total		457	34	7.44	178	38.95	106	23.19	51	11.16	19	4.16	51	11.16	18	3.94
2007	LDGT1	52	5	9.62	25	48.08	10	19.23	6	11.54	3	5.77	1	1.92	2	3.85
	LDGT2	330	9	2.73	165	50.00	74	22.42	33	10.00	12	3.64	20	6.06	17	5.15
	LDGV	258	14	5.43	85	32.95	82	31.78	32	12.40	16	6.20	25	9.69	4	1.55
2007 Total		640	28	4.38	275	42.97	166	25.94	71	11.09	31	4.84	46	7.19	23	3.59
2008	LDGT1	34	4	11.76	19	55.88	7	20.59	2	5.88	0	0.00	2	5.88	0	0.00
	LDGT2	231	3	1.30	119	51.52	53	22.94	19	8.23	12	5.19	20	8.66	5	2.16
	LDGV	220	16	7.27	100	45.45	48	21.82	21	9.55	11	5.00	18	8.18	6	2.73
2008 Total		485	23	4.74	238	49.07	108	22.27	42	8.66	23	4.74	40	8.25	11	2.27
2009	LDGT1	441	10	2.27	221	50.11	113	25.62	59	13.38	11	2.49	22	4.99	5	1.13
	LDGT2	375	5	1.33	174	46.40	94	25.07	45	12.00	18	4.80	30	8.00	9	2.40
	LDGV	775	36	4.65	419	54.06	163	21.03	64	8.26	22	2.84	54	6.97	17	2.19
2009 Total		1,591	51	3.21	814	51.16	370	23.26	168	10.56	51	3.21	106	6.66	31	1.95
2010	LDGT1	483	23	4.76	265	54.87	111	22.98	46	9.52	13	2.69	16	3.31	9	1.86
	LDGT2	428	14	3.27	220	51.40	111	25.93	34	7.94	18	4.21	22	5.14	9	2.10
	LDGV	841	41	4.88	471	56.00	187	22.24	70	8.32	24	2.85	32	3.80	16	1.90
2010 Total		1,752	78	4.45	956	54.57	409	23.34	150	8.56	55	3.14	70	4.00	34	1.94
2011	LDGT1	373	16	4.29	229	61.39	72	19.30	28	7.51	11	2.95	13	3.49	4	1.07
	LDGT2	302	10	3.31	173	57.28	63	20.86	28	9.27	14	4.64	13	4.30	1	0.33
	LDGV	634	55	8.68	331	52.21	138	21.77	52	8.20	22	3.47	29	4.57	7	1.10
2011 Total		1,309	81	6.19	733	56.00	273	20.86	108	8.25	47	3.59	55	4.20	12	0.92
2012	LDGT1	591	23	3.89	368	62.27	127	21.49	36	6.09	17	2.88	16	2.71	4	0.68
	LDGT2	479	22	4.59	276	57.62	101	21.09	37	7.72	15	3.13	20	4.18	8	1.67
	LDGV	1,176	89	7.57	638	54.25	242	20.58	95	8.08	44	3.74	57	4.85	11	0.94
2012 Total		2,246	134	5.97	1,282	57.08	470	20.93	168	7.48	76	3.38	93	4.14	23	1.02

			Count of Tests by Number of DTC Present												No DTCs Available	
Model Year	Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%
2013	LDGT1	83	4	4.82	61	73.49	9	10.84	4	4.82	1	1.20	2	2.41	2	2.41
	LDGT2	90	7	7.78	53	58.89	21	23.33	7	7.78	0	0.00	2	2.22	0	0.00
	LDGV	181	14	7.73	103	56.91	27	14.92	18	9.94	5	2.76	11	6.08	3	1.66
2013 Total		354	25	7.06	217	61.30	57	16.10	29	8.19	6	1.69	15	4.24	5	1.41
2014	LDGT1	22	1	4.55	12	54.55	7	31.82	0	0.00	2	9.09	0	0.00	0	0.00
	LDGT2	29	3	10.34	18	62.07	3	10.34	2	6.90	0	0.00	2	6.90	1	3.45
	LDGV	57	4	7.02	30	52.63	15	26.32	2	3.51	1	1.75	5	8.77	0	0.00
2014 Total		108	8	7.41	60	55.56	25	23.15	4	3.70	3	2.78	7	6.48	1	0.93
2015	LDGT1	9	1	11.11	3	33.33	4	44.44	0	0.00	0	0.00	0	0.00	1	11.11
	LDGT2	15	3	20.00	7	46.67	2	13.33	3	20.00	0	0.00	0	0.00	0	0.00
	LDGV	28	7	25.00	15	53.57	3	10.71	3	10.71	0	0.00	0	0.00	0	0.00
2015 Total		52	11	21.15	25	48.08	9	17.31	6	11.54	0	0.00	0	0.00	1	1.92
2016	LDGT1	7	1	14.29	5	71.43	0	0.00	1	14.29	0	0.00	0	0.00	0	0.00
	LDGT2	5	1	20.00	2	40.00	1	20.00	0	0.00	1	20.00	0	0.00	0	0.00
	LDGV	17	4	23.53	10	58.82	2	11.76	1	5.88	0	0.00	0	0.00	0	0.00
2016 Total		29	6	20.69	17	58.62	3	10.34	2	6.90	1	3.45	0	0.00	0	0.00
2017	LDGT1	3	2	66.67	1	33.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	5	2	40.00	3	60.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2017 Total		8	4	50.00	4	50.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018	LDGT1	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		12,110	723	5.97	5,957	49.19	2,665	22.01	1,190	9.83	482	3.98	689	5.69	404	3.34

Initial OBD Fail DTC Report - Summary by Veh (V 1.03)

		Count of Tests by Number of DTC Present												No DTCs Available		
Type	Total Fail	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	Count	%	
LDGT1	2,306	99	4.29	1,304	56.55	506	21.94	209	9.06	63	2.73	86	3.73	39	1.69	
LDGT2	4,308	239	5.55	1,974	45.82	951	22.08	457	10.61	193	4.48	251	5.83	243	5.64	
LDGV	5,496	385	7.01	2,679	48.74	1,208	21.98	524	9.53	226	4.11	352	6.40	122	2.22	
Grand Total		12,110	723	5.97	5,957	49.19	2,665	22.01	1,190	9.83	482	3.98	689	5.69	404	3.34

Appendix A5

Initial OBD Fail Readiness Monitor Summary Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Fail Readiness Monitor Summary Report (V 1.04)

Model Year	Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/ Ready Info	CAT				EVAP				SAIR				O2				HO2				EGR			
					Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
1996	LDGV	11	81.82	10	10	100.00	1	10.00	6	60.00	2	33.33	1	10.00	1	100.00	10	100.00	3	30.00	9	90.00	6	66.67	8	80.00	2	25.00
	LDGT1	2	100.00	2	2	100.00	1	50.00	1	50.00	0	0.00	0	0.00	0	0.00	2	100.00	2	100.00	1	50.00	0	0.00	1	50.00	0	0.00
	LDGT2	9	33.33	8	8	100.00	6	75.00	0	0.00	0	0.00	1	12.50	1	100.00	8	100.00	7	87.50	8	100.00	8	100.00	7	87.50	5	71.43
1996 Total		22	63.64	20	20	100.00	8	40.00	7	35.00	2	28.57	2	10.00	2	100.00	20	100.00	12	60.00	18	90.00	14	77.78	16	80.00	7	43.75
1997	LDGV	24	54.17	20	20	100.00	7	35.00	14	70.00	6	42.86	3	15.00	1	33.33	20	100.00	11	55.00	20	100.00	18	90.00	11	55.00	8	72.73
	LDGT1	5	100.00	5	5	100.00	1	20.00	3	60.00	0	0.00	0	0.00	0	0.00	5	100.00	5	100.00	5	100.00	5	100.00	3	60.00	3	100.00
	LDGT2	13	46.15	13	12	92.31	6	50.00	7	53.85	6	85.71	0	0.00	0	0.00	13	100.00	10	76.92	12	92.31	10	83.33	8	61.54	5	62.50
1997 Total		42	57.14	38	37	97.37	14	37.84	24	63.16	12	50.00	3	7.89	1	33.33	38	100.00	26	68.42	37	97.37	33	89.19	22	57.89	16	72.73
1998	LDGV	23	69.57	23	23	100.00	14	60.87	23	100.00	11	47.83	4	17.39	4	100.00	23	100.00	16	69.57	23	100.00	22	95.65	13	56.52	8	61.54
	LDGT1	5	60.00	4	4	100.00	2	50.00	3	75.00	2	66.67	0	0.00	0	0.00	4	100.00	3	75.00	4	100.00	3	75.00	1	25.00	1	100.00
	LDGT2	11	54.55	10	9	90.00	5	55.56	7	70.00	3	42.86	0	0.00	0	0.00	9	90.00	8	88.89	9	90.00	6	66.67	6	60.00	5	83.33
1998 Total		39	64.10	37	36	97.30	21	58.33	33	89.19	16	48.48	4	10.81	4	100.00	36	97.30	27	75.00	36	97.30	31	86.11	20	54.05	14	70.00
1999	LDGV	37	59.46	34	34	100.00	19	55.88	34	100.00	13	38.24	10	29.41	7	70.00	34	100.00	21	61.76	33	97.06	29	87.88	11	32.35	8	72.73
	LDGT1	7	57.14	7	7	100.00	3	42.86	4	57.14	3	75.00	1	14.29	0	0.00	7	100.00	4	57.14	7	100.00	6	85.71	2	28.57	2	100.00
	LDGT2	142	65.49	138	136	98.55	90	66.18	133	96.38	49	36.84	7	5.07	4	57.14	137	99.28	126	91.97	137	99.28	121	88.32	134	97.10	124	92.54
1999 Total		186	63.98	179	177	98.88	112	63.28	171	95.53	65	38.01	18	10.06	11	61.11	178	99.44	151	84.83	177	98.88	156	88.14	147	82.12	134	91.16
2000	LDGV	74	52.70	65	60	92.31	35	58.33	61	93.85	32	52.46	13	20.00	6	46.15	63	96.92	48	76.19	62	95.38	58	93.55	25	38.46	19	76.00
	LDGT1	23	43.48	17	17	100.00	12	70.59	14	82.35	8	57.14	0	0.00	0	0.00	17	100.00	12	70.59	17	100.00	13	76.47	1	5.88	1	100.00
	LDGT2	207	42.51	190	189	99.47	137	72.49	189	99.47	114	60.32	11	5.79	9	81.82	190	100.00	177	93.16	190	100.00	166	87.37	187	98.42	176	94.12
2000 Total		304	45.07	272	266	97.79	184	69.17	264	97.06	154	58.33	24	8.82	15	62.50	270	99.26	237	87.78	269	98.90	237	88.10	213	78.31	196	92.02
2001	LDGV	111	39.64	105	101	96.19	72	71.29	102	97.14	80	78.43	49	46.67	35	71.43	102	97.14	76	74.51	102	97.14	99	97.06	22	20.95	16	72.73
	LDGT1	52	38.46	45	45	100.00	32	71.11	45	100.00	29	64.44	1	2.22	0	0.00	45	100.00	34	75.56	45	100.00	35	77.78	4	8.89	4	100.00
	LDGT2	288	40.63	264	260	98.48	192	73.85	261	98.86	169	64.75	5	1.89	1	20.00	264	100.00	222	84.09	262	99.24	231	88.17	234	88.64	211	90.17
2001 Total		451	40.13	414	406	98.07	296	72.91	408	98.55	278	68.14	55	13.29	36	65.45	411	99.28	332	80.78	409	98.79	365	89.24	260	62.80	231	88.85
2002	LDGV	149	38.26	135	129	95.56	88	68.22	129	95.56	95	73.64	64	47.41	49	76.56	134	99.26	106	79.10	130	96.30	123	94.62	17	12.59	14	82.35
	LDGT1	31	29.03	28	28	100.00	21	75.00	28	100.00	21	75.00	1	3.57	1	100.00	28	100.00	22	78.57	28	100.00	23	82.14	2	7.14	2	100.00
	LDGT2	320	36.25	294	288	97.96	225	78.13	288	97.96	191	66.32	1	0.34	1	100.00	293	99.66	260	88.74	288	97.96	250	86.81	38	12.93	36	94.74
2002 Total		500	36.40	457	445	97.37	334	75.06	445	97.37	307	68.99	66	14.44	51	77.27	455	99.56	388	85.27	446	97.59	396	88.79	57	12.47	52	91.23
2003	LDGV	186	38.71	179	163	91.06	127	77.91	168	93.85	115	68.45	61	34.08	43	70.49	171	95.53	141	82.46	166	92.74	158	95.18	63	35.20	55	87.67
	LDGT1	14	57.14	12	12	100.00	7	58.33	12	100.00	8	66.67	1	8.33	1	100.00	12	100.00	8	66.67	11	91.67	10	90.91	3	25.00	2	66.30
	LDGT2	363	43.53	321	318	99.07	248	77.99	319	99.38	177	55.49	0	0.00	0	0.00	319	99.38	279	87.46	277	86.29	267	96.39	3	0.93	3	100.00
2003 Total		563	42.27	512	493	96.29	382	77.48	499	97.46	300	60.12	62	12.11	44	70.97	502	98.05	428	85.26	454	88.67	435	95.81	69	13.48	60	86.96
2004	LDGV	172	36.63	167	154	92.22	115	74.68	153	91.62	105	68.63	64	38.32	49	76.56	156	93.41	125	80.13	149	89.22	137	91.95	51	30.54	41	80.39
	LDGT1	14	42.86	14	14	100.00	9	64.29	14	100.00	9	64.29	3	21.43	3	100.00	14	100.00	12	85.71	14	100.00	12	85.71	4	28.57	3	75.00
	LDGT2	285	44.56	249	246	98.80	165	67.07	247	99.20	133	53.85	2	0.80	2	100.00	246	98.80	197	80.08	247	99.20	236	95.55	11	4.42	10	90.91
2004 Total		471	41.61	430	414	96.28	289	69.81	414	96.28	247	59.66	69	16.05	54	78.26	416	96.74	334	80.29	410	95.35	385	93.90	66	15.35	54	81.82
2005	LDGV	260	35.38	255	244	95.69	195	79.92	245	96.08	178	72.65	58	22.75	41	70.69	244	95.69	194	79.51	196	76.86	190	96.94	94	36.86	83	88.30
	LDGT1	9	22.22	9	8	88.89	8	100.00	8	88.89	6	75.00	1	11.11	1	100.00	8	88.89	7	87.50	6	66.67	6	100.00	3	33.33	3	100.00
	LDGT2	232	40.95	203	203	100.00	135	66.50	203	100.00	126	62.07	4	1.97	2	50.00	203	100.00	150	73.89	199	98.03	174	87.44	33	16.26	23	69.70
2005 Total		501	37.72	467	455	97.43	338	74.29	456	97.64	310	67.98	63	13.49	44	69.84	455	97.43	351	77.14	401	85.87	370	92.27	130	27.84	109	83.85
2006	LDGV	257	33.85	252	241	95.63	191	79.25	243	96.43	184	75.72	34	13.49	24	70.59	242	96.03	195	80.58	198	78.57	184	92.93	71	28.17	62	87.32
	LDGT1	46	50.00	46	46	100.00	37	80.43	46	100.00	28	60.87	5	10.87	5	100.00	46	100.00	37	80.43	19	41.30	16	84.21	7	15.22	7	100.00
	LDGT2	154	55.19	140	139	99.29	89	64.03	140	100.00	70	50.00	7	5.00	4	57.14	140	100.00	100	71.43								

Model Year	Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/ Ready Info	CAT				EVAP				SAIR				O2				HO2				EGR			
					Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
2009	Total	1,591	33.38	1,557	1,544	99.17	1,243	80.51	1,552	99.68	1,142	73.58	123	7.90	103	83.74	1,551	99.61	1,235	79.63	1,552	99.68	1,454	93.69	1,073	68.91	952	88.72
2010	LDGV	841	27.94	825	814	98.67	684	84.03	823	99.76	652	79.22	106	12.85	98	92.45	820	99.39	684	83.41	821	99.52	768	93.54	746	90.42	689	92.36
	LDGT1	483	24.43	473	465	98.31	403	86.67	470	99.37	393	83.62	25	5.29	24	96.00	469	99.15	394	84.01	471	99.58	452	95.97	446	94.29	410	91.93
	LDGT2	428	34.58	417	414	99.28	325	78.50	415	99.52	300	72.29	15	3.60	13	86.67	416	99.76	331	79.57	416	99.76	379	91.11	344	82.49	284	82.56
2010	Total	1,752	28.60	1,715	1,693	98.72	1,412	83.40	1,708	99.59	1,345	78.75	146	8.51	135	92.47	1,705	99.42	1,409	82.64	1,708	99.59	1,599	93.62	1,536	89.56	1,383	90.04
2011	LDGV	634	32.65	626	611	97.60	502	82.16	624	99.68	485	77.72	86	13.74	76	88.37	624	99.68	506	81.09	623	99.52	589	94.54	614	98.08	581	94.63
	LDGT1	373	31.64	369	367	99.46	307	83.65	369	100.00	284	76.96	12	3.25	12	100.00	369	100.00	286	77.51	369	100.00	346	93.77	366	99.19	343	93.72
	LDGT2	302	34.44	301	297	98.67	242	81.48	297	98.67	225	75.76	7	2.33	6	85.71	296	98.34	228	77.03	297	98.67	276	92.93	291	96.68	264	90.72
2011	Total	1,309	32.77	1,296	1,275	98.38	1,051	82.43	1,290	99.54	994	77.05	105	8.10	94	89.52	1,289	99.46	1,020	79.13	1,289	99.46	1,211	93.95	1,271	98.07	1,188	93.47
2012	LDGV	1,176	29.42	1,163	1,127	96.90	959	85.09	1,143	98.28	911	79.70	154	13.24	139	90.26	1,135	97.59	939	82.73	1,136	97.68	1,071	94.28	1,133	97.42	1,079	95.23
	LDGT1	591	24.20	587	585	99.66	532	90.94	587	100.00	508	86.54	33	5.62	30	90.91	586	99.83	508	86.69	587	100.00	570	97.10	586	99.83	531	90.61
	LDGT2	479	30.48	470	457	97.23	395	86.43	459	97.66	369	80.39	12	2.55	8	66.67	457	97.23	362	79.21	458	97.45	432	94.32	466	99.15	419	89.91
2012	Total	2,246	28.27	2,220	2,169	97.70	1,886	86.95	2,189	98.60	1,788	81.68	199	8.96	177	88.94	2,178	98.11	1,809	83.06	2,181	98.24	2,073	95.05	2,185	98.42	2,029	92.86
2013	LDGV	181	39.78	177	168	94.92	132	78.57	174	98.31	122	70.11	19	10.73	19	100.00	176	99.44	128	72.73	176	99.44	169	96.02	174	98.31	159	91.38
	LDGT1	83	39.76	81	80	98.77	65	81.25	80	98.77	55	68.75	2	2.47	2	100.00	80	98.77	57	71.25	80	98.77	74	92.50	80	98.77	75	93.75
	LDGT2	90	42.22	90	87	96.67	69	79.31	87	96.67	56	64.37	0	0.00	0	0.00	87	96.67	64	73.56	88	97.78	76	86.36	88	97.78	78	88.64
2013	Total	354	40.40	348	335	96.26	266	79.40	341	97.99	233	68.33	21	6.03	21	100.00	343	98.56	249	72.59	344	98.85	319	92.73	342	98.28	312	91.23
2014	LDGV	57	36.84	57	55	96.49	46	83.64	55	96.49	35	63.64	3	5.26	1	33.33	55	96.49	43	78.18	55	96.49	50	90.91	54	94.74	49	90.74
	LDGT1	22	40.91	22	22	100.00	21	95.45	22	100.00	13	59.09	1	4.55	1	100.00	22	100.00	18	81.82	22	100.00	22	100.00	22	100.00	22	100.00
	LDGT2	29	34.48	27	25	92.59	19	76.00	26	96.30	18	69.23	0	0.00	0	0.00	25	92.59	18	72.00	26	96.30	23	88.46	27	100.00	25	92.59
2014	Total	108	37.04	106	102	96.23	86	84.31	103	97.17	66	64.08	4	3.77	2	50.00	102	96.23	79	77.45	103	97.17	95	92.23	103	97.17	96	93.20
2015	LDGV	28	28.57	28	24	85.71	19	79.17	25	89.29	18	72.00	3	10.71	3	100.00	25	89.29	18	72.00	25	89.29	22	88.00	25	89.29	21	84.00
	LDGT1	9	33.33	8	6	75.00	6	100.00	6	75.00	4	66.67	2	25.00	2	100.00	8	100.00	7	87.50	8	100.00	7	87.50	8	100.00	7	87.50
	LDGT2	15	40.00	15	13	86.67	10	76.92	13	86.67	7	53.85	2	13.33	2	100.00	15	100.00	12	80.00	15	100.00	13	86.67	15	100.00	14	93.33
2015	Total	52	32.69	51	43	84.31	35	81.40	44	86.27	29	65.91	7	13.73	7	100.00	48	94.12	37	77.08	48	94.12	42	87.50	48	94.12	42	87.50
2016	LDGV	17	29.41	17	13	76.47	13	100.00	15	88.24	12	80.00	1	5.88	1	100.00	15	88.24	12	80.00	15	88.24	14	93.33	15	88.24	14	93.33
	LDGT1	7	42.86	7	6	85.71	5	83.33	6	85.71	3	50.00	0	0.00	0	0.00	6	85.71	4	66.67	6	85.71	6	100.00	6	85.71	6	100.00
	LDGT2	5	40.00	5	5	100.00	5	100.00	5	100.00	3	60.00	0	0.00	0	0.00	5	100.00	4	80.00	5	100.00	5	100.00	5	100.00	5	100.00
2016	Total	29	34.48	29	24	82.76	23	95.83	26	89.66	18	69.23	1	3.45	1	100.00	26	89.66	20	76.92	26	89.66	25	96.15	26	89.66	25	96.15
2017	LDGV	5	0.00	5	4	80.00	4	100.00	4	80.00	4	100.00	0	0.00	0	0.00	4	80.00	4	100.00	4	80.00	4	100.00	4	80.00	4	100.00
	LDGT1	3	0.00	3	2	66.67	2	100.00	2	66.67	2	100.00	0	0.00	0	0.00	2	66.67	2	100.00	2	66.67	2	100.00	2	66.67	2	100.00
	LDGT2	0	0.00	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	0.00	0	0.00	0	0.00	0	0.00
2017	Total	8	0.00	8	6	75.00	6	100.00	6	75.00	6	100.00	0	0.00	0	0.00	6	75.00	6	100.00	6	75.00	6	100.00	6	75.00	6	100.00
2018	LDGV	0	0.00	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	0.00	0	0.00	0	0.00	0	0.00
	LDGT1	0	0.00	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	0.00	0	0.00	0	0.00	0	0.00
2018	Total	0	0.00	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	0.00	0	0.00	0	0.00	0	0.00
Grand Total		12,110	35.23	11,683	11,435	97.88	9,175	80.24	11,490	98.35	8,319	72.40	1,138	9.74	935	82.16	11,532	98.71	9,311	80.74	11,283	96.58	10,475	92.84	7,888	67.52	7,171	90.91

Initial OBD Fail Readiness Monitor Summary Report - Summary by Veh(V 1.04)

Type	Total OBD Fail	% of Total Fail with Unset Readiness Monitors	Total OBD Fail W/ Ready Info	CAT				EVAP				SAIR				O2				HO2				EGR			
				Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%	Supported Count	Supported %	Ready Count	Ready%
LDGV	5,496	33.32	5,367	5,195	96.80	4,187	80.60	5,257	97.95	3,976	75.63	899	16.75	732	81.42	5,260	98.01	4,236	80.53	5,093	94.89	4,789	94.03	3,849	71.72	3,538	91.92
LDGT1	2,306	28.71	2,258	2,236	99.03	1,905	85.20	2,238	99.11	1,788	79.89	108	4.78	98	90.74	2,248	99.56	1,868	83.10	2,221	98.36	2,108	94.91	1,892	83.79	1,736	91.75
LDGT2	4,308	41.16	4,058	4,004	98.67	3,083	77.00	3,995	98.45	2,555	63.95	131	3.23	105	80.15	4,024	99.16	3,207	79.70	3,969	97.81	3,578	90.15	2,147	52.91	1,897	88.36
Grand Total	12,110	35.23	11,683	11,435	97.88	9,175																					

Appendix A6

OBD Retest Frequency Report

Date Range
Between 1/1/2019 and 12/31/2019

OBD Retest Frequency Report (V 1.04)

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
1996	LDGT1	4	1.25	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	0.00	0	0.00
	LDGT2	6	1.33	4	66.67	3	75.00	2	33.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	22	1.64	13	59.09	7	53.85	5	22.73	1	20.00	3	13.64	1	33.33	1	4.55	1	100.00	0	0.00	0	0.00
1996 Total		32	1.53	20	62.50	13	65.00	8	25.00	2	25.00	3	9.38	1	33.33	1	3.13	1	100.00	0	0.00	0	0.00
1997	LDGT1	7	1.14	6	85.71	4	66.67	1	14.29	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	18	1.39	13	72.22	8	61.54	3	16.67	1	33.33	2	11.11	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	39	1.95	19	48.72	9	47.37	10	25.64	2	20.00	5	12.82	2	40.00	3	7.69	0	0.00	2	5.13	0	0.00
1997 Total		64	1.70	38	59.38	21	55.26	14	21.88	4	28.57	7	10.94	3	42.86	3	4.69	0	0.00	2	3.13	0	0.00
1998	LDGT1	7	1.14	6	85.71	5	83.33	1	14.29	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	6	1.17	5	83.33	4	80.00	1	16.67	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	28	1.50	19	67.86	13	68.42	5	17.86	2	40.00	3	10.71	2	66.67	1	3.57	0	0.00	0	0.00	0	0.00
1998 Total		41	1.39	30	73.17	22	73.33	7	17.07	4	57.14	3	7.32	2	66.67	1	2.44	0	0.00	0	0.00	0	0.00
1999	LDGT1	12	1.17	10	83.33	8	80.00	2	16.67	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	198	1.40	141	71.21	101	71.63	40	20.20	22	55.00	13	6.57	7	53.85	3	1.52	2	66.67	1	0.51	1	100.00
	LDGV	40	1.43	30	75.00	19	63.33	6	15.00	3	50.00	2	5.00	1	50.00	1	2.50	0	0.00	1	2.50	1	100.00
1999 Total		250	1.39	181	72.40	128	70.72	48	19.20	27	56.25	15	6.00	8	53.33	4	1.60	2	50.00	2	0.80	2	100.00
2000	LDGT1	45	1.33	36	80.00	30	83.33	4	8.89	0	0.00	4	8.89	3	75.00	1	2.22	1	100.00	0	0.00	0	0.00
	LDGT2	325	1.59	218	67.08	154	70.64	57	17.54	23	40.35	29	8.92	10	34.48	12	3.69	5	41.67	9	2.77	4	44.44
	LDGV	65	1.29	53	81.54	39	73.58	6	9.23	2	33.33	5	7.69	3	60.00	1	1.54	1	100.00	0	0.00	0	0.00
2000 Total		435	1.52	307	70.57	223	72.64	67	15.40	25	37.31	38	8.74	16	42.11	14	3.22	7	50.00	9	2.07	4	44.44
2001	LDGT1	87	1.34	67	77.01	47	70.15	13	14.94	7	53.85	5	5.75	2	40.00	1	1.15	0	0.00	1	1.15	1	100.00
	LDGT2	424	1.50	302	71.23	208	68.87	76	17.92	46	60.53	25	5.90	10	40.00	10	2.36	5	50.00	11	2.59	4	36.36
	LDGV	148	1.58	104	70.27	63	60.58	27	18.24	14	51.85	8	5.41	5	62.50	2	1.35	0	0.00	7	4.73	1	14.29
2001 Total		659	1.49	473	71.78	318	67.23	116	17.60	67	57.76	38	5.77	17	44.74	13	1.97	5	38.46	19	2.88	6	31.58
2002	LDGT1	44	1.59	31	70.45	22	70.97	6	13.64	2	33.33	4	9.09	2	50.00	1	2.27	0	0.00	2	4.55	0	0.00
	LDGT2	456	1.39	345	75.66	263	76.23	70	15.35	41	58.57	26	5.70	17	65.38	8	1.75	3	37.50	7	1.54	5	71.43
	LDGV	175	1.37	130	74.29	87	66.92	30	17.14	14	46.67	11	6.29	5	45.45	4	2.29	1	25.00	0	0.00	0	0.00
2002 Total		675	1.39	506	74.96	372	73.52	106	15.70	57	53.77	41	6.07	24	58.54	13	1.93	4	30.77	9	1.33	5	55.56
2003	LDGT1	11	1.00	11	100.00	9	81.82	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	480	1.31	380	79.17	296	77.89	73	15.21	49	67.12	17	3.54	11	64.71	4	0.83	2	50.00	6	1.25	2	33.33
	LDGV	203	1.38	156	76.85	112	71.79	30	14.78	17	56.67	9	4.43	3	33.33	5	2.46	2	40.00	3	1.48	0	0.00
2003 Total		694	1.33	547	78.82	417	76.23	103	14.84	66	64.08	26	3.75	14	53.85	9	1.30	4	44.44	9	1.30	2	22.22
2004	LDGT1	19	1.26	15	78.95	12	80.00	3	15.79	2	66.67	1	5.26	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	427	1.28	341	79.86	266	78.01	63	14.75	43	68.25	16	3.75	7	43.75	5	1.17	4	80.00	2	0.47	1	50.00
	LDGV	214	1.25	173	80.84	134	77.46	29	13.55	10	34.48	11	5.14	7	63.64	1	0.47	0	0.00	0	0.00	0	0.00
2004 Total		660	1.27	529	80.15	412	77.88	95	14.39	55	57.89	28	4.24	15	53.57	6	0.91	4	66.67	2	0.30	1	50.00
2005	LDGT1	23	1.52	16	69.57	14	87.50	5	21.74	4	80.00	0	0.00	0	0.00	1	4.35	0	0.00	1	4.35	1	100.00
	LDGT2	307	1.34	252	82.08	205	81.35	37	12.05	21	56.76	9	2.93	5	55.56	3	0.98	2	66.67	6	1.95	2	33.33
	LDGV	326	1.32	256	78.53	191	74.61	45	13.80	27	60.00	17	5.21	9	52.94	7	2.15	1	14.29	1	0.31	1	100.00
2005 Total		656	1.33	524	79.88	410	78.24	87	13.26	52	59.77	26	3.96	14	53.85	11	1.68	3	27.27	8	1.22	4	50.00

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
2006	LDGT1	79	1.62	56	70.89	39	69.64	13	16.46	9	69.23	5	6.33	3	60.00	0	0.00	0	0.00	5	6.33	1	20.00
	LDGT2	233	1.36	181	77.68	145	80.11	35	15.02	20	57.14	10	4.29	6	60.00	3	1.29	1	33.33	4	1.72	1	25.00
	LDGV	352	1.31	279	79.26	212	75.99	48	13.64	25	52.08	20	5.68	14	70.00	2	0.57	0	0.00	3	0.85	0	0.00
2006 Total		664	1.36	516	77.71	396	76.74	96	14.46	54	56.25	35	5.27	23	65.71	5	0.75	1	20.00	12	1.81	2	16.67
2007	LDGT1	156	1.57	108	69.23	81	75.00	27	17.31	16	59.26	12	7.69	8	66.67	3	1.92	1	33.33	6	3.85	3	50.00
	LDGT2	458	1.42	353	77.07	283	80.17	59	12.88	31	52.54	22	4.80	11	50.00	13	2.84	4	30.77	11	2.40	4	36.36
	LDGV	384	1.28	309	80.47	239	77.35	53	13.80	33	62.26	12	3.13	5	41.67	8	2.08	4	50.00	2	0.52	1	50.00
2007 Total		998	1.39	770	77.15	603	78.31	139	13.93	80	57.55	46	4.61	24	52.17	24	2.40	9	37.50	19	1.90	8	42.11
2008	LDGT1	225	1.32	170	75.56	142	83.53	40	17.78	26	65.00	12	5.33	10	83.33	3	1.33	1	33.33	0	0.00	0	0.00
	LDGT2	432	1.38	334	77.31	268	80.24	62	14.35	41	66.13	20	4.63	10	50.00	7	1.62	1	14.29	9	2.08	5	55.56
	LDGV	525	1.36	392	74.67	310	79.08	90	17.14	45	50.00	33	6.29	17	51.52	8	1.52	4	50.00	2	0.38	1	50.00
2008 Total		1,182	1.36	896	75.80	720	80.36	192	16.24	112	58.33	65	5.50	37	56.92	18	1.52	6	33.33	11	0.93	6	54.55
2009	LDGT1	755	1.14	670	88.74	585	87.31	69	9.14	50	72.46	13	1.72	9	69.23	3	0.40	3	100.00	0	0.00	0	0.00
	LDGT2	628	1.20	541	86.15	457	84.47	65	10.35	44	67.69	14	2.23	7	50.00	4	0.64	2	50.00	4	0.64	1	25.00
	LDGV	1,027	1.19	887	86.37	747	84.22	102	9.93	71	69.61	28	2.73	15	53.57	7	0.68	5	71.43	3	0.29	1	33.33
2009 Total		2,410	1.17	2,098	87.05	1,789	85.27	236	9.79	165	69.92	55	2.28	31	56.36	14	0.58	10	71.43	7	0.29	2	28.57
2010	LDGT1	856	1.09	801	93.57	745	93.01	43	5.02	33	76.74	9	1.05	5	55.56	2	0.23	2	100.00	1	0.12	0	0.00
	LDGT2	765	1.09	708	92.55	640	90.40	47	6.14	38	80.85	8	1.05	6	75.00	2	0.26	2	100.00	0	0.00	0	0.00
	LDGV	1,261	1.13	1,137	90.17	1,029	90.50	93	7.38	65	69.89	21	1.67	13	61.90	9	0.71	7	77.78	1	0.08	1	100.00
2010 Total		2,882	1.11	2,646	91.81	2,414	91.23	183	6.35	136	74.32	38	1.32	24	63.16	13	0.45	11	84.62	2	0.07	1	50.00
2011	LDGT1	626	1.12	567	90.58	517	91.18	46	7.35	32	69.57	11	1.76	9	81.82	2	0.32	2	100.00	0	0.00	0	0.00
	LDGT2	744	1.06	703	94.49	661	94.03	35	4.70	27	77.14	6	0.81	4	66.67	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	932	1.15	825	88.52	730	88.48	84	9.01	63	75.00	18	1.93	15	83.33	2	0.21	1	50.00	3	0.32	1	33.33
2011 Total		2,302	1.11	2,095	91.01	1,908	91.07	165	7.17	122	73.94	35	1.52	28	80.00	4	0.17	3	75.00	3	0.13	1	33.33
2012	LDGT1	1,059	1.06	1,001	94.52	933	93.21	55	5.19	50	90.91	3	0.28	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	1,139	1.11	1,064	93.42	1,004	94.36	55	4.83	45	81.82	7	0.61	3	42.86	5	0.44	1	20.00	8	0.70	3	37.50
	LDGV	1,842	1.09	1,720	93.38	1,599	92.97	91	4.94	68	74.73	19	1.03	8	42.11	9	0.49	6	66.67	3	0.16	2	66.67
2012 Total		4,040	1.09	3,785	93.69	3,536	93.42	201	4.98	163	81.09	29	0.72	14	48.28	14	0.35	7	50.00	11	0.27	5	45.45
2013	LDGT1	138	1.23	123	89.13	115	93.50	8	5.80	5	62.50	3	2.17	2	66.67	1	0.72	0	0.00	3	2.17	1	33.33
	LDGT2	183	1.08	171	93.44	159	92.98	10	5.46	8	80.00	2	1.09	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	270	1.07	254	94.07	233	91.73	14	5.19	12	85.71	1	0.37	0	0.00	1	0.37	1	100.00	0	0.00	0	0.00
2013 Total		591	1.11	548	92.72	507	92.52	32	5.41	25	78.13	6	1.02	4	66.67	2	0.34	1	50.00	3	0.51	1	33.33
2014	LDGT1	33	1.03	32	96.97	31	96.88	1	3.03	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	58	1.03	56	96.55	54	96.43	2	3.45	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	51	1.06	48	94.12	39	81.25	3	5.88	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2014 Total		142	1.04	136	95.77	124	91.18	6	4.23	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2015	LDGT1	18	1.00	18	100.00	18	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	18	1.00	18	100.00	18	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
	LDGV	36	1.06	34	94.44	29	85.29	2	5.56	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2015 Total		72	1.03	70	97.22	65	92.86	2	2.78	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2016	LDGT1	16	1.00	16	100.00	16	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	7	1.00	7	100.00	7	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
	LDGV	15	1.00	15	100.00	15	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
2016 Total		38	1.00	38	100.00	38	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

Model Year	Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
				Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
2017	LDGT1	6	1.00	6	100.00	6	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	2	1.00	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	0.00	0	0.00
	LDGV	3	1.00	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
2017 Total		11	1.00	11	100.00	11	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
2018	LDGT1	1	1.00	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
	LDGV	2	1.00	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	0.00	0	0.00
2018 Total		3	1.00	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
Overall Total		19,501	1.21	16,767	85.98	14,450	86.18	1,903	9.76	1,224	64.32	534	2.74	299	55.99	169	0.87	78	46.15	128	0.66	50	39.06

OBD Retest Frequency Report - Summary by Veh (V 1.04)

Type	Total	Avg Retest #	Retest #1 Inspected				Retest #2 Inspected				Retest #3 Inspected				Retest #4 Inspected				Retest >=5 Inspected			
			Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%	Count	%	Pass	%
LDGT1	4,227	1.15	3,770	89.19	3,383	89.73	338	8.00	242	71.60	82	1.94	57	69.51	18	0.43	10	55.56	19	0.45	7	36.84
LDGT2	7,314	1.25	6,139	83.93	5,206	84.80	792	10.83	503	63.51	226	3.09	117	51.77	79	1.08	34	43.04	78	1.07	33	42.31
LDGV	7,960	1.20	6,858	86.16	5,861	85.46	773	9.71	479	61.97	226	2.84	125	55.31	72	0.90	34	47.22	31	0.39	10	32.26
Overall Total	19,501	1.21	16,767	85.98	14,450	86.18	1,903	9.76	1,224	64.32	534	2.74	299	55.99	169	0.87	78	46.15	128	0.66	50	39.06

Appendix A7

Initial OBD Pass DTC Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Pass DTC Report (V 1.02)

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
1996	LDGT1	23	22	95.65	1	4.35	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	13	11	84.62	1	7.69	1	7.69	0	0.00	0	0.00	0	0.00
	LDGV	53	51	96.23	2	3.77	0	0.00	0	0.00	0	0.00	0	0.00
1996 Total		89	84	94.38	4	4.49	1	1.12	0	0.00	0	0.00	0	0.00
1997	LDGT1	33	27	81.82	4	12.12	1	3.03	1	3.03	0	0.00	0	0.00
	LDGT2	47	46	97.87	1	2.13	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	70	66	94.29	2	2.86	1	1.43	1	1.43	0	0.00	0	0.00
1997 Total		150	139	92.67	7	4.67	2	1.33	2	1.33	0	0.00	0	0.00
1998	LDGT1	38	33	86.84	4	10.53	0	0.00	1	2.63	0	0.00	0	0.00
	LDGT2	19	16	84.21	1	5.26	2	10.53	0	0.00	0	0.00	0	0.00
	LDGV	75	63	84.00	5	6.67	4	5.33	1	1.33	0	0.00	2	2.67
1998 Total		132	112	84.85	10	7.58	6	4.55	2	1.52	0	0.00	2	1.52
1999	LDGT1	52	47	90.38	3	5.77	2	3.85	0	0.00	0	0.00	0	0.00
	LDGT2	633	540	85.31	45	7.11	27	4.27	16	2.53	1	0.16	4	0.63
	LDGV	135	125	92.59	6	4.44	1	0.74	1	0.74	0	0.00	2	1.48
1999 Total		820	712	86.83	54	6.59	30	3.66	17	2.07	1	0.12	6	0.73
2000	LDGT1	188	172	91.49	11	5.85	4	2.13	0	0.00	1	0.53	0	0.00
	LDGT2	904	755	83.52	67	7.41	50	5.53	23	2.54	4	0.44	5	0.55
	LDGV	211	183	86.73	23	10.90	3	1.42	1	0.47	0	0.00	1	0.47
2000 Total		1,303	1,110	85.19	101	7.75	57	4.37	24	1.84	5	0.38	6	0.46
2001	LDGT1	425	377	88.71	35	8.24	7	1.65	4	0.94	2	0.47	0	0.00
	LDGT2	1,354	1,138	84.05	112	8.27	54	3.99	35	2.58	11	0.81	4	0.30
	LDGV	483	423	87.58	38	7.87	14	2.90	6	1.24	1	0.21	1	0.21
2001 Total		2,262	1,938	85.68	185	8.18	75	3.32	45	1.99	14	0.62	5	0.22
2002	LDGT1	143	126	88.11	15	10.49	2	1.40	0	0.00	0	0.00	0	0.00
	LDGT2	1,501	1,294	86.21	124	8.26	47	3.13	23	1.53	11	0.73	2	0.13
	LDGV	602	521	86.54	65	10.80	8	1.33	4	0.66	1	0.17	3	0.50
2002 Total		2,246	1,941	86.42	204	9.08	57	2.54	27	1.20	12	0.53	5	0.22
2003	LDGT1	71	63	88.73	6	8.45	1	1.41	0	0.00	0	0.00	1	1.41
	LDGT2	1,813	1,589	87.64	140	7.72	46	2.54	18	0.99	12	0.66	8	0.44
	LDGV	820	708	86.34	75	9.15	22	2.68	11	1.34	2	0.24	2	0.24
2003 Total		2,704	2,360	87.28	221	8.17	69	2.55	29	1.07	14	0.52	11	0.41

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
2004	LDGT1	90	84	93.33	4	4.44	2	2.22	0	0.00	0	0.00	0	0.00
	LDGT2	1,707	1,537	90.04	84	4.92	46	2.69	29	1.70	7	0.41	4	0.23
	LDGV	1,213	1,085	89.45	88	7.25	23	1.90	11	0.91	5	0.41	1	0.08
2004 Total		3,010	2,706	89.90	176	5.85	71	2.36	40	1.33	12	0.40	5	0.17
2005	LDGT1	217	208	95.85	6	2.76	2	0.92	0	0.00	0	0.00	1	0.46
	LDGT2	1,989	1,756	88.29	126	6.33	44	2.21	43	2.16	14	0.70	6	0.30
	LDGV	2,262	2,054	90.80	130	5.75	51	2.25	18	0.80	4	0.18	5	0.22
2005 Total		4,468	4,018	89.93	262	5.86	97	2.17	61	1.37	18	0.40	12	0.27
2006	LDGT1	1,505	1,461	97.08	32	2.13	8	0.53	2	0.13	1	0.07	1	0.07
	LDGT2	1,397	1,214	86.90	79	5.65	42	3.01	37	2.65	9	0.64	16	1.15
	LDGV	2,525	2,280	90.30	175	6.93	37	1.47	21	0.83	5	0.20	7	0.28
2006 Total		5,427	4,955	91.30	286	5.27	87	1.60	60	1.11	15	0.28	24	0.44
2007	LDGT1	1,326	1,284	96.83	29	2.19	5	0.38	3	0.23	1	0.08	4	0.30
	LDGT2	3,771	3,503	92.89	183	4.85	60	1.59	17	0.45	4	0.11	4	0.11
	LDGV	4,038	3,752	92.92	201	4.98	56	1.39	10	0.25	8	0.20	11	0.27
2007 Total		9,135	8,539	93.48	413	4.52	121	1.32	30	0.33	13	0.14	19	0.21
2008	LDGT1	1,613	1,574	97.58	32	1.98	7	0.43	0	0.00	0	0.00	0	0.00
	LDGT2	2,907	2,652	91.23	150	5.16	64	2.20	19	0.65	11	0.38	11	0.38
	LDGV	3,754	3,468	92.38	209	5.57	55	1.47	14	0.37	3	0.08	5	0.13
2008 Total		8,274	7,694	92.99	391	4.73	126	1.52	33	0.40	14	0.17	16	0.19
2009	LDGT1	8,766	8,282	94.48	364	4.15	88	1.00	23	0.26	5	0.06	4	0.05
	LDGT2	4,291	3,876	90.33	283	6.60	103	2.40	17	0.40	6	0.14	6	0.14
	LDGV	13,636	12,822	94.03	612	4.49	142	1.04	29	0.21	20	0.15	11	0.08
2009 Total		26,693	24,980	93.58	1,259	4.72	333	1.25	69	0.26	31	0.12	21	0.08
2010	LDGT1	21,489	20,797	96.78	559	2.60	107	0.50	20	0.09	4	0.02	2	0.01
	LDGT2	10,789	10,148	94.06	448	4.15	146	1.35	24	0.22	10	0.09	13	0.12
	LDGV	25,678	24,586	95.75	853	3.32	176	0.69	28	0.11	18	0.07	17	0.07
2010 Total		57,956	55,531	95.82	1,860	3.21	429	0.74	72	0.12	32	0.06	32	0.06
2011	LDGT1	13,062	12,600	96.46	385	2.95	64	0.49	9	0.07	3	0.02	1	0.01
	LDGT2	7,542	7,062	93.64	338	4.48	107	1.42	20	0.27	8	0.11	7	0.09
	LDGV	13,125	12,450	94.86	527	4.02	109	0.83	25	0.19	5	0.04	9	0.07
2011 Total		33,729	32,112	95.21	1,250	3.71	280	0.83	54	0.16	16	0.05	17	0.05
2012	LDGT1	31,299	30,515	97.50	614	1.96	137	0.44	19	0.06	4	0.01	10	0.03
	LDGT2	16,584	15,831	95.46	550	3.32	152	0.92	31	0.19	15	0.09	5	0.03
	LDGV	38,285	36,760	96.02	1,202	3.14	234	0.61	50	0.13	22	0.06	17	0.04
2012 Total		86,168	83,106	96.45	2,366	2.75	523	0.61	100	0.12	41	0.05	32	0.04

			Count of Tests by Number of DTC Present											
Model Year	Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
2013	LDGT1	4,783	4,646	97.14	100	2.09	27	0.56	8	0.17	1	0.02	1	0.02
	LDGT2	2,449	2,297	93.79	102	4.16	42	1.71	4	0.16	1	0.04	3	0.12
	LDGV	6,223	5,932	95.32	226	3.63	46	0.74	8	0.13	7	0.11	4	0.06
2013 Total		13,455	12,875	95.69	428	3.18	115	0.85	20	0.15	9	0.07	8	0.06
2014	LDGT1	1,467	1,409	96.05	43	2.93	13	0.89	2	0.14	0	0.00	0	0.00
	LDGT2	850	806	94.82	34	4.00	7	0.82	3	0.35	0	0.00	0	0.00
	LDGV	1,770	1,685	95.20	71	4.01	11	0.62	2	0.11	0	0.00	1	0.06
2014 Total		4,087	3,900	95.42	148	3.62	31	0.76	7	0.17	0	0.00	1	0.02
2015	LDGT1	928	908	97.84	18	1.94	1	0.11	0	0.00	1	0.11	0	0.00
	LDGT2	395	378	95.70	12	3.04	5	1.27	0	0.00	0	0.00	0	0.00
	LDGV	975	940	96.41	26	2.67	6	0.62	2	0.21	1	0.10	0	0.00
2015 Total		2,298	2,226	96.87	56	2.44	12	0.52	2	0.09	2	0.09	0	0.00
2016	LDGT1	674	661	98.07	11	1.63	1	0.15	0	0.00	0	0.00	1	0.15
	LDGT2	230	218	94.78	9	3.91	2	0.87	0	0.00	1	0.43	0	0.00
	LDGV	647	628	97.06	15	2.32	1	0.15	1	0.15	1	0.15	1	0.15
2016 Total		1,551	1,507	97.16	35	2.26	4	0.26	1	0.06	2	0.13	2	0.13
2017	LDGT1	409	396	96.82	10	2.44	3	0.73	0	0.00	0	0.00	0	0.00
	LDGT2	167	165	98.80	1	0.60	1	0.60	0	0.00	0	0.00	0	0.00
	LDGV	398	392	98.49	4	1.01	1	0.25	0	0.00	0	0.00	1	0.25
2017 Total		974	953	97.84	15	1.54	5	0.51	0	0.00	0	0.00	1	0.10
2018	LDGT1	223	223	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	87	87	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	105	104	99.05	1	0.95	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		415	414	99.76	1	0.24	0	0.00	0	0.00	0	0.00	0	0.00
2019	LDGT1	67	66	98.51	1	1.49	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	23	23	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	32	32	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2019 Total		122	121	99.18	1	0.82	0	0.00	0	0.00	0	0.00	0	0.00
2020	LDGV	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2020 Total		1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		267,469	254,034	94.98	9,733	3.64	2,531	0.95	695	0.26	251	0.09	225	0.08

Initial OBD Pass DTC Report - Summary by Veh (V 1.02)

			Count of Tests by Number of DTC Present											
Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %	
LDGT1	88,891	85,981	96.73	2,287	2.57	482	0.54	92	0.10	23	0.03	26	0.03	

		Count of Tests by Number of DTC Present											
Type	Total Pass	0 Count	0 %	1 Count	1 %	2 Count	2 %	3 Count	3 %	4 Count	4 %	>= 5 Count	>= 5 %
LDGT2	61,462	56,942	92.65	2,890	4.70	1,048	1.71	359	0.58	125	0.20	98	0.16
LDGV	117,116	111,111	94.87	4,556	3.89	1,001	0.85	244	0.21	103	0.09	101	0.09
Grand Total	267,469	254,034	94.98	9,733	3.64	2,531	0.95	695	0.26	251	0.09	225	0.08

Appendix A8

Initial OBD Pass Readiness Monitor Summary Report

Appendix A9

OBD Initial Inspection Emissions Report

			Passing Initial OBD Inspection												Failing Initial OBD Inspection											
Model Year	Type	Overall Total	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)
	LDGV	22,109	20,497	92.71	20,444	99.74	0.04	1.15	0.10	53	0.26	1.25	15.53	2.34	1,612	7.29	1,518	94.17	0.07	1.90	0.16	94	5.83	1.48	27.41	1.77
2007 Total		51,642	47,844	92.65	47,731	99.76	0.04	1.12	0.10	113	0.24	1.43	18.28	2.35	3,798	7.35	3,579	94.23	0.07	1.94	0.16	219	5.77	1.79	27.76	2.22
2008	LDGT1	16,685	15,820	94.82	15,775	99.72	0.04	1.22	0.10	45	0.28	1.10	27.49	1.57	865	5.18	828	95.72	0.06	2.21	0.15	37	4.28	0.72	37.92	2.31
	LDGT2	7,103	6,547	92.17	6,429	98.20	0.05	1.27	0.09	118	1.80	0.25	21.06	0.57	556	7.83	513	92.27	0.09	2.54	0.17	43	7.73	1.79	31.86	1.77
	LDGV	16,534	15,293	92.49	15,217	99.50	0.04	1.29	0.09	76	0.50	1.80	20.23	2.07	1,241	7.51	1,175	94.68	0.07	2.08	0.14	66	5.32	1.09	30.32	2.16
2008 Total		40,322	37,660	93.40	37,421	99.37	0.04	1.26	0.10	239	0.63	0.90	22.01	1.24	2,662	6.60	2,516	94.52	0.07	2.22	0.15	146	5.48	1.20	32.70	2.08
2009	LDGT1	177	167	94.35	166	99.40	0.04	1.56	0.13	1	0.60	0.01	1.00	2.30	10	5.65	7	70.00	0.06	2.06	0.14	3	30.00	1.33	36.59	0.97
	LDGT2	51	42	82.35	42	100.00	0.06	1.97	0.13	0	0.00	0.00	0.00	0.00	9	17.65	9	100.00	0.06	4.12	0.11	0	0.00	0.00	0.00	0.00
	LDGV	189	179	94.71	178	99.44	0.04	1.13	0.08	1	0.56	0.00	0.04	4.36	10	5.29	10	100.00	0.06	1.72	0.16	0	0.00	0.00	0.00	0.00
2009 Total		417	388	93.05	386	99.48	0.05	1.41	0.11	2	0.52	0.01	0.52	3.33	29	6.95	26	89.66	0.06	2.64	0.14	3	10.34	1.33	36.59	0.97
2010	LDGT1	475	467	98.32	466	99.79	0.04	1.27	0.07	1	0.21	0.15	34.14	0.15	8	1.68	7	87.50	0.17	3.20	0.31	1	12.50	0.12	11.12	2.49
	LDGT2	214	211	98.60	211	100.00	0.04	1.71	0.08	0	0.00	0.00	0.00	0.00	3	1.40	3	100.00	0.09	5.32	0.26	0	0.00	0.00	0.00	0.00
	LDGV	461	443	96.10	442	99.77	0.03	1.06	0.07	1	0.23	0.06	20.64	0.05	18	3.90	17	94.44	0.04	1.25	0.08	1	5.56	0.08	9.21	1.93
2010 Total		1,150	1,121	97.48	1,119	99.82	0.04	1.27	0.08	2	0.18	0.10	27.39	0.10	29	2.52	27	93.10	0.08	2.21	0.16	2	6.90	0.10	10.17	2.21
2011	LDGT1	61	59	96.72	59	100.00	0.04	1.52	0.09	0	0.00	0.00	0.00	0.00	2	3.28	2	100.00	0.05	4.38	0.13	0	0.00	0.00	0.00	0.00
	LDGT2	31	30	96.77	29	96.67	0.05	1.77	0.07	1	3.33	0.13	25.31	0.06	1	3.23	1	100.00	0.02	1.27	0.14	0	0.00	0.00	0.00	0.00
	LDGV	70	69	98.57	68	98.55	0.03	1.19	0.06	1	1.45	1.71	19.51	2.19	1	1.43	1	100.00	0.00	1.44	0.01	0	0.00	0.00	0.00	0.00
2011 Total		162	158	97.53	156	98.73	0.04	1.42	0.07	2	1.27	0.92	22.41	1.12	4	2.47	4	100.00	0.03	2.87	0.10	0	0.00	0.00	0.00	0.00
2012	LDGT1	160	157	98.13	157	100.00	0.03	1.69	0.06	0	0.00	0.00	0.00	0.00	3	1.88	3	100.00	0.03	2.37	0.15	0	0.00	0.00	0.00	0.00
	LDGT2	85	82	96.47	82	100.00	0.04	1.61	0.12	0	0.00	0.00	0.00	0.00	3	3.53	3	100.00	0.02	1.05	0.05	0	0.00	0.00	0.00	0.00
	LDGV	174	163	93.68	162	99.39	0.03	1.28	0.05	1	0.61	1.15	10.59	3.44	11	6.32	11	100.00	0.04	2.70	0.07	0	0.00	0.00	0.00	0.00
2012 Total		419	402	95.94	401	99.75	0.03	1.51	0.07	1	0.25	1.15	10.59	3.44	17	4.06	17	100.00	0.04	2.35	0.08	0	0.00	0.00	0.00	0.00
2013	LDGT1	16	16	100.00	16	100.00	0.02	0.87	0.04	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
	LDGT2	2	2	100.00	2	100.00	0.01	0.63	0.03	0	0.00	0.00	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
	LDGV	7	6	85.71	6	100.00	0.02	0.48	0.02	0	0.00	0.00	0.00	0.00	1	14.29	1	100.00	0.03	0.24	0.02	0	0.00	0.00	0.00	0.00
2013 Total		25	24	96.00	24	100.00	0.02	0.75	0.03	0	0.00	0.00	0.00	0.00	1	4.00	1	100.00	0.03	0.24	0.02	0	0.00	0.00	0.00	0.00
Grand Total		380,896	319,920	83.99	316,840	99.04	0.10	1.82	0.28	3,080	0.96	1.06	15.35	2.13	60,976	16.01	54,038	88.62	0.18	3.23	0.54	6,938	11.38	1.60	23.94	2.35

OBD Initial Inspection Emissions Report - Summary by Veh (V 1.02)

			Passing Initial OBD Inspection												Failing Initial OBD Inspection											
Type	Overall Total	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	Count	%	Pass IM240 Count	Pass IM240 %	Pass IM240 Avg HC (gpm)	Pass IM240 Avg CO (gpm)	Pass IM240 Avg Nox (gpm)	Fail IM240 Count	Fail IM240 %	Fail IM240 Avg HC (gpm)	Fail IM240 Avg CO (gpm)	Fail IM240 Avg Nox (gpm)	
LDGT1	154,619	131,029	84.74	129,846	99.10	0.10	1.92	0.30	1,183	0.90	0.84	16.59	2.29	23,590	15.26	20,851	88.39	0.18	3.43	0.60	2,739	11.61	1.37	25.17	2.51	
LDGT2	63,538	52,397	82.47	51,658	98.59	0.13	1.87	0.36	739	1.41	0.89	14.97	2.33	11,141	17.53	9,576	85.95	0.25	3.54	0.72	1,565	14.05	2.31	26.02	2.60	
LDGV	162,739	136,494	83.87	135,336	99.15	0.09	1.70	0.23	1,158	0.85	1.40	14.33	1.83	26,245	16.13	23,611	89.96	0.16	2.92	0.41	2,634	10.04	1.41	21.42	2.03	
Grand Total		380,896	319,920	83.99	316,840	99.04	0.10	1.82	0.28	3,080	0.96	1.06	15.35	2.13	60,976	16.01	54,038	88.62	0.18	3.23	0.54	6,938	11.38	1.60	23.94	2.35

Appendix A10

Initial OBD Incomplete Inspection Report

Date Range
Between 1/1/2019 and 12/31/2019

Initial OBD Incomplete Inspection Report (V 1.00)

Model Year	Type	OBD Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
			Count	%	Count	%	Count	%	Count	%	Count	%
1996	LDGT1	34	8	23.53	2	25.00	0	0.00	6	75.00	0	0.00
	LDGT2	52	28	53.85	2	7.14	0	0.00	26	92.86	0	0.00
	LDGV	133	65	48.87	5	7.69	0	0.00	60	92.31	0	0.00
1996 Total		219	101	46.12	9	8.91	0	0.00	92	91.09	0	0.00
1997	LDGT1	108	67	62.04	3	4.48	0	0.00	64	95.52	0	0.00
	LDGT2	123	59	47.97	5	8.47	0	0.00	54	91.53	0	0.00
	LDGV	172	74	43.02	11	14.86	0	0.00	63	85.14	0	0.00
1997 Total		403	200	49.63	19	9.50	0	0.00	181	90.50	0	0.00
1998	LDGT1	106	60	56.60	5	8.33	0	0.00	55	91.67	0	0.00
	LDGT2	42	11	26.19	2	18.18	0	0.00	9	81.82	0	0.00
	LDGV	166	63	37.95	14	22.22	0	0.00	49	77.78	0	0.00
1998 Total		314	134	42.68	21	15.67	0	0.00	113	84.33	0	0.00
1999	LDGT1	116	52	44.83	7	13.46	0	0.00	45	86.54	0	0.00
	LDGT2	1,028	224	21.79	33	14.73	1	0.45	190	84.82	0	0.00
	LDGV	228	53	23.25	8	15.09	0	0.00	45	84.91	0	0.00
1999 Total		1,372	329	23.98	48	14.59	1	0.30	280	85.11	0	0.00
2000	LDGT1	300	74	24.67	12	16.22	0	0.00	62	83.78	0	0.00
	LDGT2	1,549	383	24.73	90	23.50	0	0.00	293	76.50	0	0.00
	LDGV	421	132	31.35	37	28.03	2	1.52	93	70.45	0	0.00
2000 Total		2,270	589	25.95	139	23.60	2	0.34	448	76.06	0	0.00
2001	LDGT1	592	92	15.54	21	22.83	0	0.00	71	77.17	0	0.00
	LDGT2	2,234	534	23.90	149	27.90	1	0.19	384	71.91	0	0.00
	LDGV	770	159	20.65	27	16.98	2	1.26	130	81.76	0	0.00
2001 Total		3,596	785	21.83	197	25.10	3	0.38	585	74.52	0	0.00
2002	LDGT1	243	63	25.93	8	12.70	0	0.00	55	87.30	0	0.00
	LDGT2	2,392	495	20.69	130	26.26	1	0.20	364	73.54	0	0.00
	LDGV	1,054	278	26.38	53	19.06	1	0.36	224	80.58	0	0.00
2002 Total		3,689	836	22.66	191	22.85	2	0.24	643	76.91	0	0.00
2003	LDGT1	96	10	10.42	0	0.00	0	0.00	10	100.00	0	0.00
	LDGT2	2,859	595	20.81	230	38.66	1	0.17	364	61.18	0	0.00
	LDGV	1,365	325	23.81	56	17.23	0	0.00	269	82.77	0	0.00
2003 Total		4,320	930	21.53	286	30.75	1	0.11	643	69.14	0	0.00
2004	LDGT1	135	26	19.26	4	15.38	0	0.00	22	84.62	0	0.00
	LDGT2	2,778	699	25.16	280	40.06	0	0.00	419	59.94	0	0.00
	LDGV	1,815	382	21.05	66	17.28	0	0.00	316	82.72	0	0.00
2004 Total		4,728	1,107	23.41	350	31.62	0	0.00	757	68.38	0	0.00
2005	LDGT1	325	93	28.62	5	5.38	1	1.08	87	93.55	0	0.00
	LDGT2	2,920	642	21.99	264	41.12	1	0.16	377	58.72	0	0.00
	LDGV	3,064	480	15.67	98	20.42	0	0.00	382	79.58	0	0.00
2005 Total		6,309	1,215	19.26	367	30.21	2	0.16	846	69.63	0	0.00
2006	LDGT1	1,756	194	11.05	34	17.53	0	0.00	160	82.47	0	0.00

Model Year	Type	OBD Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
			Count	%	Count	%	Count	%	Count	%	Count	%
2006	LDGT2	1,977	376	19.02	151	40.16	0	0.00	225	59.84	0	0.00
	LDGV	3,352	518	15.45	86	16.60	4	0.77	428	82.63	0	0.00
2006 Total		7,085	1,088	15.36	271	24.91	4	0.37	813	74.72	0	0.00
2007	LDGT1	1,575	163	10.35	37	22.70	0	0.00	126	77.30	0	0.00
	LDGT2	4,821	647	13.42	149	23.03	1	0.15	497	76.82	0	0.00
	LDGV	4,937	561	11.36	113	20.14	5	0.89	443	78.97	0	0.00
2007 Total		11,333	1,371	12.10	299	21.81	6	0.44	1,066	77.75	0	0.00
2008	LDGT1	1,862	178	9.56	30	16.85	1	0.56	147	82.58	0	0.00
	LDGT2	3,757	557	14.83	74	13.29	1	0.18	482	86.54	0	0.00
	LDGV	4,609	578	12.54	95	16.44	2	0.35	481	83.22	0	0.00
2008 Total		10,228	1,313	12.84	199	15.16	4	0.30	1,110	84.54	0	0.00
2009	LDGT1	9,554	71	0.74	8	11.27	0	0.00	63	88.73	0	0.00
	LDGT2	5,158	281	5.45	32	11.39	1	0.36	248	88.26	0	0.00
	LDGV	14,982	333	2.22	60	18.02	1	0.30	272	81.68	0	0.00
2009 Total		29,694	685	2.31	100	14.60	2	0.29	583	85.11	0	0.00
2010	LDGT1	22,563	179	0.79	35	19.55	0	0.00	144	80.45	0	0.00
	LDGT2	11,902	326	2.74	44	13.50	3	0.92	279	85.58	0	0.00
	LDGV	27,381	418	1.53	74	17.70	2	0.48	342	81.82	0	0.00
2010 Total		61,846	923	1.49	153	16.58	5	0.54	765	82.88	0	0.00
2011	LDGT1	13,730	76	0.55	21	27.63	1	1.32	54	71.05	0	0.00
	LDGT2	8,606	316	3.67	52	16.46	2	0.63	262	82.91	0	0.00
	LDGV	14,261	277	1.94	58	20.94	2	0.72	217	78.34	0	0.00
2011 Total		36,597	669	1.83	131	19.58	5	0.75	533	79.67	0	0.00
2012	LDGT1	32,576	174	0.53	32	18.39	1	0.57	141	81.03	0	0.00
	LDGT2	18,092	328	1.81	54	16.46	1	0.30	273	83.23	0	0.00
	LDGV	40,787	544	1.33	103	18.93	1	0.18	440	80.88	0	0.00
2012 Total		91,455	1,046	1.14	189	18.07	3	0.29	854	81.64	0	0.00
2013	LDGT1	4,963	27	0.54	4	14.81	0	0.00	23	85.19	0	0.00
	LDGT2	2,761	101	3.66	7	6.93	0	0.00	94	93.07	0	0.00
	LDGV	6,671	128	1.92	24	18.75	0	0.00	104	81.25	0	0.00
2013 Total		14,395	256	1.78	35	13.67	0	0.00	221	86.33	0	0.00
2014	LDGT1	1,512	2	0.13	0	0.00	0	0.00	2	100.00	0	0.00
	LDGT2	985	52	5.28	4	7.69	0	0.00	48	92.31	0	0.00
	LDGV	1,893	41	2.17	9	21.95	0	0.00	32	78.05	0	0.00
2014 Total		4,390	95	2.16	13	13.68	0	0.00	82	86.32	0	0.00
2015	LDGT1	952	2	0.21	0	0.00	0	0.00	2	100.00	0	0.00
	LDGT2	435	8	1.84	2	25.00	0	0.00	6	75.00	0	0.00
	LDGV	1,033	10	0.97	3	30.00	0	0.00	7	70.00	0	0.00
2015 Total		2,420	20	0.83	5	25.00	0	0.00	15	75.00	0	0.00
2016	LDGT1	699	7	1.00	4	57.14	0	0.00	3	42.86	0	0.00
	LDGT2	247	7	2.83	1	14.29	0	0.00	6	85.71	0	0.00
	LDGV	687	10	1.46	3	30.00	1	10.00	6	60.00	0	0.00
2016 Total		1,633	24	1.47	8	33.33	1	4.17	15	62.50	0	0.00
2017	LDGT1	418	2	0.48	0	0.00	0	0.00	2	100.00	0	0.00
	LDGT2	174	4	2.30	0	0.00	0	0.00	4	100.00	0	0.00

Model Year	Type	OBD Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
			Count	%	Count	%	Count	%	Count	%	Count	%
	LDGV	413	7	1.69	2	28.57	0	0.00	5	71.43	0	0.00
2017 Total		1,005	13	1.29	2	15.38	0	0.00	11	84.62	0	0.00
2018	LDGT1	227	2	0.88	0	0.00	0	0.00	2	100.00	0	0.00
	LDGT2	88	1	1.14	0	0.00	0	0.00	1	100.00	0	0.00
	LDGV	111	3	2.70	0	0.00	0	0.00	3	100.00	0	0.00
2018 Total		426	6	1.41	0	0.00	0	0.00	6	100.00	0	0.00
2019	LDGT1	67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	32	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2019 Total		122	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2020	LDGV	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2020 Total		1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		299,850	13,735	4.58	3,032	22.07	41	0.30	10,662	77.63	0	0.00

Initial OBD Incomplete Inspection Report - Summary by Veh (V 1.00)

Type	OBD Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors	
		Count	%	Count	%	Count	%	Count	%	Count	%
LDGT1	94,509	1,622	1.72	272	16.77	4	0.25	1,346	82.98	0	0.00
LDGT2	75,003	6,674	8.90	1,755	26.30	14	0.21	4,905	73.49	0	0.00
LDGV	130,338	5,439	4.17	1,005	18.48	23	0.42	4,411	81.10	0	0.00
Grand Total	299,850	13,735	4.58	3,032	22.07	41	0.30	10,662	77.63	0	0.00

Appendix A11

OBD Retest Incomplete Inspection Report

Date Range
Between 1/1/2019 and 12/31/2019

OBD Retest Incomplete Inspection Report (V 1.00)

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
1996	LDGT1	4	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	10	4	40.00	0	0.00	0	0.00	4	100.00	0	0.00	1	25.00
	LDGV	35	13	37.14	2	15.38	0	0.00	11	84.62	0	0.00	9	69.23
1996 Total		49	17	34.69	2	11.76	0	0.00	15	88.24	0	0.00	10	58.82
1997	LDGT1	9	2	22.22	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00
	LDGT2	41	23	56.10	1	4.35	1	0.04	21	91.30	0	0.00	8	34.78
	LDGV	71	32	45.07	5	15.63	0	0.00	27	84.38	0	0.00	25	78.13
1997 Total		121	57	47.11	6	10.53	1	0.02	50	87.72	0	0.00	35	61.40
1998	LDGT1	17	10	58.82	0	0.00	0	0.00	10	100.00	0	0.00	9	90.00
	LDGT2	15	9	60.00	0	0.00	0	0.00	9	100.00	0	0.00	7	77.78
	LDGV	50	22	44.00	6	27.27	0	0.00	16	72.73	0	0.00	17	77.27
1998 Total		82	41	50.00	6	14.63	0	0.00	35	85.37	0	0.00	33	80.49
1999	LDGT1	27	15	55.56	0	0.00	0	0.00	15	100.00	0	0.00	14	93.33
	LDGT2	322	124	38.51	7	5.65	0	0.00	117	94.35	0	0.00	88	70.97
	LDGV	60	20	33.33	1	5.00	0	0.00	19	95.00	0	0.00	11	55.00
1999 Total		409	159	38.88	8	5.03	0	0.00	151	94.97	0	0.00	113	71.07
2000	LDGT1	67	22	32.84	6	27.27	0	0.00	16	72.73	0	0.00	12	54.55
	LDGT2	586	261	44.54	7	2.68	0	0.00	254	97.32	0	0.00	151	57.85
	LDGV	115	50	43.48	7	14.00	0	0.00	43	86.00	0	0.00	45	90.00
2000 Total		768	333	43.36	20	6.01	0	0.00	313	93.99	0	0.00	208	62.46
2001	LDGT1	132	45	34.09	2	4.44	0	0.00	43	95.56	0	0.00	30	66.67
	LDGT2	679	255	37.56	15	5.88	0	0.00	240	94.12	0	0.00	169	66.27
	LDGV	254	106	41.73	7	6.60	0	0.00	99	93.40	0	0.00	56	52.83
2001 Total		1,065	406	38.12	24	5.91	0	0.00	382	94.09	0	0.00	255	62.81
2002	LDGT1	67	23	34.33	7	30.43	0	0.00	16	69.57	0	0.00	17	73.91
	LDGT2	757	301	39.76	20	6.64	1	0.00	280	93.02	0	0.00	206	68.44
	LDGV	326	151	46.32	25	16.56	0	0.00	126	83.44	0	0.00	108	71.52
2002 Total		1,150	475	41.30	52	10.95	1	0.00	422	88.84	0	0.00	331	69.68
2003	LDGT1	25	14	56.00	2	14.29	0	0.00	12	85.71	0	0.00	14	100.00
	LDGT2	711	231	32.49	26	11.26	0	0.00	205	88.74	0	0.00	171	74.03
	LDGV	301	98	32.56	7	7.14	0	0.00	91	92.86	0	0.00	73	74.49
2003 Total		1,037	343	33.08	35	10.20	0	0.00	308	89.80	0	0.00	258	75.22
2004	LDGT1	31	12	38.71	0	0.00	0	0.00	12	100.00	0	0.00	11	91.67
	LDGT2	690	263	38.12	33	12.55	0	0.00	230	87.45	0	0.00	202	76.81
	LDGV	343	129	37.61	7	5.43	0	0.00	122	94.57	0	0.00	109	84.50
2004 Total		1,064	404	37.97	40	9.90	0	0.00	364	90.10	0	0.00	322	79.70
2005	LDGT1	36	13	36.11	0	0.00	0	0.00	13	100.00	0	0.00	9	69.23
	LDGT2	524	217	41.41	18	8.29	0	0.00	199	91.71	0	0.00	185	85.25
	LDGV	519	193	37.19	11	5.70	2	0.01	180	93.26	0	0.00	139	72.02
2005 Total		1,079	423	39.20	29	6.86	2	0.00	392	92.67	0	0.00	333	78.72

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
2006	LDGT1	127	48	37.80	4	8.33	0	0.00	44	91.67	0	0.00	27	56.25
	LDGT2	363	130	35.81	7	5.38	0	0.00	123	94.62	0	0.00	101	77.69
	LDGV	522	170	32.57	11	6.47	0	0.00	159	93.53	0	0.00	136	80.00
2006 Total		1,012	348	34.39	22	6.32	0	0.00	326	93.68	0	0.00	264	75.86
2007	LDGT1	253	97	38.34	2	2.06	0	0.00	95	97.94	0	0.00	68	70.10
	LDGT2	725	267	36.83	19	7.12	0	0.00	248	92.88	0	0.00	187	70.04
	LDGV	573	189	32.98	18	9.52	0	0.00	171	90.48	0	0.00	149	78.84
2007 Total		1,551	553	35.65	39	7.05	0	0.00	514	92.95	0	0.00	404	73.06
2008	LDGT1	371	146	39.35	7	4.79	0	0.00	139	95.21	0	0.00	97	66.44
	LDGT2	707	275	38.90	7	2.55	0	0.00	268	97.45	0	0.00	210	76.36
	LDGV	808	283	35.02	13	4.59	0	0.00	270	95.41	0	0.00	197	69.61
2008 Total		1,886	704	37.33	27	3.84	0	0.00	677	96.16	0	0.00	504	71.59
2009	LDGT1	1,115	360	32.29	13	3.61	0	0.00	347	96.39	0	0.00	303	84.17
	LDGT2	956	328	34.31	7	2.13	0	0.00	321	97.87	0	0.00	261	79.57
	LDGV	1,659	632	38.10	27	4.27	0	0.00	605	95.73	0	0.00	494	78.16
2009 Total		3,730	1,320	35.39	47	3.56	0	0.00	1,273	96.44	0	0.00	1,058	80.15
2010	LDGT1	1,224	368	30.07	10	2.72	1	0.00	357	97.01	0	0.00	335	91.03
	LDGT2	1,084	319	29.43	8	2.51	1	0.00	310	97.18	0	0.00	262	82.13
	LDGV	1,848	587	31.76	21	3.58	1	0.00	565	96.25	0	0.00	485	82.62
2010 Total		4,156	1,274	30.65	39	3.06	3	0.00	1,232	96.70	0	0.00	1,082	84.93
2011	LDGT1	957	331	34.59	12	3.63	0	0.00	319	96.37	0	0.00	279	84.29
	LDGT2	1,032	288	27.91	16	5.56	0	0.00	272	94.44	0	0.00	260	90.28
	LDGV	1,422	490	34.46	22	4.49	1	0.00	467	95.31	0	0.00	420	85.71
2011 Total		3,411	1,109	32.51	50	4.51	1	0.00	1,058	95.40	0	0.00	959	86.47
2012	LDGT1	1,490	431	28.93	18	4.18	0	0.00	413	95.82	0	0.00	395	91.65
	LDGT2	1,590	451	28.36	20	4.43	1	0.00	430	95.34	0	0.00	378	83.81
	LDGV	2,609	767	29.40	29	3.78	0	0.00	738	96.22	0	0.00	711	92.70
2012 Total		5,689	1,649	28.99	67	4.06	1	0.00	1,581	95.88	0	0.00	1,484	89.99
2013	LDGT1	187	49	26.20	4	8.16	0	0.00	45	91.84	0	0.00	48	97.96
	LDGT2	247	64	25.91	3	4.69	0	0.00	61	95.31	0	0.00	53	82.81
	LDGV	373	103	27.61	3	2.91	0	0.00	100	97.09	0	0.00	97	94.17
2013 Total		807	216	26.77	10	4.63	0	0.00	206	95.37	0	0.00	198	91.67
2014	LDGT1	43	10	23.26	0	0.00	0	0.00	10	100.00	0	0.00	10	100.00
	LDGT2	70	12	17.14	1	8.33	0	0.00	11	91.67	0	0.00	11	91.67
	LDGV	82	31	37.80	0	0.00	0	0.00	31	100.00	0	0.00	26	83.87
2014 Total		195	53	27.18	1	1.89	0	0.00	52	98.11	0	0.00	47	88.68
2015	LDGT1	20	2	10.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00
	LDGT2	20	2	10.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00
	LDGV	52	16	30.77	1	6.25	0	0.00	15	93.75	0	0.00	15	93.75
2015 Total		92	20	21.74	1	5.00	0	0.00	19	95.00	0	0.00	19	95.00
2016	LDGT1	22	6	27.27	0	0.00	0	0.00	6	100.00	0	0.00	6	100.00
	LDGT2	7	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	19	4	21.05	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00
2016 Total		48	10	20.83	0	0.00	0	0.00	10	100.00	0	0.00	10	100.00

Model Year	Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
2017	LDGT1	6	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGT2	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	4	1	25.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
2017 Total		12	1	8.33	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00
2018	LDGT1	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	LDGV	2	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
2018 Total		3	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		29,416	9,915	33.71	525	5.30	9	0.00	9,381	94.61	0	0.00	7,928	79.96

OBD Retest Incomplete Inspection Report - Summary by Veh (V 1.00)

Type	OBD Retest Total All	Incomplete Total		Unable to Communicate - Communication Error		Unable to Communicate - Inaccessible		MIL Commanded Off and Not Ready		Potential Tampering Readiness Monitors		Retest # 1		
		Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
LDGT1	6,231	2,004	32.16	87	4.34	1	0.00	1,916	95.61	0	0.00	1,688	84.23	
LDGT2	11,138	3,824	34.33	215	5.62	4	0.00	3,605	94.27	0	0.00	2,913	76.18	
LDGV	12,047	4,087	33.93	223	5.46	4	0.00	3,860	94.45	0	0.00	3,327	81.40	
Grand Total		29,416	9,915	33.71	525	5.30	9	0.00	9,381	94.61	0	0.00	7,928	79.96

Appendix B1

I/M240 Initial Inspection Report

Date
Between 1/1/2019 and 12/31/2019

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	162	2.1362	27.9071	2.0350	130	80.25%	1.6432	18.6407	2.1208	32	19.75%	4.1389	65.5516	1.6862
	LDGT1	136	3.2406	49.0695	2.6627	85	62.50%	2.3054	31.6017	2.9631	51	37.50%	4.7992	78.1824	2.1620
	LDGT2	36	4.7170	66.1482	2.4888	17	47.22%	2.3896	35.3270	2.2496	19	52.78%	6.7994	93.7251	2.7028
1982 Total		334	2.8641	40.6459	2.3395	232	69.46%	1.9405	24.6121	2.4388	102	30.54%	4.9646	77.1150	2.1135
1983	LDGV	199	1.5577	19.1704	2.0015	153	76.88%	1.3086	12.1033	1.9015	46	23.12%	2.3863	42.6760	2.3343
	LDGT1	187	3.3971	41.8706	2.4895	129	68.98%	2.8309	29.9303	2.4781	58	31.02%	4.6564	68.4274	2.5148
	LDGT2	73	4.0139	45.1858	2.7617	44	60.27%	2.8507	33.1923	2.5387	29	39.73%	5.7788	63.3828	3.1002
1983 Total		459	2.6977	32.5561	2.3212	326	71.02%	2.1191	22.0039	2.2156	133	28.98%	4.1160	58.4209	2.5800
1984	LDGV	296	1.8998	19.8439	1.9976	225	76.01%	1.2924	11.1444	1.9492	71	23.99%	3.8248	47.4126	2.1511
	LDGT1	299	2.8683	35.4046	2.5593	218	72.91%	1.8045	21.6078	2.6023	81	27.09%	5.7313	72.5367	2.4435
	LDGT2	110	3.3256	58.1395	2.5940	61	55.45%	2.0499	23.2026	3.1012	49	44.55%	4.9137	101.6324	1.9626
1984 Total		705	2.5330	32.4186	2.3289	504	71.49%	1.6056	17.1297	2.3711	201	28.51%	4.8586	70.7550	2.2230
1985	LDGV	527	1.6028	18.3600	1.8794	408	77.42%	1.0478	10.6737	1.9127	119	22.58%	3.5056	44.7130	1.7649
	LDGT1	518	2.2436	26.3118	2.6291	389	75.10%	1.7651	17.2027	2.7412	129	24.90%	3.6865	53.7805	2.2913
	LDGT2	146	2.9417	40.1450	2.8827	85	58.22%	1.9323	22.4027	2.9125	61	41.78%	4.3481	64.8677	2.8411
1985 Total		1191	2.0456	24.4890	2.3285	882	74.06%	1.4494	14.6836	2.3745	309	25.94%	3.7475	52.4772	2.1971
1986	LDGV	616	1.1222	11.4661	1.7918	526	85.39%	0.9009	7.4941	1.7939	90	14.61%	2.4156	34.6805	1.7797
	LDGT1	673	2.0149	24.6897	2.5387	517	76.82%	1.6398	16.2946	2.5768	156	23.18%	3.2580	52.5117	2.4125
	LDGT2	175	2.9477	37.2641	2.8682	104	59.43%	1.8728	19.4291	2.9939	71	40.57%	4.5221	63.3886	2.6840
1986 Total		1464	1.7508	20.6287	2.2638	1147	78.35%	1.3221	12.5430	2.2556	317	21.65%	3.3019	49.8854	2.2936
1987	LDGV	818	1.2185	11.9470	1.7721	681	83.25%	0.8607	7.4966	1.7382	137	16.75%	2.9965	34.0692	1.9409
	LDGT1	884	1.7767	19.7884	2.4530	705	79.75%	1.4075	14.3353	2.4067	179	20.25%	3.2307	41.2654	2.6352
	LDGT2	262	2.3050	22.5061	2.9462	188	71.76%	1.7624	13.2005	2.8078	74	28.24%	3.6834	46.1472	3.2979
1987 Total		1964	1.6146	16.8850	2.2352	1574	80.14%	1.2133	11.2410	2.1654	390	19.86%	3.2343	39.6638	2.5170
1988	LDGV	830	1.0800	10.8636	1.6503	702	84.58%	0.7651	7.7388	1.5936	128	15.42%	2.8071	28.0007	1.9610
	LDGT1	933	1.7058	17.6800	2.2926	737	78.99%	1.3133	11.6067	2.1410	196	21.01%	3.1818	40.5172	2.8626
	LDGT2	376	1.8201	18.4743	2.7157	274	72.87%	1.4516	12.4692	2.5337	102	27.13%	2.8100	34.6054	3.2045
1988 Total		2139	1.4831	15.1746	2.1177	1713	80.08%	1.1107	10.1596	1.9795	426	19.92%	2.9802	35.3409	2.6736
1989	LDGV	1203	0.9708	10.4236	1.6036	1039	86.37%	0.7107	7.4927	1.5448	164	13.63%	2.6189	28.9920	1.9757
	LDGT1	1477	1.3999	16.7920	2.1060	1194	80.84%	1.1409	12.2798	2.0080	283	19.16%	2.4928	35.8291	2.5192
	LDGT2	515	1.8870	16.2674	2.7434	411	79.81%	1.4856	12.4364	2.6354	104	20.19%	3.4733	31.4076	3.1704
1989 Total		3195	1.3169	14.3096	2.0196	2644	82.75%	1.0254	10.4230	1.9235	551	17.25%	2.7154	32.9595	2.4804
1990	LDGV	1505	0.9323	10.3452	1.6113	1311	87.11%	0.6772	7.2821	1.5527	194	12.89%	2.6563	31.0451	2.0073
	LDGT1	1235	1.6673	16.5320	2.1814	988	80.00%	1.1433	10.8834	2.0800	247	20.00%	3.7632	39.1263	2.5872
	LDGT2	514	1.7899	16.2171	2.7472	416	80.93%	1.4661	13.4845	2.6678	98	19.07%	3.1645	27.8164	3.0847
1990 Total		3254	1.3467	13.6208	2.0071	2715	83.44%	0.9677	9.5430	1.9154	539	16.56%	3.2559	34.1613	2.4689
1991	LDGV	2382	0.7829	8.5879	1.4723	2049	86.02%	0.5609	6.4525	1.4026	333	13.98%	2.1487	21.7272	1.9012
	LDGT1	1834	1.1808	13.4701	1.8348	1565	85.33%	0.9267	10.2240	1.7565	269	14.67%	2.6590	32.3560	2.2906
	LDGT2	625	1.6848	19.6002	2.6319	460	73.60%	1.2913	14.1638	2.4721	165	26.40%	2.7819	34.7560	3.0772

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)
1991 Total		4841	1.0501	11.8593	1.7594	4074	84.16%	0.7839	8.7720	1.6593	767	15.84%	2.4638	28.2577	2.2908
1992	LDGV	2236	0.7528	8.7918	1.4828	1882	84.17%	0.5490	6.0168	1.3987	354	15.83%	1.8362	23.5448	1.9301
	LDGT1	1639	1.1192	12.2026	1.8106	1398	85.30%	0.9098	9.6839	1.7108	241	14.70%	2.3343	26.8128	2.3898
	LDGT2	923	1.6976	17.1934	2.4618	736	79.74%	1.3296	13.3293	2.3683	187	20.26%	3.1460	32.4018	2.8302
1992 Total		4798	1.0597	11.5731	1.7831	4016	83.70%	0.8177	8.6335	1.6850	782	16.30%	2.3029	26.6699	2.2870
1993	LDGV	2944	0.6917	7.7401	1.5134	2572	87.36%	0.5275	5.4800	1.4251	372	12.64%	1.8267	23.3667	2.1236
	LDGT1	2819	1.0822	11.5084	2.0207	2434	86.34%	0.8912	9.3126	1.8968	385	13.66%	2.2893	25.3900	2.8037
	LDGT2	1236	1.7809	17.5044	2.5909	941	76.13%	1.3840	13.7954	2.4539	295	23.87%	3.0470	29.3356	3.0278
1993 Total		6999	1.0413	10.9822	1.9080	5947	84.97%	0.8119	8.3644	1.7810	1052	15.03%	2.3382	25.7810	2.6261
1994	LDGV	3460	0.5757	6.3888	1.2176	3067	88.64%	0.4125	4.9182	1.1473	393	11.36%	1.8499	17.8654	1.7665
	LDGT1	3310	0.8936	9.7428	1.8317	2814	85.02%	0.7239	7.8846	1.6991	496	14.98%	1.8566	20.2848	2.5844
	LDGT2	1992	1.2730	13.5642	2.2543	1525	76.56%	0.9396	10.2182	2.0120	467	23.44%	2.3614	24.4908	3.0457
1994 Total		8762	0.8543	9.2871	1.6853	7406	84.52%	0.6393	7.1367	1.5350	1356	15.48%	2.0285	21.0321	2.5062
1995	LDGV	5161	0.5235	5.9766	1.0705	4594	89.01%	0.3936	4.6340	0.9986	567	10.99%	1.5760	16.8544	1.6534
	LDGT1	4159	0.8578	9.9502	1.8737	3543	85.19%	0.6888	7.5035	1.7229	616	14.81%	1.8299	24.0222	2.7410
	LDGT2	2859	1.1762	12.8955	2.2289	2213	77.40%	0.8959	10.1431	2.0109	646	22.60%	2.1366	22.3245	2.9760
1995 Total		12179	0.7909	8.9577	1.6167	10350	84.98%	0.6020	6.7942	1.4630	1829	15.02%	1.8595	21.2005	2.4869
1996	LDGV	5290	0.3995	4.8241	0.8610	4725	89.32%	0.3110	3.8554	0.8018	565	10.68%	1.1396	12.9255	1.3556
	LDGT1	4038	0.5107	6.5652	1.5139	3478	86.13%	0.4023	5.0776	1.3950	560	13.87%	1.1840	15.8045	2.2521
	LDGT2	2444	0.7318	8.0896	1.4839	2050	83.88%	0.5021	5.8985	1.3517	394	16.12%	1.9267	19.4901	2.1718
1996 Total		11772	0.5066	6.0993	1.2143	10253	87.10%	0.3802	4.6785	1.1130	1519	12.90%	1.3601	15.6896	1.8978
1997	LDGV	7855	0.3773	4.8192	0.7973	7046	89.70%	0.3135	3.8635	0.7497	809	10.30%	0.9330	13.1429	1.2115
	LDGT1	7715	0.4469	6.3273	1.3838	6646	86.14%	0.3616	4.9244	1.2648	1069	13.86%	0.9772	15.0493	2.1239
	LDGT2	3346	0.6380	7.8892	1.5220	2800	83.68%	0.4071	5.4362	1.3400	546	16.32%	1.8217	20.4686	2.4551
1997 Total		18916	0.4518	5.9773	1.1647	16492	87.19%	0.3488	4.5580	1.0575	2424	12.81%	1.1527	15.6338	1.8940
1998	LDGV	8941	0.3301	4.6296	0.7025	7864	87.95%	0.2521	3.5286	0.6395	1077	12.05%	0.8996	12.6689	1.1626
	LDGT1	8693	0.4165	5.8499	1.2476	7550	86.85%	0.3310	4.5011	1.1157	1143	13.15%	0.9814	14.7595	2.1186
	LDGT2	3431	0.5041	6.0073	1.3572	2909	84.79%	0.3459	4.4861	1.1827	522	15.21%	1.3858	14.4844	2.3297
1998 Total		21065	0.3941	5.3576	1.0341	18323	86.98%	0.2995	4.0813	0.9220	2742	13.02%	1.0262	13.8860	1.7833
1999	LDGV	11990	0.2909	3.9513	0.6501	10830	90.33%	0.2257	3.1346	0.5888	1160	9.67%	0.8994	11.5762	1.2219
	LDGT1	11328	0.3112	4.6918	0.9316	10011	88.37%	0.2409	3.7142	0.8029	1317	11.63%	0.8453	12.1231	1.9099
	LDGT2	5637	0.4453	4.7090	1.0516	4768	84.58%	0.2641	3.1282	0.8789	869	15.42%	1.4396	13.3825	1.9992
1999 Total		28955	0.3289	4.3885	0.8384	25609	88.44%	0.2388	3.3600	0.7265	3346	11.56%	1.0184	12.2606	1.6946
2000	LDGV	13880	0.2315	3.5718	0.5571	12621	90.93%	0.1745	2.8134	0.4784	1259	9.07%	0.8029	11.1742	1.3456
	LDGT1	11571	0.2851	4.1019	0.8664	10199	88.14%	0.2289	3.1348	0.7392	1372	11.86%	0.7031	11.2912	1.8122
	LDGT2	5275	0.2811	4.1596	0.8528	4645	88.06%	0.2210	3.1495	0.7366	630	11.94%	0.7243	11.6066	1.7100
2000 Total		30726	0.2602	3.8723	0.7243	27465	89.39%	0.2026	2.9896	0.6189	3261	10.61%	0.7457	11.3069	1.6123
2001	LDGV	17139	0.1763	3.0463	0.4166	15763	91.97%	0.1254	2.4056	0.3499	1376	8.03%	0.7593	10.3858	1.1808
	LDGT1	14593	0.1878	3.6846	0.5495	13212	90.54%	0.1443	2.8752	0.4835	1381	9.46%	0.6045	11.4281	1.1810
	LDGT2	7119	0.2591	3.6018	0.7437	6407	90.00%	0.2174	2.9016	0.6498	712	10.00%	0.6341	9.9030	1.5885
2001 Total		38851	0.1958	3.3878	0.5265	35382	91.07%	0.1491	2.6708	0.4541	3469	8.93%	0.6720	10.7016	1.2645
2002	LDGV	17434	0.1645	3.3956	0.3867	15927	91.36%	0.1194	2.8276	0.3177	1507	8.64%	0.6414	9.3989	1.1163
	LDGT1	15308	0.1804	4.3090	0.5245	13807	90.19%	0.1280	3.2824	0.4320	1501	9.81%	0.6624	13.7528	1.3747

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	6055	0.2649	3.5374	0.7859	5371	88.70%	0.1971	2.6242	0.6795	684	11.30%	0.7974	10.7078	1.6216
2002 Total		38797	0.1864	3.7781	0.5034	35105	90.48%	0.1346	2.9753	0.4180	3692	9.52%	0.6789	11.4115	1.3150
2003	LDGV	21202	0.1186	2.1963	0.3246	19678	92.81%	0.0862	1.7822	0.2676	1524	7.19%	0.5374	7.5432	1.0610
	LDGT1	18827	0.1377	2.7615	0.4064	17372	92.27%	0.1051	2.0912	0.3502	1455	7.73%	0.5257	10.7640	1.0774
	LDGT2	8119	0.2122	3.0429	0.5330	7433	91.55%	0.1549	2.1995	0.4534	686	8.45%	0.8331	12.1813	1.3955
2003 Total		48148	0.1419	2.5601	0.3917	44483	92.39%	0.1051	1.9726	0.3309	3665	7.61%	0.5881	9.6900	1.1301
2004	LDGV	18710	0.1083	2.0769	0.2618	17353	92.75%	0.0739	1.6025	0.2036	1357	7.25%	0.5485	8.1428	1.0068
	LDGT1	18731	0.1164	2.5071	0.2882	17388	92.83%	0.0880	1.9224	0.2383	1343	7.17%	0.4849	10.0768	0.9334
	LDGT2	8649	0.1488	2.5167	0.3510	7922	91.59%	0.1028	1.8603	0.2637	727	8.41%	0.6506	9.6701	1.3028
2004 Total		46090	0.1192	2.3343	0.2893	42663	92.56%	0.0850	1.7808	0.2289	3427	7.44%	0.5453	9.2247	1.0408
2005	LDGV	24892	0.0859	1.6025	0.2028	23392	93.97%	0.0558	1.2652	0.1622	1500	6.03%	0.5562	6.8629	0.8358
	LDGT1	24908	0.0880	1.6786	0.1801	23761	95.40%	0.0710	1.3749	0.1461	1147	4.60%	0.4403	7.9702	0.8839
	LDGT2	8623	0.1500	2.1655	0.2919	8079	93.69%	0.1066	1.7135	0.2222	544	6.31%	0.7949	8.8774	1.3265
2005 Total		58423	0.0963	1.7180	0.2063	55232	94.54%	0.0698	1.3780	0.1641	3191	5.46%	0.5552	7.6044	0.9367
2006	LDGV	22915	0.0788	1.7717	0.1632	21982	95.93%	0.0557	1.4580	0.1278	933	4.07%	0.6242	9.1638	0.9992
	LDGT1	19669	0.0685	1.7677	0.1656	18812	95.64%	0.0565	1.5271	0.1392	857	4.36%	0.3324	7.0487	0.7440
	LDGT2	8950	0.1246	1.8702	0.2132	8432	94.21%	0.0839	1.3831	0.1615	518	5.79%	0.7864	9.7993	1.0547
2006 Total		51534	0.0828	1.7873	0.1728	49226	95.52%	0.0608	1.4716	0.1379	2308	4.48%	0.5522	8.5210	0.9169
2007	LDGV	27217	0.0598	1.4500	0.1258	26386	96.95%	0.0460	1.2397	0.1068	831	3.05%	0.4980	8.1254	0.7269
	LDGT1	25573	0.0501	1.4640	0.1186	24598	96.19%	0.0410	1.2677	0.1037	975	3.81%	0.2794	6.4175	0.4962
	LDGT2	10057	0.0899	1.3237	0.1395	9557	95.03%	0.0643	1.0275	0.1091	500	4.97%	0.5784	6.9847	0.7215
2007 Total		62847	0.0607	1.4355	0.1251	60541	96.33%	0.0469	1.2176	0.1059	2306	3.67%	0.4230	7.1559	0.6282
2008	LDGV	20725	0.0650	1.6599	0.1283	20034	96.67%	0.0473	1.3750	0.1029	691	3.33%	0.5775	9.9177	0.8661
	LDGT1	19809	0.0474	1.5110	0.1209	19108	96.46%	0.0413	1.3124	0.1080	701	3.54%	0.2136	6.9239	0.4716
	LDGT2	8777	0.0731	1.9307	0.1281	8101	92.30%	0.0588	1.3962	0.1036	676	7.70%	0.2440	8.3367	0.4208
2008 Total		49311	0.0594	1.6483	0.1253	47243	95.81%	0.0469	1.3533	0.1051	2068	4.19%	0.3451	8.3861	0.5868
2009	LDGV	1559	0.0906	1.9639	0.1701	1482	95.06%	0.0580	1.4938	0.1179	77	4.94%	0.7188	11.0114	1.1744
	LDGT1	1039	0.0714	2.4741	0.1577	986	94.90%	0.0571	1.9735	0.1390	53	5.10%	0.3364	11.7872	0.5047
	LDGT2	529	0.0829	1.9731	0.1713	496	93.76%	0.0692	1.7884	0.1372	33	6.24%	0.2881	4.7484	0.6845
2009 Total		3127	0.0829	2.1350	0.1662	2964	94.79%	0.0596	1.7027	0.1282	163	5.21%	0.5073	9.9957	0.8574
2010	LDGV	2092	0.0691	1.6728	0.1277	2013	96.22%	0.0473	1.4234	0.0912	79	3.78%	0.6260	8.0301	1.0588
	LDGT1	1859	0.0444	1.5129	0.1014	1789	96.23%	0.0418	1.4200	0.0950	70	3.77%	0.1108	3.8863	0.2657
	LDGT2	1061	0.0775	1.9849	0.1222	1012	95.38%	0.0503	1.4384	0.1008	49	4.62%	0.6406	13.2699	0.5654
2010 Total		5012	0.0617	1.6796	0.1168	4814	96.05%	0.0459	1.4253	0.0946	198	3.95%	0.4474	7.8618	0.6563
2011	LDGV	1155	0.0900	2.3413	0.1604	1107	95.84%	0.0522	1.8602	0.0970	48	4.16%	0.9607	13.4372	1.6225
	LDGT1	1028	0.0590	2.1316	0.1073	986	95.91%	0.0465	1.8193	0.0958	42	4.09%	0.3502	9.4638	0.3776
	LDGT2	698	0.1228	2.3936	0.1350	634	90.83%	0.0548	1.1804	0.0892	64	9.17%	0.7964	14.4124	0.5885
2011 Total		2881	0.0869	2.2792	0.1353	2727	94.65%	0.0508	1.6873	0.0948	154	5.35%	0.7259	12.7588	0.8533
2012	LDGV	2310	0.0823	2.0679	0.1361	2194	94.98%	0.0389	1.5607	0.0815	116	5.02%	0.9032	11.6611	1.1704
	LDGT1	1457	0.0476	2.1409	0.0863	1402	96.23%	0.0407	1.7388	0.0785	55	3.77%	0.2251	12.3909	0.2838
	LDGT2	1062	0.0659	1.4314	0.1255	970	91.34%	0.0435	1.1502	0.0848	92	8.66%	0.3017	4.3956	0.5546
2012 Total		4829	0.0682	1.9499	0.1188	4566	94.55%	0.0404	1.5282	0.0813	263	5.45%	0.5510	9.2722	0.7696
2013	LDGV	526	0.0597	1.9077	0.1353	486	92.40%	0.0395	1.5898	0.0820	40	7.60%	0.3043	5.7705	0.7833

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	304	0.0375	1.6514	0.0667	297	97.70%	0.0374	1.5844	0.0661	7	2.30%	0.0407	4.4962	0.0890
	LDGT2	238	0.0577	1.3769	0.1109	219	92.02%	0.0540	1.2783	0.1067	19	7.98%	0.1005	2.5131	0.1596
2013 Total		1068	0.0529	1.7165	0.1103	1002	93.82%	0.0421	1.5201	0.0827	66	6.18%	0.2177	4.6976	0.5301
2014	LDGV	150	0.2410	1.7452	0.1406	143	95.33%	0.0350	1.5519	0.0689	7	4.67%	4.4485	5.6933	1.6062
	LDGT1	79	0.0383	1.8321	0.0965	78	98.73%	0.0374	1.7954	0.0962	1	1.27%	0.1077	4.6932	0.1202
	LDGT2	58	0.0424	1.0206	0.0557	53	91.38%	0.0376	0.8669	0.0503	5	8.62%	0.0933	2.6493	0.1136
2014 Total		287	0.1450	1.6227	0.1113	274	95.47%	0.0362	1.4887	0.0731	13	4.53%	2.4395	4.4456	0.9178
2015	LDGV	63	0.1482	3.3657	0.1891	53	84.13%	0.0265	1.1108	0.0516	10	15.87%	0.7930	15.3168	0.9177
	LDGT1	60	0.0254	1.1505	0.0728	60	100.00%	0.0254	1.1505	0.0728	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	19	0.0678	1.1779	0.0789	19	100.00%	0.0678	1.1779	0.0789	0	0.00%	0.0000	0.0000	0.0000
2015 Total		142	0.0856	2.1370	0.1252	132	92.96%	0.0320	1.1385	0.0652	10	7.04%	0.7930	15.3168	0.9177
2016	LDGV	41	0.0379	1.4919	0.0519	40	97.56%	0.0382	1.4423	0.0523	1	2.44%	0.0275	3.4789	0.0339
	LDGT1	21	0.0291	2.1452	0.0547	20	95.24%	0.0251	1.3477	0.0557	1	4.76%	0.1085	18.0944	0.0343
	LDGT2	9	0.0592	1.4453	0.0329	9	100.00%	0.0592	1.4453	0.0329	0	0.00%	0.0000	0.0000	0.0000
2016 Total		71	0.0380	1.6792	0.0503	69	97.18%	0.0371	1.4153	0.0508	2	2.82%	0.0680	10.7867	0.0341
2017	LDGV	14	0.0268	1.2650	0.0546	13	92.86%	0.0276	1.2655	0.0556	1	7.14%	0.0158	1.2585	0.0413
	LDGT1	11	0.1665	2.5421	0.4832	10	90.91%	0.0191	1.1713	0.0441	1	9.09%	1.6407	16.2504	4.8748
	LDGT2	5	0.0510	0.7921	0.0586	5	100.00%	0.0510	0.7921	0.0586	0	0.00%	0.0000	0.0000	0.0000
2017 Total		30	0.0821	1.6545	0.2124	28	93.33%	0.0288	1.1473	0.0520	2	6.67%	0.8282	8.7545	2.4581
2018	LDGV	3	0.0247	0.5868	0.0425	3	100.00%	0.0247	0.5868	0.0425	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	6	0.0159	0.7972	0.0331	6	100.00%	0.0159	0.7972	0.0331	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0236	0.2830	0.0629	2	100.00%	0.0236	0.2830	0.0629	0	0.00%	0.0000	0.0000	0.0000
2018 Total		11	0.0197	0.6463	0.0410	11	100.00%	0.0197	0.6463	0.0410	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	2	0.0167	0.4004	0.0579	2	100.00%	0.0167	0.4004	0.0579	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	5	0.0134	0.3777	0.0620	5	100.00%	0.0134	0.3777	0.0620	0	0.00%	0.0000	0.0000	0.0000
2019 Total		7	0.0143	0.3842	0.0608	7	100.00%	0.0143	0.3842	0.0608	0	0.00%	0.0000	0.0000	0.0000
Overall Total		575184	0.2501	3.6464	0.5397	528141	91.82%	0.1779	2.6913	0.4549	47043	8.18%	1.0610	14.3685	1.4914

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	248444	0.2022	3.0679	0.4263	230476	92.77%	0.1439	2.3431	0.3646	17968	7.23%	0.9495	12.3650	1.2177
LDGT1	226735	0.2541	3.9087	0.5811	208297	91.87%	0.1881	2.9051	0.4945	18438	8.13%	0.9994	15.2467	1.5604
LDGT2	100005	0.3603	4.4887	0.7275	89368	89.36%	0.2418	3.0911	0.5958	10637	10.64%	1.3562	16.2308	1.8338
Overall Total	575184	0.2501	3.6464	0.5397	528141	91.82%	0.1779	2.6913	0.4549	47043	8.18%	1.0610	14.3685	1.4914

Appendix B2

I/M240 Initial Failure Report

Date
Between 1/1/2019 and 12/31/2019

Initial Failure Report (V1.03)

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
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)
1982	LDGT1	12	8.82%	5.5900	96.8738	2.5357	20	14.71%	6.6306	115.3151	1.3186	19	13.97%	2.3720	27.2903	2.8137
	LDGT2	6	16.67%	6.0463	92.9854	2.6001	10	27.78%	8.1320	106.6325	2.5851	3	8.33%	3.8635	52.1799	3.3005
	LDGV	7	4.32%	6.4657	80.6696	1.7595	18	11.11%	3.9881	75.7802	1.4325	7	4.32%	2.1998	24.1314	2.2654
1982 Total		25	7.49%	5.9447	91.4034	2.3338	48	14.37%	5.9525	98.6806	1.6252	29	8.68%	2.4847	29.1026	2.7317
1983	LDGT1	8	4.28%	5.8079	102.6505	3.4991	21	11.23%	6.1616	103.0726	2.2314	29	15.51%	3.2488	33.8986	2.4486
	LDGT2	2	2.74%	5.4464	156.3346	1.1948	17	23.29%	7.4863	71.3382	3.3596	10	13.70%	2.9426	31.2682	3.0404
	LDGV	4	2.01%	3.3901	40.1573	3.2397	30	15.08%	2.6279	54.8425	2.2939	12	6.03%	1.4474	13.0992	2.1335
1983 Total		14	3.05%	5.0654	92.4644	3.0958	68	14.81%	4.9338	73.8610	2.5410	51	11.11%	2.7649	28.4889	2.4905
1984	LDGT1	11	3.68%	12.0528	147.2590	1.7214	41	13.71%	6.6507	89.0117	2.3746	29	9.70%	2.0337	20.9016	2.8148
	LDGT2	11	10.00%	5.1547	108.0434	1.7488	24	21.82%	6.5274	144.0349	1.5815	14	12.73%	1.9580	23.9052	2.7838
	LDGV	6	2.03%	3.5215	59.0967	2.3638	43	14.53%	5.1547	63.3528	2.3010	22	7.43%	1.3083	13.0700	1.8002
1984 Total		28	3.97%	7.5147	112.9609	1.8698	108	15.32%	6.0277	91.0231	2.1690	65	9.22%	1.7719	18.8979	2.4647
1985	LDGT1	13	2.51%	5.5229	82.5755	2.6134	53	10.23%	5.4290	86.9108	2.0908	63	12.16%	1.8417	19.9671	2.3936
	LDGT2	15	10.27%	8.0906	104.0667	2.3176	25	17.12%	3.6293	78.4216	3.0175	21	14.38%	2.5306	20.7330	3.0052
	LDGV	15	2.85%	5.6660	81.4633	1.2788	66	12.52%	4.3322	55.6146	1.7699	38	7.21%	1.2171	11.2718	1.9483
1985 Total		43	3.61%	6.4685	89.6844	2.0447	144	12.09%	4.6139	71.0929	2.1046	122	10.24%	1.7657	17.3906	2.3602
1986	LDGT1	23	3.42%	6.1770	90.4624	2.2811	69	10.25%	3.4742	71.5977	1.9044	64	9.51%	1.9759	18.2961	3.0075
	LDGT2	14	8.00%	7.3969	105.2538	1.7007	35	20.00%	4.8975	70.7509	2.8642	22	12.57%	2.0953	25.0343	3.0231
	LDGV	8	1.30%	3.7895	59.2168	1.9031	48	7.79%	3.1594	49.2649	1.6132	34	5.52%	1.0422	8.3177	1.9856
1986 Total		45	3.07%	6.1321	89.5094	2.0333	152	10.38%	3.7025	64.3502	2.0334	120	8.20%	1.7333	16.7042	2.7208
1987	LDGT1	27	3.05%	4.3621	59.7386	2.7504	90	10.18%	3.9020	53.7721	2.4069	62	7.01%	1.7636	15.0656	2.9165
	LDGT2	10	3.82%	5.4218	100.6884	1.9236	40	15.27%	4.3130	52.0112	3.6823	24	9.16%	1.9096	13.6484	3.2301
	LDGV	15	1.83%	5.1169	53.6053	2.1259	84	10.27%	3.4853	42.6410	1.8848	38	4.65%	1.0789	7.4094	1.9919
1987 Total		52	2.65%	4.7836	65.8443	2.4113	214	10.90%	3.8153	49.0737	2.4403	124	6.31%	1.5821	12.4450	2.6938
1988	LDGT1	29	3.11%	2.9341	49.5550	3.4402	104	11.15%	4.2180	54.3286	2.7885	63	6.75%	1.5853	13.5570	2.7192
	LDGT2	14	3.72%	3.4873	34.7197	4.0440	54	14.36%	3.4735	48.6439	3.3226	34	9.04%	1.4775	12.2620	2.6713
	LDGV	9	1.08%	3.0722	53.7433	1.7068	75	9.04%	3.8600	36.6256	2.1204	44	5.30%	0.9581	8.0337	1.7412
1988 Total		52	2.43%	3.1070	46.2858	3.3027	233	10.89%	3.9302	47.3127	2.6972	141	6.59%	1.3636	11.5212	2.4025
1989	LDGT1	34	2.30%	3.1586	51.8362	3.0224	148	10.02%	3.1716	48.2211	2.5133	101	6.84%	1.2741	12.2819	2.3584
	LDGT2	13	2.52%	8.7885	56.7090	4.1605	53	10.29%	3.5637	38.6346	3.2879	38	7.38%	1.5289	12.6720	2.6679
	LDGV	12	1.00%	7.5227	38.9266	2.9582	90	7.48%	3.2073	42.2031	1.9683	62	5.15%	0.8157	7.8919	1.7964
1989 Total		59	1.85%	5.2867	50.2842	3.2601	291	9.11%	3.2541	44.6139	2.4858	201	6.29%	1.1809	11.0015	2.2436
1990	LDGT1	29	2.35%	3.5962	39.9049	3.6046	134	10.85%	5.3910	56.8594	2.5661	84	6.80%	1.2240	10.5690	2.2695
	LDGT2	10	1.95%	7.0240	32.1287	4.2067	45	8.75%	3.8528	41.0667	3.1625	43	8.37%	1.5467	12.9471	2.7423
	LDGV	9	0.60%	3.0565	45.2031	3.0817	120	7.97%	3.6928	42.9469	2.1721	65	4.32%	0.6873	7.1122	1.5542
1990 Total		48	1.48%	4.2092	39.2783	3.6320	299	9.19%	4.4779	48.8989	2.4977	192	5.90%	1.1146	9.9313	2.1333
1991	LDGT1	16	0.87%	5.3832	44.5918	3.6756	143	7.80%	3.6246	47.7314	2.4986	110	6.00%	1.0074	10.5882	1.8187
	LDGT2	13	2.08%	4.2202	36.4201	5.2163	104	16.64%	3.3017	44.0817	3.1792	48	7.68%	1.2659	14.0998	2.2768
	LDGV	26	1.09%	3.7783	33.7084	2.2337	192	8.06%	2.8414	29.1328	2.1080	115	4.83%	0.6237	6.6544	1.4809
1991 Total		55	1.14%	4.3496	37.5155	3.3581	439	9.07%	3.2056	38.7325	2.4890	273	5.64%	0.8912	9.5485	1.7569
1992	LDGT1	13	0.79%	7.6949	79.4437	3.0459	101	6.16%	3.2884	40.5680	2.7771	127	7.75%	1.0268	10.4863	2.0146

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
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)
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	5	8.62%	0.0933	2.6493	0.1136
	LDGV	0	0.00%	0.0000	0.0000	0.0000	2	1.33%	15.4505	16.3198	5.2477	5	3.33%	0.0476	1.4428	0.1496
2014 Total		0	0.00%	0.0000	0.0000	0.0000	2	0.70%	15.4505	16.3198	5.2477	11	3.83%	0.0738	2.2867	0.1306
2015	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
	LDGV	0	0.00%	0.0000	0.0000	0.0000	5	7.94%	1.5526	29.8648	1.7963	5	7.94%	0.0334	0.7688	0.0392
2015 Total		0	0.00%	0.0000	0.0000	0.0000	5	3.52%	1.5526	29.8648	1.7963	5	3.52%	0.0334	0.7688	0.0392
2016	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	4.76%	0.1085	18.0944	0.0343	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
	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	2.44%	0.0275	3.4789	0.0339
2016 Total		0	0.00%	0.0000	0.0000	0.0000	1	1.41%	0.1085	18.0944	0.0343	1	1.41%	0.0275	3.4789	0.0339
2017	LDGT1	1	9.09%	1.6407	16.2504	4.8748	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
	LDGV	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000	1	7.14%	0.0158	1.2585	0.0413
2017 Total		1	3.33%	1.6407	16.2504	4.8748	0	0.00%	0.0000	0.0000	0.0000	1	3.33%	0.0158	1.2585	0.0413
2018	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
	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
2018 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
2019	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
	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
2019 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		1,951	0.34%	2.7671	33.1027	2.6787	20,672	3.59%	1.8342	25.3543	2.3891	24,420	4.25%	0.2702	3.5721	0.6366

Initial Failure Report - Summary by Veh (V1.03)

Vehicle		Failure for Both Exhaust and Other					Failure for Exhaust Only					Failure for Other				
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)	
LDGT1	749	0.33%	2.7448	36.7347	2.8976	7,721	3.41%	1.7311	27.7141	2.5233	9,968	4.40%	0.3014	3.9750	0.7142	
LDGT2	584	0.58%	3.2161	36.3423	2.9453	4,952	4.95%	2.1667	26.2272	2.7684	5,101	5.10%	0.3564	4.2240	0.7994	
LDGV	618	0.25%	2.3699	25.6395	2.1614	7,999	3.22%	1.7279	22.5361	2.0248	9,351	3.76%	0.1899	2.7871	0.4650	
Grand Total		1,951	0.34%	2.7671	33.1027	2.6787	20,672	3.59%	1.8342	25.3543	2.3891	24,420	4.25%	0.2702	3.5721	0.6366

Appendix B3

I/M240 Initial Exhaust Failure Report

Date
Between 1/1/2019 and 12/31/2019

Initial Exhaust Failure Report (V1.01)

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)
1982	LDGV	18	72.00%	5.7178	83.5064	1.6380	20	80.00%	4.6320	91.4729	1.0420	2	8.00%	5.1326	21.2901	5.9266
	LDGT1	14	43.75%	11.0605	147.3210	1.6690	27	84.38%	6.6889	125.3302	0.9668	3	9.38%	1.1076	6.2243	7.6383
	LDGT2	8	50.00%	10.7786	118.7079	2.4103	13	81.25%	7.5663	121.8396	1.5072	3	18.75%	6.4123	13.4407	7.2861
1982 Total		40	54.79%	8.5999	112.8818	1.8033	60	82.19%	6.1934	113.2881	1.1089	8	10.96%	4.1031	12.6969	7.0783
1983	LDGV	10	29.41%	4.4554	60.0304	3.6941	27	79.41%	2.7887	62.6499	1.3193	6	17.65%	2.2087	14.3199	7.2156
	LDGT1	11	37.93%	9.0770	127.4197	2.0634	23	79.31%	6.1582	121.8176	1.5553	4	13.79%	3.6447	22.1413	7.7598
	LDGT2	7	36.84%	15.1618	60.8435	2.8453	12	63.16%	5.9975	112.0300	1.9010	3	15.79%	2.5936	23.0270	8.0747
1983 Total		28	34.15%	8.9476	86.7081	2.8413	62	75.61%	4.6597	94.1567	1.5195	13	15.85%	2.7394	18.7358	7.5813
1984	LDGV	29	59.18%	7.1966	78.8449	2.1132	35	71.43%	5.8333	81.8785	1.5397	9	18.37%	2.1581	14.5662	5.3612
	LDGT1	26	50.00%	12.1079	121.4957	1.9027	44	84.62%	8.2951	115.2572	1.5905	3	5.77%	0.7269	11.7515	8.5492
	LDGT2	16	45.71%	9.6083	161.5577	1.7286	35	100.00%	6.0960	132.7233	1.6341	0	0.00%	0.0000	0.0000	0.0000
1984 Total		71	52.21%	9.5386	113.1030	1.9494	114	83.82%	6.8641	110.3718	1.5883	12	8.82%	1.8003	13.8625	6.1582
1985	LDGV	41	50.62%	7.5837	84.6642	1.5923	67	82.72%	4.4183	70.8562	1.1200	9	11.11%	5.7074	14.1492	5.4312
	LDGT1	27	40.91%	9.2887	110.4302	1.8391	54	81.82%	5.8457	101.5361	1.4310	8	12.12%	2.5252	13.6173	7.3610
	LDGT2	20	50.00%	8.1208	97.9231	3.0536	33	82.50%	5.1198	102.7257	2.1644	3	7.50%	2.2544	30.0614	8.7054
1985 Total		88	47.06%	8.2289	95.5830	2.0001	154	82.35%	5.0692	88.4433	1.4529	20	10.70%	3.9166	16.3233	6.6943
1986	LDGV	30	53.57%	4.8319	66.5969	1.5346	46	82.14%	3.4792	58.9682	1.1356	6	10.71%	1.6415	12.7096	5.0169
	LDGT1	34	36.96%	6.9495	95.7720	2.4088	81	88.04%	4.2190	84.1276	1.4857	9	9.78%	3.1707	17.7252	6.7655
	LDGT2	22	44.90%	9.8247	110.5754	2.1651	38	77.55%	5.5078	98.4444	1.7613	6	12.24%	2.0075	20.0940	7.6438
1986 Total		86	43.65%	6.9463	89.3816	2.0415	165	83.76%	4.3096	80.4107	1.4516	21	10.66%	2.4014	16.9690	6.5169
1987	LDGV	47	47.47%	6.3571	60.1206	1.7752	73	73.74%	4.0157	56.6175	1.3240	17	17.17%	1.8644	13.8114	4.8712
	LDGT1	43	36.75%	7.4272	74.5057	2.4598	91	77.78%	3.8666	66.4522	1.4612	20	17.09%	2.3840	14.4587	6.8172
	LDGT2	21	42.00%	7.8768	98.4583	2.1695	30	60.00%	5.7781	94.6987	1.8643	16	32.00%	1.9381	11.1683	6.5897
1987 Total		111	41.73%	7.0591	72.9463	2.1150	194	72.93%	4.2183	67.1195	1.4719	53	19.92%	2.0827	13.2578	6.1244
1988	LDGV	59	70.24%	4.8995	44.5648	1.8451	49	58.33%	4.6185	58.9216	1.3192	15	17.86%	1.4596	7.4075	4.9056
	LDGT1	56	42.11%	6.9761	84.4702	1.7537	92	69.17%	4.7597	71.6026	1.7992	38	28.57%	1.6772	14.6387	6.1203
	LDGT2	31	45.59%	5.4942	68.2720	2.3158	43	63.24%	4.0932	65.5287	2.4671	23	33.82%	1.7925	15.0459	6.0095
1988 Total		146	51.23%	5.8223	64.9047	1.9100	184	64.56%	4.5664	66.8061	1.8275	76	26.67%	1.6691	13.3347	5.8470
1989	LDGV	66	64.71%	5.0951	50.5120	1.8588	65	63.73%	4.4530	59.8241	1.3533	22	21.57%	1.7893	12.0842	4.8888
	LDGT1	72	39.56%	5.2487	69.7935	2.2552	131	71.98%	3.4350	62.5104	1.6211	37	20.33%	1.8229	14.6579	6.2906
	LDGT2	34	51.52%	7.4036	55.1148	2.9139	34	51.52%	5.8302	68.4576	2.1477	21	31.82%	2.6135	14.3363	6.2315
1989 Total		172	49.14%	5.6157	59.4932	2.2333	230	65.71%	4.0768	62.6304	1.6233	80	22.86%	2.0212	13.8657	5.8896
1990	LDGV	79	61.24%	5.2521	56.2493	1.9597	84	65.12%	4.1660	60.9615	1.4533	40	31.01%	2.4982	13.2712	4.5352
	LDGT1	85	52.15%	8.0658	72.8608	2.4043	117	71.78%	5.6111	69.3340	1.9759	34	20.86%	2.4669	17.7794	6.0584
	LDGT2	24	43.64%	7.8100	57.2072	2.5705	32	58.18%	5.7078	58.4345	2.2914	17	30.91%	1.8949	14.2165	5.8680
1990 Total		188	54.18%	6.8508	63.8821	2.2387	233	67.15%	5.1034	64.8186	1.8308	91	26.22%	2.3738	15.1322	5.3533
1991	LDGV	161	73.85%	3.7160	34.4459	1.7777	105	48.17%	3.6777	51.3954	1.1806	56	25.69%	1.4810	9.8886	4.4803
	LDGT1	77	48.43%	6.2368	64.8177	2.0012	106	66.67%	4.5426	64.7000	1.5163	43	27.04%	2.1791	13.8796	5.7492
	LDGT2	63	53.85%	4.9957	56.3937	2.9657	70	59.83%	4.0302	63.6238	2.4439	41	35.04%	2.1218	17.9839	6.1381

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)
1991 Total		301	60.93%	4.6287	46.8092	2.0835	281	56.88%	4.0918	59.4604	1.6220	140	28.34%	1.8831	13.4852	5.3555
1992	LDGV	138	57.02%	3.5722	41.7223	1.8127	143	59.09%	2.7896	47.8281	1.3943	65	26.86%	1.2214	9.5589	4.2967
	LDGT1	56	49.12%	6.1523	61.9558	2.4161	74	64.91%	4.6012	61.7541	1.8052	32	28.07%	1.8238	16.4399	5.6337
	LDGT2	78	65.55%	5.5493	49.4256	2.8858	72	60.50%	4.0963	61.2915	2.6292	32	26.89%	3.2255	25.4150	5.5325
1992 Total		272	57.26%	4.6704	48.0971	2.2446	289	60.84%	3.5790	54.7481	1.8072	129	27.16%	1.8680	15.1991	4.9349
1993	LDGV	135	51.33%	3.8870	44.5515	1.9683	160	60.84%	2.8493	45.0131	1.5650	88	33.46%	1.0004	9.5214	4.4589
	LDGT1	113	50.00%	4.9954	45.8783	2.9573	113	50.00%	4.0093	58.1366	1.7679	86	38.05%	2.0082	15.6640	5.5494
	LDGT2	112	54.90%	5.7383	44.5733	2.9215	106	51.96%	4.8791	55.6414	2.3937	74	36.27%	2.1896	18.1866	5.6288
1993 Total		360	51.95%	4.8109	44.9748	2.5753	379	54.69%	3.7628	51.8985	1.8572	248	35.79%	1.7047	14.2371	5.1861
1994	LDGV	166	65.87%	3.6439	28.9065	1.8119	126	50.00%	3.0794	42.8139	1.5033	70	27.78%	2.0861	11.7661	3.9384
	LDGT1	144	47.21%	4.0708	37.2450	2.5685	161	52.79%	3.0744	42.7508	2.0277	120	39.34%	1.6560	14.2394	5.0667
	LDGT2	185	54.41%	4.4357	37.9163	2.7839	190	55.88%	3.7443	43.7363	2.5195	138	40.59%	1.5808	15.9362	5.5084
1994 Total		495	55.18%	4.0640	34.6995	2.3953	477	53.18%	3.3425	43.1600	2.0851	328	36.57%	1.7162	14.4254	5.0117
1995	LDGV	215	59.89%	3.3555	31.8031	1.6369	169	47.08%	3.0832	43.5498	1.2898	143	39.83%	1.5552	9.1569	3.5094
	LDGT1	160	40.92%	4.4557	53.1781	2.6686	202	51.66%	3.3317	53.7750	1.9707	184	47.06%	1.3715	12.3745	5.2796
	LDGT2	226	50.79%	4.1453	34.6416	3.1125	268	60.22%	3.1296	37.4558	2.6304	183	41.12%	2.0092	17.8278	5.3034
1995 Total		601	50.29%	3.9454	38.5610	2.4664	639	53.47%	3.1812	44.2263	2.0673	510	42.68%	1.6518	13.4291	4.7918
1996	LDGV	144	45.57%	3.3565	29.3396	1.3641	123	38.92%	2.1355	41.4967	0.8855	151	47.78%	0.9410	7.4205	2.9084
	LDGT1	132	47.14%	3.4566	39.0060	2.8286	153	54.64%	2.5325	40.2010	2.3501	135	48.21%	1.4271	12.2242	4.6151
	LDGT2	138	58.47%	4.4602	38.0976	2.7232	155	65.68%	3.7165	38.9909	2.4384	80	33.90%	1.6675	13.7482	4.6957
1996 Total		414	49.76%	3.7563	35.3410	2.2841	431	51.80%	2.8450	40.1356	1.9639	366	43.99%	1.2791	10.5754	3.9286
1997	LDGV	173	41.00%	2.8494	31.0676	1.2969	217	51.42%	1.7485	35.7307	1.0317	170	40.28%	0.9363	8.1054	2.8740
	LDGT1	241	40.99%	2.7678	35.3733	2.7498	308	52.38%	1.9830	35.8480	2.1325	315	53.57%	1.0276	11.4258	4.1115
	LDGT2	184	50.55%	4.3740	41.0040	3.0050	213	58.52%	3.3799	41.2690	2.5545	177	48.63%	1.6746	13.8947	4.3524
1997 Total		598	43.52%	3.2856	35.8602	2.4080	738	53.71%	2.3172	37.3781	1.9306	662	48.18%	1.1772	11.2332	3.8581
1998	LDGV	225	37.25%	2.9355	31.3326	1.2999	260	43.05%	1.8659	37.1528	0.9105	323	53.48%	0.8228	8.9426	2.3942
	LDGT1	215	31.52%	3.3659	43.3100	2.5547	262	38.42%	2.4477	43.8792	1.9570	458	67.16%	0.8114	9.7346	3.5797
	LDGT2	154	42.19%	3.5580	25.8555	2.8195	179	49.04%	2.6873	29.0775	2.4489	218	59.73%	1.1786	13.4690	3.7352
1998 Total		594	35.98%	3.2527	34.2478	2.1481	701	42.46%	2.2931	37.6048	1.6945	999	60.51%	0.8952	10.2934	3.2303
1999	LDGV	199	32.84%	3.6335	35.4361	1.4922	229	37.79%	2.3956	40.0120	1.0367	367	60.56%	0.8839	8.2578	2.4942
	LDGT1	199	25.51%	3.6410	42.3446	2.6781	251	32.18%	2.6828	41.6697	1.9525	598	76.67%	0.8606	9.7012	3.1664
	LDGT2	194	34.15%	4.9876	35.7562	2.4558	208	36.62%	4.2998	38.2560	2.2317	436	76.76%	1.2492	11.0382	3.0443
1999 Total		592	30.30%	4.0797	37.8633	2.2066	688	35.21%	3.0761	40.0859	1.7321	1,401	71.70%	0.9876	9.7392	2.9523
2000	LDGV	218	31.19%	3.1537	30.5114	1.9646	263	37.63%	1.7295	36.3283	1.0656	461	65.95%	0.8257	8.6745	2.7183
	LDGT1	184	22.77%	3.1077	38.7900	2.1230	270	33.42%	2.0425	36.9316	1.6960	594	73.51%	0.6396	8.8419	3.1240
	LDGT2	90	27.11%	2.9121	40.8445	1.8660	121	36.45%	2.0517	38.0430	1.7355	242	72.89%	0.7254	10.1215	3.0898
2000 Total		492	26.75%	3.0923	35.4977	2.0058	654	35.56%	1.9183	36.8946	1.4498	1,297	70.53%	0.7218	9.0211	2.9734
2001	LDGV	228	34.92%	3.3688	34.9689	1.8904	234	35.83%	2.3299	42.2554	1.0808	442	67.69%	0.9349	8.3618	2.8153
	LDGT1	142	25.00%	3.7052	54.6710	1.5187	275	48.42%	1.8201	42.4622	0.9092	310	54.58%	0.5832	8.9591	3.4158
	LDGT2	97	28.87%	2.5295	34.2152	2.5431	111	33.04%	1.9412	37.4916	2.0722	253	75.30%	0.7130	10.4209	3.2042
2001 Total		467	29.99%	3.2968	40.8032	1.9130	620	39.82%	2.0342	41.4943	1.1822	1,005	64.55%	0.7705	9.0644	3.0984
2002	LDGV	202	30.89%	3.2758	34.5019	1.8521	229	35.02%	2.1620	40.4878	0.9745	445	68.04%	0.9196	7.9999	2.9218
	LDGT1	192	25.50%	3.3426	53.0895	1.8243	367	48.74%	1.8450	42.8514	1.1813	437	58.03%	0.7913	10.0697	3.4524

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)
	LDGT2	89	26.25%	3.9352	41.8449	2.0681	103	30.38%	2.8592	44.4478	1.7802	252	74.34%	0.7609	9.2052	3.1348
2002 Total		483	27.66%	3.4239	43.2438	1.8809	699	40.03%	2.0983	42.3123	1.2018	1,134	64.95%	0.8349	9.0654	3.1736
2003	LDGV	172	28.62%	3.1977	31.0296	2.2541	204	33.94%	1.8415	36.6558	1.3805	432	71.88%	0.9308	8.6964	2.9532
	LDGT1	166	31.26%	3.0424	50.6760	2.2575	285	53.67%	1.7944	42.2626	1.3619	309	58.19%	1.0040	11.9817	3.4832
	LDGT2	117	38.49%	3.5224	42.4923	2.3793	143	47.04%	2.6010	41.9686	2.1558	198	65.13%	0.9823	14.2006	3.4674
2003 Total		455	31.69%	3.2245	41.1448	2.2875	632	44.01%	1.9921	40.3863	1.5475	939	65.39%	0.9658	10.9381	3.2360
2004	LDGV	159	30.06%	3.3004	33.9401	2.3077	206	38.94%	2.0098	38.1869	1.4299	363	68.62%	0.8564	9.5561	3.0304
	LDGT1	127	27.02%	3.2097	49.8048	2.0788	264	56.17%	1.6373	39.2773	1.0934	231	49.15%	0.8590	9.3804	3.8707
	LDGT2	96	33.80%	3.3836	39.6503	2.9329	131	46.13%	2.3543	37.3915	2.3102	199	70.07%	1.2651	14.3139	3.6943
2004 Total		382	29.77%	3.2912	40.6495	2.3887	601	46.84%	1.9213	38.4925	1.4740	793	61.81%	0.9597	10.6989	3.4418
2005	LDGV	161	34.04%	4.0123	33.9779	2.3462	184	38.90%	2.6780	39.8289	1.4461	321	67.86%	1.0944	9.4868	3.1523
	LDGT1	88	24.24%	3.6717	44.8724	2.4075	168	46.28%	1.7950	40.0248	1.1645	216	59.50%	0.9842	9.0975	3.6523
	LDGT2	75	32.61%	4.0603	25.4855	3.2254	125	54.35%	2.4343	26.3540	2.4733	164	71.30%	1.0772	14.3487	3.4890
2005 Total		324	30.39%	3.9309	34.9711	2.5664	477	44.75%	2.3031	36.3668	1.6161	701	65.76%	1.0565	10.5043	3.3852
2006	LDGV	127	32.48%	3.3701	37.6882	2.0416	151	38.62%	1.9602	41.6564	1.3323	261	66.75%	0.9820	8.5921	3.1038
	LDGT1	48	22.43%	3.6195	60.5953	2.0571	98	45.79%	1.8149	45.2576	1.2451	132	61.68%	0.5503	7.0562	3.7573
	LDGT2	70	38.46%	4.5528	44.8331	3.0608	102	56.04%	3.1104	38.9826	2.3407	124	68.13%	1.5996	19.3646	3.4953
2006 Total		245	31.13%	3.7569	44.2176	2.3358	351	44.60%	2.2539	41.8849	1.6010	517	65.69%	1.0199	10.7837	3.3646
2007	LDGV	92	35.11%	3.4093	38.4214	2.3472	119	45.42%	2.0953	43.3478	1.4884	166	63.36%	0.9857	9.6170	3.0907
	LDGT1	46	24.21%	3.9004	50.8454	1.9524	104	54.74%	1.6115	44.5754	1.0354	99	52.11%	0.6097	8.6419	3.7485
	LDGT2	46	40.00%	4.7833	45.0219	3.2264	71	61.74%	3.0833	37.7789	2.2824	70	60.87%	1.9322	18.3385	4.1277
2007 Total		184	32.45%	3.8756	43.1775	2.4683	294	51.85%	2.1628	42.4372	1.5199	335	59.08%	1.0724	11.1512	3.5018
2008	LDGV	119	48.97%	2.7161	36.9117	2.1915	126	51.85%	1.9060	44.2768	1.9004	147	60.49%	1.1480	11.3621	3.5525
	LDGT1	34	25.76%	2.9291	70.9216	1.9409	64	48.48%	1.3532	58.3918	0.5601	70	53.03%	0.4444	5.5988	3.7682
	LDGT2	23	11.06%	3.7647	47.0934	3.6606	186	89.42%	0.6197	24.7645	0.7526	34	16.35%	1.8978	16.6568	4.1002
2008 Total		176	30.19%	2.8943	44.8124	2.3351	376	64.49%	1.1756	37.0270	1.1044	251	43.05%	1.0534	10.4720	3.6869
2009	LDGV	18	47.37%	2.4126	25.2465	2.6921	16	42.11%	2.0805	37.2415	1.7112	26	68.42%	1.4085	11.1757	3.1316
	LDGT1	6	40.00%	1.7446	54.2599	1.3033	11	73.33%	1.2887	46.1029	1.1986	7	46.67%	0.8257	11.4705	2.9342
	LDGT2	3	42.86%	1.5998	18.3577	3.1656	4	57.14%	1.2131	20.4868	2.5023	5	71.43%	1.0212	14.6938	2.9840
2009 Total		27	45.00%	2.1739	30.9285	2.4361	31	51.67%	1.6876	38.2240	1.6314	38	63.33%	1.2502	11.6930	3.0758
2010	LDGV	12	34.29%	3.2003	20.2308	2.8377	18	51.43%	2.0775	25.8920	1.6974	25	71.43%	1.2132	10.6829	3.0769
	LDGT1	2	25.00%	1.3943	41.2903	2.6870	4	50.00%	0.6663	40.6196	0.1862	4	50.00%	0.7265	9.7424	3.3812
	LDGT2	4	40.00%	6.6878	117.6172	2.5563	5	50.00%	5.4018	107.9857	2.0243	8	80.00%	3.1526	40.0254	2.7730
2010 Total		18	33.96%	3.7746	44.2122	2.7584	27	50.94%	2.4841	43.2764	1.5340	37	69.81%	1.5799	16.9255	3.0441
2011	LDGV	14	51.85%	2.6830	28.7333	3.6992	20	74.07%	2.0325	28.1467	2.8286	21	77.78%	1.9369	19.2056	3.5221
	LDGT1	2	25.00%	4.7070	91.0622	0.1312	5	62.50%	1.3483	61.6566	0.1859	2	25.00%	0.8422	11.5049	3.5563
	LDGT2	9	52.94%	5.1615	75.4516	2.5185	10	58.82%	2.8426	81.7666	2.2197	8	47.06%	1.0976	12.9148	3.8701
2011 Total		25	48.08%	3.7372	50.5382	2.9888	35	67.31%	2.1662	48.2538	2.2771	31	59.62%	1.6496	17.0853	3.6141
2012	LDGV	22	43.14%	3.7508	37.2361	3.1382	29	56.86%	2.2366	37.1687	2.4697	38	74.51%	1.5558	15.4012	3.2794
	LDGT1	2	12.50%	2.2643	140.0955	0.0251	13	81.25%	0.7064	44.5502	0.2770	3	18.75%	0.5059	8.7977	2.9533
	LDGT2	8	53.33%	2.6424	22.1392	3.5174	11	73.33%	1.6999	25.8020	3.0840	10	66.67%	1.5111	16.1985	4.4961
2012 Total		32	39.02%	3.3808	39.8906	3.0384	53	64.63%	1.7499	36.6201	2.0594	51	62.20%	1.4853	15.1691	3.4988
2013	LDGV	4	30.77%	2.0912	24.2408	2.6603	6	46.15%	1.0785	22.1639	1.3784	9	69.23%	1.0036	11.0313	2.9744

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)
	LDGT1	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.0763	24.7925	0.2201	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.9394	21.6614	1.4148	0	0.00%	0.0000	0.0000	0.0000
2013 Total		4	26.67%	2.0912	24.2408	2.6603	8	53.33%	0.9358	22.4296	1.2381	9	60.00%	1.0036	11.0313	2.9744
2014	LDGV	2	100.00%	15.4505	16.3198	5.2477	1	50.00%	29.4033	19.7673	4.8904	2	100.00%	15.4505	16.3198	5.2477
	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
2014 Total		2	100.00%	15.4505	16.3198	5.2477	1	50.00%	29.4033	19.7673	4.8904	2	100.00%	15.4505	16.3198	5.2477
2015	LDGV	4	80.00%	1.8259	35.4647	1.7326	2	40.00%	1.8748	59.1248	1.7412	3	60.00%	1.4020	13.2958	2.8555
	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
2015 Total		4	80.00%	1.8259	35.4647	1.7326	2	40.00%	1.8748	59.1248	1.7412	3	60.00%	1.4020	13.2958	2.8555
2016	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	1	100.00%	0.1085	18.0944	0.0343	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
2016 Total		0	0.00%	0.0000	0.0000	0.0000	1	100.00%	0.1085	18.0944	0.0343	0	0.00%	0.0000	0.0000	0.0000
2017	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	1	100.00%	1.6407	16.2504	4.8748	1	100.00%	1.6407	16.2504	4.8748	1	100.00%	1.6407	16.2504	4.8748
	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
2017 Total		1	100.00%	1.6407	16.2504	4.8748	1	100.00%	1.6407	16.2504	4.8748	1	100.00%	1.6407	16.2504	4.8748
2018	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
2018 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
2019	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
2019 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		8,478	37.48%	4.0527	43.3528	2.2520	10,882	48.10%	2.7855	45.9171	1.6320	12,301	54.37%	1.0720	10.6740	3.5332

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	3,489	40.49%	3.6127	36.8152	1.8650	3,806	44.17%	2.5202	43.3885	1.2654	4,721	54.79%	1.0324	9.0918	3.0455
LDGT1	2,745	32.41%	4.2066	52.1921	2.3376	4,221	49.83%	2.7097	49.3527	1.5666	4,542	53.62%	0.9501	10.3470	3.8113
LDGT2	2,244	40.53%	4.5485	42.7048	2.7489	2,855	51.57%	3.2512	44.2087	2.2174	3,038	54.88%	1.3158	13.6218	3.8752
Grand Total	8,478	37.48%	4.0527	43.3528	2.2520	10,882	48.10%	2.7855	45.9171	1.6320	12,301	54.37%	1.0720	10.6740	3.5332

Appendix B4

I/M240 Initial Failure for Other Report

Appendix B5

I/M240 Retest Pass Reduction Report

Date
Between 1/1/2019 and 12/31/2019

Retest Pass Reduction Report (V1.01)

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)	
1982	LDGV	54	3.8314	62.9335	1.7385	24	44.44%	1.8273	21.6900	1.9244	1.4044	43.46%	30.7249	58.62%	-0.0810	-4.39%	415.00
	LDGT1	92	4.8769	88.3248	2.2044	40	43.48%	2.1652	32.0604	2.4337	1.4190	39.59%	35.8400	52.78%	-0.1480	-6.47%	531.00
	LDGT2	37	5.1964	119.7565	1.9908	10	27.03%	2.5598	34.1251	3.3101	1.8964	42.56%	65.8811	65.88%	0.0216	0.65%	201.67
1982 Total		183	4.6330	87.1873	2.0237	74	40.44%	2.1089	28.9760	2.3869	1.4788	41.22%	38.2407	56.89%	-0.1033	-4.52%	378.50
1983	LDGV	81	2.5087	57.1066	1.5603	34	41.98%	1.4481	17.7244	1.7813	0.9326	39.17%	32.2905	64.56%	-0.1301	-7.88%	442.67
	LDGT1	84	5.5847	71.5470	2.3409	44	52.38%	2.9993	31.8438	2.5943	1.5021	33.37%	25.8973	44.85%	-0.3117	-13.66%	0.00
	LDGT2	50	5.0852	85.1481	2.1475	24	48.00%	2.6137	34.8786	2.6116	2.3329	47.16%	37.8512	52.04%	0.0512	1.92%	31.00
1983 Total		215	4.3097	69.2697	2.0018	102	47.44%	2.3915	27.8514	2.3274	1.5077	38.67%	30.8411	52.55%	-0.1658	-7.67%	339.75
1984	LDGV	130	4.5235	63.8120	2.1325	60	46.15%	1.3209	12.8872	1.7565	1.5404	53.84%	21.9513	63.01%	0.5242	22.98%	923.00
	LDGT1	119	5.4098	78.0934	2.3840	64	53.78%	2.1123	24.5969	2.3677	3.0373	58.98%	33.7922	57.87%	0.3794	13.81%	257.00
	LDGT2	86	4.4528	104.9357	2.1451	33	38.37%	2.1000	28.0356	3.1827	1.6787	44.43%	44.6962	61.45%	-0.7416	-30.38%	1988.00
1984 Total		335	4.8202	79.4422	2.2251	157	46.87%	1.8073	20.8446	2.3054	2.1797	54.67%	31.5589	60.22%	0.1991	7.95%	1022.75
1985	LDGV	195	3.0185	55.6584	1.7198	99	50.77%	1.1346	10.2924	1.9160	1.4542	56.17%	23.6142	69.64%	0.1312	6.41%	805.00
	LDGT1	212	3.4319	63.6914	2.1332	102	48.11%	1.8411	20.0889	2.3573	1.1521	38.49%	24.6334	55.08%	0.0360	1.50%	594.57
	LDGT2	107	3.5965	75.0436	2.7228	49	45.79%	2.0992	23.2562	2.7587	1.4493	40.84%	30.7193	56.91%	0.2547	8.45%	478.33
1985 Total		514	3.3093	63.0071	2.0991	250	48.64%	1.6119	16.8302	2.2612	1.3300	45.21%	25.4226	60.17%	0.1166	4.90%	616.31
1986	LDGV	178	2.7236	39.3824	1.8184	84	47.19%	0.9869	8.7193	1.7674	1.0546	51.66%	16.0996	64.87%	0.1944	9.91%	434.75
	LDGT1	218	3.1645	57.4341	2.2244	110	50.46%	1.7072	18.1254	2.6767	0.9499	35.75%	22.3644	55.23%	-0.2281	-9.32%	647.75
	LDGT2	116	5.2543	69.4908	2.4157	56	48.28%	1.8495	23.6598	2.9359	2.3571	56.03%	39.5216	62.55%	-0.3888	-15.27%	60.00
1986 Total		512	3.4847	53.8899	2.1266	250	48.83%	1.4970	16.2047	2.4293	1.3003	46.48%	24.1026	59.80%	-0.1222	-5.30%	487.78
1987	LDGV	203	3.3497	39.9639	2.1057	108	53.20%	1.1848	9.2010	1.8015	1.1926	50.16%	18.7091	67.03%	0.2844	13.64%	315.33
	LDGT1	279	3.3890	45.5211	2.6044	147	52.69%	1.4415	13.9222	2.5002	1.1288	43.92%	21.6252	60.83%	0.2130	7.85%	253.25
	LDGT2	149	4.0895	70.4794	2.7934	64	42.95%	1.7825	13.6382	2.7845	1.7581	49.66%	31.2904	69.64%	0.5690	16.97%	475.00
1987 Total		631	3.5418	49.6268	2.4886	319	50.55%	1.4230	12.2668	2.3207	1.2766	47.29%	22.5770	64.79%	0.3086	11.74%	342.47
1988	LDGV	210	3.3887	32.3053	1.8428	115	54.76%	0.9439	7.9488	1.5866	1.8451	66.16%	18.4794	69.92%	0.1784	10.11%	977.67
	LDGT1	292	3.4297	47.8326	2.7606	156	53.42%	1.3260	11.6084	2.4905	1.4839	52.81%	21.4360	64.87%	0.3569	12.53%	267.70
	LDGT2	166	3.1826	43.4041	3.2961	91	54.82%	1.3253	10.8725	2.8407	1.4836	52.82%	21.3346	66.24%	0.4626	14.00%	574.71
1988 Total		668	3.3554	41.8508	2.6051	362	54.19%	1.2044	10.2608	2.2914	1.5986	57.03%	20.4712	66.61%	0.3267	12.48%	546.35
1989	LDGV	276	2.8264	28.4163	1.9761	145	52.54%	0.9319	8.2680	1.6259	1.1614	55.48%	14.1612	63.14%	0.2897	15.12%	196.67
	LDGT1	448	3.0880	49.1648	2.4905	225	50.22%	1.2458	12.4260	2.2067	1.1559	48.13%	19.0973	60.58%	0.4051	15.51%	405.90
	LDGT2	151	3.4011	35.5972	3.3131	90	59.60%	1.4487	13.1327	2.6174	1.2354	46.03%	16.9857	56.40%	0.4311	14.14%	237.00
1989 Total		875	3.0595	40.2787	2.4702	460	52.57%	1.1865	11.2536	2.1040	1.1732	49.72%	17.1282	60.35%	0.3738	15.09%	285.20
1990	LDGV	265	2.8606	29.5796	2.2704	150	56.60%	0.8074	7.7858	1.5906	1.4979	64.98%	21.3387	73.27%	0.2425	13.23%	440.50
	LDGT1	348	3.8621	49.2582	2.5696	192	55.17%	1.3279	12.1086	2.2111	1.8295	57.94%	22.9222	65.43%	0.4332	16.38%	425.17
	LDGT2	130	3.4628	33.9736	3.0309	80	61.54%	1.5503	12.8993	2.7327	1.2442	44.52%	14.7762	53.39%	0.2476	8.31%	275.14
1990 Total		743	3.4350	39.5653	2.5436	422	56.80%	1.1851	10.7220	2.0894	1.6007	57.46%	20.8151	66.00%	0.3302	13.65%	374.74
1991	LDGV	472	2.1145	22.4063	2.1693	266	56.36%	0.6734	7.0289	1.4783	1.0304	60.48%	11.4976	62.06%	0.4526	23.44%	659.71
	LDGT1	375	2.5919	37.3359	2.3040	219	58.40%	1.0775	10.9700	1.8654	0.8813	44.99%	17.0489	60.85%	0.4518	19.50%	454.33

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)	
2012	LDGV	140	0.8558	11.6438	1.3545	100	71.43%	0.1215	2.6932	0.2276	0.5233	81.16%	5.4318	66.85%	0.5431	70.47%	100.00
	LDGT1	73	0.2255	11.7824	0.3589	58	79.45%	0.0474	2.4449	0.1713	0.1266	72.76%	6.8569	73.72%	0.1187	40.93%	696.00
	LDGT2	97	0.3587	4.8429	0.7789	85	87.63%	0.0487	1.6060	0.0897	0.1524	75.80%	1.7268	51.81%	0.1980	68.81%	315.00
2012 Total		310	0.5518	9.5484	0.9399	243	78.39%	0.0783	2.2536	0.1659	0.2989	79.23%	4.4759	66.51%	0.3211	65.93%	262.20
2013	LDGV	33	0.2119	3.8393	0.6891	31	93.94%	0.0539	1.7116	0.1393	0.1607	74.88%	2.1803	56.02%	0.5188	78.83%	0.00
	LDGT1	7	0.0407	4.4962	0.0890	7	100.00%	0.0490	2.6122	0.0614	-0.0083	-20.45%	1.8840	41.90%	0.0276	30.98%	0.00
	LDGT2	18	0.1051	2.6362	0.1665	18	100.00%	0.0996	2.1426	0.1393	0.0055	5.24%	0.4936	18.73%	0.0273	16.37%	0.00
2013 Total		58	0.1581	3.5452	0.4545	56	96.55%	0.0680	1.9627	0.1295	0.0897	56.88%	1.6011	44.93%	0.2994	69.80%	0.00
2014	LDGV	7	0.8606	7.8391	1.9753	6	85.71%	0.1057	2.7470	0.1634	0.4162	79.75%	2.4270	46.91%	1.0512	86.55%	0.00
	LDGT1	1	0.1077	4.6932	0.1202	1	100.00%	0.0784	3.6325	0.0141	0.0293	27.21%	1.0607	22.60%	0.1061	88.27%	0.00
	LDGT2	4	0.1112	2.9353	0.1314	4	100.00%	0.0568	2.5209	0.1233	0.0544	48.94%	0.4144	14.12%	0.0081	6.13%	0.00
2014 Total		12	0.5480	5.9423	1.2060	11	91.67%	0.0854	2.7453	0.1352	0.2495	74.50%	1.5709	36.40%	0.5860	81.25%	0.00
2015	LDGV	15	1.2952	8.4454	0.7342	7	46.67%	0.1832	1.6966	0.1417	0.2404	56.75%	1.8663	52.38%	0.2327	62.16%	46.00
2015 Total		15	1.2952	8.4454	0.7342	7	46.67%	0.1832	1.6966	0.1417	0.2404	56.75%	1.8663	52.38%	0.2327	62.16%	46.00
2016	LDGT1	1	0.1085	18.0944	0.0343	1	100.00%	0.0059	0.3588	0.0398	0.1026	94.56%	17.7356	98.02%	-0.0055	-16.03%	0.00
2016 Total		1	0.1085	18.0944	0.0343	1	100.00%	0.0059	0.3588	0.0398	0.1026	94.56%	17.7356	98.02%	-0.0055	-16.03%	0.00
Grand Total		61217	1.2758	17.2990	1.7589	41004	66.98%	0.3515	4.5144	0.8220	0.5075	59.08%	7.6126	62.77%	0.5356	39.45%	378.02

Retest Pass Reduction Report - Summary by Veh (V1.01)

Vehicle		Initial Exhaust Emissions				Passing Retest Exhaust Emissions					Emission Reductions						Average Repair Costs
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)		
LDGV	22669	1.1023	14.3733	1.4347	15599	68.81%	0.2682	3.5432	0.6040	0.4802	64.16%	6.7651	65.63%	0.4879	44.68%	356.57	
LDGT1	23694	1.1526	18.2797	1.8253	16213	68.43%	0.3686	4.8715	0.9024	0.4350	54.13%	7.8149	61.60%	0.5313	37.06%	376.55	
LDGT2	14854	1.7370	20.1997	2.1480	9192	61.88%	0.4628	5.5326	1.0503	0.6817	59.56%	8.6942	61.11%	0.6245	37.29%	415.41	
Grand Total		61217	1.2758	17.2990	41004	66.98%	0.3515	4.5144	0.8220	0.5075	59.08%	7.6126	62.77%	0.5356	39.45%	378.02	

Appendix B6

I/M240 Retest Frequency Report

Date
Between 1/1/2019 and 12/31/2019

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%
1982	LDGV	54	1.7	28	51.85%	15	53.57%	14	25.93%	4	28.57%	7	12.96%	4	57.14%	3	5.56%	0	0.00%	2	3.70%	1	50.00%
	LDGT1	92	2.0	48	52.17%	27	56.25%	16	17.39%	6	37.50%	7	7.61%	1	14.29%	7	7.61%	2	28.57%	14	15.22%	4	28.57%
	LDGT2	37	3.0	15	40.54%	4	26.67%	7	18.92%	1	14.29%	5	13.51%	1	20.00%	5	13.51%	2	40.00%	5	13.51%	2	40.00%
1982 Total		183	2.0	91	49.73%	46	50.55%	37	20.22%	11	29.73%	19	10.38%	6	31.58%	15	8.20%	4	26.67%	21	11.48%	7	33.33%
1983	LDGV	81	1.9	36	44.44%	18	50.00%	19	23.46%	8	42.11%	10	12.35%	4	40.00%	7	8.64%	1	14.29%	9	11.11%	3	33.33%
	LDGT1	84	1.6	49	58.33%	32	65.31%	13	15.48%	5	38.46%	10	11.90%	5	50.00%	4	4.76%	0	0.00%	8	9.52%	2	25.00%
	LDGT2	50	2.0	24	48.00%	14	58.33%	10	20.00%	5	50.00%	7	14.00%	3	42.86%	3	6.00%	0	0.00%	6	12.00%	2	33.33%
1983 Total		215	1.8	109	50.70%	64	58.72%	42	19.53%	18	42.86%	27	12.56%	12	44.44%	14	6.51%	1	7.14%	23	10.70%	7	30.43%
1984	LDGV	130	1.9	70	53.85%	38	54.29%	23	17.69%	10	43.48%	13	10.00%	5	38.46%	8	6.15%	3	37.50%	16	12.31%	4	25.00%
	LDGT1	119	1.7	70	58.82%	39	55.71%	28	23.53%	15	53.57%	11	9.24%	6	54.55%	5	4.20%	2	40.00%	5	4.20%	2	40.00%
	LDGT2	86	2.0	37	43.02%	16	43.24%	20	23.26%	10	50.00%	10	11.63%	3	30.00%	4	4.65%	0	0.00%	15	17.44%	4	26.67%
1984 Total		335	1.8	177	52.84%	93	52.54%	71	21.19%	35	49.30%	34	10.15%	14	41.18%	17	5.07%	5	29.41%	36	10.75%	10	27.78%
1985	LDGV	195	1.8	108	55.38%	63	58.33%	41	21.03%	17	41.46%	17	8.72%	9	52.94%	12	6.15%	5	41.67%	17	8.72%	5	29.41%
	LDGT1	212	1.6	122	57.55%	73	59.84%	41	19.34%	13	31.71%	24	11.32%	6	25.00%	11	5.19%	4	36.36%	14	6.60%	6	42.86%
	LDGT2	107	1.9	53	49.53%	33	62.26%	19	17.76%	4	21.05%	14	13.08%	4	28.57%	10	9.35%	2	20.00%	11	10.28%	6	54.55%
1985 Total		514	1.8	283	55.06%	169	59.72%	101	19.65%	34	33.66%	55	10.70%	19	34.55%	33	6.42%	11	33.33%	42	8.17%	17	40.48%
1986	LDGV	178	1.9	91	51.12%	51	56.04%	39	21.91%	18	46.15%	19	10.67%	4	21.05%	13	7.30%	2	15.38%	16	8.99%	9	56.25%
	LDGT1	218	1.7	128	58.72%	79	61.72%	39	17.89%	14	35.90%	20	9.17%	8	40.00%	11	5.05%	3	27.27%	20	9.17%	6	30.00%
	LDGT2	116	1.9	59	50.86%	33	55.93%	23	19.83%	13	56.52%	12	10.34%	3	25.00%	9	7.76%	2	22.22%	13	11.21%	5	38.46%
1986 Total		512	1.8	278	54.30%	163	58.63%	101	19.73%	45	44.55%	51	9.96%	15	29.41%	33	6.45%	7	21.21%	49	9.57%	20	40.82%
1987	LDGV	203	1.5	126	62.07%	76	60.32%	45	22.17%	18	40.00%	19	9.36%	9	47.37%	7	3.45%	3	42.86%	6	2.96%	2	33.33%
	LDGT1	279	1.6	167	59.86%	103	61.68%	57	20.43%	22	38.60%	27	9.68%	8	29.63%	11	3.94%	6	54.55%	17	6.09%	8	47.06%
	LDGT2	149	2.1	70	46.98%	45	64.29%	20	13.42%	4	20.00%	18	12.08%	4	22.22%	13	8.72%	5	38.46%	28	18.79%	6	21.43%
1987 Total		631	1.7	363	57.53%	224	61.71%	122	19.33%	44	36.07%	64	10.14%	21	32.81%	31	4.91%	14	45.16%	51	8.08%	16	31.37%
1988	LDGV	210	1.8	121	57.62%	75	61.98%	43	20.48%	17	39.53%	19	9.05%	8	42.11%	12	5.71%	6	50.00%	15	7.14%	9	60.00%
	LDGT1	292	1.5	176	60.27%	113	64.20%	56	19.18%	24	42.86%	24	8.22%	11	45.83%	16	5.48%	3	18.75%	20	6.85%	5	25.00%
	LDGT2	166	1.8	92	55.42%	53	57.61%	38	22.89%	21	55.26%	17	10.24%	10	58.82%	7	4.22%	3	42.86%	12	7.23%	4	33.33%
1988 Total		668	1.7	389	58.23%	241	61.95%	137	20.51%	62	45.26%	60	8.98%	29	48.33%	35	5.24%	12	34.29%	47	7.04%	18	38.30%
1989	LDGV	276	1.7	158	57.25%	106	67.09%	51	18.48%	15	29.41%	31	11.23%	12	38.71%	17	6.16%	4	23.53%	19	6.88%	8	42.11%
	LDGT1	448	1.6	250	55.80%	164	65.60%	78	17.41%	30	38.46%	46	10.27%	12	26.09%	28	6.25%	7	25.00%	46	10.27%	12	26.09%
	LDGT2	151	1.5	97	64.24%	60	61.86%	33	21.85%	18	54.55%	13	8.61%	7	53.85%	6	3.97%	4	66.67%	2	1.32%	1	50.00%
1989 Total		875	1.6	505	57.71%	330	65.35%	162	18.51%	63	38.89%	90	10.29%	31	34.44%	51	5.83%	15	29.41%	67	7.66%	21	31.34%
1990	LDGV	265	1.5	167	63.02%	113	67.66%	46	17.36%	15	32.61%	27	10.19%	15	55.56%	8	3.02%	3	37.50%	17	6.42%	4	23.53%
	LDGT1	348	1.5	225	64.66%	139	61.78%	64	18.39%	27	42.19%	32	9.20%	15	46.88%	13	3.74%	5	38.46%	14	4.02%	6	42.86%
	LDGT2	130	1.5	87	66.92%	61	70.11%	21	16.15%	9	42.86%	12	9.23%	6	50.00%	5	3.85%	2	40.00%	5	3.85%	2	40.00%

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%
1990 Total		743	1.5	479	64.47%	313	65.34%	131	17.63%	51	38.93%	71	9.56%	36	50.70%	26	3.50%	10	38.46%	36	4.85%	12	33.33%
1991	LDGV	472	1.5	293	62.08%	203	69.28%	86	18.22%	25	29.07%	50	10.59%	20	40.00%	22	4.66%	10	45.45%	21	4.45%	8	38.10%
	LDGT1	375	1.5	239	63.73%	169	70.71%	61	16.27%	24	39.34%	34	9.07%	12	35.29%	17	4.53%	7	41.18%	24	6.40%	7	29.17%
	LDGT2	265	1.8	146	55.09%	88	60.27%	51	19.25%	18	35.29%	32	12.08%	12	37.50%	15	5.66%	5	33.33%	21	7.92%	10	47.62%
1991 Total		1112	1.6	678	60.97%	460	67.85%	198	17.81%	67	33.84%	116	10.43%	44	37.93%	54	4.86%	22	40.74%	66	5.94%	25	37.88%
1992	LDGV	503	1.5	320	63.62%	207	64.69%	100	19.88%	46	46.00%	40	7.95%	18	45.00%	17	3.38%	4	23.53%	26	5.17%	6	23.08%
	LDGT1	367	1.5	237	64.58%	166	70.04%	62	16.89%	30	48.39%	34	9.26%	17	50.00%	16	4.36%	10	62.50%	18	4.90%	4	22.22%
	LDGT2	308	1.7	176	57.14%	101	57.39%	71	23.05%	30	42.25%	36	11.69%	14	38.89%	11	3.57%	7	63.64%	14	4.55%	5	35.71%
1992 Total		1178	1.5	733	62.22%	474	64.67%	233	19.78%	106	45.49%	110	9.34%	49	44.55%	44	3.74%	21	47.73%	58	4.92%	15	25.86%
1993	LDGV	562	1.7	334	59.43%	206	61.68%	107	19.04%	49	45.79%	54	9.61%	24	44.44%	29	5.16%	12	41.38%	38	6.76%	11	28.95%
	LDGT1	545	1.5	367	67.34%	252	68.66%	97	17.80%	53	54.64%	45	8.26%	23	51.11%	18	3.30%	11	61.11%	18	3.30%	6	33.33%
	LDGT2	479	1.6	278	58.04%	167	60.07%	98	20.46%	45	45.92%	50	10.44%	20	40.00%	23	4.80%	9	39.13%	30	6.26%	9	30.00%
1993 Total		1586	1.6	979	61.73%	625	63.84%	302	19.04%	147	48.68%	149	9.39%	67	44.97%	70	4.41%	32	45.71%	86	5.42%	26	30.23%
1994	LDGV	575	1.5	352	61.22%	232	65.91%	100	17.39%	42	42.00%	48	8.35%	8	16.67%	34	5.91%	16	47.06%	41	7.13%	13	31.71%
	LDGT1	725	1.4	476	65.66%	322	67.65%	145	20.00%	74	51.03%	52	7.17%	23	44.23%	22	3.03%	10	45.45%	30	4.14%	7	23.33%
	LDGT2	827	1.8	429	51.87%	251	58.51%	178	21.52%	64	35.96%	106	12.82%	43	40.57%	55	6.65%	22	40.00%	59	7.13%	18	30.51%
1994 Total		2127	1.6	1257	59.10%	805	64.04%	423	19.89%	180	42.55%	206	9.69%	74	35.92%	111	5.22%	48	43.24%	130	6.11%	38	29.23%
1995	LDGV	794	1.5	499	62.85%	358	71.74%	126	15.87%	58	46.03%	63	7.93%	19	30.16%	39	4.91%	6	15.38%	67	8.44%	20	29.85%
	LDGT1	870	1.5	558	64.14%	373	66.85%	167	19.20%	79	47.31%	82	9.43%	39	47.56%	30	3.45%	14	46.67%	33	3.79%	11	33.33%
	LDGT2	1046	1.7	608	58.13%	375	61.68%	211	20.17%	86	40.76%	111	10.61%	43	38.74%	55	5.26%	23	41.82%	61	5.83%	24	39.34%
1995 Total		2710	1.6	1665	61.44%	1106	66.43%	504	18.60%	223	44.25%	256	9.45%	101	39.45%	124	4.58%	43	34.68%	161	5.94%	55	34.16%
1996	LDGV	722	1.3	513	71.05%	388	75.63%	113	15.65%	50	44.25%	47	6.51%	20	42.55%	25	3.46%	11	44.00%	24	3.32%	7	29.17%
	LDGT1	738	1.3	531	71.95%	409	77.02%	108	14.63%	49	45.37%	47	6.37%	16	34.04%	26	3.52%	9	34.62%	26	3.52%	11	42.31%
	LDGT2	573	1.6	365	63.70%	246	67.40%	96	16.75%	38	39.58%	49	8.55%	19	38.78%	26	4.54%	11	42.31%	37	6.46%	14	37.84%
1996 Total		2033	1.4	1409	69.31%	1043	74.02%	317	15.59%	137	43.22%	143	7.03%	55	38.46%	77	3.79%	31	40.26%	87	4.28%	32	36.78%
1997	LDGV	1008	1.3	749	74.31%	579	77.30%	143	14.19%	73	51.05%	58	5.75%	27	46.55%	26	2.58%	9	34.62%	32	3.17%	11	34.38%
	LDGT1	1389	1.4	977	70.34%	718	73.49%	228	16.41%	110	48.25%	96	6.91%	34	35.42%	52	3.74%	25	48.08%	36	2.59%	14	38.89%
	LDGT2	788	1.6	496	62.94%	327	65.93%	151	19.16%	65	43.05%	72	9.14%	29	40.28%	32	4.06%	10	31.25%	37	4.70%	19	51.35%
1997 Total		3185	1.4	2222	69.76%	1624	73.09%	522	16.39%	248	47.51%	226	7.10%	90	39.82%	110	3.45%	44	40.00%	105	3.30%	44	41.90%
1998	LDGV	1334	1.4	974	73.01%	738	75.77%	196	14.69%	107	54.59%	80	6.00%	37	46.25%	39	2.92%	18	46.15%	45	3.37%	17	37.78%
	LDGT1	1533	1.4	1056	68.88%	790	74.81%	244	15.92%	131	53.69%	103	6.72%	35	33.98%	62	4.04%	19	30.65%	68	4.44%	28	41.18%
	LDGT2	801	1.7	467	58.30%	302	64.67%	149	18.60%	60	40.27%	78	9.74%	28	35.90%	51	6.37%	21	41.18%	56	6.99%	23	41.07%
1998 Total		3668	1.4	2497	68.08%	1830	73.29%	589	16.06%	298	50.59%	261	7.12%	100	38.31%	152	4.14%	58	38.16%	169	4.61%	68	40.24%
1999	LDGV	1472	1.3	1066	72.42%	813	76.27%	208	14.13%	101	48.56%	99	6.73%	43	43.43%	44	2.99%	17	38.64%	55	3.74%	19	34.55%
	LDGT1	1823	1.4	1244	68.24%	894	71.86%	296	16.24%	152	51.35%	131	7.19%	58	44.27%	63	3.46%	24	38.10%	89	4.88%	26	29.21%
	LDGT2	1317	1.6	777	59.00%	500	64.35%	239	18.15%	99	41.42%	131	9.95%	50	38.17%	70	5.32%	21	30.00%	100	7.59%	36	36.00%
1999 Total		4612	1.4	3087	66.93%	2207	71.49%	743	16.11%	352	47.38%	361	7.83%	151	41.83%	177	3.84%	62	35.03%	244	5.29%	81	33.20%
2000	LDGV	1622	1.4	1142	70.41%	859	75.22%	256	15.78%	127	49.61%	114	7.03%	56	49.12%	55	3.39%	24	43.64%	55	3.39%	22	40.00%
	LDGT1	1965	1.5	1279	65.09%	893	69.82%	331	16.84%	143	43.20%	164	8.35%	60	36.59%	82	4.17%	36	43.90%	109	5.55%	33	30.28%

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	77	1.1	67	87.01%	62	92.54%	5	6.49%	1	20.00%	3	3.90%	2	66.67%	1	1.30%	0	0.00%	1	1.30%	0	0.00%
	LDGT2	55	1.1	50	90.91%	43	86.00%	4	7.27%	3	75.00%	1	1.82%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2010 Total		229	1.2	186	81.22%	162	87.10%	21	9.17%	10	47.62%	9	3.93%	7	77.78%	4	1.75%	1	25.00%	9	3.93%	2	22.22%
2011	LDGV	60	1.4	44	73.33%	33	75.00%	10	16.67%	6	60.00%	4	6.67%	2	50.00%	2	3.33%	2	100.00%	0	0.00%	0	0.00%
	LDGT1	46	1.2	38	82.61%	33	86.84%	6	13.04%	4	66.67%	2	4.35%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT2	70	1.1	61	87.14%	54	88.52%	7	10.00%	5	71.43%	2	2.86%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2011 Total		176	1.2	143	81.25%	120	83.92%	23	13.07%	15	65.22%	8	4.55%	6	75.00%	2	1.14%	2	100.00%	0	0.00%	0	0.00%
2012	LDGV	140	1.3	107	76.43%	87	81.31%	17	12.14%	5	29.41%	8	5.71%	3	37.50%	5	3.57%	2	40.00%	3	2.14%	3	100.00%
	LDGT1	73	1.3	57	78.08%	48	84.21%	9	12.33%	6	66.67%	3	4.11%	1	33.33%	3	4.11%	2	66.67%	1	1.37%	1	100.00%
	LDGT2	97	1.1	88	90.72%	82	93.18%	5	5.15%	2	40.00%	2	2.06%	0	0.00%	1	1.03%	0	0.00%	1	1.03%	1	100.00%
2012 Total		310	1.2	252	81.29%	217	86.11%	31	10.00%	13	41.94%	13	4.19%	4	30.77%	9	2.90%	4	44.44%	5	1.61%	5	100.00%
2013	LDGV	33	1.1	31	93.94%	29	93.55%	2	6.06%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	7	1.0	7	100.00%	7	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	18	1.0	18	100.00%	18	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%
2013 Total		58	1.0	56	96.55%	54	96.43%	2	3.45%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2014	LDGV	7	1.2	6	85.71%	5	83.33%	1	14.29%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
	LDGT1	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	0.00%	0	0.00%
	LDGT2	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	0.00%	0	0.00%
2014 Total		12	1.1	11	91.67%	10	90.91%	1	8.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2015	LDGV	15	1.9	8	53.33%	6	75.00%	2	13.33%	0	0.00%	1	6.67%	0	0.00%	1	6.67%	0	0.00%	3	20.00%	1	33.33%
2015 Total		15	1.9	8	53.33%	6	75.00%	2	13.33%	0	0.00%	1	6.67%	0	0.00%	1	6.67%	0	0.00%	3	20.00%	1	33.33%
2016	LDGT1	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	0.00%	0	0.00%
2016 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	0.00%	0	0.00%
Overall Total		61217	1.4	43661	71.32%	33520	76.77%	8831	14.43%	4115	46.60%	4139	6.76%	1704	41.17%	2,084	3.40%	801	38.44%	2502	4.09%	864	34.53%

Retest Frequency Report Summary by Veh (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	22669	1.3	16566	73.08%	12918	77.98%	3134	13.83%	1509	48.15%	1403	6.19%	596	42.48%	718	3.17%	271	37.74%	848	3.74%	305	35.97%	
LDGT1	23694	1.3	17251	72.81%	13464	78.05%	3288	13.88%	1556	47.32%	1511	6.38%	612	40.50%	747	3.15%	299	40.03%	897	3.79%	282	31.44%	
LDGT2	14854	1.5	9844	66.27%	7138	72.51%	2409	16.22%	1050	43.59%	1225	8.25%	496	40.49%	619	4.17%	231	37.32%	757	5.10%	277	36.59%	
Overall Total		61217	1.4	43661	71.32%	33520	76.77%	8831	14.43%	4115	46.60%	4139	6.76%	1704	41.17%	2,084	3.40%	801	38.44%	2502	4.09%	864	34.53%

Appendix B7

I/M240 Fleet Characterization Summary Report

Initial Inspection Component

Date
Between 1/1/2019 and 12/31/2019

IM240 Fleet Initial Inspection Report (V1.01)

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest 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)
1982	LDGV	155	1.9284	24.4257	2.0658	130	83.87%	1.6432	18.6407	2.1208	25	16.13%	3.4111	54.5077	1.7797
	LDGT1	126	2.7303	43.7288	2.7339	85	67.46%	2.3054	31.6017	2.9631	41	32.54%	3.6113	68.8702	2.2588
	LDGT2	27	3.1550	59.2822	2.6504	17	62.96%	2.3896	35.3270	2.2496	10	37.04%	4.4563	100.0061	3.3316
1982 Total		308	2.3640	35.3780	2.3904	232	75.32%	1.9405	24.6121	2.4388	76	24.68%	3.6566	68.2426	2.2424
1983	LDGV	188	1.5011	19.0660	1.8555	153	81.38%	1.3086	12.1033	1.9015	35	18.62%	2.3427	49.5030	1.6545
	LDGT1	173	3.2557	37.0036	2.4284	129	74.57%	2.8309	29.9303	2.4781	44	25.43%	4.5014	57.7411	2.2826
	LDGT2	68	3.5904	47.1467	2.5825	44	64.71%	2.8507	33.1923	2.5387	24	35.29%	4.9466	72.7298	2.6628
1983 Total		429	2.5399	30.7506	2.2017	326	75.99%	2.1191	22.0039	2.2156	103	24.01%	3.8716	58.4343	2.1577
1984	LDGV	287	1.6190	16.3625	2.0258	225	78.40%	1.2924	11.1444	1.9492	62	21.60%	2.8042	35.2989	2.3037
	LDGT1	284	2.6121	31.0143	2.6319	218	76.76%	1.8045	21.6078	2.6023	66	23.24%	5.2798	62.0839	2.7297
	LDGT2	95	2.6761	42.4716	2.8435	61	64.21%	2.0499	23.2026	3.1012	34	35.79%	3.7995	77.0425	2.3812
1984 Total		666	2.1933	26.3347	2.4009	504	75.68%	1.6056	17.1297	2.3711	162	24.32%	4.0216	54.9723	2.4935
1985	LDGV	511	1.3534	15.5783	1.9282	408	79.84%	1.0478	10.6737	1.9127	103	20.16%	2.5642	35.0062	1.9894
	LDGT1	492	2.0193	23.0187	2.6642	389	79.07%	1.7651	17.2027	2.7412	103	20.93%	2.9796	44.9840	2.3733
	LDGT2	134	2.5233	33.9480	2.9494	85	63.43%	1.9323	22.4027	2.9125	49	36.57%	3.5485	53.9755	3.0134
1985 Total		1137	1.7795	20.9628	2.3670	882	77.57%	1.4494	14.6836	2.3745	255	22.43%	2.9211	42.6815	2.3412
1986	LDGV	611	1.0697	9.9179	1.8186	526	86.09%	0.9009	7.4941	1.7939	85	13.91%	2.1142	24.9168	1.9719
	LDGT1	631	1.8427	20.9824	2.5537	517	81.93%	1.6398	16.2946	2.5768	114	18.07%	2.7627	42.2420	2.4489
	LDGT2	160	2.6896	34.7424	2.8375	104	65.00%	1.8728	19.4291	2.9939	56	35.00%	4.2066	63.1815	2.5471
1986 Total		1402	1.6025	17.7307	2.2657	1147	81.81%	1.3221	12.5430	2.2556	255	18.19%	2.8636	41.0654	2.3115
1987	LDGV	793	1.0762	10.5075	1.7895	681	85.88%	0.8607	7.4966	1.7382	112	14.12%	2.3859	28.8154	2.1017
	LDGT1	858	1.6198	18.0687	2.4708	705	82.17%	1.4075	14.3353	2.4067	153	17.83%	2.5983	35.2714	2.7662
	LDGT2	252	2.2140	21.2584	2.9464	188	74.60%	1.7624	13.2005	2.8078	64	25.40%	3.5405	44.9285	3.3535
1987 Total		1903	1.4720	15.3403	2.2499	1574	82.71%	1.2133	11.2410	2.1654	329	17.29%	2.7093	34.9522	2.6542
1988	LDGV	817	1.0500	10.3695	1.6178	702	85.92%	0.7651	7.7388	1.5936	115	14.08%	2.7890	26.4282	1.7650
	LDGT1	896	1.5803	15.6247	2.2611	737	82.25%	1.3133	11.6067	2.1410	159	17.75%	2.8183	34.2492	2.8174
	LDGT2	365	1.7900	17.3902	2.7256	274	75.07%	1.4516	12.4692	2.5337	91	24.93%	2.8089	32.2070	3.3033
1988 Total		2078	1.4086	13.8687	2.0897	1713	82.44%	1.1107	10.1596	1.9795	365	17.56%	2.8067	31.2759	2.6070
1989	LDGV	1187	0.8888	9.4616	1.5896	1039	87.53%	0.7107	7.4927	1.5448	148	12.47%	2.1391	23.2833	1.9043
	LDGT1	1422	1.3472	15.5507	2.1009	1194	83.97%	1.1409	12.2798	2.0080	228	16.03%	2.4276	32.6801	2.5874
	LDGT2	504	1.7817	16.1231	2.7079	411	81.55%	1.4856	12.4364	2.6354	93	18.45%	3.0904	32.4163	3.0282
1989 Total		3113	1.2427	13.3216	2.0042	2644	84.93%	1.0254	10.4230	1.9235	469	15.07%	2.4680	29.6625	2.4592
1990	LDGV	1462	0.8443	9.5340	1.5806	1311	89.67%	0.6772	7.2821	1.5527	151	10.33%	2.2957	29.0854	1.8234
	LDGT1	1182	1.4729	14.8880	2.1715	988	83.59%	1.1433	10.8834	2.0800	194	16.41%	3.1516	35.2829	2.6376
	LDGT2	497	1.6850	15.7755	2.7301	416	83.70%	1.4661	13.4845	2.6678	81	16.30%	2.8091	27.5412	3.0505
1990 Total		3141	1.2139	12.5364	1.9849	2715	86.44%	0.9677	9.5430	1.9154	426	13.56%	2.7831	31.6141	2.4275
1991	LDGV	2316	0.6940	7.8398	1.4642	2049	88.47%	0.5609	6.4525	1.4026	267	11.53%	1.7151	18.4862	1.9372
	LDGT1	1789	1.0646	12.6131	1.8296	1565	87.48%	0.9267	10.2240	1.7565	224	12.52%	2.0275	29.3048	2.3405
	LDGT2	595	1.6124	18.0498	2.5756	460	77.31%	1.2913	14.1638	2.4721	135	22.69%	2.7067	31.2908	2.9282
1991 Total		4700	0.9513	10.9492	1.7440	4074	86.68%	0.7839	8.7720	1.6593	626	13.32%	2.0407	25.1187	2.2952

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest 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)
1992	LDGV	2170	0.7310	8.0272	1.4672	1882	86.73%	0.5490	6.0168	1.3987	288	13.27%	1.9199	21.1646	1.9153
	LDGT1	1627	1.0451	11.2741	1.8203	1398	85.93%	0.9098	9.6839	1.7108	229	14.07%	1.8709	20.9816	2.4890
	LDGT2	899	1.6367	16.1097	2.4343	736	81.87%	1.3296	13.3293	2.3683	163	18.13%	3.0234	28.6645	2.7327
1992 Total		4696	1.0132	10.6994	1.7747	4016	85.52%	0.8177	8.6335	1.6850	680	14.48%	2.1679	22.9007	2.3045
1993	LDGV	2877	0.6490	7.1405	1.4933	2572	89.40%	0.5275	5.4800	1.4251	305	10.60%	1.6740	21.1436	2.0681
	LDGT1	2782	1.0242	10.7924	2.0238	2434	87.49%	0.8912	9.3126	1.8968	348	12.51%	1.9543	21.1422	2.9118
	LDGT2	1196	1.7296	16.5121	2.5788	941	78.68%	1.3840	13.7954	2.4539	255	21.32%	3.0053	26.5373	3.0398
1993 Total		6855	0.9898	10.2577	1.8980	5947	86.75%	0.8119	8.3644	1.7810	908	13.25%	2.1553	22.6578	2.6644
1994	LDGV	3384	0.4960	5.7555	1.1990	3067	90.63%	0.4125	4.9182	1.1473	317	9.37%	1.3043	13.8555	1.6986
	LDGT1	3255	0.8531	9.4794	1.8235	2814	86.45%	0.7239	7.8846	1.6991	441	13.55%	1.6775	19.6554	2.6175
	LDGT2	1928	1.2284	12.9807	2.1921	1525	79.10%	0.9396	10.2182	2.0120	403	20.90%	2.3210	23.4344	2.8738
1994 Total		8567	0.7965	8.7964	1.6598	7406	86.45%	0.6393	7.1367	1.5350	1161	13.55%	1.7990	19.3836	2.4556
1995	LDGV	5070	0.4804	5.5373	1.0535	4594	90.61%	0.3936	4.6340	0.9986	476	9.39%	1.3182	14.2549	1.5837
	LDGT1	4063	0.7976	8.9986	1.8595	3543	87.20%	0.6888	7.5035	1.7229	520	12.80%	1.5389	19.1848	2.7906
	LDGT2	2773	1.1096	12.3342	2.1913	2213	79.81%	0.8959	10.1431	2.0109	560	20.19%	1.9542	20.9933	2.9045
1995 Total		11906	0.7352	8.3015	1.5936	10350	86.93%	0.6020	6.7942	1.4630	1556	13.07%	1.6209	18.3275	2.4624
1996	LDGV	5206	0.3659	4.5286	0.8432	4725	90.76%	0.3110	3.8554	0.8018	481	9.24%	0.9047	11.1416	1.2496
	LDGT1	3983	0.4609	6.0690	1.4956	3478	87.32%	0.4023	5.0776	1.3950	505	12.68%	0.8645	12.8973	2.1883
	LDGT2	2384	0.6597	7.5709	1.4398	2050	85.99%	0.5021	5.8985	1.3517	334	14.01%	1.6269	17.8354	1.9806
1996 Total		11573	0.4591	5.6854	1.1906	10253	88.59%	0.3802	4.6785	1.1130	1320	11.41%	1.0721	13.5070	1.7937
1997	LDGV	7750	0.3538	4.5344	0.7861	7046	90.92%	0.3135	3.8635	0.7497	704	9.08%	0.7574	11.2491	1.1507
	LDGT1	7554	0.4168	5.9709	1.3500	6646	87.98%	0.3616	4.9244	1.2648	908	12.02%	0.8204	13.6309	1.9736
	LDGT2	3256	0.5436	7.2362	1.4789	2800	86.00%	0.4071	5.4362	1.3400	456	14.00%	1.3815	18.2892	2.3317
1997 Total		18560	0.4127	5.5931	1.1371	16492	88.86%	0.3488	4.5580	1.0575	2068	11.14%	0.9226	13.8473	1.7724
1998	LDGV	8794	0.3089	4.4195	0.6837	7864	89.42%	0.2521	3.5286	0.6395	930	10.58%	0.7887	11.9532	1.0578
	LDGT1	8563	0.3999	5.6358	1.2208	7550	88.17%	0.3310	4.5011	1.1157	1013	11.83%	0.9137	14.0929	2.0043
	LDGT2	3349	0.4455	5.7132	1.3138	2909	86.86%	0.3459	4.4861	1.1827	440	13.14%	1.1041	13.8258	2.1807
1998 Total		20706	0.3686	5.1318	1.0078	18323	88.49%	0.2995	4.0813	0.9220	2383	11.51%	0.9001	13.2085	1.6674
1999	LDGV	11834	0.2687	3.7322	0.6357	10830	91.52%	0.2257	3.1346	0.5888	1004	8.48%	0.7333	10.1782	1.1409
	LDGT1	11178	0.2913	4.5054	0.9020	10011	89.56%	0.2409	3.7142	0.8029	1167	10.44%	0.7237	11.2928	1.7528
	LDGT2	5489	0.4040	4.3111	1.0038	4768	86.86%	0.2641	3.1282	0.8789	721	13.14%	1.3289	12.1334	1.8302
1999 Total		28501	0.3037	4.1469	0.8110	25609	89.85%	0.2388	3.3600	0.7265	2892	10.15%	0.8779	11.1154	1.5597
2000	LDGV	13720	0.2164	3.4010	0.5374	12621	91.99%	0.1745	2.8134	0.4784	1099	8.01%	0.6971	10.1490	1.2150
	LDGT1	11382	0.2629	3.8686	0.8371	10199	89.61%	0.2289	3.1348	0.7392	1183	10.39%	0.5559	10.1942	1.6815
	LDGT2	5200	0.2672	3.9378	0.8278	4645	89.33%	0.2210	3.1495	0.7366	555	10.67%	0.6538	10.5349	1.5908
2000 Total		30302	0.2426	3.6687	0.6998	27465	90.64%	0.2026	2.9896	0.6189	2837	9.36%	0.6298	10.2434	1.4830
2001	LDGV	16950	0.1578	2.8326	0.3968	15763	93.00%	0.1254	2.4056	0.3499	1187	7.00%	0.5879	8.5034	1.0199
	LDGT1	14457	0.1741	3.4075	0.5378	13212	91.39%	0.1443	2.8752	0.4835	1245	8.61%	0.4904	9.0568	1.1139
	LDGT2	7053	0.2598	3.5367	0.7250	6407	90.84%	0.2174	2.9016	0.6498	646	9.16%	0.6804	9.8353	1.4712
2001 Total		38460	0.1826	3.1779	0.5100	35382	92.00%	0.1491	2.6708	0.4541	3078	8.00%	0.5679	9.0068	1.1526
2002	LDGV	17275	0.1494	3.2477	0.3721	15927	92.20%	0.1194	2.8276	0.3177	1348	7.80%	0.5043	8.2114	1.0149
	LDGT1	15106	0.1627	4.0077	0.5002	13807	91.40%	0.1280	3.2824	0.4320	1299	8.60%	0.5318	11.7175	1.2244
	LDGT2	5976	0.2547	3.3862	0.7668	5371	89.88%	0.1971	2.6242	0.6795	605	10.12%	0.7667	10.1504	1.5417

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest 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)
2002 Total		38357	0.1711	3.5686	0.4840	35105	91.52%	0.1346	2.9753	0.4180	3252	8.48%	0.5641	9.9727	1.1966
2003	LDGV	21038	0.1090	2.0769	0.3097	19678	93.54%	0.0862	1.7822	0.2676	1360	6.46%	0.4391	6.3401	0.9187
	LDGT1	18676	0.1250	2.5460	0.3894	17372	93.02%	0.1051	2.0912	0.3502	1304	6.98%	0.3894	8.6041	0.9122
	LDGT2	8042	0.1935	2.8300	0.5173	7433	92.43%	0.1549	2.1995	0.4534	609	7.57%	0.6644	10.5245	1.2976
2003 Total		47756	0.1295	2.3871	0.3758	44483	93.15%	0.1051	1.9726	0.3309	3273	6.85%	0.4612	8.0207	0.9866
2004	LDGV	18579	0.0959	1.9154	0.2466	17353	93.40%	0.0739	1.6025	0.2036	1226	6.60%	0.4076	6.3442	0.8548
	LDGT1	18617	0.1115	2.3835	0.2740	17388	93.40%	0.0880	1.9224	0.2383	1229	6.60%	0.4449	8.9067	0.7788
	LDGT2	8543	0.1265	2.2805	0.3223	7922	92.73%	0.1028	1.8603	0.2637	621	7.27%	0.4282	7.6409	1.0703
2004 Total		45739	0.1080	2.1741	0.2719	42663	93.27%	0.0850	1.7808	0.2289	3076	6.73%	0.4267	7.6298	0.8680
2005	LDGV	24754	0.0742	1.4894	0.1926	23392	94.50%	0.0558	1.2652	0.1622	1362	5.50%	0.3900	5.3390	0.7157
	LDGT1	24811	0.0822	1.5950	0.1703	23761	95.77%	0.0710	1.3749	0.1461	1050	4.23%	0.3352	6.5765	0.7178
	LDGT2	8583	0.1416	2.1163	0.2812	8079	94.13%	0.1066	1.7135	0.2222	504	5.87%	0.7030	8.5733	1.2266
2005 Total		58148	0.0876	1.6270	0.1962	55232	94.99%	0.0698	1.3780	0.1641	2916	5.01%	0.4243	6.3436	0.8047
2006	LDGV	22833	0.0745	1.7186	0.1565	21982	96.27%	0.0557	1.4580	0.1278	851	3.73%	0.5616	8.4508	0.8999
	LDGT1	19618	0.0650	1.7015	0.1605	18812	95.89%	0.0565	1.5271	0.1392	806	4.11%	0.2645	5.7729	0.6570
	LDGT2	8888	0.1034	1.6463	0.1989	8432	94.87%	0.0839	1.3831	0.1615	456	5.13%	0.4639	6.5125	0.8907
2006 Total		51339	0.0759	1.6996	0.1654	49226	95.88%	0.0608	1.4716	0.1379	2113	4.12%	0.4272	7.0110	0.8052
2007	LDGV	27141	0.0544	1.3815	0.1212	26386	97.22%	0.0460	1.2397	0.1068	755	2.78%	0.3484	6.3356	0.6216
	LDGT1	25517	0.0486	1.4192	0.1146	24598	96.40%	0.0410	1.2677	0.1037	919	3.60%	0.2522	5.4761	0.4076
	LDGT2	10024	0.0797	1.2419	0.1305	9557	95.34%	0.0643	1.0275	0.1091	467	4.66%	0.3938	5.6291	0.5680
2007 Total		62682	0.0561	1.3745	0.1200	60541	96.58%	0.0469	1.2176	0.1059	2141	3.42%	0.3170	5.8126	0.5180
2008	LDGV	20648	0.0598	1.5747	0.1217	20034	97.03%	0.0473	1.3750	0.1029	614	2.97%	0.4666	8.0887	0.7365
	LDGT1	19766	0.0466	1.4631	0.1193	19108	96.67%	0.0413	1.3124	0.1080	658	3.33%	0.1999	5.8392	0.4464
	LDGT2	8715	0.0679	1.8063	0.1185	8101	92.95%	0.0588	1.3962	0.1036	614	7.05%	0.1876	7.2174	0.3141
2008 Total		49129	0.0559	1.5709	0.1202	47243	96.16%	0.0469	1.3533	0.1051	1886	3.84%	0.2827	7.0202	0.4978
2009	LDGV	1553	0.0879	1.9951	0.1589	1482	95.43%	0.0580	1.4938	0.1179	71	4.57%	0.7135	12.4579	1.0135
	LDGT1	1034	0.0656	2.3560	0.1496	986	95.36%	0.0571	1.9735	0.1390	48	4.64%	0.2400	10.2141	0.3670
	LDGT2	526	0.0775	1.9696	0.1622	496	94.30%	0.0692	1.7884	0.1372	30	5.70%	0.2145	4.9645	0.5760
2009 Total		3113	0.0788	2.1107	0.1563	2964	95.21%	0.0596	1.7027	0.1282	149	4.79%	0.4605	10.2263	0.7172
2010	LDGV	2083	0.0566	1.5789	0.1167	2013	96.64%	0.0473	1.4234	0.0912	70	3.36%	0.3262	6.0532	0.8513
	LDGT1	1855	0.0436	1.5096	0.0987	1789	96.44%	0.0418	1.4200	0.0950	66	3.56%	0.0927	3.9367	0.1989
	LDGT2	1059	0.0718	1.8012	0.1175	1012	95.56%	0.0503	1.4384	0.1008	47	4.44%	0.5361	9.6115	0.4770
2010 Total		4997	0.0550	1.6003	0.1102	4814	96.34%	0.0459	1.4253	0.0946	183	3.66%	0.2959	6.2038	0.5199
2011	LDGV	1150	0.0826	2.2793	0.1524	1107	96.26%	0.0522	1.8602	0.0970	43	3.74%	0.8653	13.0696	1.5767
	LDGT1	1025	0.0555	2.1258	0.1100	986	96.20%	0.0465	1.8193	0.0958	39	3.80%	0.2816	9.8735	0.4691
	LDGT2	695	0.1136	2.0400	0.1335	634	91.22%	0.0548	1.1804	0.0892	61	8.78%	0.7248	10.9749	0.5947
2011 Total		2870	0.0804	2.1665	0.1327	2727	95.02%	0.0508	1.6873	0.0948	143	4.98%	0.6462	11.3044	0.8557
2012	LDGV	2294	0.0653	1.8468	0.1115	2194	95.64%	0.0389	1.5607	0.0815	100	4.36%	0.6448	8.1250	0.7707
	LDGT1	1460	0.0460	2.0392	0.0869	1402	96.03%	0.0407	1.7388	0.0785	58	3.97%	0.1740	9.3018	0.2900
	LDGT2	1055	0.0562	1.3261	0.1012	970	91.94%	0.0435	1.1502	0.0848	85	8.06%	0.2011	3.3328	0.2877
2012 Total		4809	0.0574	1.7910	0.1018	4566	94.95%	0.0404	1.5282	0.0813	243	5.05%	0.3772	6.7296	0.4870
2013	LDGV	517	0.0500	1.7278	0.1165	486	94.00%	0.0395	1.5898	0.0820	31	6.00%	0.2147	3.8918	0.6580
	LDGT1	304	0.0375	1.6514	0.0667	297	97.70%	0.0374	1.5844	0.0661	7	2.30%	0.0407	4.4962	0.0890

Vehicle		Overall Initial Exhaust Emissions				Pass Initial Test Exhaust Emissions					Pass or Waived Retest 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	237	0.0578	1.3815	0.1113	219	92.41%	0.0540	1.2783	0.1067	18	7.59%	0.1051	2.6362	0.1665
2013 Total		1058	0.0482	1.6283	0.1010	1002	94.71%	0.0421	1.5201	0.0827	56	5.29%	0.1577	3.5638	0.4289
2014	LDGV	149	0.0546	1.6978	0.1150	143	95.97%	0.0350	1.5519	0.0689	6	4.03%	0.5218	5.1740	1.2146
	LDGT1	79	0.0383	1.8321	0.0965	78	98.73%	0.0374	1.7954	0.0962	1	1.27%	0.1077	4.6932	0.1202
	LDGT2	57	0.0428	1.0121	0.0560	53	92.98%	0.0376	0.8669	0.0503	4	7.02%	0.1112	2.9353	0.1314
2014 Total		285	0.0477	1.5979	0.0981	274	96.14%	0.0362	1.4887	0.0731	11	3.86%	0.3349	4.3162	0.7212
2015	LDGV	60	0.0729	1.3969	0.0893	53	88.33%	0.0265	1.1108	0.0516	7	11.67%	0.4236	3.5629	0.3744
	LDGT1	60	0.0254	1.1505	0.0728	60	100.00%	0.0254	1.1505	0.0728	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	19	0.0678	1.1779	0.0789	19	100.00%	0.0678	1.1779	0.0789	0	0.00%	0.0000	0.0000	0.0000
2015 Total		139	0.0517	1.2606	0.0808	132	94.96%	0.0320	1.1385	0.0652	7	5.04%	0.4236	3.5629	0.3744
2016	LDGV	40	0.0382	1.4423	0.0523	40	100.00%	0.0382	1.4423	0.0523	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	21	0.0291	2.1452	0.0547	20	95.24%	0.0251	1.3477	0.0557	1	4.76%	0.1085	18.0944	0.0343
	LDGT2	9	0.0592	1.4453	0.0329	9	100.00%	0.0592	1.4453	0.0329	0	0.00%	0.0000	0.0000	0.0000
2016 Total		70	0.0381	1.6535	0.0505	69	98.57%	0.0371	1.4153	0.0508	1	1.43%	0.1085	18.0944	0.0343
2017	LDGV	13	0.0276	1.2655	0.0556	13	100.00%	0.0276	1.2655	0.0556	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	10	0.0191	1.1713	0.0441	10	100.00%	0.0191	1.1713	0.0441	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	5	0.0510	0.7921	0.0586	5	100.00%	0.0510	0.7921	0.0586	0	0.00%	0.0000	0.0000	0.0000
2017 Total		28	0.0288	1.1473	0.0520	28	100.00%	0.0288	1.1473	0.0520	0	0.00%	0.0000	0.0000	0.0000
2018	LDGV	3	0.0247	0.5868	0.0425	3	100.00%	0.0247	0.5868	0.0425	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	6	0.0159	0.7972	0.0331	6	100.00%	0.0159	0.7972	0.0331	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0236	0.2830	0.0629	2	100.00%	0.0236	0.2830	0.0629	0	0.00%	0.0000	0.0000	0.0000
2018 Total		11	0.0197	0.6463	0.0410	11	100.00%	0.0197	0.6463	0.0410	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	2	0.0167	0.4004	0.0579	2	100.00%	0.0167	0.4004	0.0579	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	5	0.0134	0.3777	0.0620	5	100.00%	0.0134	0.3777	0.0620	0	0.00%	0.0000	0.0000	0.0000
2019 Total		7	0.0143	0.3842	0.0608	7	100.00%	0.0143	0.3842	0.0608	0	0.00%	0.0000	0.0000	0.0000
Grand Total		569540	0.2286	3.3892	0.5215	528141	92.73%	0.1779	2.6913	0.4549	41399	7.27%	0.8757	12.2919	1.3705

IM240 Fleet Initial Inspection Report - Summary by Veh (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	246214	0.1836	2.8601	0.4116	230476	93.61%	0.1439	2.3431	0.3646	15738	6.39%	0.7640	10.4316	1.1009	
LDGT1	224667	0.2339	3.6310	0.5639	208297	92.71%	0.1881	2.9051	0.4945	16370	7.29%	0.8163	12.8680	1.4470	
LDGT2	98659	0.3292	4.1587	0.6991	89368	90.58%	0.2418	3.0911	0.5958	9291	9.42%	1.1697	14.4281	1.6924	
Grand Total		569540	0.2286	3.3892	528141	92.73%	0.1779	2.6913	0.4549	41399	7.27%	0.8757	12.2919	1.3705	

Appendix B8

I/M240 Fleet Characterization Summary Report

Final Inspection Component

Date
Between 1/1/2019 and 12/31/2019

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	155	1.6813	19.5173	2.0788	24	15.48%	1.8273	21.6900	1.9244	1	0.65%	3.1224	81.3258	0.3248
	LDGT1	126	2.2738	32.2347	2.7729	40	31.75%	2.1652	32.0604	2.4337	1	0.79%	3.9342	93.0145	0.1832
	LDGT2	27	2.4527	34.8818	2.6424	10	37.04%	2.5598	34.1251	3.3101	0	0.00%	0.0000	0.0000	0.0000
1982 Total		308	1.9913	26.0668	2.4122	74	24.03%	2.1089	28.9760	2.3869	2	0.65%	3.5283	87.1701	0.2540
1983	LDGV	188	1.3325	13.2263	1.8790	34	18.09%	1.4481	17.7244	1.7813	1	0.53%	1.0517	32.0965	1.7637
	LDGT1	173	2.8737	30.4170	2.5076	44	25.43%	2.9993	31.8438	2.5943	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	68	2.7670	33.7875	2.5644	24	35.29%	2.6137	34.8786	2.6116	0	0.00%	0.0000	0.0000	0.0000
1983 Total		429	2.1814	23.4178	2.2411	102	23.78%	2.3915	27.8514	2.3274	1	0.23%	1.0517	32.0965	1.7637
1984	LDGV	287	1.3074	11.9711	1.8978	60	20.91%	1.3209	12.8872	1.7565	2	0.70%	2.5912	77.4958	0.3540
	LDGT1	284	1.8948	23.1282	2.5396	64	22.54%	2.1123	24.5969	2.3677	2	0.70%	4.7814	141.8495	1.1994
	LDGT2	95	2.0929	26.9456	3.1011	33	34.74%	2.1000	28.0356	3.1827	1	1.05%	4.4830	219.2954	0.4067
1984 Total		666	1.6699	18.8648	2.3431	157	23.57%	1.8073	20.8446	2.3054	5	0.75%	3.8456	131.5972	0.7027
1985	LDGV	511	1.0692	10.9048	1.9043	99	19.37%	1.1346	10.2924	1.9160	4	0.78%	1.6431	49.6361	0.7553
	LDGT1	492	1.7814	17.8874	2.6562	102	20.73%	1.8411	20.0889	2.3573	1	0.20%	2.0275	59.6756	0.1039
	LDGT2	134	1.9933	22.7148	2.8562	49	36.57%	2.0992	23.2562	2.7587	0	0.00%	0.0000	0.0000	0.0000
1985 Total		1137	1.4863	15.3181	2.3419	250	21.99%	1.6119	16.8302	2.2612	5	0.44%	1.7199	51.6440	0.6250
1986	LDGV	611	0.9260	7.6509	1.7908	84	13.75%	0.9869	8.7193	1.7674	1	0.16%	8.9600	0.3714	2.1223
	LDGT1	631	1.6666	16.9147	2.5954	110	17.43%	1.7072	18.1254	2.6767	4	0.63%	4.0154	63.7665	2.7711
	LDGT2	160	1.8647	20.9099	2.9736	56	35.00%	1.8495	23.6598	2.9359	0	0.00%	0.0000	0.0000	0.0000
1986 Total		1402	1.3664	13.3334	2.2879	250	17.83%	1.4970	16.2047	2.4293	5	0.36%	5.0044	51.0875	2.6413
1987	LDGV	793	0.9165	7.9147	1.7471	108	13.62%	1.1848	9.2010	1.8015	4	0.50%	3.1653	44.3724	1.7961
	LDGT1	858	1.4233	14.4839	2.4265	147	17.13%	1.4415	13.9222	2.5002	6	0.70%	2.8446	45.6940	2.9516
	LDGT2	252	1.7675	13.3117	2.8019	64	25.40%	1.7825	13.6382	2.7845	0	0.00%	0.0000	0.0000	0.0000
1987 Total		1903	1.2577	11.5912	2.1931	319	16.76%	1.4230	12.2668	2.3207	10	0.53%	2.9729	45.1654	2.4894
1988	LDGV	817	0.7903	7.7684	1.5926	115	14.08%	0.9439	7.9488	1.5866	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	896	1.3198	11.7944	2.1987	156	17.41%	1.3260	11.6084	2.4905	3	0.33%	2.6164	67.5771	1.1795
	LDGT2	365	1.4201	12.0711	2.6102	91	24.93%	1.3253	10.8725	2.8407	0	0.00%	0.0000	0.0000	0.0000
1988 Total		2078	1.1292	10.2601	2.0327	362	17.42%	1.2044	10.2608	2.2914	3	0.14%	2.6164	67.5771	1.1795
1989	LDGV	1187	0.7433	7.6972	1.5541	145	12.22%	0.9319	8.2680	1.6259	3	0.25%	2.9164	50.9261	1.2984
	LDGT1	1422	1.1581	12.3797	2.0413	225	15.82%	1.2458	12.4260	2.2067	3	0.21%	1.4335	48.6553	2.8758
	LDGT2	504	1.5105	13.0239	2.6221	90	17.86%	1.4487	13.1327	2.6174	3	0.60%	6.7750	90.2558	0.9400
1989 Total		3113	1.0570	10.6985	1.9496	460	14.78%	1.1865	11.2536	2.1040	9	0.29%	3.7083	63.2791	1.7047
1990	LDGV	1462	0.6994	7.5125	1.5555	150	10.26%	0.8074	7.7858	1.5906	1	0.07%	13.6412	268.6353	0.0080
	LDGT1	1182	1.1745	11.1217	2.0995	192	16.24%	1.3279	12.1086	2.2111	2	0.17%	1.8765	34.0949	1.0604
	LDGT2	497	1.4778	13.3645	2.6830	80	16.10%	1.5503	12.8993	2.7327	1	0.20%	0.5264	0.6529	5.0689
1990 Total		3141	1.0014	9.7966	1.9386	422	13.44%	1.1851	10.7220	2.0894	4	0.13%	4.4802	84.3695	1.7994
1991	LDGV	2316	0.5745	6.5226	1.4126	266	11.49%	0.6734	7.0289	1.4783	1	0.04%	2.1050	15.5751	4.3369
	LDGT1	1789	0.9539	10.5166	1.7694	219	12.24%	1.0775	10.9700	1.8654	5	0.28%	4.0292	82.2405	1.6104
	LDGT2	595	1.2922	13.8411	2.4013	133	22.35%	1.2921	12.6199	2.1303	2	0.34%	1.5156	20.8169	4.1374
1991 Total		4700	0.8098	8.9694	1.6736	618	13.15%	0.9497	9.6287	1.7558	8	0.17%	3.1603	58.5514	2.5829

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)
1992	LDGV	2170	0.5806	6.0956	1.4175	281	12.95%	0.6547	6.0402	1.5255	7	0.32%	6.1111	29.5214	2.1410
	LDGT1	1627	0.9275	9.8722	1.7542	227	13.95%	1.0363	10.8585	2.0087	2	0.12%	0.9339	29.5139	3.2555
	LDGT2	899	1.3500	13.4408	2.3345	157	17.46%	1.2969	12.4293	2.1867	6	0.67%	5.2493	53.5895	2.0519
1992 Total		4696	0.8481	8.8102	1.7097	665	14.16%	0.9366	9.1933	1.8466	15	0.32%	5.0761	39.1477	2.2540
1993	LDGV	2877	0.5599	5.6458	1.4513	302	10.50%	0.6367	6.1309	1.6726	3	0.10%	20.5944	99.0173	1.6086
	LDGT1	2782	0.9088	9.4429	1.9229	345	12.40%	1.0242	10.0520	2.1050	3	0.11%	1.9194	45.1157	2.0996
	LDGT2	1196	1.3706	13.6867	2.4101	250	20.90%	1.3003	13.1843	2.2092	5	0.42%	2.3586	18.3424	4.2059
1993 Total		6855	0.8429	8.5897	1.8100	897	13.09%	0.9707	9.6048	1.9885	11	0.16%	7.2122	47.6465	2.9231
1994	LDGV	3384	0.4243	4.9894	1.1654	311	9.19%	0.5211	5.5214	1.3295	6	0.18%	1.4524	13.7751	1.8797
	LDGT1	3255	0.7414	7.9922	1.7221	436	13.39%	0.8291	8.4981	1.8576	5	0.15%	2.9918	24.4112	2.8702
	LDGT2	1928	0.9513	10.1725	1.9933	398	20.64%	0.9234	9.4415	1.9156	5	0.26%	6.7367	54.4229	2.4928
1994 Total		8567	0.6634	7.2967	1.5632	1145	13.37%	0.7783	8.0175	1.7343	16	0.19%	3.5848	29.8013	2.3808
1995	LDGV	5070	0.4065	4.7074	1.0137	461	9.09%	0.4769	4.8596	1.1399	15	0.30%	2.2006	22.5203	1.7548
	LDGT1	4063	0.7003	7.5853	1.7412	516	12.70%	0.7683	7.9883	1.8593	4	0.10%	2.0964	28.0443	2.7388
	LDGT2	2773	0.9104	10.1594	2.0067	551	19.87%	0.9174	10.0706	1.9656	9	0.32%	4.0440	19.6099	3.5016
1995 Total		11906	0.6241	6.9593	1.4932	1528	12.83%	0.7342	7.7953	1.6806	28	0.24%	2.7783	22.3739	2.4568
1996	LDGV	5206	0.3165	3.9127	0.8107	476	9.14%	0.3591	4.3655	0.8827	5	0.10%	1.4543	15.0317	2.3771
	LDGT1	3983	0.4042	5.1336	1.4053	494	12.40%	0.4091	5.3285	1.4348	11	0.28%	0.7832	14.0983	3.3389
	LDGT2	2384	0.5101	5.9624	1.3693	328	13.76%	0.5312	6.0106	1.4747	6	0.25%	2.0726	25.1668	1.6435
1996 Total		11573	0.3865	4.7552	1.1304	1298	11.22%	0.4216	5.1477	1.2424	22	0.19%	1.2874	17.3291	2.6579
1997	LDGV	7750	0.3189	3.9295	0.7600	699	9.02%	0.3669	4.4837	0.8538	5	0.06%	1.2367	19.3806	2.1423
	LDGT1	7554	0.3675	5.0342	1.2778	901	11.93%	0.4083	5.7774	1.3594	7	0.09%	0.6408	13.6437	3.1228
	LDGT2	3256	0.4200	5.5389	1.3592	450	13.82%	0.4870	6.0643	1.4526	6	0.18%	1.4121	14.0848	3.3285
1997 Total		18560	0.3564	4.6615	1.0759	2050	11.05%	0.4115	5.3992	1.2075	18	0.10%	1.0634	15.3843	2.9190
1998	LDGV	8794	0.2583	3.5861	0.6454	917	10.43%	0.2979	3.9464	0.6752	13	0.15%	1.2230	12.9550	2.1256
	LDGT1	8563	0.3344	4.5268	1.1309	1003	11.71%	0.3563	4.6787	1.2165	10	0.12%	0.7352	8.6851	3.9797
	LDGT2	3349	0.3557	4.5950	1.2015	434	12.96%	0.3971	5.0822	1.2789	6	0.18%	2.1117	22.1339	4.7299
1998 Total		20706	0.3056	4.1383	0.9361	2354	11.37%	0.3411	4.4678	1.0171	29	0.14%	1.2387	13.3817	3.3038
1999	LDGV	11834	0.2301	3.1854	0.5970	993	8.39%	0.2653	3.6951	0.6597	11	0.09%	1.3857	7.1777	2.9325
	LDGT1	11178	0.2474	3.7411	0.8234	1154	10.32%	0.2881	3.8726	0.9762	13	0.12%	1.6170	12.8282	3.0505
	LDGT2	5489	0.2813	3.3165	0.9061	706	12.86%	0.3622	3.9536	1.0459	15	0.27%	1.9350	33.1799	2.9947
1999 Total		28501	0.2467	3.4286	0.7453	2853	10.01%	0.2985	3.8309	0.8833	39	0.14%	1.6741	19.0620	2.9958
2000	LDGV	13720	0.1803	2.8878	0.4898	1088	7.93%	0.2424	3.7066	0.6028	11	0.08%	0.7180	7.3039	2.3797
	LDGT1	11382	0.2346	3.2145	0.7631	1165	10.24%	0.2724	3.7188	0.9449	18	0.16%	1.0319	15.7406	2.5465
	LDGT2	5200	0.2302	3.2911	0.7611	550	10.58%	0.2833	3.8422	0.9541	5	0.10%	2.9539	74.1888	2.2883
2000 Total		30302	0.2093	3.0797	0.6390	2803	9.25%	0.2629	3.7383	0.8139	34	0.11%	1.2130	21.6064	2.4546
2001	LDGV	16950	0.1297	2.4450	0.3584	1180	6.96%	0.1827	2.9533	0.4620	7	0.04%	0.8681	5.4765	2.2052
	LDGT1	14457	0.1481	2.9332	0.4956	1240	8.58%	0.1827	3.5332	0.6064	5	0.03%	1.5091	7.3568	4.8211
	LDGT2	7053	0.2228	2.9737	0.6678	639	9.06%	0.2639	3.5850	0.8140	7	0.10%	1.3429	13.1077	3.7831
2001 Total		38460	0.1537	2.7255	0.4667	3059	7.95%	0.1997	3.3203	0.5941	19	0.05%	1.2117	8.7828	3.4749
2002	LDGV	17275	0.1241	2.8670	0.3266	1334	7.72%	0.1712	3.2020	0.4139	14	0.08%	0.9980	15.8388	2.1263
	LDGT1	15106	0.1336	3.3669	0.4501	1288	8.53%	0.1850	4.0508	0.6204	11	0.07%	1.2109	29.4211	3.1298
	LDGT2	5976	0.2113	2.7585	0.7006	599	10.02%	0.2687	3.4645	0.8747	6	0.10%	7.2031	52.4920	2.2174

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)
2002 Total		38357	0.1414	3.0470	0.4335	3221	8.40%	0.1948	3.5902	0.5822	31	0.08%	2.2745	27.7525	2.5000
2003	LDGV	21038	0.0889	1.8137	0.2741	1353	6.43%	0.1243	2.2291	0.3590	7	0.03%	0.7304	10.1570	2.1686
	LDGT1	18676	0.1089	2.1584	0.3599	1293	6.92%	0.1517	2.9073	0.4746	11	0.06%	0.9310	20.2338	2.2712
	LDGT2	8042	0.1597	2.2784	0.4670	608	7.56%	0.2177	3.2374	0.6284	1	0.01%	0.1795	5.3385	3.0604
2003 Total		47756	0.1086	2.0268	0.3401	3254	6.81%	0.1526	2.6870	0.4552	19	0.04%	0.8176	15.7373	2.2749
2004	LDGV	18579	0.0776	1.6537	0.2117	1222	6.58%	0.1290	2.3674	0.3171	4	0.02%	0.4842	5.7544	3.0986
	LDGT1	18617	0.0917	1.9876	0.2464	1220	6.55%	0.1407	2.8054	0.3460	9	0.05%	0.7398	17.1282	2.3946
	LDGT2	8543	0.1076	1.9426	0.2779	619	7.25%	0.1686	2.9702	0.4495	2	0.02%	0.2890	9.9874	3.3387
2004 Total		45739	0.0890	1.8436	0.2382	3061	6.69%	0.1417	2.6638	0.3554	15	0.03%	0.6115	13.1430	2.7082
2005	LDGV	24754	0.0585	1.2981	0.1673	1355	5.47%	0.0966	1.7619	0.2386	7	0.03%	1.7721	21.4523	3.5788
	LDGT1	24811	0.0732	1.4139	0.1535	1040	4.19%	0.1167	2.2395	0.2942	10	0.04%	0.6449	8.3598	3.0472
	LDGT2	8583	0.1121	1.7963	0.2375	500	5.83%	0.1956	3.0534	0.4686	4	0.05%	0.8746	11.9878	2.2039
2005 Total		58148	0.0727	1.4211	0.1718	2895	4.98%	0.1209	2.1565	0.2983	21	0.04%	1.0644	13.4150	3.0638
2006	LDGV	22833	0.0579	1.4826	0.1320	848	3.71%	0.1139	2.0988	0.2355	3	0.01%	0.5875	7.3227	1.9838
	LDGT1	19618	0.0579	1.5455	0.1432	804	4.10%	0.0908	1.9354	0.2319	2	0.01%	0.6142	18.3379	2.1066
	LDGT2	8888	0.0870	1.4326	0.1694	453	5.10%	0.1385	2.2423	0.2893	3	0.03%	1.0546	18.3167	4.2151
2006 Total		51339	0.0629	1.4980	0.1428	2105	4.10%	0.1104	2.0673	0.2457	8	0.02%	0.7693	14.1992	2.8512
2007	LDGV	27141	0.0471	1.2604	0.1090	755	2.78%	0.0847	1.9848	0.1829	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	25517	0.0419	1.2977	0.1050	914	3.58%	0.0633	1.9978	0.1320	5	0.02%	0.5148	21.0232	1.5377
	LDGT2	10024	0.0663	1.0643	0.1128	464	4.63%	0.0970	1.6780	0.1798	3	0.03%	1.6833	23.5288	1.4789
2007 Total		62682	0.0481	1.2443	0.1079	2133	3.40%	0.0782	1.9236	0.1604	8	0.01%	0.9530	21.9628	1.5157
2008	LDGV	20648	0.0487	1.3964	0.1051	613	2.97%	0.0902	2.0842	0.1696	1	0.00%	1.5831	8.6094	4.1314
	LDGT1	19766	0.0420	1.3371	0.1087	656	3.32%	0.0540	1.9085	0.1240	2	0.01%	2.1857	49.2635	1.9608
	LDGT2	8715	0.0617	1.5579	0.1070	611	7.01%	0.0988	3.5886	0.1505	3	0.03%	0.3907	24.6179	0.3551
2008 Total		49129	0.0483	1.4012	0.1069	1880	3.83%	0.0804	2.5118	0.1475	6	0.01%	1.1878	30.1650	1.5197
2009	LDGV	1553	0.0632	1.6059	0.1249	69	4.44%	0.1619	2.8365	0.2788	2	0.13%	0.5523	42.1578	0.0316
	LDGT1	1034	0.0578	2.0191	0.1404	47	4.55%	0.0629	2.3600	0.1721	1	0.10%	0.4992	30.9995	0.0148
	LDGT2	526	0.0720	1.8457	0.1464	30	5.70%	0.1175	2.7934	0.2993	0	0.00%	0.0000	0.0000	0.0000
2009 Total		3113	0.0629	1.7837	0.1337	146	4.69%	0.1209	2.6743	0.2487	3	0.10%	0.5346	38.4383	0.0260
2010	LDGV	2083	0.0493	1.4412	0.0943	70	3.36%	0.1093	1.9533	0.1832	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1855	0.0421	1.4280	0.0947	65	3.50%	0.0372	1.1381	0.0878	1	0.05%	0.8379	34.5613	0.1189
	LDGT2	1059	0.0518	1.4765	0.1048	47	4.44%	0.0845	2.2956	0.1910	0	0.00%	0.0000	0.0000	0.0000
2010 Total		4997	0.0472	1.4438	0.0967	182	3.64%	0.0771	1.7506	0.1511	1	0.02%	0.8379	34.5613	0.1189
2011	LDGV	1150	0.0572	1.9185	0.1029	43	3.74%	0.1835	3.4204	0.2549	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1025	0.0485	1.8641	0.1003	39	3.80%	0.0983	2.9955	0.2154	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	695	0.0554	1.2275	0.0947	61	8.78%	0.0614	1.7174	0.1527	0	0.00%	0.0000	0.0000	0.0000
2011 Total		2870	0.0536	1.7317	0.1000	143	4.98%	0.1082	2.5780	0.2005	0	0.00%	0.0000	0.0000	0.0000
2012	LDGV	2294	0.0425	1.6100	0.0878	100	4.36%	0.1215	2.6932	0.2276	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	1460	0.0409	1.7668	0.0822	58	3.97%	0.0474	2.4449	0.1713	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	1055	0.0439	1.1869	0.0852	85	8.06%	0.0487	1.6060	0.0897	0	0.00%	0.0000	0.0000	0.0000
2012 Total		4809	0.0423	1.5648	0.0855	243	5.05%	0.0783	2.2536	0.1659	0	0.00%	0.0000	0.0000	0.0000
2013	LDGV	517	0.0404	1.5971	0.0854	31	6.00%	0.0539	1.7116	0.1393	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	304	0.0377	1.6080	0.0660	7	2.30%	0.0490	2.6122	0.0614	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)
	LDGT2	237	0.0574	1.3440	0.1092	18	7.59%	0.0996	2.1426	0.1393	0	0.00%	0.0000	0.0000	0.0000
2013 Total		1058	0.0434	1.5435	0.0852	56	5.29%	0.0680	1.9627	0.1295	0	0.00%	0.0000	0.0000	0.0000
2014	LDGV	149	0.0379	1.6000	0.0727	6	4.03%	0.1057	2.7470	0.1634	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	79	0.0379	1.8187	0.0952	1	1.27%	0.0784	3.6325	0.0141	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	57	0.0390	0.9830	0.0554	4	7.02%	0.0568	2.5209	0.1233	0	0.00%	0.0000	0.0000	0.0000
2014 Total		285	0.0381	1.5372	0.0755	11	3.86%	0.0854	2.7453	0.1352	0	0.00%	0.0000	0.0000	0.0000
2015	LDGV	60	0.0448	1.1792	0.0622	7	11.67%	0.1832	1.6966	0.1417	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	60	0.0254	1.1505	0.0728	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	19	0.0678	1.1779	0.0789	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2015 Total		139	0.0396	1.1666	0.0690	7	5.04%	0.1832	1.6966	0.1417	0	0.00%	0.0000	0.0000	0.0000
2016	LDGV	40	0.0382	1.4423	0.0523	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	21	0.0242	1.3007	0.0550	1	4.76%	0.0059	0.3588	0.0398	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	9	0.0592	1.4453	0.0329	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2016 Total		70	0.0367	1.4002	0.0506	1	1.43%	0.0059	0.3588	0.0398	0	0.00%	0.0000	0.0000	0.0000
2017	LDGV	13	0.0276	1.2655	0.0556	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	10	0.0191	1.1713	0.0441	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	5	0.0510	0.7921	0.0586	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2017 Total		28	0.0288	1.1473	0.0520	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2018	LDGV	3	0.0247	0.5868	0.0425	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	6	0.0159	0.7972	0.0331	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT2	2	0.0236	0.2830	0.0629	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2018 Total		11	0.0197	0.6463	0.0410	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2019	LDGV	2	0.0167	0.4004	0.0579	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
	LDGT1	5	0.0134	0.3777	0.0620	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
2019 Total		7	0.0143	0.3842	0.0608	0	0.00%	0.0000	0.0000	0.0000	0	0.00%	0.0000	0.0000	0.0000
Grand Total		569540	0.1917	2.8393	0.4828	41004	7.20%	0.3515	4.5144	0.8220	395	0.07%	2.0749	26.7645	2.5561

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	246214	0.1530	2.4305	0.3807	15599	6.34%	0.2682	3.5432	0.6040	139	0.06%	2.1927	22.4820	2.1397	
LDGT1	224667	0.2020	3.0633	0.5255	16213	7.22%	0.3686	4.8715	0.9024	157	0.07%	1.4614	26.3469	2.7217	
LDGT2	98659	0.2650	3.3490	0.6404	9192	9.32%	0.4628	5.5326	1.0503	99	0.10%	2.8825	33.4396	2.8783	
Grand Total	569540	0.1917	2.8393	0.4828	41004	7.20%	0.3515	4.5144	0.8220	395	0.07%	2.0749	26.7645	2.5561	

Appendix B9

I/M240 Fleet Characterization Summary Report

Emissions Reduction Component

Date
Between 1/1/2019 and 12/31/2019

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	155	1.9284	24.4257	2.0658	155	1.6813	19.5173	2.0788	0.2471	12.81%	4.9084	20.10%	-0.0130	-0.63%
	LDGT1	126	2.7303	43.7288	2.7339	126	2.2738	32.2347	2.7729	0.4565	16.72%	11.4941	26.28%	-0.0391	-1.43%
	LDGT2	27	3.1550	59.2822	2.6504	27	2.4527	34.8818	2.6424	0.7024	22.26%	24.4004	41.16%	0.0080	0.30%
1982 Total		308	2.3640	35.3780	2.3904	308	1.9913	26.0668	2.4122	0.3727	15.77%	9.3113	26.32%	-0.0218	-0.91%
1983	LDGV	188	1.5011	19.0660	1.8555	188	1.3325	13.2263	1.8790	0.1687	11.24%	5.8398	30.63%	-0.0235	-1.27%
	LDGT1	173	3.2557	37.0036	2.4284	173	2.8737	30.4170	2.5076	0.3820	11.73%	6.5866	17.80%	-0.0793	-3.26%
	LDGT2	68	3.5904	47.1467	2.5825	68	2.7670	33.7875	2.5644	0.8234	22.93%	13.3592	28.34%	0.0181	0.70%
1983 Total		429	2.5399	30.7506	2.2017	429	2.1814	23.4178	2.2411	0.3585	14.11%	7.3328	23.85%	-0.0394	-1.79%
1984	LDGV	287	1.6190	16.3625	2.0258	287	1.3074	11.9711	1.8978	0.3116	19.25%	4.3913	26.84%	0.1280	6.32%
	LDGT1	284	2.6121	31.0143	2.6319	284	1.8948	23.1282	2.5396	0.7173	27.46%	7.8860	25.43%	0.0924	3.51%
	LDGT2	95	2.6761	42.4716	2.8435	95	2.0929	26.9456	3.1011	0.5831	21.79%	15.5260	36.56%	-0.2576	-9.06%
1984 Total		666	2.1933	26.3347	2.4009	666	1.6699	18.8648	2.3431	0.5233	23.86%	7.4699	28.37%	0.0578	2.41%
1985	LDGV	511	1.3534	15.5783	1.9282	511	1.0692	10.9048	1.9043	0.2842	21.00%	4.6735	30.00%	0.0239	1.24%
	LDGT1	492	2.0193	23.0187	2.6642	492	1.7814	17.8874	2.6562	0.2380	11.78%	5.1313	22.29%	0.0079	0.30%
	LDGT2	134	2.5233	33.9480	2.9494	134	1.9933	22.7148	2.8562	0.5300	21.00%	11.2332	33.09%	0.0931	3.16%
1985 Total		1137	1.7795	20.9628	2.3670	1137	1.4863	15.3181	2.3419	0.2932	16.47%	5.6447	26.93%	0.0251	1.06%
1986	LDGV	611	1.0697	9.9179	1.8186	611	0.9260	7.6509	1.7908	0.1438	13.44%	2.2670	22.86%	0.0279	1.53%
	LDGT1	631	1.8427	20.9824	2.5537	631	1.6666	16.9147	2.5954	0.1761	9.56%	4.0677	19.39%	-0.0418	-1.64%
	LDGT2	160	2.6896	34.7424	2.8375	160	1.8647	20.9099	2.9736	0.8250	30.67%	13.8326	39.81%	-0.1361	-4.80%
1986 Total		1402	1.6025	17.7307	2.2657	1402	1.3664	13.3334	2.2879	0.2361	14.73%	4.3973	24.80%	-0.0222	-0.98%
1987	LDGV	793	1.0762	10.5075	1.7895	793	0.9165	7.9147	1.7471	0.1597	14.84%	2.5928	24.68%	0.0424	2.37%
	LDGT1	858	1.6198	18.0687	2.4708	858	1.4233	14.4839	2.4265	0.1965	12.13%	3.5848	19.84%	0.0443	1.79%
	LDGT2	252	2.2140	21.2584	2.9464	252	1.7675	13.3117	2.8019	0.4465	20.17%	7.9468	37.38%	0.1445	4.90%
1987 Total		1903	1.4720	15.3403	2.2499	1903	1.2577	11.5912	2.1931	0.2142	14.55%	3.7491	24.44%	0.0568	2.52%
1988	LDGV	817	1.0500	10.3695	1.6178	817	0.7903	7.7684	1.5926	0.2597	24.73%	2.6011	25.08%	0.0251	1.55%
	LDGT1	896	1.5803	15.6247	2.2611	896	1.3198	11.7944	2.1987	0.2605	16.48%	3.8303	24.51%	0.0624	2.76%
	LDGT2	365	1.7900	17.3902	2.7256	365	1.4201	12.0711	2.6102	0.3699	20.66%	5.3190	30.59%	0.1153	4.23%
1988 Total		2078	1.4086	13.8687	2.0897	2078	1.1292	10.2601	2.0327	0.2794	19.84%	3.6086	26.02%	0.0570	2.73%
1989	LDGV	1187	0.8888	9.4616	1.5896	1187	0.7433	7.6972	1.5541	0.1455	16.37%	1.7644	18.65%	0.0355	2.24%
	LDGT1	1422	1.3472	15.5507	2.1009	1422	1.1581	12.3797	2.0413	0.1891	14.04%	3.1711	20.39%	0.0596	2.84%
	LDGT2	504	1.7817	16.1231	2.7079	504	1.5105	13.0239	2.6221	0.2712	15.22%	3.0992	19.22%	0.0858	3.17%
1989 Total		3113	1.2427	13.3216	2.0042	3113	1.0570	10.6985	1.9496	0.1858	14.95%	2.6230	19.69%	0.0547	2.73%
1990	LDGV	1462	0.8443	9.5340	1.5806	1462	0.6994	7.5125	1.5555	0.1449	17.16%	2.0215	21.20%	0.0251	1.59%
	LDGT1	1182	1.4729	14.8880	2.1715	1182	1.1745	11.1217	2.0995	0.2984	20.26%	3.7664	25.30%	0.0719	3.31%
	LDGT2	497	1.6850	15.7755	2.7301	497	1.4778	13.3645	2.6830	0.2072	12.30%	2.4110	15.28%	0.0471	1.73%
1990 Total		3141	1.2139	12.5364	1.9849	3141	1.0014	9.7966	1.9386	0.2125	17.51%	2.7397	21.85%	0.0462	2.33%
1991	LDGV	2316	0.6940	7.8398	1.4642	2316	0.5745	6.5226	1.4126	0.1195	17.22%	1.3172	16.80%	0.0517	3.53%
	LDGT1	1789	1.0646	12.6131	1.8296	1789	0.9539	10.5166	1.7694	0.1107	10.40%	2.0965	16.62%	0.0602	3.29%
	LDGT2	595	1.6124	18.0498	2.5756	595	1.2922	13.8411	2.4013	0.3202	19.86%	4.2087	23.32%	0.1743	6.77%
1991 Total		4700	0.9513	10.9492	1.7440	4700	0.8098	8.9694	1.6736	0.1416	14.88%	1.9799	18.08%	0.0704	4.04%

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
1992	LDGV	2170	0.7310	8.0272	1.4672	2170	0.5806	6.0956	1.4175	0.1503	20.57%	1.9316	24.06%	0.0497	3.39%
	LDGT1	1627	1.0451	11.2741	1.8203	1627	0.9275	9.8722	1.7542	0.1176	11.25%	1.4019	12.43%	0.0661	3.63%
	LDGT2	899	1.6367	16.1097	2.4343	899	1.3500	13.4408	2.3345	0.2867	17.51%	2.6689	16.57%	0.0999	4.10%
1992 Total		4696	1.0132	10.6994	1.7747	4696	0.8481	8.8102	1.7097	0.1651	16.29%	1.8892	17.66%	0.0650	3.66%
1993	LDGV	2877	0.6490	7.1405	1.4933	2877	0.5599	5.6458	1.4513	0.0892	13.74%	1.4947	20.93%	0.0420	2.81%
	LDGT1	2782	1.0242	10.7924	2.0238	2782	0.9088	9.4429	1.9229	0.1154	11.27%	1.3495	12.50%	0.1009	4.99%
	LDGT2	1196	1.7296	16.5121	2.5788	1196	1.3706	13.6867	2.4101	0.3591	20.76%	2.8254	17.11%	0.1688	6.54%
1993 Total		6855	0.9898	10.2577	1.8980	6855	0.8429	8.5897	1.8100	0.1469	14.84%	1.6679	16.26%	0.0880	4.64%
1994	LDGV	3384	0.4960	5.7555	1.1990	3384	0.4243	4.9894	1.1654	0.0717	14.46%	0.7661	13.31%	0.0336	2.80%
	LDGT1	3255	0.8531	9.4794	1.8235	3255	0.7414	7.9922	1.7221	0.1116	13.08%	1.4872	15.69%	0.1014	5.56%
	LDGT2	1928	1.2284	12.9807	2.1921	1928	0.9513	10.1725	1.9933	0.2771	22.55%	2.8082	21.63%	0.1988	9.07%
1994 Total		8567	0.7965	8.7964	1.6598	8567	0.6634	7.2967	1.5632	0.1331	16.71%	1.4996	17.05%	0.0965	5.82%
1995	LDGV	5070	0.4804	5.5373	1.0535	5070	0.4065	4.7074	1.0137	0.0739	15.38%	0.8298	14.99%	0.0398	3.78%
	LDGT1	4063	0.7976	8.9986	1.8595	4063	0.7003	7.5853	1.7412	0.0973	12.20%	1.4132	15.70%	0.1183	6.36%
	LDGT2	2773	1.1096	12.3342	2.1913	2773	0.9104	10.1594	2.0067	0.1992	17.95%	2.1748	17.63%	0.1846	8.43%
1995 Total		11906	0.7352	8.3015	1.5936	11906	0.6241	6.9593	1.4932	0.1111	15.11%	1.3422	16.17%	0.1003	6.30%
1996	LDGV	5206	0.3659	4.5286	0.8432	5206	0.3165	3.9127	0.8107	0.0494	13.49%	0.6158	13.60%	0.0325	3.85%
	LDGT1	3983	0.4609	6.0690	1.4956	3983	0.4042	5.1336	1.4053	0.0567	12.30%	0.9354	15.41%	0.0903	6.04%
	LDGT2	2384	0.6597	7.5709	1.4398	2384	0.5101	5.9624	1.3693	0.1496	22.68%	1.6085	21.25%	0.0705	4.89%
1996 Total		11573	0.4591	5.6854	1.1906	11573	0.3865	4.7552	1.1304	0.0725	15.80%	0.9303	16.36%	0.0602	5.05%
1997	LDGV	7750	0.3538	4.5344	0.7861	7750	0.3189	3.9295	0.7600	0.0349	9.87%	0.6050	13.34%	0.0261	3.33%
	LDGT1	7554	0.4168	5.9709	1.3500	7554	0.3675	5.0342	1.2778	0.0493	11.83%	0.9367	15.69%	0.0722	5.35%
	LDGT2	3256	0.5436	7.2362	1.4789	3256	0.4200	5.5389	1.3592	0.1236	22.73%	1.6973	23.46%	0.1197	8.09%
1997 Total		18560	0.4127	5.5931	1.1371	18560	0.3564	4.6615	1.0759	0.0563	13.65%	0.9316	16.66%	0.0613	5.39%
1998	LDGV	8794	0.3089	4.4195	0.6837	8794	0.2583	3.5861	0.6454	0.0505	16.36%	0.8334	18.86%	0.0383	5.60%
	LDGT1	8563	0.3999	5.6358	1.2208	8563	0.3344	4.5268	1.1309	0.0655	16.38%	1.1090	19.68%	0.0900	7.37%
	LDGT2	3349	0.4455	5.7132	1.3138	3349	0.3557	4.5950	1.2015	0.0898	20.16%	1.1182	19.57%	0.1123	8.55%
1998 Total		20706	0.3686	5.1318	1.0078	20706	0.3056	4.1383	0.9361	0.0631	17.11%	0.9935	19.36%	0.0716	7.11%
1999	LDGV	11834	0.2687	3.7322	0.6357	11834	0.2301	3.1854	0.5970	0.0387	14.39%	0.5468	14.65%	0.0387	6.09%
	LDGT1	11178	0.2913	4.5054	0.9020	11178	0.2474	3.7411	0.8234	0.0439	15.08%	0.7643	16.96%	0.0787	8.72%
	LDGT2	5489	0.4040	4.3111	1.0038	5489	0.2813	3.3165	0.9061	0.1227	30.37%	0.9946	23.07%	0.0977	9.73%
1999 Total		28501	0.3037	4.1469	0.8110	28501	0.2467	3.4286	0.7453	0.0569	18.74%	0.7183	17.32%	0.0657	8.11%
2000	LDGV	13720	0.2164	3.4010	0.5374	13720	0.1803	2.8878	0.4898	0.0360	16.66%	0.5132	15.09%	0.0476	8.86%
	LDGT1	11382	0.2629	3.8686	0.8371	11382	0.2346	3.2145	0.7631	0.0283	10.75%	0.6540	16.91%	0.0740	8.84%
	LDGT2	5200	0.2672	3.9378	0.8278	5200	0.2302	3.2911	0.7611	0.0370	13.84%	0.6467	16.42%	0.0667	8.05%
2000 Total		30302	0.2426	3.6687	0.6998	30302	0.2093	3.0797	0.6390	0.0333	13.72%	0.5890	16.05%	0.0608	8.69%
2001	LDGV	16950	0.1578	2.8326	0.3968	16950	0.1297	2.4450	0.3584	0.0281	17.80%	0.3876	13.68%	0.0383	9.66%
	LDGT1	14457	0.1741	3.4075	0.5378	14457	0.1481	2.9332	0.4956	0.0260	14.96%	0.4744	13.92%	0.0422	7.86%
	LDGT2	7053	0.2598	3.5367	0.7250	7053	0.2228	2.9737	0.6678	0.0371	14.27%	0.5630	15.92%	0.0572	7.90%
2001 Total		38460	0.1826	3.1779	0.5100	38460	0.1537	2.7255	0.4667	0.0290	15.86%	0.4524	14.24%	0.0433	8.49%
2002	LDGV	17275	0.1494	3.2477	0.3721	17275	0.1241	2.8670	0.3266	0.0253	16.95%	0.3807	11.72%	0.0455	12.23%
	LDGT1	15106	0.1627	4.0077	0.5002	15106	0.1336	3.3669	0.4501	0.0291	17.87%	0.6408	15.99%	0.0501	10.02%
	LDGT2	5976	0.2547	3.3862	0.7668	5976	0.2113	2.7585	0.7006	0.0434	17.06%	0.6276	18.54%	0.0662	8.63%

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
2002 Total		38357	0.1711	3.5686	0.4840	38357	0.1414	3.0470	0.4335	0.0296	17.32%	0.5216	14.62%	0.0505	10.44%
2003	LDGV	21038	0.1090	2.0769	0.3097	21038	0.0889	1.8137	0.2741	0.0201	18.48%	0.2631	12.67%	0.0356	11.49%
	LDGT1	18676	0.1250	2.5460	0.3894	18676	0.1089	2.1584	0.3599	0.0161	12.91%	0.3876	15.22%	0.0295	7.58%
	LDGT2	8042	0.1935	2.8300	0.5173	8042	0.1597	2.2784	0.4670	0.0338	17.48%	0.5516	19.49%	0.0504	9.74%
2003 Total		47756	0.1295	2.3871	0.3758	47756	0.1086	2.0268	0.3401	0.0209	16.13%	0.3604	15.10%	0.0357	9.50%
2004	LDGV	18579	0.0959	1.9154	0.2466	18579	0.0776	1.6537	0.2117	0.0183	19.08%	0.2617	13.66%	0.0349	14.15%
	LDGT1	18617	0.1115	2.3835	0.2740	18617	0.0917	1.9876	0.2464	0.0198	17.75%	0.3959	16.61%	0.0276	10.07%
	LDGT2	8543	0.1265	2.2805	0.3223	8543	0.1076	1.9426	0.2779	0.0188	14.90%	0.3379	14.82%	0.0444	13.79%
2004 Total		45739	0.1080	2.1741	0.2719	45739	0.0890	1.8436	0.2382	0.0190	17.61%	0.3305	15.20%	0.0337	12.40%
2005	LDGV	24754	0.0742	1.4894	0.1926	24754	0.0585	1.2981	0.1673	0.0157	21.13%	0.1912	12.84%	0.0253	13.14%
	LDGT1	24811	0.0822	1.5950	0.1703	24811	0.0732	1.4139	0.1535	0.0090	10.99%	0.1811	11.35%	0.0168	9.87%
	LDGT2	8583	0.1416	2.1163	0.2812	8583	0.1121	1.7963	0.2375	0.0295	20.82%	0.3200	15.12%	0.0437	15.54%
2005 Total		58148	0.0876	1.6270	0.1962	58148	0.0727	1.4211	0.1718	0.0149	16.99%	0.2059	12.66%	0.0244	12.44%
2006	LDGV	22833	0.0745	1.7186	0.1565	22833	0.0579	1.4826	0.1320	0.0166	22.31%	0.2361	13.74%	0.0245	15.67%
	LDGT1	19618	0.0650	1.7015	0.1605	19618	0.0579	1.5455	0.1432	0.0071	10.89%	0.1560	9.17%	0.0173	10.76%
	LDGT2	8888	0.1034	1.6463	0.1989	8888	0.0870	1.4326	0.1694	0.0164	15.85%	0.2137	12.98%	0.0295	14.85%
2006 Total		51339	0.0759	1.6996	0.1654	51339	0.0629	1.4980	0.1428	0.0129	17.05%	0.2016	11.86%	0.0226	13.68%
2007	LDGV	27141	0.0544	1.3815	0.1212	27141	0.0471	1.2604	0.1090	0.0073	13.48%	0.1210	8.76%	0.0122	10.07%
	LDGT1	25517	0.0486	1.4192	0.1146	25517	0.0419	1.2977	0.1050	0.0067	13.80%	0.1215	8.56%	0.0096	8.42%
	LDGT2	10024	0.0797	1.2419	0.1305	10024	0.0663	1.0643	0.1128	0.0134	16.76%	0.1775	14.30%	0.0177	13.57%
2007 Total		62682	0.0561	1.3745	0.1200	62682	0.0481	1.2443	0.1079	0.0080	14.34%	0.1303	9.48%	0.0120	10.04%
2008	LDGV	20648	0.0598	1.5747	0.1217	20648	0.0487	1.3964	0.1051	0.0111	18.60%	0.1782	11.32%	0.0167	13.69%
	LDGT1	19766	0.0466	1.4631	0.1193	19766	0.0420	1.3371	0.1087	0.0046	9.96%	0.1261	8.62%	0.0105	8.84%
	LDGT2	8715	0.0679	1.8063	0.1185	8715	0.0617	1.5579	0.1070	0.0062	9.07%	0.2484	13.75%	0.0115	9.67%
2008 Total		49129	0.0559	1.5709	0.1202	49129	0.0483	1.4012	0.1069	0.0076	13.65%	0.1697	10.80%	0.0133	11.05%
2009	LDGV	1553	0.0879	1.9951	0.1589	1553	0.0632	1.6059	0.1249	0.0247	28.10%	0.3892	19.51%	0.0339	21.35%
	LDGT1	1034	0.0656	2.3560	0.1496	1034	0.0578	2.0191	0.1404	0.0078	11.88%	0.3369	14.30%	0.0092	6.15%
	LDGT2	526	0.0775	1.9696	0.1622	526	0.0720	1.8457	0.1464	0.0055	7.13%	0.1238	6.29%	0.0158	9.73%
2009 Total		3113	0.0788	2.1107	0.1563	3113	0.0629	1.7837	0.1337	0.0159	20.13%	0.3270	15.49%	0.0226	14.48%
2010	LDGV	2083	0.0566	1.5789	0.1167	2083	0.0493	1.4412	0.0943	0.0073	12.87%	0.1378	8.73%	0.0225	19.23%
	LDGT1	1855	0.0436	1.5096	0.0987	1855	0.0421	1.4280	0.0947	0.0015	3.54%	0.0816	5.40%	0.0039	3.99%
	LDGT2	1059	0.0718	1.8012	0.1175	1059	0.0518	1.4765	0.1048	0.0200	27.91%	0.3247	18.03%	0.0127	10.81%
2010 Total		4997	0.0550	1.6003	0.1102	4997	0.0472	1.4438	0.0967	0.0079	14.29%	0.1565	9.78%	0.0135	12.26%
2011	LDGV	1150	0.0826	2.2793	0.1524	1150	0.0572	1.9185	0.1029	0.0255	30.84%	0.3608	15.83%	0.0494	32.44%
	LDGT1	1025	0.0555	2.1258	0.1100	1025	0.0485	1.8641	0.1003	0.0070	12.57%	0.2617	12.31%	0.0097	8.78%
	LDGT2	695	0.1136	2.0400	0.1335	695	0.0554	1.2275	0.0947	0.0582	51.25%	0.8125	39.83%	0.0388	29.05%
2011 Total		2870	0.0804	2.1665	0.1327	2870	0.0536	1.7317	0.1000	0.0268	33.32%	0.4348	20.07%	0.0326	24.61%
2012	LDGV	2294	0.0653	1.8468	0.1115	2294	0.0425	1.6100	0.0878	0.0228	34.91%	0.2368	12.82%	0.0237	21.23%
	LDGT1	1460	0.0460	2.0392	0.0869	1460	0.0409	1.7668	0.0822	0.0050	10.94%	0.2724	13.36%	0.0047	5.42%
	LDGT2	1055	0.0562	1.3261	0.1012	1055	0.0439	1.1869	0.0852	0.0123	21.86%	0.1391	10.49%	0.0159	15.77%
2012 Total		4809	0.0574	1.7910	0.1018	4809	0.0423	1.5648	0.0855	0.0151	26.29%	0.2262	12.63%	0.0162	15.94%
2013	LDGV	517	0.0500	1.7278	0.1165	517	0.0404	1.5971	0.0854	0.0096	19.26%	0.1307	7.57%	0.0311	26.69%
	LDGT1	304	0.0375	1.6514	0.0667	304	0.0377	1.6080	0.0660	-0.0002	-0.51%	0.0434	2.63%	0.0006	0.95%

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	237	0.0578	1.3815	0.1113	237	0.0574	1.3440	0.1092	0.0004	0.72%	0.0375	2.71%	0.0021	1.86%
2013	Total	1058	0.0482	1.6283	0.1010	1058	0.0434	1.5435	0.0852	0.0047	9.85%	0.0847	5.20%	0.0158	15.69%
2014	LDGV	149	0.0546	1.6978	0.1150	149	0.0379	1.6000	0.0727	0.0168	30.69%	0.0977	5.76%	0.0423	36.80%
	LDGT1	79	0.0383	1.8321	0.0965	79	0.0379	1.8187	0.0952	0.0004	0.97%	0.0134	0.73%	0.0013	1.39%
	LDGT2	57	0.0428	1.0121	0.0560	57	0.0390	0.9830	0.0554	0.0038	8.93%	0.0291	2.87%	0.0006	1.01%
2014	Total	285	0.0477	1.5979	0.0981	285	0.0381	1.5372	0.0755	0.0096	20.18%	0.0606	3.79%	0.0226	23.05%
2015	LDGV	60	0.0729	1.3969	0.0893	60	0.0448	1.1792	0.0622	0.0280	38.49%	0.2177	15.59%	0.0272	30.41%
	LDGT1	60	0.0254	1.1505	0.0728	60	0.0254	1.1505	0.0728	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	19	0.0678	1.1779	0.0789	19	0.0678	1.1779	0.0789	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2015	Total	139	0.0517	1.2606	0.0808	139	0.0396	1.1666	0.0690	0.0121	23.41%	0.0940	7.46%	0.0117	14.51%
2016	LDGV	40	0.0382	1.4423	0.0523	40	0.0382	1.4423	0.0523	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	21	0.0291	2.1452	0.0547	21	0.0242	1.3007	0.0550	0.0049	16.82%	0.8446	39.37%	-0.0003	-0.48%
	LDGT2	9	0.0592	1.4453	0.0329	9	0.0592	1.4453	0.0329	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2016	Total	70	0.0381	1.6535	0.0505	70	0.0367	1.4002	0.0506	0.0015	3.84%	0.2534	15.32%	-0.0001	-0.16%
2017	LDGV	13	0.0276	1.2655	0.0556	13	0.0276	1.2655	0.0556	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	10	0.0191	1.1713	0.0441	10	0.0191	1.1713	0.0441	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	5	0.0510	0.7921	0.0586	5	0.0510	0.7921	0.0586	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2017	Total	28	0.0288	1.1473	0.0520	28	0.0288	1.1473	0.0520	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2018	LDGV	3	0.0247	0.5868	0.0425	3	0.0247	0.5868	0.0425	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	6	0.0159	0.7972	0.0331	6	0.0159	0.7972	0.0331	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT2	2	0.0236	0.2830	0.0629	2	0.0236	0.2830	0.0629	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2018	Total	11	0.0197	0.6463	0.0410	11	0.0197	0.6463	0.0410	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2019	LDGV	2	0.0167	0.4004	0.0579	2	0.0167	0.4004	0.0579	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
	LDGT1	5	0.0134	0.3777	0.0620	5	0.0134	0.3777	0.0620	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
2019	Total	7	0.0143	0.3842	0.0608	7	0.0143	0.3842	0.0608	0.0000	0.00%	0.0000	0.00%	0.0000	0.00%
Grand Total		569540	0.2286	3.3892	0.5215	569540	0.1917	2.8393	0.4828	0.0369	16.14%	0.5499	16.23%	0.0387	7.41%

IM240 Fleet Emission Reduction Report -Summary by Veh (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	246214	0.1836	2.8601	0.4116	246214	0.1530	2.4305	0.3807	0.0306	16.67%	0.4296	15.02%	0.0309	7.50%	
LDGT1	224667	0.2339	3.6310	0.5639	224667	0.2020	3.0633	0.5255	0.0319	13.62%	0.5676	15.63%	0.0384	6.81%	
LDGT2	98659	0.3292	4.1587	0.6991	98659	0.2650	3.3490	0.6404	0.0641	19.49%	0.8097	19.47%	0.0586	8.39%	
Grand Total	569540	0.2286	3.3892	0.5215	569540	0.1917	2.8393	0.4828	0.0369	16.14%	0.5499	16.23%	0.0387	7.41%	

Appendix C1

Idle Initial Inspection Report

Date
Between 1/1/2019 and 12/31/2019

Idle Initial Inspection Report (V1.01)

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
1974	LDGV	490	494.59	2.67	425.73	3.29	317	64.69%	282.22	1.32	310.39	2.39	173	35.31%	883.73	5.14	637.09	4.95
	LDGT	239	423.59	2.08	393.11	2.63	166	69.46%	253.26	0.99	285.51	1.96	73	30.54%	810.92	4.55	637.77	4.15
	HDGT	264	390.71	2.31	374.99	3.23	222	84.09%	265.07	1.64	298.48	2.93	42	15.91%	1054.83	5.87	779.37	4.82
1974 Total		993	449.89	2.43	404.39	3.12	705	71.00%	270.00	1.34	300.78	2.46	288	29.00%	890.23	5.10	658.01	4.73
1975	LDGV	31	387.74	1.61	352.49	2.39	18	58.06%	190.28	0.41	311.48	1.41	13	41.94%	661.14	3.27	409.28	3.75
	LDGT	15	245.74	1.91	221.63	2.03	9	60.00%	141.70	0.55	111.64	0.75	6	40.00%	401.80	3.95	386.60	3.95
	HDGT	54	469.64	2.57	349.75	2.76	40	74.07%	199.37	1.79	211.66	2.73	14	25.93%	1241.86	4.81	744.31	2.82
1975 Total		100	410.67	2.17	331.38	2.53	67	67.00%	189.18	1.25	225.04	2.11	33	33.00%	860.35	4.05	547.29	3.39
1976	LDGV	175	292.57	1.71	257.99	2.37	98	56.00%	125.51	0.48	167.11	1.50	77	44.00%	505.19	3.29	373.65	3.48
	LDGT	103	364.90	1.84	242.25	2.36	61	59.22%	152.11	0.56	162.41	1.64	42	40.78%	673.95	3.69	358.22	3.41
	HDGT	298	418.09	2.23	319.00	2.44	213	71.48%	272.14	1.41	238.69	2.14	85	28.52%	783.82	4.29	520.27	3.19
1976 Total		576	370.44	2.01	286.74	2.40	372	64.58%	213.83	1.03	207.32	1.89	204	35.42%	656.03	3.79	431.57	3.34
1977	LDGV	227	231.14	1.04	194.17	1.35	141	62.11%	101.98	0.25	111.76	0.84	86	37.89%	442.91	2.33	329.29	2.17
	LDGT	105	341.68	1.66	315.25	1.95	48	45.71%	114.68	0.43	113.92	0.73	57	54.29%	532.85	2.69	484.78	2.98
	HDGT	408	395.76	2.16	314.54	2.40	313	76.72%	304.23	1.68	261.32	2.11	95	23.28%	697.31	3.75	489.87	3.35
1977 Total		740	337.59	1.75	277.71	2.01	502	67.84%	229.30	1.16	205.22	1.62	238	32.16%	565.99	2.99	430.63	2.83
1978	LDGV	271	215.52	0.92	220.80	1.56	191	70.48%	96.56	0.22	125.62	0.96	80	29.52%	499.52	2.59	448.04	2.99
	LDGT	151	318.78	1.39	265.51	1.80	84	55.63%	108.17	0.42	106.26	1.05	67	44.37%	582.84	2.62	465.16	2.76
	HDGT	512	415.59	2.13	326.99	2.36	379	74.02%	289.58	1.56	260.05	2.03	133	25.98%	774.68	3.75	517.72	3.31
1978 Total		934	341.89	1.66	286.24	2.04	654	70.02%	209.91	1.02	201.04	1.59	280	29.98%	650.16	3.15	485.23	3.08
1979	LDGV	328	240.85	1.11	240.13	1.82	209	63.72%	109.08	0.30	143.87	1.18	119	36.28%	472.28	2.54	409.18	2.94
	LDGT	479	247.17	1.05	252.39	1.62	306	63.88%	113.91	0.26	149.52	1.09	173	36.12%	482.87	2.43	434.36	2.56
	HDGT	119	292.52	1.33	284.42	1.59	89	74.79%	191.56	0.98	172.24	1.53	30	25.21%	592.04	2.39	617.20	1.76
1979 Total		926	250.76	1.11	252.17	1.69	604	65.23%	123.68	0.38	150.91	1.19	322	34.77%	489.13	2.47	442.09	2.62
1980	LDGV	222	172.53	0.63	158.59	1.07	173	77.93%	77.09	0.18	97.04	0.63	49	22.07%	509.48	2.19	375.91	2.63
	LDGT	235	232.83	1.04	220.19	1.70	151	64.26%	88.01	0.22	115.73	1.13	84	35.74%	493.15	2.52	407.98	2.73
	HDGT	72	281.91	1.00	249.46	1.34	64	88.89%	197.69	0.75	176.43	1.21	8	11.11%	955.63	2.95	833.70	2.36
1980 Total		529	214.20	0.86	198.33	1.39	388	73.35%	101.24	0.29	117.41	0.92	141	26.65%	525.06	2.43	420.99	2.67
1981	LDGV	157	159.27	0.68	191.95	1.27	101	64.33%	61.08	0.14	59.26	0.27	56	35.67%	336.36	1.64	431.25	3.09
	LDGT	217	196.50	0.82	167.29	1.08	119	54.84%	68.52	0.15	63.61	0.23	98	45.16%	351.90	1.62	293.19	2.11
	HDGT	103	261.60	1.28	203.93	1.29	82	79.61%	126.01	0.85	98.89	0.98	21	20.39%	791.03	2.97	614.05	2.49
1981 Total		477	198.30	0.87	183.32	1.19	302	63.31%	81.64	0.34	71.73	0.44	175	36.69%	399.62	1.79	375.87	2.47
1982	LDGV	4	151.98	1.97	150.40	2.12	3	75.00%	111.53	0.38	108.60	0.56	1	25.00%	273.30	6.73	275.80	6.81
	LDGT	2	61.75	0.19	90.75	0.79	2	100.00%	61.75	0.19	90.75	0.79	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	75	293.10	1.26	237.58	1.09	56	74.67%	122.51	0.81	127.40	0.73	19	25.33%	795.90	2.57	562.31	2.15
1982 Total		81	280.42	1.26	229.65	1.14	61	75.31%	119.98	0.77	125.28	0.72	20	24.69%	769.77	2.78	547.98	2.39
1983	LDGV	5	365.02	0.39	465.64	0.53	3	60.00%	55.67	0.46	66.33	0.69	2	40.00%	829.05	0.30	1064.60	0.30
	HDGT	104	266.30	1.20	199.65	0.97	80	76.92%	161.27	0.79	92.97	0.70	24	23.08%	616.43	2.54	555.25	1.89
1983 Total		109	270.83	1.16	211.85	0.95	83	76.15%	157.45	0.78	92.01	0.70	26	23.85%	632.78	2.37	594.43	1.76

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
1984	LDGV	5	356.52	2.70	270.74	2.25	3	60.00%	93.37	0.34	68.00	0.39	2	40.00%	751.25	6.25	574.85	5.06
	LDGT	1	383.80	0.23	886.70	2.04	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	383.80	0.23	886.70	2.04
	HDGT	162	272.95	1.14	200.75	1.12	134	82.72%	158.46	0.75	109.72	0.90	28	17.28%	820.87	2.99	636.40	2.21
1984 Total		168	276.10	1.18	206.91	1.16	137	81.55%	157.04	0.75	108.80	0.89	31	18.45%	802.28	3.11	640.50	2.39
1985	LDGV	5	126.38	1.95	99.32	1.61	4	80.00%	43.82	0.16	32.18	0.17	1	20.00%	456.60	9.14	367.90	7.36
	HDGT	224	242.51	0.97	175.29	0.97	178	79.46%	141.56	0.74	99.21	0.78	46	20.54%	633.18	1.85	469.71	1.73
1985 Total		229	239.98	0.99	173.63	0.99	182	79.48%	139.41	0.73	97.73	0.77	47	20.52%	629.42	2.01	467.55	1.85
1986	LDGV	9	82.94	0.32	84.83	0.68	8	88.89%	62.25	0.21	46.96	0.35	1	11.11%	248.50	1.25	387.80	3.32
	HDGT	179	230.57	1.00	186.30	0.99	126	70.39%	94.82	0.66	89.36	0.76	53	29.61%	553.27	1.82	416.75	1.52
1986 Total		188	223.50	0.97	181.44	0.97	134	71.28%	92.88	0.63	86.83	0.74	54	28.72%	547.63	1.81	416.22	1.55
1987	LDGV	8	219.44	1.15	112.78	1.59	7	87.50%	48.39	0.21	48.61	0.48	1	12.50%	1416.80	7.70	561.90	9.37
	LDGT	7	138.04	0.43	150.51	0.48	4	57.14%	81.08	0.44	68.90	0.39	3	42.86%	214.00	0.43	259.33	0.60
	HDGT	171	163.56	0.84	124.76	0.76	130	76.02%	82.71	0.49	96.08	0.56	41	23.98%	419.91	1.96	215.69	1.38
1987 Total		186	165.00	0.84	125.21	0.78	141	75.81%	80.96	0.47	92.95	0.55	45	24.19%	428.33	1.98	226.30	1.50
1988	LDGV	4	69.95	0.92	29.50	0.17	3	75.00%	19.50	0.01	14.90	0.01	1	25.00%	221.30	3.66	73.30	0.63
	LDGT	7	107.03	0.28	84.59	0.35	4	57.14%	43.45	0.18	64.68	0.29	3	42.86%	191.80	0.41	111.13	0.44
	HDGT	270	136.63	0.63	110.30	0.57	230	85.19%	73.54	0.32	61.77	0.36	40	14.81%	499.41	2.37	389.35	1.80
1988 Total		281	134.95	0.62	108.51	0.56	237	84.34%	72.35	0.32	61.22	0.35	44	15.66%	472.12	2.26	363.20	1.68
1989	LDGV	13	172.85	0.86	155.68	0.95	7	53.85%	40.73	0.04	29.91	0.09	6	46.15%	326.98	1.82	302.42	1.96
	LDGT	14	138.90	0.20	85.24	0.41	11	78.57%	85.90	0.16	60.11	0.36	3	21.43%	333.23	0.36	177.37	0.59
	HDGT	463	118.65	0.53	92.75	0.60	413	89.20%	73.83	0.28	65.57	0.40	50	10.80%	488.84	2.62	317.23	2.26
1989 Total		490	120.66	0.53	94.20	0.60	431	87.96%	73.60	0.27	64.85	0.39	59	12.04%	464.46	2.42	308.61	2.14
1990	LDGV	32	183.76	0.50	200.38	0.72	25	78.13%	52.58	0.20	54.97	0.33	7	21.88%	652.26	1.56	719.69	2.12
	LDGT	9	140.78	1.39	65.73	0.49	7	77.78%	75.86	0.27	56.51	0.35	2	22.22%	368.00	5.29	98.00	0.99
	HDGT	366	129.02	0.67	113.59	0.80	312	85.25%	73.01	0.31	63.48	0.54	54	14.75%	452.66	2.76	403.15	2.32
1990 Total		407	133.59	0.67	119.36	0.79	344	84.52%	71.58	0.30	62.72	0.52	63	15.48%	472.15	2.71	428.63	2.26
1991	LDGV	21	42.91	0.14	50.15	0.42	19	90.48%	40.38	0.11	42.08	0.21	2	9.52%	66.95	0.43	126.80	2.32
	LDGT	11	174.99	1.08	107.74	0.71	4	36.36%	82.10	0.36	86.08	0.37	7	63.64%	228.07	1.49	120.11	0.91
	HDGT	382	102.05	0.46	73.01	0.54	346	90.58%	61.91	0.27	46.12	0.42	36	9.42%	487.86	2.27	331.42	1.69
1991 Total		414	100.99	0.46	72.77	0.54	369	89.13%	61.02	0.27	46.35	0.41	45	10.87%	428.74	2.07	289.46	1.60
1992	LDGV	10	21.69	0.04	31.58	0.08	10	100.00%	21.69	0.04	31.58	0.08	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	10	101.80	0.57	131.90	0.57	8	80.00%	73.88	0.06	53.63	0.20	2	20.00%	213.50	2.59	445.00	2.07
	HDGT	531	89.38	0.48	78.67	0.63	477	89.83%	58.57	0.25	56.44	0.46	54	10.17%	361.51	2.50	275.03	2.17
1992 Total		551	88.38	0.47	78.78	0.62	495	89.84%	58.07	0.24	55.89	0.44	56	10.16%	356.23	2.51	281.10	2.17
1993	LDGV	9	163.44	0.59	164.28	0.75	6	66.67%	31.68	0.08	48.92	0.17	3	33.33%	426.97	1.59	395.00	1.92
	LDGT	8	145.69	1.45	96.74	1.33	6	75.00%	82.25	0.30	55.65	0.29	2	25.00%	336.00	4.88	220.00	4.46
	HDGT	635	94.91	0.47	73.43	0.62	577	90.87%	59.26	0.27	44.94	0.46	58	9.13%	449.55	2.51	356.86	2.21
1993 Total		652	96.48	0.48	74.97	0.63	589	90.34%	59.21	0.26	45.09	0.45	63	9.66%	444.87	2.54	354.33	2.27
1994	LDGV	16	141.53	0.18	107.58	0.14	15	93.75%	31.21	0.07	30.47	0.08	1	6.25%	1796.40	1.84	1264.20	1.09
	LDGT	29	87.10	0.25	80.16	0.34	24	82.76%	72.52	0.22	43.10	0.29	5	17.24%	157.08	0.39	258.04	0.60
	HDGT	739	88.84	0.54	68.17	0.64	653	88.36%	50.41	0.24	43.83	0.37	86	11.64%	380.65	2.78	252.95	2.70
1994 Total		784	89.86	0.52	69.41	0.62	692	88.27%	50.76	0.24	43.51	0.36	92	11.73%	383.89	2.64	264.22	2.57
1995	LDGV	28	19.53	0.04	36.07	0.22	25	89.29%	15.24	0.04	18.90	0.08	3	10.71%	55.23	0.02	179.10	1.42

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
	LDGT	18	81.53	0.18	76.21	0.26	16	88.89%	52.06	0.14	41.55	0.19	2	11.11%	317.35	0.55	353.45	0.76
	HDGT	1,101	84.45	0.46	67.65	0.58	986	89.55%	54.28	0.25	44.96	0.39	115	10.45%	343.07	2.26	262.14	2.18
1995 Total		1,147	82.82	0.45	67.01	0.57	1027	89.54%	53.30	0.25	44.27	0.38	120	10.46%	335.44	2.18	261.58	2.13
1996	LDGV	2	219.20	1.68	167.25	1.43	1	50.00%	13.40	0.00	13.50	0.01	1	50.00%	425.00	3.35	321.00	2.84
	LDGT	3	38.40	0.16	39.60	0.17	3	100.00%	38.40	0.16	39.60	0.17	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,056	74.97	0.33	62.11	0.39	1008	95.45%	54.58	0.21	43.66	0.29	48	4.55%	503.30	2.74	449.66	2.38
1996 Total		1,061	75.14	0.33	62.24	0.39	1012	95.38%	54.49	0.21	43.61	0.29	49	4.62%	501.70	2.75	447.04	2.39
1997	LDGV	2	7.05	0.01	8.20	0.01	2	100.00%	7.05	0.01	8.20	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	8	68.04	0.22	80.79	0.23	7	87.50%	46.94	0.17	54.79	0.18	1	12.50%	215.70	0.58	262.80	0.56
	HDGT	1,561	74.19	0.29	52.61	0.31	1485	95.13%	49.68	0.19	35.94	0.25	76	4.87%	552.95	2.35	378.24	1.44
1997 Total		1,571	74.07	0.29	52.70	0.31	1494	95.10%	49.61	0.19	36.00	0.25	77	4.90%	548.57	2.33	376.74	1.43
1998	LDGV	1	51.10	0.36	56.40	0.37	1	100.00%	51.10	0.36	56.40	0.37	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	8	58.15	0.25	66.01	0.34	8	100.00%	58.15	0.25	66.01	0.34	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,009	98.65	0.26	64.48	0.28	937	92.86%	64.73	0.18	43.64	0.21	72	7.14%	539.96	1.40	335.68	1.16
1998 Total		1,018	98.28	0.26	64.49	0.28	946	92.93%	64.66	0.18	43.85	0.22	72	7.07%	539.96	1.40	335.68	1.16
1999	LDGV	7	38.83	0.08	41.21	0.10	7	100.00%	38.83	0.08	41.21	0.10	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	10	42.03	0.09	38.53	0.10	9	90.00%	45.13	0.10	41.47	0.12	1	10.00%	14.10	0.01	12.10	0.00
	HDGT	2,254	69.22	0.18	56.09	0.24	2154	95.56%	45.02	0.12	39.66	0.20	100	4.44%	590.57	1.38	410.02	1.10
1999 Total		2,271	69.01	0.18	55.97	0.24	2170	95.55%	45.00	0.12	39.67	0.20	101	4.45%	584.86	1.36	406.08	1.08
2000	LDGV	7	37.91	0.06	43.19	0.07	7	100.00%	37.91	0.06	43.19	0.07	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	14	27.43	0.05	29.69	0.06	12	85.71%	29.13	0.06	31.48	0.07	2	14.29%	17.25	0.01	18.90	0.02
	HDGT	2,036	70.21	0.18	55.41	0.23	1944	95.48%	46.47	0.12	37.36	0.17	92	4.52%	571.85	1.54	436.95	1.50
2000 Total		2,057	69.81	0.18	55.20	0.23	1963	95.43%	46.33	0.12	37.34	0.17	94	4.57%	560.05	1.50	428.05	1.47
2001	LDGV	7	4.00	0.00	4.00	0.01	7	100.00%	4.00	0.00	4.00	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	8	66.41	0.13	124.08	0.47	7	87.50%	17.76	0.01	17.96	0.01	1	12.50%	407.00	0.98	866.90	3.74
	HDGT	2,506	50.91	0.13	45.86	0.19	2445	97.57%	39.58	0.10	35.78	0.16	61	2.43%	504.94	1.23	450.10	1.20
2001 Total		2,521	50.83	0.13	45.99	0.19	2459	97.54%	39.42	0.10	35.64	0.16	62	2.46%	503.36	1.23	456.82	1.24
2002	LDGV	4	11.38	0.00	12.88	0.00	4	100.00%	11.38	0.00	12.88	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	6	69.72	0.14	63.35	0.13	6	100.00%	69.72	0.14	63.35	0.13	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,826	53.46	0.13	47.46	0.22	1782	97.59%	43.08	0.11	38.50	0.20	44	2.41%	473.84	0.87	410.38	1.17
2002 Total		1,836	53.42	0.13	47.44	0.22	1792	97.60%	43.10	0.11	38.53	0.20	44	2.40%	473.84	0.87	410.38	1.17
2003	LDGV	4	5.63	0.00	9.28	0.00	4	100.00%	5.63	0.00	9.28	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	20	9.04	0.00	11.37	0.01	20	100.00%	9.04	0.00	11.37	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2,424	40.13	0.12	37.19	0.17	2387	98.47%	31.69	0.09	29.29	0.15	37	1.53%	584.18	1.72	546.43	1.60
2003 Total		2,448	39.82	0.11	36.93	0.17	2411	98.49%	31.46	0.09	29.11	0.15	37	1.51%	584.18	1.72	546.43	1.60
2004	LDGV	4	40.68	0.08	42.53	0.09	3	75.00%	39.97	0.09	38.93	0.09	1	25.00%	42.80	0.07	53.30	0.09
	LDGT	11	23.29	0.06	25.53	0.06	11	100.00%	23.29	0.06	25.53	0.06	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,951	31.42	0.08	29.11	0.13	1932	99.03%	26.88	0.07	23.09	0.11	19	0.97%	492.40	1.30	640.40	2.23
2004 Total		1,966	31.39	0.08	29.11	0.13	1946	98.98%	26.88	0.07	23.13	0.11	20	1.02%	469.92	1.24	611.05	2.12
2005	LDGV	7	66.59	0.13	79.93	0.12	4	57.14%	12.03	0.02	15.90	0.02	3	42.86%	139.33	0.28	165.30	0.26
	LDGT	22	32.85	0.04	35.24	0.04	21	95.45%	19.87	0.02	22.00	0.03	1	4.55%	305.40	0.40	313.20	0.35
	HDGT	2,093	31.18	0.08	25.20	0.10	2068	98.81%	26.59	0.07	21.65	0.09	25	1.19%	410.56	1.35	318.80	1.18
2005 Total		2,122	31.31	0.08	25.48	0.10	2093	98.63%	26.50	0.06	21.64	0.09	29	1.37%	378.88	1.20	302.73	1.05

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
2006	LDGV	5	39.84	0.12	41.84	0.11	5	100.00%	39.84	0.12	41.84	0.11	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	13	23.99	0.05	27.12	0.08	11	84.62%	22.91	0.03	24.32	0.04	2	15.38%	29.95	0.12	42.55	0.30
	HDGT	2,131	30.46	0.08	24.19	0.09	2109	98.97%	24.83	0.07	20.35	0.09	22	1.03%	570.30	1.38	392.15	0.74
2006 Total		2,149	30.45	0.08	24.24	0.09	2125	98.88%	24.86	0.07	20.42	0.09	24	1.12%	525.27	1.28	363.02	0.70
2007	LDGV	12	15.24	0.01	17.19	0.02	12	100.00%	15.24	0.01	17.19	0.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	20	5.00	0.01	5.86	0.02	19	95.00%	5.20	0.01	6.09	0.01	1	5.00%	1.10	0.01	1.40	0.02
	HDGT	1,931	16.63	0.04	14.63	0.06	1923	99.59%	13.90	0.04	12.60	0.05	8	0.41%	672.24	0.62	502.86	0.72
2007 Total		1,963	16.50	0.04	14.55	0.05	1954	99.54%	13.83	0.04	12.56	0.05	9	0.46%	597.67	0.55	447.14	0.64
2008	LDGV	5	10.58	0.01	13.36	0.01	5	100.00%	10.58	0.01	13.36	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	19	17.35	0.05	18.32	0.05	19	100.00%	17.35	0.05	18.32	0.05	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,912	20.91	0.06	20.05	0.09	1902	99.48%	17.60	0.05	17.43	0.09	10	0.52%	650.45	1.50	519.16	1.46
2008 Total		1,936	20.85	0.06	20.02	0.09	1926	99.48%	17.58	0.05	17.43	0.09	10	0.52%	650.45	1.50	519.16	1.46
2009	LDGV	3	48.10	0.13	60.17	0.10	3	100.00%	48.10	0.13	60.17	0.10	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	5	9.06	0.01	11.26	0.01	5	100.00%	9.06	0.01	11.26	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	902	19.32	0.06	20.77	0.13	899	99.67%	18.12	0.05	19.94	0.12	3	0.33%	379.03	2.48	268.80	2.80
2009 Total		910	19.36	0.06	20.85	0.13	907	99.67%	18.17	0.05	20.03	0.12	3	0.33%	379.03	2.48	268.80	2.80
2010	LDGV	6	4.80	0.02	4.68	0.02	6	100.00%	4.80	0.02	4.68	0.02	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	9	6.76	0.00	7.63	0.02	9	100.00%	6.76	0.00	7.63	0.02	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,104	15.12	0.03	17.32	0.08	1098	99.46%	12.77	0.03	15.31	0.08	6	0.54%	445.23	0.03	384.27	0.13
2010 Total		1,119	15.00	0.03	17.17	0.08	1113	99.46%	12.68	0.03	15.19	0.08	6	0.54%	445.23	0.03	384.27	0.13
2011	LDGV	1	25.50	0.02	39.30	0.01	1	100.00%	25.50	0.02	39.30	0.01	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	3	27.37	0.06	34.27	0.05	3	100.00%	27.37	0.06	34.27	0.05	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	1,257	17.17	0.04	18.32	0.08	1250	99.44%	15.63	0.04	16.48	0.08	7	0.56%	292.37	0.90	348.43	0.34
2011 Total		1,261	17.20	0.04	18.38	0.08	1254	99.44%	15.66	0.04	16.54	0.08	7	0.56%	292.37	0.90	348.43	0.34
2012	LDGV	7	45.34	0.56	296.41	1.33	6	85.71%	6.28	0.01	12.48	0.01	1	14.29%	279.70	3.89	2000.00	9.27
	LDGT	11	6.73	0.01	8.20	0.01	11	100.00%	6.73	0.01	8.20	0.01	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	2,602	15.64	0.04	16.52	0.08	2592	99.62%	14.32	0.03	15.55	0.08	10	0.38%	357.32	1.36	266.54	0.82
2012 Total		2,620	15.68	0.04	17.23	0.08	2609	99.58%	14.27	0.03	15.52	0.08	11	0.42%	350.26	1.59	424.13	1.59
2013	HDGT	393	11.22	0.03	11.97	0.07	393	100.00%	11.22	0.03	11.97	0.07	0	0.00%	0.00	0.00	0.00	0.00
2013 Total		393	11.22	0.03	11.97	0.07	393	100.00%	11.22	0.03	11.97	0.07	0	0.00%	0.00	0.00	0.00	0.00
2014	HDGT	176	17.12	0.07	14.70	0.08	174	98.86%	14.93	0.04	13.76	0.08	2	1.14%	208.15	2.79	96.45	0.28
2014 Total		176	17.12	0.07	14.70	0.08	174	98.86%	14.93	0.04	13.76	0.08	2	1.14%	208.15	2.79	96.45	0.28
2015	HDGT	195	19.12	0.02	14.70	0.05	193	98.97%	15.80	0.02	14.63	0.05	2	1.03%	339.55	0.01	21.40	0.01
2015 Total		195	19.12	0.02	14.70	0.05	193	98.97%	15.80	0.02	14.63	0.05	2	1.03%	339.55	0.01	21.40	0.01
2016	HDGT	103	19.11	0.05	22.94	0.11	103	100.00%	19.11	0.05	22.94	0.11	0	0.00%	0.00	0.00	0.00	0.00
2016 Total		103	19.11	0.05	22.94	0.11	103	100.00%	19.11	0.05	22.94	0.11	0	0.00%	0.00	0.00	0.00	0.00
2017	HDGT	76	16.52	0.03	14.04	0.07	76	100.00%	16.52	0.03	14.04	0.07	0	0.00%	0.00	0.00	0.00	0.00
2017 Total		76	16.52	0.03	14.04	0.07	76	100.00%	16.52	0.03	14.04	0.07	0	0.00%	0.00	0.00	0.00	0.00
2018	HDGT	49	9.83	0.02	10.67	0.02	49	100.00%	9.83	0.02	10.67	0.02	0	0.00%	0.00	0.00	0.00	0.00
2018 Total		49	9.83	0.02	10.67	0.02	49	100.00%	9.83	0.02	10.67	0.02	0	0.00%	0.00	0.00	0.00	0.00
2019	HDGT	25	7.87	0.01	5.84	0.02	25	100.00%	7.87	0.01	5.84	0.02	0	0.00%	0.00	0.00	0.00	0.00
2019 Total		25	7.87	0.01	5.84	0.02	25	100.00%	7.87	0.01	5.84	0.02	0	0.00%	0.00	0.00	0.00	0.00
2020	HDGT	1	33.00	0.00	16.00	0.08	1	100.00%	33.00	0.00	16.00	0.08	0	0.00%	0.00	0.00	0.00	0.00

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
2020 Total		1	33.00	0.00	16.00	0.08	1	100.00%	33.00	0.00	16.00	0.08	0	0.00%	0.00	0.00	0.00	0.00
Grand Total		42,809	86.56	0.36	73.61	0.46	39704	92.75%	49.52	0.18	45.55	0.30	3,105	7.25%	560.23	2.65	432.42	2.52

Summary by Vehicle Type (V1.01)

Vehicle Type	All Initial Inspections					Passing Initial Inspections					Failing Initial Inspections						
	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	2,154	270.49	1.33	249.74	1.85	1464	67.97%	127.97	0.47	150.47	1.12	690	32.03%	572.87	3.15	460.35	3.40
LDGT	1,850	249.11	1.13	227.96	1.55	1211	65.46%	110.30	0.34	125.83	0.93	639	34.54%	512.17	2.62	421.50	2.72
HDGT	38,805	68.61	0.27	56.48	0.34	37029	95.42%	44.43	0.17	38.78	0.25	1776	4.58%	572.61	2.47	425.49	2.10
Overall Total	42,809	86.56	0.36	73.61	0.46	39704	92.75%	49.52	0.18	45.55	0.30	3105	7.25%	560.23	2.65	432.42	2.52

Appendix C2

Idle Initial Failure Report

Date
Between 1/1/2019 and 12/31/2019

Idle Initial Failure Report (V1.03)

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
1974	HDGV	0	0.00%	0.00	0.00	0.00	0.00	9	10.71%	1233.52	6.00	975.77	4.98	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	69	28.87%	847.65	4.76	638.94	4.26	4	1.67%	177.33	1.00	617.55	2.18
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	30	16.67%	1085.49	6.15	777.50	4.80	3	1.67%	212.13	2.68	208.90	4.47
	LDGV	1	0.20%	1331.10	9.70	909.10	8.55	172	35.10%	881.13	5.11	635.51	4.93	0	0.00%	0.00	0.00	0.00	0.00
1974 Total		1	0.10%	1331.10	9.70	909.10	8.55	280	28.20%	906.10	5.17	662.51	4.75	7	0.70%	192.24	1.72	442.41	3.16
1975	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	20.00%	1756.73	7.72	956.83	3.61	1	6.67%	165.50	0.37	59.80	0.26
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	4	26.67%	476.38	5.34	486.45	5.04	2	13.33%	252.65	1.18	186.90	1.77
	LDGT2	1	2.56%	2000.00	6.75	2000.00	4.56	6	15.38%	1434.02	5.15	806.12	3.00	3	7.69%	448.73	2.08	217.77	1.92
	LDGV	3	9.68%	887.00	6.11	359.83	4.44	7	22.58%	803.67	3.23	578.11	4.57	3	9.68%	102.70	0.51	64.77	1.13
1975 Total		4	4.00%	1165.25	6.27	769.88	4.47	20	20.00%	1070.28	4.90	684.99	4.05	9	9.00%	258.34	1.17	142.36	1.44
1976	HDGV	0	0.00%	0.00	0.00	0.00	0.00	14	21.54%	915.09	5.37	713.83	3.94	2	3.08%	326.10	2.29	462.30	4.15
	LDGT1	8	7.77%	573.29	5.03	367.33	3.46	24	23.30%	918.74	4.58	455.22	4.35	10	9.71%	166.98	0.49	118.16	1.09
	LDGT2	4	1.72%	1022.43	7.20	424.10	2.70	37	15.88%	1150.22	5.60	712.97	3.89	28	12.02%	232.64	1.75	186.73	1.87
	LDGV	7	4.00%	523.90	3.09	458.87	3.18	56	32.00%	583.75	3.99	410.83	4.01	14	8.00%	181.62	0.58	182.32	1.52
1976 Total		19	3.30%	649.65	4.77	413.01	3.19	131	22.74%	840.53	4.70	536.68	4.03	54	9.38%	210.71	1.23	183.10	1.72
1977	HDGV	1	1.03%	2000.00	2.87	2000.00	4.28	12	12.37%	988.43	5.13	942.42	5.10	2	2.06%	308.95	1.66	237.35	4.34
	LDGT1	11	10.48%	712.23	3.17	494.95	3.19	37	35.24%	585.32	3.11	577.08	3.34	9	8.57%	97.89	0.41	92.91	1.26
	LDGT2	3	0.96%	907.43	4.61	567.47	1.66	35	11.25%	1060.12	5.87	623.38	4.04	42	13.50%	284.25	1.66	219.84	2.32
	LDGV	18	7.93%	584.84	2.78	347.91	2.53	51	22.47%	501.17	2.84	396.32	2.39	17	7.49%	117.83	0.35	108.46	1.15
1977 Total		33	4.46%	699.51	3.08	466.95	2.72	135	18.24%	712.46	3.90	553.27	3.32	70	9.46%	220.58	1.18	176.97	1.96
1978	HDGV	1	0.92%	1325.00	0.57	168.00	0.32	12	11.01%	1226.31	4.08	874.91	2.95	3	2.75%	151.30	0.86	299.73	0.88
	LDGT1	9	5.96%	772.92	3.13	529.09	2.70	47	31.13%	647.78	2.98	500.67	2.80	11	7.28%	149.88	0.66	261.12	2.60
	LDGT2	12	2.98%	895.95	5.88	424.58	3.44	54	13.40%	1115.86	5.14	722.15	3.94	51	12.66%	304.50	1.92	258.81	2.89
	LDGV	11	4.06%	778.47	3.87	658.55	3.10	55	20.30%	538.24	2.83	485.79	3.44	14	5.17%	128.20	0.64	134.34	1.10
1978 Total		33	3.53%	836.24	4.30	523.30	3.03	168	17.99%	803.70	3.71	593.72	3.39	79	8.46%	245.91	1.48	238.62	2.46
1979	HDGV	2	1.68%	1206.65	4.67	1518.95	2.25	15	12.61%	851.87	3.44	817.31	2.58	13	10.92%	197.67	0.82	247.56	0.73
	LDGT1	16	7.51%	794.79	2.80	682.51	3.65	41	19.25%	676.12	2.85	539.38	2.75	19	8.92%	90.37	0.33	115.50	1.09
	LDGT2	28	10.53%	380.15	3.31	322.83	3.55	53	19.92%	546.88	2.98	537.91	2.49	16	6.02%	109.64	0.15	147.88	1.19
	LDGV	25	7.62%	639.89	2.45	520.82	3.29	71	21.65%	530.29	3.31	468.20	3.51	23	7.01%	111.05	0.27	105.65	0.80
1979 Total		71	7.67%	588.33	2.93	507.29	3.44	180	19.44%	595.19	3.12	534.03	2.96	71	7.67%	121.06	0.36	143.79	0.95
1980	HDGV	0	0.00%	0.00	0.00	0.00	0.00	6	8.33%	1252.62	3.76	1100.80	2.78	2	2.78%	64.65	0.54	32.40	1.10
	LDGT1	9	5.92%	684.70	4.64	608.12	4.79	29	19.08%	612.08	3.16	530.41	3.21	17	11.18%	116.38	0.34	153.92	1.03
	LDGT2	7	8.43%	912.99	4.00	641.64	3.19	16	19.28%	520.31	2.65	357.33	2.86	6	7.23%	136.25	0.35	98.32	1.25
	LDGV	11	4.95%	977.35	3.91	678.65	4.52	27	12.16%	469.49	2.18	365.90	2.47	11	4.95%	139.74	0.50	97.72	1.14
1980 Total		27	5.10%	863.11	4.18	645.55	4.26	78	14.74%	593.17	2.76	481.84	2.85	36	6.81%	123.95	0.40	120.73	1.10
1981	HDGV	1	0.97%	3124.00	0.55	3950.00	2.37	15	14.56%	850.12	3.95	552.11	2.56	5	4.85%	147.18	0.51	132.70	2.29
	LDGT1	14	9.52%	691.61	3.28	476.22	3.64	52	35.37%	295.02	1.58	268.17	2.16	4	2.72%	55.80	0.45	64.55	0.38
	LDGT2	2	2.86%	287.75	0.00	110.85	0.66	21	30.00%	406.50	1.34	355.00	1.85	5	7.14%	25.48	0.15	37.16	0.39
	LDGV	9	5.73%	642.22	2.15	786.60	5.26	42	26.75%	304.47	1.71	400.36	2.95	5	3.18%	53.74	0.14	51.14	0.32
1981 Total		26	5.45%	737.00	2.53	689.16	3.93	130	27.25%	380.13	1.86	357.67	2.41	19	3.98%	71.33	0.30	71.75	0.87
1982	HDGV	1	1.33%	837.60	8.40	221.10	3.15	15	20.00%	923.63	2.62	673.51	2.22	3	4.00%	143.33	0.38	120.00	1.50

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
	LDGT1	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	273.30	6.73	275.80	6.81	0	0.00%	0.00	0.00	0.00	0.00
1982 Total		1	1.23%	837.60	8.40	221.10	3.15	16	19.75%	882.99	2.88	648.66	2.51	3	3.70%	143.33	0.38	120.00	1.50
1983	HDGV	2	1.92%	392.50	6.12	311.75	4.52	20	19.23%	686.59	2.41	623.71	1.79	2	1.92%	138.75	0.31	114.20	0.26
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	20.00%	1528.90	0.13	1992.30	0.06	1	20.00%	129.20	0.46	136.90	0.53
1983 Total		2	1.83%	392.50	6.12	311.75	4.52	21	19.27%	726.70	2.30	688.88	1.70	3	2.75%	135.57	0.36	121.77	0.35
1984	HDGV	8	4.94%	882.73	4.16	783.29	2.57	16	9.88%	931.12	2.87	687.49	2.09	4	2.47%	256.15	1.16	138.23	1.95
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	383.80	0.23	886.70	2.04	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	40.00%	751.25	6.25	574.85	5.06	0	0.00%	0.00	0.00	0.00	0.00
1984 Total		8	4.76%	882.73	4.16	783.29	2.57	19	11.31%	883.38	3.09	686.12	2.40	4	2.38%	256.15	1.16	138.23	1.95
1985	HDGV	5	2.23%	664.08	1.37	403.64	1.46	26	11.61%	865.86	2.55	642.87	1.86	15	6.70%	219.57	0.81	191.59	1.60
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	20.00%	456.60	9.14	367.90	7.36	0	0.00%	0.00	0.00	0.00	0.00
1985 Total		5	2.18%	664.08	1.37	403.64	1.46	27	11.79%	850.70	2.79	632.69	2.06	15	6.55%	219.57	0.81	191.59	1.60
1986	HDGV	5	2.79%	317.60	3.56	212.00	2.26	45	25.14%	605.36	1.67	460.23	1.42	3	1.68%	164.77	1.12	105.83	1.73
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	11.11%	248.50	1.25	387.80	3.32	0	0.00%	0.00	0.00	0.00	0.00
1986 Total		5	2.66%	317.60	3.56	212.00	2.26	46	24.47%	597.60	1.66	458.66	1.46	3	1.60%	164.77	1.12	105.83	1.73
1987	HDGV	2	1.17%	300.35	2.07	179.35	2.16	31	18.13%	501.49	2.34	245.02	1.55	8	4.68%	133.65	0.46	111.14	0.52
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	3	50.00%	214.00	0.43	259.33	0.60	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	12.50%	1416.80	7.70	561.90	9.37	0	0.00%	0.00	0.00	0.00	0.00
1987 Total		2	1.08%	300.35	2.07	179.35	2.16	35	18.82%	503.00	2.33	255.30	1.69	8	4.30%	133.65	0.46	111.14	0.52
1988	HDGV	4	1.48%	378.85	3.66	113.38	0.88	32	11.85%	561.68	2.45	463.59	2.09	4	1.48%	121.78	0.43	71.38	0.48
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	40.00%	251.80	0.37	122.00	0.44	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	50.00%	71.80	0.50	89.40	0.44
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	221.30	3.66	73.30	0.63	0	0.00%	0.00	0.00	0.00	0.00
1988 Total		4	1.42%	378.85	3.66	113.38	0.88	35	12.46%	534.25	2.36	432.92	1.95	5	1.78%	111.78	0.45	74.98	0.47
1989	HDGV	2	0.43%	1001.75	5.07	554.10	5.54	38	8.21%	571.53	3.10	375.25	2.60	10	2.16%	72.00	0.30	49.39	0.31
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	18.18%	350.50	0.27	221.50	0.80	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	33.33%	298.70	0.54	89.10	0.18	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	4	30.77%	445.90	2.66	423.55	2.75	2	15.38%	89.15	0.15	60.15	0.37
1989 Total		2	0.41%	1001.75	5.07	554.10	5.54	45	9.18%	544.48	2.88	366.35	2.48	12	2.45%	74.86	0.27	51.18	0.32
1990	HDGV	2	0.55%	388.80	4.38	296.65	3.72	43	11.75%	534.41	3.15	479.01	2.67	9	2.46%	76.24	0.57	64.40	0.32
	LDGT1	1	12.50%	249.00	0.59	81.00	0.53	1	12.50%	487.00	9.99	115.00	1.44	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	7	21.88%	652.26	1.56	719.69	2.12	0	0.00%	0.00	0.00	0.00	0.00
1990 Total		3	0.74%	342.20	3.11	224.77	2.66	51	12.53%	549.66	3.06	504.90	2.57	9	2.21%	76.24	0.57	64.40	0.32
1991	HDGV	0	0.00%	0.00	0.00	0.00	0.00	32	8.38%	541.66	2.54	368.03	1.89	4	1.05%	57.40	0.13	38.58	0.10
	LDGT1	1	9.09%	272.00	0.90	78.00	0.14	6	54.55%	220.75	1.59	127.13	1.04	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	9.52%	66.95	0.43	126.80	2.32	0	0.00%	0.00	0.00	0.00	0.00
1991 Total		1	0.24%	272.00	0.90	78.00	0.14	40	9.66%	469.79	2.29	319.83	1.78	4	0.97%	57.40	0.13	38.58	0.10
1992	HDGV	3	0.56%	703.43	4.05	618.83	3.35	39	7.34%	420.63	3.07	318.15	2.62	12	2.26%	83.91	0.29	48.94	0.45
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	2	22.22%	213.50	2.59	445.00	2.07	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	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
	LDGV	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

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
1992 Total		3	0.54%	703.43	4.05	618.83	3.35	41	7.44%	410.52	3.04	324.34	2.59	12	2.18%	83.91	0.29	48.94	0.45
1993	HDGV	4	0.63%	960.10	4.27	888.43	3.99	43	6.77%	491.23	2.78	385.38	2.49	11	1.73%	100.94	0.85	52.09	0.46
	LDGT1	1	14.29%	530.00	8.71	311.00	7.40	1	14.29%	142.00	1.05	129.00	1.52	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	3	33.33%	426.97	1.59	395.00	1.92	0	0.00%	0.00	0.00	0.00	0.00
1993 Total		5	0.77%	874.08	5.16	772.94	4.67	47	7.21%	479.70	2.66	380.54	2.44	11	1.69%	100.94	0.85	52.09	0.46
1994	HDGV	1	0.14%	475.40	1.93	621.00	1.21	70	9.47%	441.50	3.27	291.50	3.18	15	2.03%	90.35	0.55	48.53	0.55
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	10.00%	217.00	0.05	636.00	0.31	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	2	10.53%	181.40	0.62	240.40	0.95	2	10.53%	102.80	0.34	86.70	0.40
	LDGV	1	6.25%	1796.40	1.84	1264.20	1.09	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
1994 Total		2	0.26%	1135.90	1.89	942.60	1.15	73	9.31%	431.30	3.15	294.82	3.08	17	2.17%	91.81	0.53	53.02	0.53
1995	HDGV	2	0.18%	457.75	1.13	740.90	0.06	97	8.81%	382.79	2.57	264.97	2.42	16	1.45%	87.94	0.55	185.11	0.98
	LDGT1	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
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	6.25%	604.50	1.06	682.70	1.06	1	6.25%	30.20	0.04	24.20	0.45
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	2	7.14%	35.85	0.01	217.15	2.11	1	3.57%	94.00	0.04	103.00	0.05
1995 Total		2	0.17%	457.75	1.13	740.90	0.06	100	8.72%	378.06	2.50	268.19	2.40	18	1.57%	85.07	0.49	171.61	0.90
1996	HDGV	1	0.09%	716.20	0.22	619.20	3.11	45	4.26%	515.51	2.90	436.86	2.43	2	0.19%	122.15	0.28	653.10	0.92
	LDGT1	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	50.00%	425.00	3.35	321.00	2.84	0	0.00%	0.00	0.00	0.00	0.00
1996 Total		1	0.09%	716.20	0.22	619.20	3.11	46	4.34%	513.54	2.91	434.34	2.44	2	0.19%	122.15	0.28	653.10	0.92
1997	HDGV	0	0.00%	0.00	0.00	0.00	0.00	74	4.74%	565.94	2.41	387.74	1.48	2	0.13%	72.50	0.07	26.75	0.07
	LDGT1	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
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	1	20.00%	215.70	0.58	262.80	0.56	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	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
1997 Total		0	0.00%	0.00	0.00	0.00	0.00	75	4.77%	561.27	2.39	386.08	1.47	2	0.13%	72.50	0.07	26.75	0.07
1998	HDGV	0	0.00%	0.00	0.00	0.00	0.00	67	6.64%	574.65	1.48	350.16	1.21	5	0.50%	75.04	0.31	141.68	0.47
	LDGT1	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
	LDGT2	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
	LDGV	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
1998 Total		0	0.00%	0.00	0.00	0.00	0.00	67	6.58%	574.65	1.48	350.16	1.21	5	0.49%	75.04	0.31	141.68	0.47
1999	HDGV	0	0.00%	0.00	0.00	0.00	0.00	96	4.26%	611.71	1.42	424.30	1.12	4	0.18%	83.33	0.26	67.20	0.41
	LDGT1	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
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	16.67%	14.10	0.01	12.10	0.00
	LDGV	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
1999 Total		0	0.00%	0.00	0.00	0.00	0.00	96	4.23%	611.71	1.42	424.30	1.12	5	0.22%	69.48	0.21	56.18	0.33
2000	HDGV	1	0.05%	437.30	0.32	473.50	0.47	85	4.17%	609.06	1.64	464.71	1.59	6	0.29%	67.03	0.30	37.48	0.35
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	11.11%	1.30	0.00	2.70	0.02
	LDGT2	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	20.00%	33.20	0.01	35.10	0.01
	LDGV	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
2000 Total		1	0.05%	437.30	0.32	473.50	0.47	85	4.13%	609.06	1.64	464.71	1.59	8	0.39%	54.59	0.22	32.84	0.27
2001	HDGV	0	0.00%	0.00	0.00	0.00	0.00	45	1.80%	648.39	1.55	580.41	1.51	16	0.64%	101.50	0.34	83.58	0.35
	LDGT1	1	12.50%	407.00	0.98	866.90	3.74	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00
	LDGV	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
2001 Total		1	0.04%	407.00	0.98	866.90	3.74	45	1.79%	648.39	1.55	580.41	1.51	16	0.63%	101.50	0.34	83.58	0.35

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
2002	HDGV	1	0.05%	922.80	1.12	1276.40	1.14	36	1.97%	539.60	0.99	458.22	1.34	7	0.38%	71.50	0.17	40.61	0.33
	LDGT1	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
	LDGT2	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
	LDGV	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
2002 Total		1	0.05%	922.80	1.12	1276.40	1.14	36	1.96%	539.60	0.99	458.22	1.34	7	0.38%	71.50	0.17	40.61	0.33
2003	HDGV	0	0.00%	0.00	0.00	0.00	0.00	29	1.20%	727.64	2.14	688.84	1.97	7	0.29%	39.60	0.15	30.21	0.26
	LDGT1	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
	LDGT2	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
	LDGV	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
2003 Total		0	0.00%	0.00	0.00	0.00	0.00	29	1.18%	727.64	2.14	688.84	1.97	7	0.29%	39.60	0.15	30.21	0.26
2004	HDGV	0	0.00%	0.00	0.00	0.00	0.00	16	0.82%	569.56	1.51	753.87	2.60	2	0.10%	25.80	0.06	35.23	0.26
	LDGT1	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
	LDGT2	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	25.00%	42.80	0.07	53.30	0.09
2004 Total		0	0.00%	0.00	0.00	0.00	0.00	16	0.81%	569.56	1.51	753.87	2.60	3	0.15%	31.47	0.06	39.75	0.22
2005	HDGV	0	0.00%	0.00	0.00	0.00	0.00	19	0.91%	525.76	1.73	409.12	1.51	6	0.29%	45.75	0.13	32.80	0.14
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	1	5.26%	305.40	0.40	313.20	0.35	0	0.00%	0.00	0.00	0.00	0.00
	LDGT2	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
	LDGV	1	14.29%	371.90	0.81	445.40	0.76	0	0.00%	0.00	0.00	0.00	0.00	2	28.57%	23.05	0.02	25.25	0.02
2005 Total		1	0.05%	371.90	0.81	445.40	0.76	20	0.94%	514.75	1.67	404.33	1.45	8	0.38%	40.08	0.10	30.91	0.11
2006	HDGV	0	0.00%	0.00	0.00	0.00	0.00	16	0.75%	756.87	1.83	523.04	0.94	6	0.28%	72.77	0.20	43.10	0.22
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	2	16.67%	29.95	0.12	42.55	0.30
	LDGT2	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
	LDGV	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
2006 Total		0	0.00%	0.00	0.00	0.00	0.00	16	0.74%	756.87	1.83	523.04	0.94	8	0.37%	62.06	0.18	42.96	0.24
2007	HDGV	0	0.00%	0.00	0.00	0.00	0.00	7	0.36%	767.30	0.70	573.50	0.82	1	0.05%	6.80	0.00	8.40	0.01
	LDGT1	0	0.00%	0.00	0.00	0.00	0.00	0	0.00%	0.00	0.00	0.00	0.00	1	5.26%	1.10	0.01	1.40	0.02
	LDGT2	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
	LDGV	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
2007 Total		0	0.00%	0.00	0.00	0.00	0.00	7	0.36%	767.30	0.70	573.50	0.82	2	0.10%	3.95	0.01	4.90	0.02
2008	HDGV	0	0.00%	0.00	0.00	0.00	0.00	7	0.37%	919.24	2.10	730.54	2.03	3	0.16%	23.27	0.07	25.93	0.14
	LDGT1	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
	LDGT2	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
	LDGV	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
2008 Total		0	0.00%	0.00	0.00	0.00	0.00	7	0.36%	919.24	2.10	730.54	2.03	3	0.15%	23.27	0.07	25.93	0.14
2009	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	0.33%	379.03	2.48	268.80	2.80	0	0.00%	0.00	0.00	0.00	0.00
	LDGT1	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
	LDGT2	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
	LDGV	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
2009 Total		0	0.00%	0.00	0.00	0.00	0.00	3	0.33%	379.03	2.48	268.80	2.80	0	0.00%	0.00	0.00	0.00	0.00
2010	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	0.27%	860.73	0.01	745.23	0.01	3	0.27%	29.73	0.04	23.30	0.25
	LDGT1	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
	LDGT2	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
	LDGV	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

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Year	Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm
2010 Total		0	0.00%	0.00	0.00	0.00	0.00	3	0.27%	860.73	0.01	745.23	0.01	3	0.27%	29.73	0.04	23.30	0.25
2011	HDGV	0	0.00%	0.00	0.00	0.00	0.00	4	0.32%	436.45	1.49	301.55	0.37	2	0.16%	147.40	0.15	410.93	0.31
	LDGT1	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
	LDGT2	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
	LDGV	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
2011 Total		0	0.00%	0.00	0.00	0.00	0.00	4	0.32%	436.45	1.49	301.55	0.37	2	0.16%	147.40	0.15	410.93	0.31
2012	HDGV	0	0.00%	0.00	0.00	0.00	0.00	3	0.12%	1169.73	4.46	870.97	2.60	7	0.27%	9.14	0.03	7.50	0.06
	LDGT1	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
	LDGT2	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
	LDGV	0	0.00%	0.00	0.00	0.00	0.00	1	14.29%	279.70	3.89	2000.00	9.27	0	0.00%	0.00	0.00	0.00	0.00
2012 Total		0	0.00%	0.00	0.00	0.00	0.00	4	0.15%	947.23	4.32	1153.23	4.27	7	0.27%	9.14	0.03	7.50	0.06
2013	HDGV	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
2014	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	0.57%	298.60	5.25	40.70	0.09	1	0.57%	117.70	0.33	152.20	0.47
2014 Total		0	0.00%	0.00	0.00	0.00	0.00	1	0.57%	298.60	5.25	40.70	0.09	1	0.57%	117.70	0.33	152.20	0.47
2015	HDGV	0	0.00%	0.00	0.00	0.00	0.00	1	0.51%	668.30	0.00	32.70	0.01	1	0.51%	10.80	0.01	10.10	0.01
2015 Total		0	0.00%	0.00	0.00	0.00	0.00	1	0.51%	668.30	0.00	32.70	0.01	1	0.51%	10.80	0.01	10.10	0.01
2016	HDGV	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
2016 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
2017	HDGV	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
2017 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
2018	HDGV	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
2018 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
2019	HDGV	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
2019 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
2020	HDGV	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
2020 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		264	0.62%	699.95	3.49	536.03	3.27	2,279	5.32%	645.08	3.03	491.73	2.74	559	1.31%	150.53	0.75	143.21	1.25

Idle Initial Failure Report - Summary by Veh (V1.03)

Vehicle		Failure for Both Exhaust and Other						Failure for Exhaust Only						Failure for Other					
Type	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	Total	Total%	Avg HC	Avg CO	Avg HC 2500 rpm	Avg CO 2500 rpm	
HDGV	49	0.13%	750.41	3.36	647.77	2.47	1,190	3.16%	604.11	2.41	457.69	2.03	225	0.60%	107.70	0.47	107.37	0.68	
LDGT1	71	5.34%	695.73	3.48	528.76	3.54	322	24.21%	621.45	3.21	489.42	3.14	80	6.02%	117.44	0.45	161.16	1.29	
LDGT2	57	3.38%	652.17	4.22	425.37	3.24	258	15.30%	886.82	4.41	617.98	3.42	160	9.49%	243.87	1.48	202.61	2.17	
LDGV	87	4.04%	706.28	3.09	551.51	3.50	509	23.63%	633.27	3.67	508.77	3.82	94	4.36%	122.33	0.40	113.79	1.00	
Grand Total		264	0.62%	699.95	3.49	536.03	3.27	2,279	5.32%	645.08	3.03	491.73	2.74	559	1.31%	150.53	0.75	143.21	1.25

Appendix C3

Idle Initial Exhaust Failure Report

Date
Between 1/1/2019 and 12/31/2019

Idle Initial Exhaust Failure Report (V1.01)

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
1974	LDGV	173	100.00%	1006.55	5.52	701.99	5.19	68	39.31%	1500.81	4.95	962.45	5.13	146	84.39%	776.34	5.79	580.68	5.22
	LDGT	69	94.52%	1008.49	5.19	744.99	4.49	26	37.68%	1611.67	4.17	1087.14	3.62	57	82.61%	733.35	5.66	588.93	4.88
	HDGT	39	92.86%	1223.21	6.67	864.19	5.23	20	51.28%	1580.30	5.28	1176.10	4.80	27	69.23%	958.70	7.70	633.14	5.55
1974 Total		281	97.57%	1036.62	5.60	734.53	5.03	114	40.57%	1540.04	4.83	1028.37	4.72	230	81.85%	787.09	5.98	588.88	5.18
1975	LDGV	10	76.92%	970.52	4.96	553.14	5.28	5	50.00%	1398.46	4.74	741.42	4.86	8	80.00%	703.06	5.10	435.46	5.55
	LDGT	4	66.67%	623.06	6.01	646.40	5.78	1	25.00%	1209.80	8.69	1286.20	8.71	4	100.00%	476.38	5.34	486.45	5.04
	HDGT	10	71.43%	1624.04	6.72	895.28	3.45	9	90.00%	1672.09	5.94	1047.24	3.16	6	60.00%	1551.97	7.90	667.33	3.88
1975 Total		24	72.73%	1214.93	5.92	722.79	4.52	15	62.50%	1550.06	5.72	961.23	4.10	18	75.00%	935.66	6.09	524.08	4.88
1976	LDGV	63	81.82%	689.31	4.34	469.61	3.98	23	36.51%	1072.52	4.18	660.39	3.12	55	87.30%	529.06	4.41	389.83	4.33
	LDGT	32	76.19%	1002.83	5.24	508.00	4.68	16	50.00%	1362.29	5.20	619.14	4.84	28	87.50%	797.42	5.26	444.48	4.59
	HDGT	55	64.71%	1163.54	6.08	705.94	4.02	28	50.91%	1533.83	4.24	996.08	3.32	39	70.91%	897.70	7.39	497.64	4.52
1976 Total		150	73.53%	930.41	5.16	562.32	4.16	67	44.67%	1334.50	4.45	790.83	3.62	122	81.33%	708.50	5.56	436.84	4.45
1977	LDGV	69	80.23%	609.10	3.42	434.31	2.85	34	49.28%	870.14	3.03	565.76	2.71	51	73.91%	435.08	3.68	346.67	2.95
	LDGT	48	84.21%	726.10	3.44	636.73	3.54	25	52.08%	988.55	3.25	776.36	3.52	41	85.42%	566.07	3.55	551.59	3.56
	HDGT	51	53.68%	1147.63	6.01	794.62	4.60	27	52.94%	1556.49	4.70	1047.70	4.26	38	74.51%	857.12	6.94	614.80	4.84
1977 Total		168	70.59%	806.91	4.21	604.58	3.59	86	51.19%	1120.05	3.62	778.29	3.43	130	77.38%	599.76	4.59	489.67	3.69
1978	LDGV	66	82.50%	684.77	3.47	571.79	3.67	31	46.97%	961.85	3.10	852.70	3.14	53	80.30%	522.70	3.69	407.48	3.97
	LDGT	56	83.58%	772.39	3.61	573.71	3.17	32	57.14%	1018.65	3.02	757.95	3.15	39	69.64%	570.34	4.10	422.54	3.18
	HDGT	79	59.40%	1178.35	5.81	728.46	4.27	51	64.56%	1430.95	4.29	908.29	3.76	50	63.29%	920.71	7.35	545.04	4.79
1978 Total		201	71.79%	903.81	4.43	634.13	3.77	114	56.72%	1187.65	3.61	850.97	3.42	142	70.65%	675.93	5.09	460.05	4.04
1979	LDGV	96	80.67%	638.27	3.62	555.78	4.10	54	56.25%	826.95	3.11	710.56	4.01	72	75.00%	496.76	4.00	439.70	4.16
	LDGT	138	79.77%	668.14	3.37	578.87	3.22	69	50.00%	945.15	2.68	796.19	2.74	105	76.09%	486.10	3.83	436.05	3.53
	HDGT	17	56.67%	903.80	3.70	934.98	2.71	8	47.06%	1378.94	1.97	1494.70	1.47	10	58.82%	523.69	5.09	487.21	3.71
1979 Total		251	77.95%	669.64	3.49	589.88	3.54	131	52.19%	922.91	2.81	803.55	3.19	187	74.50%	492.22	3.96	440.19	3.78
1980	LDGV	38	77.55%	735.99	3.22	540.48	3.48	19	50.00%	1047.52	2.45	744.52	2.62	26	68.42%	508.33	3.78	391.38	4.11
	LDGT	61	72.62%	735.89	3.98	595.87	3.96	39	63.93%	859.98	3.21	696.67	3.43	42	68.85%	620.66	4.70	502.26	4.45
	HDGT	6	75.00%	1439.46	4.93	1250.88	3.61	5	83.33%	1444.02	3.47	1281.42	2.62	3	50.00%	1431.87	7.36	1199.97	5.27
1980 Total		105	74.47%	777.93	3.78	616.37	3.78	63	60.00%	962.89	3.00	757.51	3.12	71	67.62%	613.80	4.47	491.13	4.36
1981	LDGV	51	91.07%	580.56	3.41	592.13	4.09	27	52.94%	588.07	2.73	614.62	3.39	19	37.25%	569.88	4.37	560.17	5.07
	LDGT	89	90.82%	593.02	3.04	408.90	2.83	48	53.93%	615.03	2.32	414.83	2.24	35	39.33%	562.84	4.03	400.77	3.63
	HDGT	16	76.19%	1019.13	4.52	733.30	2.91	11	68.75%	1331.90	3.49	1051.50	2.59	10	62.50%	675.08	5.65	383.28	3.27
1981 Total		156	89.14%	648.86	3.36	510.51	3.23	86	55.13%	698.26	2.60	558.99	2.65	64	41.03%	582.47	4.38	445.36	4.00
1982	LDGV	1	100.00%	273.30	6.73	275.80	6.81	1	100.00%	273.30	6.73	275.80	6.81	1	100.00%	273.30	6.73	275.80	6.81
	LDGT	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
	HDGT	16	84.21%	1065.08	3.60	719.46	2.59	12	75.00%	1127.08	2.58	803.56	1.77	8	50.00%	972.08	5.13	593.31	3.82
1982 Total		17	85.00%	993.10	3.88	679.13	2.97	13	76.47%	1061.41	2.90	762.96	2.15	9	52.94%	894.43	5.31	558.03	4.15
1983	LDGV	1	50.00%	1528.90	0.13	1992.30	0.06	1	100.00%	1528.90	0.13	1992.30	0.06	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	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
	HDGT	22	91.67%	659.85	2.75	595.35	2.03	10	45.45%	1053.36	0.60	1030.06	0.79	12	54.55%	331.93	4.53	233.09	3.07
1983 Total		23	88.46%	697.64	2.63	656.09	1.95	11	47.83%	1096.59	0.56	1117.54	0.73	12	52.17%	331.93	4.53	233.09	3.07
1984	LDGV	2	100.00%	751.25	6.25	574.85	5.06	2	100.00%	751.25	6.25	574.85	5.06	2	100.00%	751.25	6.25	574.85	5.06

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
	LDGT	1	100.00%	383.80	0.23	886.70	2.04	1	100.00%	383.80	0.23	886.70	2.04	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	24	85.71%	966.63	4.00	727.16	2.44	19	79.17%	1114.13	3.03	883.23	2.20	13	54.17%	751.06	5.40	499.05	2.79
1984 Total		27	87.10%	927.59	4.14	715.00	2.71	22	81.48%	1047.94	3.20	855.35	2.45	15	55.56%	751.09	5.52	509.15	3.09
1985	LDGV	1	100.00%	456.60	9.14	367.90	7.36	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	456.60	9.14	367.90	7.36
	LDGT	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
	HDGT	31	67.39%	905.31	2.96	636.71	2.09	25	80.65%	993.04	2.03	710.51	1.40	13	41.94%	736.60	4.75	494.80	3.43
1985 Total		32	68.09%	893.81	3.12	629.82	2.23	25	78.13%	993.04	2.03	710.51	1.40	14	43.75%	716.60	5.06	485.74	3.71
1986	LDGV	1	100.00%	248.50	1.25	387.80	3.32	1	100.00%	248.50	1.25	387.80	3.32	1	100.00%	248.50	1.25	387.80	3.32
	LDGT	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
	HDGT	50	94.34%	602.08	2.29	413.22	1.66	40	80.00%	675.41	1.49	494.19	1.23	20	40.00%	455.42	3.88	251.27	2.51
1986 Total		51	94.44%	590.68	2.25	412.40	1.71	41	80.39%	665.00	1.48	491.60	1.28	21	41.18%	445.57	3.76	257.77	2.55
1987	LDGV	1	100.00%	1416.80	7.70	561.90	9.37	1	100.00%	1416.80	7.70	561.90	9.37	1	100.00%	1416.80	7.70	561.90	9.37
	LDGT	3	100.00%	247.00	0.60	86.00	0.49	1	33.33%	247.00	0.60	86.00	0.49	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	33	80.49%	563.99	2.85	250.35	1.77	24	72.73%	601.67	2.03	275.14	1.36	17	51.52%	510.80	4.00	215.36	2.35
1987 Total		37	82.22%	595.55	3.02	260.78	2.09	26	70.27%	619.38	2.20	278.89	1.64	18	48.65%	561.13	4.21	234.61	2.74
1988	LDGV	1	100.00%	221.30	3.66	73.30	0.63	1	100.00%	221.30	3.66	73.30	0.63	1	100.00%	221.30	3.66	73.30	0.63
	LDGT	2	66.67%	251.80	0.37	122.00	0.44	2	100.00%	251.80	0.37	122.00	0.44	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	36	90.00%	599.44	3.08	453.32	2.14	26	72.22%	682.82	2.53	540.04	1.96	23	63.89%	505.18	3.71	355.29	2.34
1988 Total		39	88.64%	572.05	3.00	426.48	2.02	29	74.36%	637.18	2.42	495.11	1.81	24	61.54%	493.35	3.71	343.54	2.27
1989	LDGV	4	66.67%	583.53	3.50	522.37	3.00	3	75.00%	583.53	3.50	522.37	3.00	3	75.00%	583.53	3.50	522.37	3.00
	LDGT	3	100.00%	333.23	0.36	177.37	0.59	3	100.00%	333.23	0.36	177.37	0.59	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	40	80.00%	692.01	3.83	445.38	3.21	29	72.50%	754.60	3.45	490.04	3.13	28	70.00%	627.19	4.22	399.14	3.29
1989 Total		47	79.66%	665.84	3.64	440.20	3.07	35	74.47%	703.82	3.19	466.01	2.90	31	65.96%	622.96	4.15	411.06	3.26
1990	LDGV	7	100.00%	874.66	2.52	886.53	3.07	5	71.43%	844.82	1.91	870.70	2.60	2	28.57%	949.25	4.03	926.10	4.23
	LDGT	2	100.00%	407.67	6.86	103.67	1.14	2	100.00%	368.00	5.29	98.00	0.99	1	50.00%	487.00	9.99	115.00	1.44
	HDGT	45	83.33%	600.01	3.65	538.66	3.22	31	68.89%	683.71	3.32	615.15	3.03	34	75.56%	523.70	3.95	468.93	3.40
1990 Total		54	85.71%	617.95	3.67	553.73	3.12	38	70.37%	688.29	3.24	621.55	2.87	37	68.52%	545.71	4.12	484.07	3.39
1991	LDGV	2	100.00%	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
	LDGT	7	100.00%	250.88	1.62	147.33	0.88	4	57.14%	273.38	1.45	155.70	0.87	4	57.14%	228.38	1.79	138.95	0.89
	HDGT	32	88.89%	626.37	2.83	436.28	2.15	19	59.38%	801.84	2.28	535.75	1.71	22	68.75%	474.83	3.31	350.36	2.52
1991 Total		41	91.11%	565.07	2.63	389.10	1.94	23	56.10%	709.93	2.13	469.66	1.57	26	63.41%	436.92	3.08	317.84	2.27
1992	LDGV	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
	LDGT	2	100.00%	361.00	5.11	149.00	3.58	1	50.00%	361.00	5.11	149.00	3.58	1	50.00%	361.00	5.11	149.00	3.58
	HDGT	42	77.78%	482.98	3.49	367.49	2.99	24	57.14%	641.43	2.96	512.31	2.84	31	73.81%	360.31	3.89	255.36	3.10
1992 Total		44	78.57%	478.70	3.54	359.82	3.01	25	56.82%	630.22	3.04	497.78	2.87	32	72.73%	360.33	3.93	252.04	3.11
1993	LDGV	3	100.00%	463.18	1.88	458.16	2.20	3	100.00%	426.97	1.59	395.00	1.92	2	66.67%	517.50	2.30	552.90	2.62
	LDGT	2	100.00%	530.00	8.71	311.00	7.40	1	50.00%	530.00	8.71	311.00	7.40	1	50.00%	530.00	8.71	311.00	7.40
	HDGT	47	81.03%	614.35	3.45	495.45	3.28	29	61.70%	748.12	2.87	629.73	3.05	32	68.09%	493.11	3.98	373.76	3.48
1993 Total		52	82.54%	600.75	3.49	487.29	3.32	33	63.46%	712.32	2.93	598.74	3.08	35	67.31%	495.56	4.02	382.20	3.54
1994	LDGV	1	100.00%	1796.40	1.84	1264.20	1.09	1	100.00%	1796.40	1.84	1264.20	1.09	1	100.00%	1796.40	1.84	1264.20	1.09
	LDGT	3	60.00%	254.70	0.69	156.00	0.61	1	33.33%	254.70	0.69	156.00	0.61	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	71	82.56%	507.30	3.74	331.33	3.54	40	56.34%	630.96	3.55	392.80	3.46	55	77.46%	417.37	3.89	286.62	3.59
1994 Total		75	81.52%	531.03	3.67	348.58	3.46	42	56.00%	649.75	3.44	407.91	3.34	56	74.67%	442.00	3.85	304.08	3.55
1995	LDGV	2	66.67%	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
	LDGT	1	50.00%	604.50	1.06	682.70	1.06	1	100.00%	604.50	1.06	682.70	1.06	0	0.00%	0.00	0.00	0.00	0.00

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	99	86.09%	429.81	2.92	286.49	2.75	54	54.55%	540.37	2.31	383.99	2.45	65	65.66%	337.96	3.43	205.49	2.99
1995 Total		102	85.00%	431.26	2.90	289.79	2.73	55	53.92%	541.53	2.29	389.42	2.42	65	63.73%	337.96	3.43	205.49	2.99
1996	LDGV	1	100.00%	425.00	3.35	321.00	2.84	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	425.00	3.35	321.00	2.84
	LDGT	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
	HDGT	46	95.83%	594.09	3.38	518.79	3.01	32	69.57%	657.78	2.74	565.78	2.82	28	60.87%	521.29	4.12	465.09	3.22
1996 Total		47	95.92%	591.31	3.38	515.55	3.00	32	68.09%	657.78	2.74	565.78	2.82	29	61.70%	517.97	4.10	460.12	3.21
1997	LDGV	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
	LDGT	1	100.00%	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
	HDGT	74	97.37%	664.68	2.95	433.40	1.78	51	68.92%	736.99	2.20	514.96	1.47	38	51.35%	567.64	3.96	323.93	2.21
1997 Total		75	97.40%	664.68	2.95	433.40	1.78	51	68.00%	736.99	2.20	514.96	1.47	38	50.67%	567.64	3.96	323.93	2.21
1998	LDGV	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
	LDGT	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
	HDGT	67	93.06%	639.97	1.81	405.18	1.46	61	91.04%	614.57	1.35	374.34	1.16	16	23.88%	736.83	3.54	522.73	2.61
1998 Total		67	93.06%	639.97	1.81	405.18	1.46	61	91.04%	614.57	1.35	374.34	1.16	16	23.88%	736.83	3.54	522.73	2.61
1999	LDGV	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
	LDGT	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
	HDGT	96	96.00%	639.46	1.81	430.20	1.36	93	96.88%	626.46	1.36	422.88	1.01	21	21.88%	697.03	3.82	462.62	2.90
1999 Total		96	95.05%	639.46	1.81	430.20	1.36	93	96.88%	626.46	1.36	422.88	1.01	21	21.88%	697.03	3.82	462.62	2.90
2000	LDGV	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
	LDGT	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
	HDGT	86	93.48%	645.55	2.04	513.18	2.04	81	94.19%	637.16	1.53	486.22	1.48	25	29.07%	672.73	3.70	600.53	3.86
2000 Total		86	91.49%	645.55	2.04	513.18	2.04	81	94.19%	637.16	1.53	486.22	1.48	25	29.07%	672.73	3.70	600.53	3.86
2001	LDGV	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
	LDGT	1	100.00%	407.00	0.98	866.90	3.74	1	100.00%	407.00	0.98	866.90	3.74	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	45	73.77%	675.45	2.03	587.50	1.79	41	91.11%	691.12	1.43	625.91	1.47	12	26.67%	621.88	4.09	456.27	2.89
2001 Total		46	74.19%	670.48	2.01	592.67	1.82	42	91.30%	684.36	1.42	631.65	1.52	12	26.09%	621.88	4.09	456.27	2.89
2002	LDGV	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
	LDGT	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
	HDGT	37	84.09%	548.19	1.11	474.78	1.39	32	86.49%	599.91	0.77	471.85	1.06	7	18.92%	311.73	2.63	488.20	2.94
2002 Total		37	84.09%	548.19	1.11	474.78	1.39	32	86.49%	599.91	0.77	471.85	1.06	7	18.92%	311.73	2.63	488.20	2.94
2003	LDGV	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
	LDGT	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
	HDGT	29	78.38%	717.62	2.69	698.50	2.46	27	93.10%	764.73	2.07	735.66	2.08	12	41.38%	611.63	4.09	614.90	3.31
2003 Total		29	78.38%	717.62	2.69	698.50	2.46	27	93.10%	764.73	2.07	735.66	2.08	12	41.38%	611.63	4.09	614.90	3.31
2004	LDGV	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
	LDGT	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
	HDGT	16	84.21%	578.91	1.68	869.19	2.85	12	75.00%	679.63	1.05	753.48	1.58	6	37.50%	377.48	2.95	1100.62	5.40
2004 Total		16	80.00%	578.91	1.68	869.19	2.85	12	75.00%	679.63	1.05	753.48	1.58	6	37.50%	377.48	2.95	1100.62	5.40
2005	LDGV	1	33.33%	371.90	0.81	445.40	0.76	1	100.00%	371.90	0.81	445.40	0.76	0	0.00%	0.00	0.00	0.00	0.00
	LDGT	1	100.00%	305.40	0.40	313.20	0.35	1	100.00%	305.40	0.40	313.20	0.35	0	0.00%	0.00	0.00	0.00	0.00
	HDGT	19	76.00%	569.95	2.04	454.50	1.79	13	68.42%	686.58	1.36	520.58	1.14	8	42.11%	380.44	3.15	347.11	2.84
2005 Total		21	72.41%	549.84	1.92	447.96	1.68	15	71.43%	640.19	1.26	501.75	1.06	8	38.10%	380.44	3.15	347.11	2.84
2006	LDGV	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
	LDGT	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
	HDGT	16	72.73%	772.86	2.47	464.70	1.03	16	100.00%	756.87	1.83	523.04	0.94	4	25.00%	836.83	5.05	231.30	1.40

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
2006 Total		16	66.67%	772.86	2.47	464.70	1.03	16	100.00%	756.87	1.83	523.04	0.94	4	25.00%	836.83	5.05	231.30	1.40
2007	LDGV	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
	LDGT	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
	HDGT	7	87.50%	767.30	0.70	573.50	0.82	7	100.00%	767.30	0.70	573.50	0.82	0	0.00%	0.00	0.00	0.00	0.00
2007 Total		7	77.78%	767.30	0.70	573.50	0.82	7	100.00%	767.30	0.70	573.50	0.82	0	0.00%	0.00	0.00	0.00	0.00
2008	LDGV	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
	LDGT	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
	HDGT	7	70.00%	878.00	2.75	746.71	2.68	7	100.00%	919.24	2.10	730.54	2.03	2	28.57%	733.65	5.01	803.30	4.94
2008 Total		7	70.00%	878.00	2.75	746.71	2.68	7	100.00%	919.24	2.10	730.54	2.03	2	28.57%	733.65	5.01	803.30	4.94
2009	LDGV	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
	LDGT	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
	HDGT	3	100.00%	401.30	3.08	284.55	3.77	2	66.67%	436.65	2.55	284.15	3.38	2	66.67%	365.95	3.61	284.95	4.16
2009 Total		3	100.00%	401.30	3.08	284.55	3.77	2	66.67%	436.65	2.55	284.15	3.38	2	66.67%	365.95	3.61	284.95	4.16
2010	LDGV	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
	LDGT	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
	HDGT	3	50.00%	860.73	0.01	745.23	0.01	3	100.00%	860.73	0.01	745.23	0.01	0	0.00%	0.00	0.00	0.00	0.00
2010 Total		3	50.00%	860.73	0.01	745.23	0.01	3	100.00%	860.73	0.01	745.23	0.01	0	0.00%	0.00	0.00	0.00	0.00
2011	LDGV	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
	LDGT	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
	HDGT	4	57.14%	430.18	2.20	246.26	0.32	4	100.00%	436.45	1.49	301.55	0.37	1	25.00%	405.10	5.05	25.10	0.12
2011 Total		4	57.14%	430.18	2.20	246.26	0.32	4	100.00%	436.45	1.49	301.55	0.37	1	25.00%	405.10	5.05	25.10	0.12
2012	LDGV	1	100.00%	279.70	3.89	2000.00	9.27	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	279.70	3.89	2000.00	9.27
	LDGT	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
	HDGT	3	30.00%	1243.70	5.63	789.25	3.06	2	66.67%	1702.75	5.56	1272.05	3.21	2	66.67%	784.65	5.71	306.45	2.91
2012 Total		4	36.36%	1050.90	5.28	1031.40	4.30	2	50.00%	1702.75	5.56	1272.05	3.21	3	75.00%	616.33	5.10	870.97	5.03
2013	LDGV	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
	LDGT	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
	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
2014	LDGV	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
	LDGT	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
	HDGT	1	50.00%	298.60	5.25	40.70	0.09	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	298.60	5.25	40.70	0.09
2014 Total		1	50.00%	298.60	5.25	40.70	0.09	0	0.00%	0.00	0.00	0.00	0.00	1	100.00%	298.60	5.25	40.70	0.09
2015	LDGV	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
	LDGT	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
	HDGT	1	50.00%	668.30	0.00	32.70	0.01	1	100.00%	668.30	0.00	32.70	0.01	0	0.00%	0.00	0.00	0.00	0.00
2015 Total		1	50.00%	668.30	0.00	32.70	0.01	1	100.00%	668.30	0.00	32.70	0.01	0	0.00%	0.00	0.00	0.00	0.00
2016	LDGV	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
	LDGT	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
	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
2016 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
2017	LDGV	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
	LDGT	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
	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
2017 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

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
2018	LDGV	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
	LDGT	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
	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
2018 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
2019	LDGV	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
	LDGT	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
	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
2019 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
2020	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
2020 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		2,543	81.90%	741.24	3.64	547.84	3.19	1,582	62.21%	876.19	2.71	644.59	2.54	1,546	60.79%	603.15	4.60	448.84	3.85

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	596	86.38%	765.45	4.20	583.47	4.17	281	47.15%	1025.51	3.57	755.80	3.74	447	75.00%	601.96	4.59	475.13	4.44
LDGT	526	82.32%	738.56	3.80	567.58	3.51	275	52.28%	934.26	3.04	691.59	3.01	358	68.06%	588.23	4.38	472.32	3.90
HDGT	1,421	80.01%	732.23	3.36	526.09	2.67	1,026	72.20%	819.73	2.39	601.54	2.09	741	52.15%	611.09	4.71	421.63	3.46
Grand Total	2,543	81.90%	741.24	3.64	547.84	3.19	1,582	62.21%	876.19	2.71	644.59	2.54	1,546	60.79%	603.15	4.60	448.84	3.85

Appendix C4

Idle Initial Failure for Other Report

Date
Between 1/1/2019 and 12/31/2019

Idle Initial Failure for Other Report (V1.03)

Vehicle		Other 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 %
1974	HDGV	84	84	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	0	0.00	84	100.00	0	0.00
	LDGT1	239	235	98.33	4	6.78	2	100.00	0	0.00	3	100.00	0	0.00	1	100.00	0	0.00	0	0.00	1	100.00	236	98.74	3	1.26
	LDGT2	180	177	98.33	3	5.00	0	0.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	177	98.33	3	1.67
	LDGV	490	489	99.80	1	0.93	0	0.00	0	0.00	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	489	99.80	1	0.20
1974 Total		993	985	99.19	8	3.40	2	100.00	0	0.00	7	100.00	0	0.00	1	100.00	0	0.00	0	0.00	1	100.00	986	99.30	7	0.70
1975	HDGV	15	14	93.33	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8	88.89	1	11.11	15	100.00	0	0.00
	LDGT1	15	13	86.67	2	13.33	6	85.71	1	6.67	3	75.00	1	25.00	0	0.00	0	0.00	10	100.00	0	0.00	15	100.00	0	0.00
	LDGT2	39	35	89.74	4	10.26	1	50.00	1	2.56	2	100.00	0	0.00	0	0.00	0	0.00	10	71.43	4	28.57	38	97.44	1	2.56
	LDGV	31	25	80.65	6	19.35	19	86.36	3	9.68	11	73.33	4	26.67	0	0.00	0	0.00	21	87.50	3	12.50	31	100.00	0	0.00
1975 Total		100	87	87.00	13	13.00	26	83.87	5	5.00	16	76.19	5	23.81	0	0.00	0	0.00	49	85.96	8	14.04	99	99.00	1	1.00
1976	HDGV	65	63	96.92	2	3.08	3	75.00	1	1.54	4	100.00	0	0.00	1	100.00	0	0.00	34	97.14	1	2.86	65	100.00	0	0.00
	LDGT1	103	85	82.52	18	17.48	44	97.78	1	0.97	40	88.89	5	11.11	2	100.00	0	0.00	66	83.54	13	16.46	102	99.03	1	0.97
	LDGT2	233	201	86.27	32	13.73	9	69.23	4	1.72	15	88.24	2	11.76	0	0.00	0	0.00	109	80.74	26	19.26	231	99.14	2	0.86
	LDGV	175	154	88.00	21	12.00	116	96.67	4	2.29	69	89.61	8	10.39	7	100.00	0	0.00	113	90.40	12	9.60	175	100.00	0	0.00
1976 Total		576	503	87.33	73	12.67	172	94.51	10	1.74	128	89.51	15	10.49	10	100.00	0	0.00	322	86.10	52	13.90	573	99.48	3	0.52
1977	HDGV	97	94	96.91	3	3.09	5	83.33	1	1.03	9	90.00	1	10.00	1	100.00	0	0.00	49	98.00	1	2.00	96	98.97	1	1.03
	LDGT1	105	85	80.95	20	19.05	56	91.80	5	4.76	51	87.93	7	12.07	7	87.50	1	12.50	69	84.15	13	15.85	105	100.00	0	0.00
	LDGT2	311	266	85.53	45	14.47	16	80.00	4	1.29	23	92.00	2	8.00	4	100.00	0	0.00	134	76.14	42	23.86	311	100.00	0	0.00
	LDGV	227	192	84.58	35	15.42	173	96.11	7	3.08	110	89.43	13	10.57	8	100.00	0	0.00	160	88.40	21	11.60	227	100.00	0	0.00
1977 Total		740	637	86.08	103	13.92	250	93.63	17	2.30	193	89.35	23	10.65	20	95.24	1	4.76	412	84.25	77	15.75	739	99.86	1	0.14
1978	HDGV	109	105	96.33	4	3.67	8	100.00	0	0.00	8	100.00	0	0.00	1	100.00	0	0.00	50	94.34	3	5.66	108	99.08	1	0.92
	LDGT1	151	131	86.75	20	13.25	85	93.41	6	3.97	78	90.70	8	9.30	4	80.00	1	20.00	96	89.72	11	10.28	151	100.00	0	0.00
	LDGT2	403	340	84.37	63	15.63	46	83.64	9	2.23	37	97.37	1	2.63	7	100.00	0	0.00	193	78.14	54	21.86	397	98.51	6	1.49
	LDGV	271	246	90.77	25	9.23	225	96.98	7	2.58	140	93.33	10	6.67	8	100.00	0	0.00	192	93.66	13	6.34	271	100.00	0	0.00
1978 Total		934	822	88.01	112	11.99	364	94.30	22	2.36	263	93.26	19	6.74	20	95.24	1	4.76	531	86.76	81	13.24	927	99.25	7	0.75
1979	HDGV	119	104	87.39	15	12.61	7	87.50	1	0.84	65	90.28	7	9.72	1	100.00	0	0.00	52	88.14	7	11.86	119	100.00	0	0.00
	LDGT1	213	178	83.57	35	16.43	172	95.56	8	3.76	128	88.89	16	11.11	9	100.00	0	0.00	165	89.19	20	10.81	212	99.53	1	0.47
	LDGT2	266	222	83.46	44	16.54	232	94.31	14	5.26	134	84.28	25	15.72	5	100.00	0	0.00	178	88.56	23	11.44	266	100.00	0	0.00
	LDGV	328	280	85.37	48	14.63	283	96.59	10	3.05	152	92.12	13	7.88	19	95.00	1	5.00	217	86.80	33	13.20	327	99.70	1	0.30
1979 Total		926	784	84.67	142	15.33	694	95.46	33	3.56	479	88.70	61	11.30	34	97.14	1	2.86	612	88.06	83	11.94	924	99.78	2	0.22
1980	HDGV	72	70	97.22	2	2.78	9	100.00	0	0.00	53	100.00	0	0.00	0	0.00	0	0.00	45	95.74	2	4.26	72	100.00	0	0.00
	LDGT1	152	126	82.89	26	17.11	121	95.28	6	3.95	119	92.97	9	7.03	7	100.00	0	0.00	104	84.55	19	15.45	152	100.00	0	0.00
	LDGT2	83	70	84.34	13	15.66	71	95.95	3	3.61	49	92.45	4	7.55	2	100.00	0	0.00	51	86.44	8	13.56	83	100.00	0	0.00
	LDGV	222	200	90.09	22	9.91	204	95.33	10	4.50	157	95.73	7	4.27	49	100.00	0	0.00	159	94.08	10	5.92	222	100.00	0	0.00
1980 Total		529	466	88.09	63	11.91	405	95.52	19	3.59	378	94.97	20	5.03	58	100.00	0	0.00	359	90.20	39	9.80	529	100.00	0	0.00
1981	HDGV	103	97	94.17	6	5.83	6	85.71	1	0.97	92	94.85	5	5.15	1	100.00	0	0.00	5	100.00	0	0.00	103	100.00	0	0.00
	LDGT1	147	129	87.76	18	12.24	139	98.58	2	1.36	106	93.81	7	6.19	26	100.00	0	0.00	115	90.55	12	9.45	146	99.32	1	0.68
	LDGT2	70	63	90.00	7	10.00	65	98.48	1	1.43	56	98.25	1	1.75	6	85.71	1	14.29	51	91.07	5	8.93	70	100.00	0	0.00
	LDGV	157	143	91.08	14	8.92	154	99.35	1	0.64	95	95.00	5	5.00	98	98.00	2	2.00	110	92.44	9	7.56	157	100.00	0	0.00
1981 Total		477	432	90.57	45	9.43	364	98.64	5	1.05	349	95.10	18	4.90	131	97.76	3	2.24	281	91.53	26	8.47	476	99.79	1	0.21
1982	HDGV	75	71	94.67	4	5.33	4	100.00	0	0.00	70	94.59	4	5.41	1	100.00	0	0.00	1	100.00	0	0.00	75	100.00	0	0.00
	LDGT1	2	2	100.00	0	0.00	2	100.00	0	0.00	1	100.00	0	0.00	2	100.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00
	LDGV	4	4	100.00	0	0.00	3	100.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00	4	100.00	0	0.00
1982 Total		81	77	95.06	4	4.94	9	100.00	0	0.00	73	94.81	4	5.19	5	100.00	0	0.00	4	100.00	0	0.00	81	100.00	0	0.00

Vehicle		Other 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 %
	LDGV	5	5	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00	2	100.00	0	0.00	1	100.00	0	0.00	5	100.00	0	0.00
1985 Total		229	209	91.27	20	8.73	25	100.00	0	0.00	201	92.20	17	7.80	14	100.00	0	0.00	2	40.00	3	60.00	228	99.56	1	0.44
1986	HDGV	179	171	95.53	8	4.47	18	100.00	0	0.00	166	95.40	8	4.60	14	100.00	0	0.00	3	100.00	0	0.00	179	100.00	0	0.00
	LDGV	9	9	100.00	0	0.00	9	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00	9	100.00	0	0.00
1986 Total		188	180	95.74	8	4.26	27	100.00	0	0.00	172	95.56	8	4.44	20	100.00	0	0.00	9	100.00	0	0.00	188	100.00	0	0.00
1987	HDGV	171	161	94.15	10	5.85	67	97.10	2	1.17	158	94.61	9	5.39	41	100.00	0	0.00	3	100.00	0	0.00	171	100.00	0	0.00
	LDGT1	6	6	100.00	0	0.00	6	100.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	5	100.00	0	0.00	6	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	8	8	100.00	0	0.00	8	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00	8	100.00	0	0.00
1987 Total		186	176	94.62	10	5.38	82	97.62	2	1.08	165	94.83	9	5.17	54	100.00	0	0.00	15	100.00	0	0.00	186	100.00	0	0.00
1988	HDGV	270	262	97.04	8	2.96	220	99.55	1	0.37	257	98.09	5	1.91	192	99.48	1	0.52	2	100.00	0	0.00	269	99.63	1	0.37
	LDGT1	5	5	100.00	0	0.00	5	100.00	0	0.00	1	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
	LDGT2	2	1	50.00	1	50.00	2	100.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00	1	50.00	1	50.00	2	100.00	0	0.00
	LDGV	4	4	100.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00	4	100.00	0	0.00
1988 Total		281	272	96.80	9	3.20	231	99.57	1	0.36	264	98.14	5	1.86	201	99.50	1	0.50	10	90.91	1	9.09	280	99.64	1	0.36
1989	HDGV	463	451	97.41	12	2.59	412	98.10	8	1.73	349	97.21	10	2.79	379	99.48	2	0.52	6	100.00	0	0.00	463	100.00	0	0.00
	LDGT1	11	11	100.00	0	0.00	11	100.00	0	0.00	1	100.00	0	0.00	11	100.00	0	0.00	11	100.00	0	0.00	11	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	3	100.00	0	0.00	2	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	13	11	84.62	2	15.38	12	100.00	0	0.00	4	100.00	0	0.00	11	100.00	0	0.00	7	77.78	2	22.22	13	100.00	0	0.00
1989 Total		490	476	97.14	14	2.86	438	98.21	8	1.63	356	97.27	10	2.73	404	99.51	2	0.49	27	93.10	2	6.90	490	100.00	0	0.00
1990	HDGV	366	355	96.99	11	3.01	350	98.87	4	1.09	240	98.36	4	1.64	347	99.71	1	0.29	2	100.00	0	0.00	363	99.18	3	0.82
	LDGT1	8	7	87.50	1	12.50	8	100.00	0	0.00	1	100.00	0	0.00	8	100.00	0	0.00	8	100.00	0	0.00	7	87.50	1	12.50
	LDGT2	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	32	32	100.00	0	0.00	30	100.00	0	0.00	10	100.00	0	0.00	29	100.00	0	0.00	25	100.00	0	0.00	32	100.00	0	0.00
1990 Total		407	395	97.05	12	2.95	388	98.98	4	0.98	251	98.43	4	1.57	384	99.74	1	0.26	36	100.00	0	0.00	403	99.02	4	0.98
1991	HDGV	382	378	98.95	4	1.05	377	99.47	2	0.52	228	99.13	2	0.87	377	99.74	1	0.26	4	100.00	0	0.00	382	100.00	0	0.00
	LDGT1	11	10	90.91	1	9.09	11	100.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	11	100.00	0	0.00	10	90.91	1	9.09
	LDGV	21	21	100.00	0	0.00	21	100.00	0	0.00	4	100.00	0	0.00	21	100.00	0	0.00	17	100.00	0	0.00	21	100.00	0	0.00
1991 Total		414	409	98.79	5	1.21	409	99.51	2	0.48	232	99.15	2	0.85	409	99.76	1	0.24	32	100.00	0	0.00	413	99.76	1	0.24
1992	HDGV	531	516	97.18	15	2.82	518	98.48	8	1.51	324	97.30	9	2.70	526	99.62	2	0.38	4	100.00	0	0.00	531	100.00	0	0.00
	LDGT1	9	9	100.00	0	0.00	9	100.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	9	100.00	0	0.00	9	100.00	0	0.00
	LDGT2	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
	LDGV	10	10	100.00	0	0.00	10	100.00	0	0.00	3	100.00	0	0.00	10	100.00	0	0.00	9	100.00	0	0.00	10	100.00	0	0.00
1992 Total		551	536	97.28	15	2.72	538	98.53	8	1.45	327	97.32	9	2.68	546	99.64	2	0.36	23	100.00	0	0.00	551	100.00	0	0.00
1993	HDGV	635	620	97.64	15	2.36	614	98.71	8	1.26	359	97.82	8	2.18	632	99.68	2	0.32	2	100.00	0	0.00	634	99.84	1	0.16
	LDGT1	7	6	85.71	1	14.29	7	100.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00	6	85.71	1	14.29
	LDGT2	1	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	9	9	100.00	0	0.00	9	100.00	0	0.00	1	100.00	0	0.00	9	100.00	0	0.00	7	100.00	0	0.00	9	100.00	0	0.00
1993 Total		652	636	97.55	16	2.45	631	98.75	8	1.23	361	97.83	8	2.17	649	99.69	2	0.31	17	100.00	0	0.00	650	99.69	2	0.31
1994	HDGV	739	723	97.83	16	2.17	701	98.46	11	1.49	434	99.09	4	0.91	730	99.73	2	0.27	2	66.67	1	33.33	739	100.00	0	0.00
	LDGT1	10	10	100.00	0	0.00	10	100.00	0	0.00	0	0.00	0	0.00	10	100.00	0	0.00	10	100.00	0	0.00	10	100.00	0	0.00
	LDGT2	19	17	89.47	2	10.53	19	100.00	0	0.00	1	100.00	0	0.00	18	100.00	0	0.00	17	89.47	2	10.53	19	100.00	0	0.00
	LDGV	16	15	93.75	1	6.25	15	93.75	1	6.25	4	100.00	0	0.00	15	93.75	1	6.25	15	100.00	0	0.00	16	100.00	0	0.00
1994 Total		784	765	97.58	19	2.42	745	98.41	12	1.53	439	99.10	4	0.90	773	99.61	3	0.39	44	93.62	3	6.38	784	100.00	0	0.00
1995	HDGV	1,101	1083	98.37	18	1.63	1043	98.96	11	1.00	591	99.16	5	0.84	1,094	99.64	4	0.36	4	100.00	0	0.00	1101	100.00	0	0.00
	LDGT1	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
	LDGT2	16	15	93.75	1	6.25	16	100.00	0	0.00	3	100.00	0	0.00	16	100.00	0	0.00	15	93.75	1	6.25	16	100.00	0	0.00
	LDGV	28	27	96.43	1	3.57	28	100.00	0	0.00	11	100.00	0	0.00	28	100.00	0	0.00	26	96.30	1	3.70	28	100.00	0	0.00
1995 Total		1,147																								

Vehicle		Other 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 %
	LDGV	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
1997 Total		1,571	1569	99.87	2	0.13	19	100.00	0	0.00	2	100.00	0	0.00	19	100.00	0	0.00	16	88.89	2	11.11	1571	100.00	0	0.00
1998	HDGV	1,009	1004	99.50	5	0.50	11	100.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	3	50.00	3	50.00	1007	99.80	2	0.20
	LDGT1	6	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
1998 Total		1,018	1013	99.51	5	0.49	11	100.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	12	80.00	3	20.00	1016	99.80	2	0.20
1999	HDGV	2,254	2250	99.82	4	0.18	3	100.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	7	70.00	3	30.00	2253	99.96	1	0.04
	LDGT1	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
	LDGT2	6	5	83.33	1	16.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	83.33	1	16.67	6	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
1999 Total		2,271	2266	99.78	5	0.22	3	100.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	23	85.19	4	14.81	2270	99.96	1	0.04
2000	HDGV	2,036	2029	99.66	7	0.34	17	100.00	0	0.00	1	100.00	0	0.00	17	100.00	0	0.00	35	87.50	5	12.50	2034	99.90	2	0.10
	LDGT1	9	8	88.89	1	11.11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	8	88.89	1	11.11	9	100.00	0	0.00
	LDGT2	5	4	80.00	1	20.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	80.00	1	20.00	5	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	7	100.00	0	0.00
2000 Total		2,057	2048	99.56	9	0.44	17	100.00	0	0.00	1	100.00	0	0.00	17	100.00	0	0.00	53	88.33	7	11.67	2055	99.90	2	0.10
2001	HDGV	2,506	2490	99.36	16	0.64	27	100.00	0	0.00	0	0.00	0	0.00	27	100.00	0	0.00	31	70.45	13	29.55	2503	99.88	3	0.12
	LDGT1	8	7	87.50	1	12.50	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	87.50	1	12.50	8	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	7	100.00	0	0.00
2001 Total		2,521	2504	99.33	17	0.67	27	100.00	0	0.00	0	0.00	0	0.00	27	100.00	0	0.00	45	76.27	14	23.73	2518	99.88	3	0.12
2002	HDGV	1,826	1818	99.56	8	0.44	13	100.00	0	0.00	0	0.00	0	0.00	13	100.00	0	0.00	28	80.00	7	20.00	1825	99.95	1	0.05
	LDGT1	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
2002 Total		1,836	1828	99.56	8	0.44	13	100.00	0	0.00	0	0.00	0	0.00	13	100.00	0	0.00	38	84.44	7	15.56	1835	99.95	1	0.05
2003	HDGV	2,424	2417	99.71	7	0.29	36	100.00	0	0.00	0	0.00	0	0.00	36	100.00	0	0.00	40	85.11	7	14.89	2424	100.00	0	0.00
	LDGT1	14	14	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	100.00	0	0.00	14	100.00	0	0.00
	LDGT2	6	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00
	LDGV	4	4	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	4	100.00	0	0.00
2003 Total		2,448	2441	99.71	7	0.29	36	100.00	0	0.00	0	0.00	0	0.00	36	100.00	0	0.00	64	90.14	7	9.86	2448	100.00	0	0.00
2004	HDGV	1,951	1949	99.90	2	0.10	31	100.00	0	0.00	5	100.00	0	0.00	31	100.00	0	0.00	1	33.33	2	66.67	1951	100.00	0	0.00
	LDGT1	9	9	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9	100.00	0	0.00	9	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	4	3	75.00	1	25.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	75.00	1	25.00	4	100.00	0	0.00
2004 Total		1,966	1963	99.85	3	0.15	31	100.00	0	0.00	5	100.00	0	0.00	31	100.00	0	0.00	15	83.33	3	16.67	1966	100.00	0	0.00
2005	HDGV	2,093	2087	99.71	6	0.29	25	100.00	0	0.00	1	100.00	0	0.00	25	100.00	0	0.00	2	28.57	5	71.43	2092	99.95	1	0.05
	LDGT1	19	19	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	19	100.00	0	0.00	19	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGV	7	4	57.14	3	42.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4	57.14	3	42.86	7	100.00	0	0.00
2005 Total		2,122	2113	99.58	9	0.42	25	100.00	0	0.00	1	100.00	0	0.00	25	100.00	0	0.00	28	77.78	8	22.22	2121	99.95	1	0.05
2006	HDGV	2,131	2125	99.72	6	0.28	22	100.00	0	0.00	1	100.00	0	0.00	22	100.00	0	0.00	7	63.64	4	36.36	2129	99.91	2	0.09
	LDGT1	12	10	83.33	2	16.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10	83.33	2	16.67	12	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	5	5	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00	5	100.00	0	0.00
2006 Total		2,149	2141	99.63	8	0.37	22	100.00	0	0.00	1	100.00	0	0.00	22	100.00	0	0.00	23	79.31	6	20.69	2147	99.91	2	0.09
2007	HDGV	1,931	1930	99.95	1	0.05	42	100.00	0	0.00	11	100.00	0	0.00	42	100.00	0	0.00	2	66.67	1	33.33	1931	100.00	0	0.00
	LDGT1	19	18	94.74	1	5.26	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18	94.74	1	5.26	19	100.00	0	0.00
	LDGT2	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGV	12	12	100.00	0	0.00	0	0.00	0	0.00	0															

Vehicle		Other 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 %
2009	HDGV	902	902	100.00	0	0.00	41	100.00	0	0.00	0	0.00	0	0.00	41	100.00	0	0.00	18	100.00	0	0.00	902	100.00	0	0.00
	LDGT1	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
2009 Total		910	910	100.00	0	0.00	41	100.00	0	0.00	0	0.00	0	0.00	41	100.00	0	0.00	26	100.00	0	0.00	910	100.00	0	0.00
2010	HDGV	1,104	1101	99.73	3	0.27	27	100.00	0	0.00	3	100.00	0	0.00	27	100.00	0	0.00	4	80.00	1	20.00	1102	99.82	2	0.18
	LDGT1	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	100.00	0	0.00	3	100.00	0	0.00
	LDGT2	6	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	6	100.00	0	0.00
	LDGV	6	6	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00	6	100.00	0	0.00
2010 Total		1,119	1116	99.73	3	0.27	27	100.00	0	0.00	3	100.00	0	0.00	27	100.00	0	0.00	18	94.74	1	5.26	1117	99.82	2	0.18
2011	HDGV	1,257	1255	99.84	2	0.16	36	100.00	0	0.00	1	100.00	0	0.00	36	100.00	0	0.00	2	66.67	1	33.33	1256	99.92	1	0.08
	LDGT1	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
	LDGT2	2	2	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	100.00	0	0.00	2	100.00	0	0.00
	LDGV	1	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	1	100.00	0	0.00
2011 Total		1,261	1259	99.84	2	0.16	36	100.00	0	0.00	1	100.00	0	0.00	36	100.00	0	0.00	6	85.71	1	14.29	1260	99.92	1	0.08
2012	HDGV	2,602	2595	99.73	7	0.27	15	100.00	0	0.00	1	100.00	0	0.00	15	100.00	0	0.00	1	25.00	3	75.00	2598	99.85	4	0.15
	LDGT1	8	8	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00	0	0.00	8	100.00	0	0.00
	LDGT2	3	3	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	3	100.00	0	0.00
	LDGV	7	7	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00	0	0.00	7	100.00	0	0.00
2012 Total		2,620	2613	99.73	7	0.27	15	100.00	0	0.00	1	100.00	0	0.00	15	100.00	0	0.00	15	83.33	3	16.67	2616	99.85	4	0.15
2013	HDGV	393	393	100.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	393	100.00	0	0.00
2013 Total		393	393	100.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	393	100.00	0	0.00
2014	HDGV	176	175	99.43	1	0.57	8	100.00	0	0.00	0	0.00	0	0.00	8	100.00	0	0.00	0	0.00	1	100.00	176	100.00	0	0.00
2014 Total		176	175	99.43	1	0.57	8	100.00	0	0.00	0	0.00	0	0.00	8	100.00	0	0.00	0	0.00	1	100.00	176	100.00	0	0.00
2015	HDGV	195	194	99.49	1	0.51	15	100.00	0	0.00	0	0.00	0	0.00	15	100.00	0	0.00	0	0.00	0	0.00	194	99.49	1	0.51
2015 Total		195	194	99.49	1	0.51	15	100.00	0	0.00	0	0.00	0	0.00	15	100.00	0	0.00	0	0.00	0	0.00	194	99.49	1	0.51
2016	HDGV	103	103	100.00	0	0.00	12	100.00	0	0.00	0	0.00	0	0.00	12	100.00	0	0.00	0	0.00	0	0.00	103	100.00	0	0.00
2016 Total		103	103	100.00	0	0.00	12	100.00	0	0.00	0	0.00	0	0.00	12	100.00	0	0.00	0	0.00	0	0.00	103	100.00	0	0.00
2017	HDGV	76	76	100.00	0	0.00	11	100.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	0	0.00	0	0.00	76	100.00	0	0.00
2017 Total		76	76	100.00	0	0.00	11	100.00	0	0.00	0	0.00	0	0.00	11	100.00	0	0.00	0	0.00	0	0.00	76	100.00	0	0.00
2018	HDGV	49	49	100.00	0	0.00	5	100.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00	0	0.00	0	0.00	49	100.00	0	0.00
2018 Total		49	49	100.00	0	0.00	5	100.00	0	0.00	0	0.00	0	0.00	5	100.00	0	0.00	0	0.00	0	0.00	49	100.00	0	0.00
2019	HDGV	25	25	100.00	0	0.00	4	100.00	0	0.00	1	100.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	25	100.00	0	0.00
2019 Total		25	25	100.00	0	0.00	4	100.00	0	0.00	1	100.00	0	0.00	4	100.00	0	0.00	0	0.00	0	0.00	25	100.00	0	0.00
2020	HDGV	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	0	0.00	0	0.00	1	100.00	0	0.00
2020 Total		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	0	0.00	0	0.00	1	100.00	0	0.00
Grand Total		42,809	41986	98.08	823	1.96	7387	97.76	169	0.40	5542	95.50	261	4.50	5,359	99.59	22	0.41	3,290	87.97	450	12.03	42754	99.87	55	0.13

Idle Initial Failure for Other Report - Summary by Veh (V1.03)

Vehicle	Visual Overall					CAT				AIS				O2				Gas Cap				Opacity			
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 %
HDGV	37,639	37365	99.27	274	0.73	4875	98.78	60	0.16	3883	97.20	112	2.80	4,832	99.69	15	0.31	473	85.53	80	14.47	37607	99.91	32	0.09
LDGT1	1,330	1179	88.65	151	13.13	696	96.00	29	2.53	532	90.94	53	9.06	127	98.45	2	1.55	821	89.73	94	10.27	1321	99.32	9	0.68
LDGT2	1,686	1469	87.13	217	13.86	483	93.06	36	2.30	327	90.33	35	9.67	66	98.51	1	1.49	818	82.96	168	17.04	1674	99.29	12	0.71
LDGV	2,154	1973	91.60	181	10.22	1333	96.80	44	2.49	800	92.92	61	7.08	334	98.82	4	1.18	1,178	91.60	108	8.40	2152	99.91	2	0.09
Grand Total	42,809	41986	98.08	823	1.96	7387	97.76	169	0.40	5542	95.50	261	4.50	5,359	99.59	22	0.41	3,290	87.97	450	12.03	42754	99.87	55	0.13

Appendix C5

Idle Retest Pass Reduction Report

Date
Between 1/1/2019 and 12/31/2019

Idle Retest Pass Reduction Report (V1.01)

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions							Average Repair Costs	
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm		Avg CO% 2500rpm
1974	LDGV	145	1034.04	5.25	784.92	4.73	76	52.41%	349.85	1.58	358.27	2.89	486.48	58.17%	3.31	67.68%	229.68	39.06%	1.55	34.86%	168.00
	LDGT	67	1003.52	4.92	615.32	3.52	36	53.73%	263.10	1.40	265.74	2.70	522.08	66.49%	3.18	69.40%	249.93	48.47%	1.02	27.38%	783.00
	HDGT	53	982.23	5.68	660.27	5.11	30	56.60%	280.64	2.46	318.37	3.24	599.83	68.13%	2.93	54.38%	309.90	49.33%	1.61	33.13%	0.00
1974 Total		265	1015.96	5.25	717.11	4.50	142	53.58%	313.24	1.72	326.38	2.91	519.45	62.38%	3.20	65.01%	251.76	43.55%	1.42	32.83%	373.00
1975	LDGV	9	483.66	3.39	404.76	4.21	7	77.78%	142.89	0.44	149.47	1.85	330.79	69.83%	3.26	87.99%	216.59	59.17%	3.05	62.22%	0.00
	LDGT	1	118.10	2.05	71.90	1.60	1	100.00%	72.00	0.10	54.40	1.92	46.10	39.03%	1.95	95.12%	17.50	24.34%	-0.32	-20.00%	0.00
	HDGT	14	1121.97	5.50	629.84	3.46	10	71.43%	448.25	2.44	276.33	2.19	555.79	55.36%	2.35	49.07%	299.28	51.99%	0.80	26.86%	0.00
1975 Total		24	840.78	4.57	522.18	3.67	18	75.00%	308.59	1.53	214.67	2.04	439.97	58.78%	2.68	63.60%	251.47	53.95%	1.62	44.15%	0.00
1976	LDGV	96	676.34	4.03	387.69	3.36	48	50.00%	187.02	0.56	206.29	1.55	276.47	59.65%	2.59	82.30%	98.12	32.23%	1.41	47.62%	267.00
	LDGT	66	589.96	3.09	356.04	3.67	27	40.91%	168.01	0.60	144.27	1.58	498.53	74.79%	2.12	78.03%	187.04	56.45%	1.53	49.14%	0.00
	HDGT	127	991.19	4.09	650.90	3.38	84	66.14%	336.24	1.93	242.44	2.36	469.97	58.29%	2.27	54.10%	264.54	52.18%	0.83	25.95%	105.00
1976 Total		289	794.97	3.85	496.13	3.43	159	55.02%	262.62	1.29	214.86	1.98	416.40	61.32%	2.34	64.51%	201.14	48.35%	1.12	36.12%	159.75
1977	LDGV	94	550.27	2.62	375.40	2.15	55	58.51%	120.22	0.42	98.80	0.97	301.38	71.49%	1.90	81.87%	212.94	68.31%	1.06	52.00%	927.33
	LDGT	78	739.25	3.11	511.83	2.45	36	46.15%	142.30	0.49	124.39	1.25	478.61	77.08%	2.43	83.13%	441.93	78.03%	1.33	51.59%	723.33
	HDGT	121	730.57	3.79	507.29	3.22	88	72.73%	302.44	1.67	278.69	2.19	345.62	53.33%	2.23	57.21%	123.25	30.66%	1.03	31.94%	109.50
1977 Total		293	675.04	3.23	466.19	2.67	179	61.09%	214.24	1.05	192.39	1.63	358.77	62.61%	2.17	67.41%	214.90	52.76%	1.10	40.26%	646.38
1978	LDGV	120	466.29	2.82	318.92	2.68	57	47.50%	155.93	0.49	185.17	1.59	247.70	61.37%	1.76	78.32%	129.53	41.16%	1.11	41.22%	171.50
	LDGT	76	622.38	2.76	537.15	2.51	43	56.58%	122.75	0.54	188.08	1.95	449.70	78.56%	1.85	77.31%	334.25	63.99%	0.44	18.54%	3573.00
	HDGT	173	857.58	4.23	539.52	3.61	117	67.63%	309.12	1.75	274.32	2.56	381.02	55.21%	1.89	51.95%	150.17	35.38%	0.47	15.60%	224.80
1978 Total		369	681.89	3.47	467.29	3.08	217	58.81%	231.95	1.18	233.81	2.19	359.61	60.79%	1.85	61.08%	181.23	43.66%	0.64	22.54%	538.30
1979	LDGV	193	647.74	3.50	437.74	3.29	95	49.22%	125.73	0.40	139.37	1.34	301.43	70.57%	2.16	84.46%	219.82	61.20%	1.30	49.16%	74.50
	LDGT	211	639.55	2.65	505.27	2.49	108	51.18%	125.04	0.30	163.58	1.30	381.23	75.30%	1.93	86.46%	243.74	59.84%	0.94	41.99%	373.25
	HDGT	55	782.03	2.98	669.72	2.06	32	58.18%	258.83	0.90	272.60	1.21	371.07	58.91%	1.65	64.68%	248.00	47.64%	0.76	38.61%	191.25
1979 Total		459	660.07	3.05	496.58	2.78	235	51.20%	143.54	0.42	168.64	1.30	347.59	70.77%	1.99	82.46%	234.65	58.18%	1.06	44.84%	240.70
1980	LDGV	49	429.46	2.21	327.62	2.42	33	67.35%	115.97	0.33	187.36	1.32	246.87	68.04%	1.93	85.27%	87.97	31.95%	0.98	42.54%	0.00
	LDGT	92	519.73	2.80	389.57	3.22	57	61.96%	109.12	0.29	117.51	1.19	298.09	73.20%	1.80	86.01%	192.23	62.06%	1.19	49.92%	50.00
	HDGT	11	825.30	3.29	695.18	3.18	9	81.82%	148.70	1.08	284.81	1.48	663.97	81.70%	2.27	67.87%	420.63	59.63%	1.25	45.81%	0.00
1980 Total		152	512.74	2.64	391.72	2.96	99	65.13%	115.00	0.38	156.00	1.26	314.28	73.21%	1.89	83.33%	178.24	53.33%	1.12	47.12%	50.00
1981	LDGV	71	369.11	1.34	426.96	2.96	37	52.11%	68.85	0.12	70.09	0.25	294.34	81.04%	1.16	90.77%	317.33	81.91%	2.43	90.56%	158.00
	LDGT	173	367.08	2.26	270.78	2.55	67	38.73%	69.95	0.14	66.12	0.30	185.99	72.67%	1.46	91.41%	129.06	66.12%	1.71	85.11%	209.00
	HDGT	30	860.30	4.06	657.34	3.56	12	40.00%	152.84	1.44	75.71	1.12	593.68	79.53%	1.27	46.78%	503.88	86.94%	1.27	53.15%	0.00
1981 Total		274	421.61	2.22	353.57	2.76	116	42.34%	78.18	0.27	68.38	0.37	262.72	77.07%	1.34	83.48%	227.89	76.92%	1.89	83.69%	183.50
1982	LDGV	1	273.30	6.73	275.80	6.81	1	100.00%	14.70	0.00	15.00	0.00	258.60	94.62%	6.73	100.00%	260.80	94.56%	6.81	100.00%	0.00
	LDGT	1	587.70	1.39	564.20	1.25	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	23	709.39	2.81	495.68	2.11	13	56.52%	148.95	1.04	102.72	1.40	473.25	76.06%	1.85	63.94%	313.86	75.34%	0.55	27.99%	50.00
1982 Total		25	687.08	2.91	489.63	2.27	14	56.00%	139.36	0.97	96.46	1.30	457.91	76.67%	2.20	69.41%	310.07	76.27%	0.99	43.25%	50.00
1983	LDGV	4	1045.13	0.20	1040.98	0.28	2	50.00%	99.90	0.21	48.80	0.44	-9.65	-10.69%	0.13	37.88%	40.85	45.57%	0.06	11.22%	0.00
	HDGT	35	690.30	2.31	552.19	1.37	24	68.57%	223.18	1.24	149.65	0.96	515.35	69.78%	1.46	54.24%	442.52	74.73%	0.63	39.50%	282.00
1983 Total		39	726.69	2.10	602.32	1.26	26	66.67%	213.70	1.16	141.89	0.92	474.97	68.97%	1.36	54.07%	411.62	74.37%	0.58	38.79%	282.00

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
1984	LDGV	4	598.83	2.62	441.98	5.60	2	50.00%	72.70	0.16	43.40	0.13	432.85	85.62%	3.26	95.32%	412.65	90.48%	3.38	96.43%	0.00
	LDGT	2	573.75	2.97	911.35	2.47	1	50.00%	128.20	0.00	81.30	0.06	255.60	66.60%	0.23	100.00%	805.40	90.83%	1.98	97.06%	0.00
	HDGT	37	887.43	3.51	509.84	2.37	17	45.95%	164.27	1.10	178.02	1.53	723.71	81.50%	2.07	65.34%	410.62	69.76%	0.90	37.04%	282.00
1984 Total		43	845.99	3.40	522.20	2.67	20	46.51%	153.31	0.95	159.72	1.32	671.22	81.41%	2.10	68.83%	430.56	72.94%	1.20	47.72%	282.00
1985	LDGV	2	517.60	9.18	367.90	7.36	1	50.00%	61.70	0.15	145.30	2.77	455.90	88.08%	9.03	98.37%	222.60	60.51%	4.59	62.36%	0.00
	LDGT	1	634.80	2.89	623.80	2.88	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	69	847.85	2.17	686.35	1.85	41	59.42%	187.86	0.90	118.66	1.01	531.98	73.90%	1.47	62.08%	363.83	75.41%	0.89	46.93%	236.83
1985 Total		72	835.72	2.37	676.64	2.01	42	58.33%	184.86	0.88	119.29	1.05	530.17	74.15%	1.65	65.21%	360.46	75.14%	0.98	48.26%	236.83
1986	LDGV	1	409.00	3.52	387.80	3.32	1	100.00%	172.00	0.35	120.20	0.58	237.00	57.95%	3.17	90.06%	267.60	69.00%	2.74	82.53%	0.00
	LDGT	1	266.00	0.78	80.30	0.49	1	100.00%	180.10	0.04	79.20	0.71	85.90	32.29%	0.74	94.87%	1.10	1.37%	-0.22	-44.90%	0.00
	HDGT	88	629.76	2.64	481.09	1.83	34	38.64%	106.50	0.73	81.82	0.92	484.69	81.99%	1.37	65.24%	382.07	82.36%	0.96	51.00%	542.00
1986 Total		90	623.27	2.62	475.60	1.83	36	40.00%	110.36	0.70	82.81	0.90	466.74	80.88%	1.41	66.69%	368.31	81.64%	0.97	51.85%	542.00
1987	LDGV	1	1416.80	7.70	561.90	9.37	1	100.00%	11.30	0.00	11.20	0.00	1405.50	99.20%	7.70	100.00%	550.70	98.01%	9.37	100.00%	0.00
	LDGT	4	94.45	0.22	36.68	0.06	2	50.00%	68.45	0.02	115.30	0.39	66.55	49.30%	0.42	95.40%	-70.85	-159.39%	-0.28	-239.13%	0.00
	HDGT	77	479.95	2.18	214.16	1.46	28	36.36%	123.97	0.67	94.77	0.66	380.93	75.45%	1.20	64.33%	184.30	66.04%	0.63	48.96%	40.00
1987 Total		82	472.57	2.15	209.74	1.49	31	37.80%	116.75	0.60	93.40	0.62	393.70	77.13%	1.36	69.28%	179.66	65.80%	0.85	57.99%	40.00
1988	LDGV	4	764.23	4.79	467.80	3.69	2	50.00%	105.05	0.44	61.70	0.45	478.20	81.99%	3.98	90.15%	274.60	81.65%	2.22	83.15%	0.00
	LDGT	3	292.20	1.55	244.90	0.93	2	66.67%	98.90	0.05	54.85	0.10	83.85	45.88%	0.32	87.67%	51.35	48.35%	0.22	69.35%	0.00
	HDGT	59	521.84	1.82	405.52	1.72	24	40.68%	110.34	0.55	130.85	0.89	332.65	75.09%	1.28	69.93%	245.05	65.19%	0.55	38.27%	362.00
1988 Total		66	526.09	1.99	401.99	1.80	28	42.42%	109.14	0.51	120.49	0.80	325.28	74.88%	1.41	73.50%	233.33	65.95%	0.64	44.68%	362.00
1989	LDGV	7	448.20	2.65	288.36	1.91	5	71.43%	88.92	0.23	59.02	0.32	268.04	75.09%	1.53	86.95%	263.08	81.68%	1.70	84.27%	157.00
	LDGT	11	419.57	0.66	338.43	1.35	3	27.27%	89.57	0.34	73.17	0.53	242.80	73.05%	0.42	55.70%	215.23	74.63%	1.45	73.23%	0.00
	HDGT	73	615.66	3.58	344.87	2.45	39	53.42%	102.38	0.37	82.37	0.52	375.55	78.58%	2.17	85.28%	190.52	69.82%	1.26	70.83%	153.00
1989 Total		91	579.08	3.16	339.75	2.27	47	51.65%	100.13	0.36	79.30	0.50	355.64	78.03%	1.99	84.80%	199.81	71.59%	1.32	72.59%	154.33
1990	LDGV	13	1235.06	3.63	657.21	4.32	5	38.46%	129.98	0.27	111.54	0.82	609.34	82.42%	1.75	86.66%	455.16	80.32%	1.95	70.49%	0.00
	LDGT	2	337.70	0.53	110.70	0.46	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	86	531.08	3.37	426.25	2.80	46	53.49%	119.61	0.72	94.25	0.83	225.82	65.37%	2.08	74.43%	140.63	59.87%	1.01	55.03%	0.00
1990 Total		101	617.87	3.35	449.73	2.95	51	50.50%	120.63	0.67	95.94	0.83	263.42	68.59%	2.05	75.32%	171.47	64.12%	1.10	57.21%	0.00
1991	LDGV	1	68.50	0.26	82.70	1.53	1	100.00%	8.70	0.01	11.70	0.04	59.80	87.30%	0.25	96.15%	71.00	85.85%	1.49	97.39%	0.00
	LDGT	6	405.33	1.17	297.20	0.63	3	50.00%	80.60	0.44	60.67	0.16	310.00	79.37%	0.69	60.77%	202.10	76.91%	0.43	73.14%	0.00
	HDGT	50	628.65	2.18	370.17	1.39	30	60.00%	110.50	0.57	109.29	0.99	440.35	79.94%	2.05	78.33%	223.26	67.14%	0.75	42.88%	512.67
1991 Total		57	595.31	2.04	357.45	1.31	34	59.65%	104.87	0.54	102.13	0.89	417.66	79.93%	1.88	77.67%	216.91	67.99%	0.74	45.34%	512.67
1992	LDGV	1	93.80	0.12	184.90	1.44	1	100.00%	90.00	0.07	8.60	0.00	3.80	4.05%	0.05	41.67%	176.30	95.35%	1.44	100.00%	0.00
	LDGT	1	0.00	0.00	0.00	0.00	1	100.00%	129.00	0.73	72.00	0.96	-129.00	0.00%	-0.73	0.00%	-72.00	0.00%	-0.96	0.00%	0.00
	HDGT	78	444.67	3.14	292.54	2.29	47	60.26%	102.11	0.42	115.58	1.23	341.61	76.99%	2.55	86.01%	163.61	58.60%	1.23	49.87%	19.50
1992 Total		80	434.72	3.06	287.54	2.25	49	61.25%	102.41	0.41	112.51	1.20	325.11	76.05%	2.44	85.45%	159.06	58.57%	1.19	49.66%	19.50
1993	LDGV	3	687.63	2.77	395.00	1.92	2	66.67%	6.45	0.00	8.10	0.00	624.50	98.98%	3.12	100.00%	461.05	98.27%	2.36	100.00%	0.00
	LDGT	2	1215.05	1.80	799.80	0.83	1	50.00%	164.30	0.25	168.70	0.68	829.40	83.47%	1.95	88.64%	-1.10	-0.66%	-0.34	-100.00%	0.00
	HDGT	82	636.85	3.03	433.80	2.30	50	60.98%	99.11	0.55	75.04	0.65	405.75	80.37%	2.25	80.27%	240.22	76.20%	1.33	67.01%	317.50
1993 Total		87	651.89	2.99	440.87	2.25	53	60.92%	96.85	0.53	74.28	0.63	422.00	81.33%	2.28	81.22%	244.00	76.66%	1.34	67.96%	317.50
1994	LDGV	1	1796.40	1.84	1264.20	1.09	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	LDGT	15	347.23	1.49	240.12	1.19	6	40.00%	57.15	0.16	44.15	0.19	203.12	78.04%	1.00	86.37%	113.95	72.07%	0.79	80.78%	0.00
	HDGT	161	559.75	3.21	274.65	2.99	88	54.66%	106.19	0.62	103.70	0.99	324.77	75.36%	1.93	75.80%	85.39	45.16%	1.34	57.52%	289.50

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
1994 Total		177	548.72	3.05	277.31	2.83	94	53.11%	103.06	0.59	99.90	0.94	317.00	75.47%	1.88	76.12%	87.21	46.61%	1.31	58.17%	289.50
1995	LDGV	3	63.80	0.03	165.80	1.02	3	100.00%	24.90	0.00	31.17	0.00	38.90	60.97%	0.03	100.00%	134.63	81.20%	1.01	99.67%	0.00
	LDGT	8	448.56	1.16	210.16	0.85	2	25.00%	101.20	0.19	124.95	0.20	120.75	54.40%	-0.15	-322.22%	117.30	48.42%	0.05	20.00%	0.00
	HDGT	191	509.03	2.86	270.72	2.52	98	51.31%	114.17	0.57	125.81	1.03	329.05	74.24%	1.91	77.16%	126.74	50.19%	0.96	48.13%	214.20
1995 Total		202	500.02	2.75	266.76	2.43	103	50.99%	111.32	0.54	123.03	0.98	316.56	73.98%	1.82	77.02%	126.79	50.75%	0.94	48.86%	214.20
1996	LDGV	1	425.00	3.35	321.00	2.84	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	72	604.78	3.18	425.10	2.31	44	61.11%	108.31	0.44	90.55	0.44	429.56	79.86%	2.41	84.53%	281.36	75.65%	1.74	79.64%	0.00
1996 Total		73	602.32	3.18	423.67	2.32	44	60.27%	108.31	0.44	90.55	0.44	429.56	79.86%	2.41	84.53%	281.36	75.65%	1.74	79.64%	0.00
1997	LDGT	1	270.30	0.58	262.80	0.56	0	0.00%	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00
	HDGT	110	613.68	2.69	343.16	1.45	66	60.00%	112.72	0.49	71.28	0.55	464.37	80.47%	2.33	82.59%	260.15	78.49%	0.82	60.00%	356.50
1997 Total		111	610.58	2.67	342.43	1.44	66	59.46%	112.72	0.49	71.28	0.55	464.37	80.47%	2.33	82.59%	260.15	78.49%	0.82	60.00%	356.50
1998	HDGT	118	884.42	2.18	437.79	1.39	61	51.69%	128.45	0.38	84.39	0.45	574.92	81.74%	1.46	79.17%	226.67	72.87%	0.70	60.59%	551.40
1998 Total		118	884.42	2.18	437.79	1.39	61	51.69%	128.45	0.38	84.39	0.45	574.92	81.74%	1.46	79.17%	226.67	72.87%	0.70	60.59%	551.40
1999	HDGT	151	784.53	1.47	454.54	1.01	86	56.95%	107.31	0.32	97.93	0.50	635.38	85.55%	1.24	79.50%	318.11	76.46%	0.54	51.65%	696.50
1999 Total		151	784.53	1.47	454.54	1.01	86	56.95%	107.31	0.32	97.93	0.50	635.38	85.55%	1.24	79.50%	318.11	76.46%	0.54	51.65%	696.50
2000	LDGT	3	535.70	2.06	507.67	2.08	2	66.67%	9.65	0.01	9.35	0.01	7.60	44.06%	0.00	0.00%	9.55	50.53%	0.01	66.67%	0.00
	HDGT	123	691.23	1.71	400.83	1.29	77	62.60%	108.22	0.32	108.60	0.67	505.77	82.37%	1.46	81.95%	261.32	70.64%	0.65	49.46%	453.00
2000 Total		126	687.52	1.72	403.37	1.31	79	62.70%	105.73	0.31	106.08	0.65	493.15	82.35%	1.42	81.94%	254.95	70.62%	0.64	49.46%	453.00
2001	LDGT	10	598.47	0.58	868.49	1.05	7	70.00%	69.47	0.27	64.37	0.39	563.61	89.03%	0.36	56.66%	743.26	92.03%	0.54	58.05%	0.00
	HDGT	72	606.42	1.76	441.61	1.44	52	72.22%	111.89	0.38	87.16	0.56	360.82	76.33%	1.02	72.94%	237.79	73.18%	0.58	51.08%	1092.50
2001 Total		82	605.45	1.62	493.67	1.40	59	71.95%	106.86	0.37	84.45	0.54	384.88	78.27%	0.94	72.00%	297.76	77.90%	0.58	51.77%	1092.50
2002	LDGT	1	83.20	0.19	21.10	0.10	1	100.00%	43.00	0.01	26.70	0.10	40.20	48.32%	0.18	94.74%	-5.60	-26.54%	0.00	0.00%	0.00
	HDGT	68	492.75	1.16	364.93	1.32	50	73.53%	87.39	0.27	61.24	0.40	303.46	77.64%	0.54	66.29%	215.22	77.85%	0.50	55.66%	0.00
2002 Total		69	486.81	1.15	359.94	1.30	51	73.91%	86.52	0.27	60.56	0.39	298.30	77.52%	0.53	66.42%	210.89	77.69%	0.49	55.54%	0.00
2003	LDGT	2	75.25	0.26	131.15	0.19	2	100.00%	17.15	0.01	13.70	0.09	58.10	77.21%	0.25	96.15%	117.45	89.55%	0.10	51.35%	0.00
	HDGT	37	465.76	1.82	356.05	1.61	33	89.19%	69.75	0.20	48.58	0.20	366.42	84.01%	1.31	86.95%	321.15	86.86%	1.10	84.75%	395.00
2003 Total		39	445.73	1.74	344.51	1.54	35	89.74%	66.75	0.19	46.58	0.19	348.80	83.94%	1.25	87.05%	309.51	86.92%	1.04	84.46%	395.00
2004	LDGV	1	63.50	0.11	53.30	0.09	1	100.00%	156.40	0.33	168.10	0.32	-92.90	-146.30%	-0.22	-200.00%	-114.80	-215.38%	-0.23	-255.56%	0.00
	LDGT	1	16.30	0.01	62.20	0.51	1	100.00%	2.80	0.00	4.70	0.01	13.50	82.82%	0.01	100.00%	57.50	92.44%	0.50	98.04%	0.00
	HDGT	20	637.70	2.51	704.15	3.26	18	90.00%	101.90	0.31	94.42	0.41	536.39	84.04%	1.97	86.50%	551.70	85.39%	2.37	85.14%	0.00
2004 Total		22	583.35	2.28	645.38	2.99	20	90.91%	99.67	0.29	93.62	0.39	478.79	82.77%	1.77	85.74%	493.67	84.06%	2.14	84.67%	0.00
2005	LDGV	5	232.40	0.49	277.34	0.46	2	40.00%	30.95	0.02	31.35	0.02	-7.80	-33.69%	0.00	0.00%	-6.10	-24.16%	0.00	0.00%	0.00
	LDGT	1	337.90	0.36	313.20	0.35	1	100.00%	7.00	0.00	7.10	0.00	330.90	97.93%	0.36	100.00%	306.10	97.73%	0.35	100.00%	0.00
	HDGT	25	553.59	1.75	373.67	1.39	19	76.00%	100.06	0.40	108.35	0.48	319.09	76.13%	1.03	71.88%	172.56	61.43%	0.63	56.64%	60.00
2005 Total		31	494.83	1.50	356.18	1.21	22	70.97%	89.55	0.35	96.75	0.42	289.91	76.40%	0.90	72.17%	162.39	62.67%	0.56	57.27%	60.00
2006	LDGV	1	247.40	0.46	203.50	0.76	1	100.00%	125.00	0.25	106.70	0.43	122.40	49.47%	0.21	45.65%	96.80	47.57%	0.33	43.42%	0.00
	LDGT	2	33.90	0.14	42.55	0.30	2	100.00%	39.50	0.14	35.40	0.09	-5.60	-16.52%	0.01	3.57%	7.15	16.80%	0.22	71.67%	0.00
	HDGT	29	741.94	2.14	477.71	1.09	21	72.41%	88.69	0.21	58.89	0.19	572.48	86.59%	1.34	86.66%	338.66	85.19%	0.63	77.20%	38.00
2006 Total		32	682.23	1.96	441.95	1.03	24	75.00%	86.10	0.20	58.93	0.19	505.55	85.45%	1.18	85.39%	300.95	83.63%	0.58	75.62%	38.00
2007	LDGT	1	2.20	0.06	1.40	0.02	1	100.00%	2.50	0.01	3.80	0.02	-0.30	-13.64%	0.05	83.33%	-2.40	-171.43%	0.00	0.00%	0.00
	HDGT	11	612.05	0.69	496.95	0.71	6	54.55%	106.00	0.11	62.40	0.15	414.87	79.65%	0.43	79.88%	303.48	82.95%	0.18	54.87%	0.00
2007 Total		12	561.23	0.64	455.66	0.65	7	58.33%	91.21	0.09	54.03	0.13	355.56	79.58%	0.38	79.94%	259.79	82.78%	0.15	54.31%	0.00
2008	HDGT	11	563.78	0.64	438.05	0.51	9	81.82%	53.87	0.22	50.24	0.30	427.27	88.80%	0.33	60.53%	369.74	88.04%	0.21	41.05%	0.00

Vehicle		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Year	Type	Total	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Total	Total%	Avg HC Idle	Avg CO Idle	Avg HC2500 rpm	Avg CO2500 rpm	Avg HC Idle	Avg HC % Idle	Avg CO Idle	Avg CO % Idle	Avg HC2500 rpm	Avg HC% 2500rpm	Avg CO2500 rpm	Avg CO% 2500rpm	
2008 Total		11	563.78	0.64	438.05	0.51	9	81.82%	53.87	0.22	50.24	0.30	427.27	88.80%	0.33	60.53%	369.74	88.04%	0.21	41.05%	0.00
2009	HDGT	2	1248.20	6.46	331.80	6.68	1	50.00%	248.90	1.85	78.40	0.90	999.30	80.06%	4.61	71.36%	253.40	76.37%	5.78	86.53%	0.00
2009 Total		2	1248.20	6.46	331.80	6.68	1	50.00%	248.90	1.85	78.40	0.90	999.30	80.06%	4.61	71.36%	253.40	76.37%	5.78	86.53%	0.00
2010	HDGT	9	771.50	0.05	628.78	0.10	6	66.67%	57.75	0.06	41.70	0.10	442.05	88.45%	-0.01	-18.75%	342.57	89.15%	0.04	27.50%	0.00
2010 Total		9	771.50	0.05	628.78	0.10	6	66.67%	57.75	0.06	41.70	0.10	442.05	88.45%	-0.01	-18.75%	342.57	89.15%	0.04	27.50%	0.00
2011	HDGT	3	512.73	0.25	531.00	0.34	3	100.00%	85.90	0.17	154.77	0.33	426.83	83.25%	0.09	34.21%	376.23	70.85%	0.01	1.96%	0.00
2011 Total		3	512.73	0.25	531.00	0.34	3	100.00%	85.90	0.17	154.77	0.33	426.83	83.25%	0.09	34.21%	376.23	70.85%	0.01	1.96%	0.00
2012	HDGT	10	365.89	1.40	265.05	0.79	9	90.00%	22.82	0.23	29.14	0.58	161.50	87.62%	1.11	83.10%	43.13	59.68%	0.08	12.03%	0.00
2012 Total		10	365.89	1.40	265.05	0.79	9	90.00%	22.82	0.23	29.14	0.58	161.50	87.62%	1.11	83.10%	43.13	59.68%	0.08	12.03%	0.00
2013	HDGT	1	350.40	1.70	17.20	0.06	1	100.00%	66.90	0.17	173.70	4.49	283.50	80.91%	1.53	90.00%	-156.50	-909.88%	-4.43	-7383.33%	0.00
2013 Total		1	350.40	1.70	17.20	0.06	1	100.00%	66.90	0.17	173.70	4.49	283.50	80.91%	1.53	90.00%	-156.50	-909.88%	-4.43	-7383.33%	0.00
2014	HDGT	2	216.50	2.78	96.45	0.28	2	100.00%	73.55	0.29	338.10	0.58	142.95	66.03%	2.49	89.57%	-241.65	-250.54%	-0.30	-107.14%	0.00
2014 Total		2	216.50	2.78	96.45	0.28	2	100.00%	73.55	0.29	338.10	0.58	142.95	66.03%	2.49	89.57%	-241.65	-250.54%	-0.30	-107.14%	0.00
2015	HDGT	1	10.80	0.01	10.10	0.01	1	100.00%	12.00	0.00	16.90	0.00	-1.20	-11.11%	0.01	100.00%	-6.80	-67.33%	0.01	100.00%	0.00
2015 Total		1	10.80	0.01	10.10	0.01	1	100.00%	12.00	0.00	16.90	0.00	-1.20	-11.11%	0.01	100.00%	-6.80	-67.33%	0.01	100.00%	0.00
Grand Total		4242	654.28	2.91	441.55	2.51	2379	56.08%	154.89	0.70	145.93	1.20	395.44	71.86%	1.87	72.73%	226.96	60.87%	1.02	46.05%	371.29

Summary by Vehicle Type (V1.01)

		Initial Exhaust Emissions					Passing Retest Exhaust Emissions						Emission Reductions								Average Repair Costs
Vehicle 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 2500 rpm	Avg HC% 2500 rpm	Avg CO 2500 rpm	Avg CO% 2500 rpm		
LDGV	831	646.49	3.36	462.80	3.24	439	52.83%	165.89	0.59	177.91	1.46	320.99	65.93%	2.23	79.07%	196.35	52.46%	1.45	49.77%	320.13	
LDGT	843	579.93	2.70	430.18	2.61	414	49.11%	124.53	0.42	138.03	1.23	358.46	74.22%	1.85	81.54%	239.05	63.40%	1.07	46.60%	640.62	
HDGT	2568	681.21	2.82	438.41	2.24	1526	59.42%	159.96	0.81	138.87	1.11	426.89	72.74%	1.77	68.63%	232.49	62.61%	0.88	44.31%	327.19	
Grand Total		4242	654.28	2.91	441.55	2379	56.08%	154.89	0.70	145.93	1.20	395.44	71.86%	1.87	72.73%	226.96	60.87%	1.02	46.05%	371.29	

Appendix C6

Idle Retest Frequency Report

Date
Between 1/1/2019 and 12/31/2019

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	145	1.5	98	67.59%	58	59.18%	22	15.17%	11	50.00%	11	7.59%	4	36.36%	4	2.76%	1	25.00%	10	7	2	20.00%
	LDGT	67	1.4	47	70.15%	27	57.45%	12	17.91%	8	66.67%	3	4.48%	0	0.00%	2	2.99%	0	0.00%	3	4	1	33.33%
	HDGT	53	1.5	35	66.04%	20	57.14%	12	22.64%	6	50.00%	4	7.55%	2	50.00%	2	3.77%	2	100.00%	0	0	0	0.00%
1974 Total		265	1.5	180	67.92%	105	58.33%	46	17.36%	25	54.35%	18	6.79%	6	33.33%	8	3.02%	3	37.50%	13	5	3	23.08%
1975	LDGV	9	1.1	8	88.89%	6	75.00%	1	11.11%	1	100.00%	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	14	1.3	11	78.57%	7	63.64%	3	21.43%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1975 Total		24	1.2	20	83.33%	14	70.00%	4	16.67%	4	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1976	LDGV	96	1.4	61	63.54%	36	59.02%	21	21.88%	8	38.10%	8	8.33%	2	25.00%	5	5.21%	1	20.00%	1	1	1	100.00%
	LDGT	66	2.2	32	48.48%	12	37.50%	15	22.73%	10	66.67%	4	6.06%	2	50.00%	4	6.06%	0	0.00%	11	17	3	27.27%
	HDGT	127	1.6	82	64.57%	61	74.39%	22	17.32%	12	54.55%	10	7.87%	7	70.00%	3	2.36%	1	33.33%	10	8	3	30.00%
1976 Total		289	1.6	175	60.55%	109	62.29%	58	20.07%	30	51.72%	22	7.61%	11	50.00%	12	4.15%	2	16.67%	22	8	7	31.82%
1977	LDGV	94	1.5	63	67.02%	39	61.90%	18	19.15%	9	50.00%	8	8.51%	2	25.00%	5	5.32%	5	100.00%	0	0	0	0.00%
	LDGT	78	2.0	40	51.28%	19	47.50%	18	23.08%	8	44.44%	9	11.54%	5	55.56%	5	6.41%	1	20.00%	6	8	3	50.00%
	HDGT	121	1.3	92	76.03%	68	73.91%	21	17.36%	15	71.43%	5	4.13%	3	60.00%	1	0.83%	0	0.00%	2	2	2	100.00%
1977 Total		293	1.5	195	66.55%	126	64.62%	57	19.45%	32	56.14%	22	7.51%	10	45.45%	11	3.75%	6	54.55%	8	3	5	62.50%
1978	LDGV	120	1.6	67	55.83%	36	53.73%	25	20.83%	16	64.00%	10	8.33%	3	30.00%	4	3.33%	0	0.00%	14	12	2	14.29%
	LDGT	76	1.2	55	72.37%	34	61.82%	14	18.42%	8	57.14%	4	5.26%	1	25.00%	2	2.63%	0	0.00%	1	1	0	0.00%
	HDGT	173	1.4	121	69.94%	94	77.69%	26	15.03%	13	50.00%	11	6.36%	5	45.45%	6	3.47%	2	33.33%	9	5	3	33.33%
1978 Total		369	1.4	243	65.85%	164	67.49%	65	17.62%	37	56.92%	25	6.78%	9	36.00%	12	3.25%	2	16.67%	24	7	5	20.83%
1979	LDGV	193	1.8	102	52.85%	63	61.76%	39	20.21%	15	38.46%	22	11.40%	7	31.82%	12	6.22%	5	41.67%	18	9	5	27.78%
	LDGT	211	1.6	130	61.61%	78	60.00%	37	17.54%	12	32.43%	23	10.90%	7	30.43%	13	6.16%	6	46.15%	8	4	5	62.50%
	HDGT	55	1.6	34	61.82%	24	70.59%	10	18.18%	4	40.00%	5	9.09%	0	0.00%	4	7.27%	2	50.00%	2	4	2	100.00%
1979 Total		459	1.7	266	57.95%	165	62.03%	86	18.74%	31	36.05%	50	10.89%	14	28.00%	29	6.32%	13	44.83%	28	6	12	42.86%
1980	LDGV	49	1.2	38	77.55%	26	68.42%	10	20.41%	6	60.00%	1	2.04%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	LDGT	92	1.4	64	69.57%	43	67.19%	16	17.39%	9	56.25%	6	6.52%	2	33.33%	4	4.35%	3	75.00%	2	2	0	0.00%
	HDGT	11	1.8	8	72.73%	8	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	9.09%	0	0.00%	2	18	1	50.00%
1980 Total		152	1.4	110	72.37%	77	70.00%	26	17.11%	15	57.69%	7	4.61%	3	42.86%	5	3.29%	3	60.00%	4	3	1	25.00%
1981	LDGV	71	1.8	39	54.93%	21	53.85%	19	26.76%	10	52.63%	7	9.86%	4	57.14%	2	2.82%	1	50.00%	4	6	1	25.00%
	LDGT	173	1.9	83	47.98%	41	49.40%	38	21.97%	13	34.21%	18	10.40%	7	38.89%	11	6.36%	1	9.09%	23	13	5	21.74%
	HDGT	30	1.8	18	60.00%	10	55.56%	4	13.33%	1	25.00%	2	6.67%	0	0.00%	1	3.33%	0	0.00%	5	17	1	20.00%
1981 Total		274	1.8	140	51.09%	72	51.43%	61	22.26%	24	39.34%	27	9.85%	11	40.74%	14	5.11%	2	14.29%	32	12	7	21.88%
1982	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	1	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%	1	100	0	0.00%
	HDGT	23	1.5	15	65.22%	7	46.67%	7	30.43%	5	71.43%	1	4.35%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
1982 Total		25	1.5	16	64.00%	8	50.00%	7	28.00%	5	71.43%	1	4.00%	1	100.00%	0	0.00%	0	0.00%	1	4	0	0.00%
1983	LDGV	4	1.0	3	75.00%	2	66.67%	1	25.00%	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	35	1.6	23	65.71%	17	73.91%	5	14.29%	5	100.00%	2	5.71%	1	50.00%	1	2.86%	0	0.00%	4	11	1	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%	
1983 Total			39	1.5	26	66.67%	19	73.08%	6	15.38%	5	83.33%	2	5.13%	1	50.00%	1	2.56%	0	0.00%	4	10	1	25.00%
1984	LDGV	4	1.5	2	50.00%	1	50.00%	2	50.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	2	1.0	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	50.00%	0	0.00%	0	0	0	0.00%	
	HDGT	37	1.9	21	56.76%	11	52.38%	8	21.62%	1	12.50%	4	10.81%	2	50.00%	2	5.41%	2	100.00%	2	5	1	50.00%	
1984 Total			43	1.8	24	55.81%	13	54.17%	10	23.26%	2	20.00%	4	9.30%	2	50.00%	3	6.98%	2	66.67%	2	5	1	50.00%
1985	LDGV	2	2.0	1	50.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	1	0.0	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	0	0.00%	
	HDGT	69	1.5	45	65.22%	31	68.89%	12	17.39%	2	16.67%	10	14.49%	6	60.00%	2	2.90%	2	100.00%	0	0	0	0.00%	
1985 Total			72	1.5	47	65.28%	31	65.96%	13	18.06%	3	23.08%	10	13.89%	6	60.00%	2	2.78%	2	100.00%	0	0	0	0.00%
1986	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	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	88	1.9	38	43.18%	22	57.89%	18	20.45%	3	16.67%	13	14.77%	5	38.46%	6	6.82%	3	50.00%	13	15	1	7.69%	
1986 Total			90	1.8	40	44.44%	24	60.00%	18	20.00%	3	16.67%	13	14.44%	5	38.46%	6	6.67%	3	50.00%	13	14	1	7.69%
1987	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	4	2.0	2	50.00%	1	50.00%	1	25.00%	0	0.00%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	77	2.1	35	45.45%	16	45.71%	14	18.18%	4	28.57%	14	18.18%	4	28.57%	5	6.49%	1	20.00%	9	12	3	33.33%	
1987 Total			82	2.0	38	46.34%	18	47.37%	15	18.29%	4	26.67%	15	18.29%	5	33.33%	5	6.10%	1	20.00%	9	11	3	33.33%
1988	LDGV	4	2.0	2	50.00%	1	50.00%	1	25.00%	0	0.00%	1	25.00%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	3	1.0	2	66.67%	2	100.00%	0	0.00%	0	0.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	59	1.9	29	49.15%	11	37.93%	15	25.42%	7	46.67%	7	11.86%	4	57.14%	4	6.78%	1	25.00%	4	7	1	25.00%	
1988 Total			66	1.9	33	50.00%	14	42.42%	16	24.24%	7	43.75%	9	13.64%	5	55.56%	4	6.06%	1	25.00%	4	6	1	25.00%
1989	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	11	5.0	2	18.18%	0	0.00%	2	18.18%	0	0.00%	2	18.18%	1	50.00%	1	9.09%	0	0.00%	4	36	2	50.00%	
	HDGT	73	1.9	42	57.53%	29	69.05%	12	16.44%	5	41.67%	4	5.48%	2	50.00%	2	2.74%	0	0.00%	13	18	3	23.08%	
1989 Total			91	2.0	50	54.95%	34	68.00%	15	16.48%	5	33.33%	6	6.59%	3	50.00%	3	3.30%	0	0.00%	17	19	5	29.41%
1990	LDGV	13	2.6	5	38.46%	3	60.00%	2	15.38%	0	0.00%	2	15.38%	1	50.00%	1	7.69%	0	0.00%	3	23	1	33.33%	
	LDGT	2	0.0	1	50.00%	0	0.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	86	1.6	48	55.81%	32	66.67%	17	19.77%	6	35.29%	8	9.30%	3	37.50%	7	8.14%	4	57.14%	6	7	1	16.67%	
1990 Total			101	1.7	54	53.47%	35	64.81%	20	19.80%	6	30.00%	10	9.90%	4	40.00%	8	7.92%	4	50.00%	9	9	2	22.22%
1991	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	6	1.3	5	83.33%	2	40.00%	1	16.67%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	50	1.8	28	56.00%	17	60.71%	12	24.00%	5	41.67%	8	16.00%	7	87.50%	1	2.00%	0	0.00%	1	2	1	100.00%	
1991 Total			57	1.7	34	59.65%	20	58.82%	13	22.81%	6	46.15%	8	14.04%	7	87.50%	1	1.75%	0	0.00%	1	2	1	100.00%
1992	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	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	78	1.5	50	64.10%	33	66.00%	18	23.08%	8	44.44%	6	7.69%	3	50.00%	3	3.85%	2	66.67%	1	1	1	100.00%	
1992 Total			80	1.5	52	65.00%	35	67.31%	18	22.50%	8	44.44%	6	7.50%	3	50.00%	3	3.75%	2	66.67%	1	1	1	100.00%
1993	LDGV	3	1.0	3	100.00%	2	66.67%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	LDGT	2	1.0	1	50.00%	1	100.00%	0	0.00%	0	0.00%	1	50.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%	
	HDGT	82	1.6	50	60.98%	30	60.00%	20	24.39%	13	65.00%	5	6.10%	4	80.00%	3	3.66%	2	66.67%	4	5	1	25.00%	
1993 Total			87	1.6	54	62.07%	33	61.11%	20	22.99%	13	65.00%	6	6.90%	4	66.67%	3	3.45%	2	66.67%	4	5	1	25.00%
1994	LDGV	1	0.0	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	0	0.00%	

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%
	LDGT	15	2.0	6	40.00%	2	33.33%	6	40.00%	2	33.33%	2	13.33%	2	100.00%	1	6.67%	0	0.00%	0	0	0	0.00%
	HDGT	161	1.7	87	54.04%	62	71.26%	29	18.01%	13	44.83%	15	9.32%	4	26.67%	9	5.59%	2	22.22%	21	13	7	33.33%
1994 Total		177	1.7	94	53.11%	64	68.09%	35	19.77%	15	42.86%	17	9.60%	6	35.29%	10	5.65%	2	20.00%	21	12	7	33.33%
1995	LDGV	3	1.0	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	0	0.00%
	LDGT	8	1.0	4	50.00%	2	50.00%	2	25.00%	0	0.00%	1	12.50%	0	0.00%	0	0.00%	0	0.00%	1	13	0	0.00%
	HDGT	191	1.7	112	58.64%	59	52.68%	42	21.99%	21	50.00%	22	11.52%	13	59.09%	8	4.19%	1	12.50%	7	4	4	57.14%
1995 Total		202	1.7	119	58.91%	64	53.78%	44	21.78%	21	47.73%	23	11.39%	13	56.52%	8	3.96%	1	12.50%	8	4	4	50.00%
1996	LDGV	1	0.0	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	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	72	1.5	46	63.89%	34	73.91%	10	13.89%	5	50.00%	5	6.94%	0	0.00%	6	8.33%	3	50.00%	5	7	2	40.00%
1996 Total		73	1.5	47	64.38%	34	72.34%	10	13.70%	5	50.00%	5	6.85%	0	0.00%	6	8.22%	3	50.00%	5	7	2	40.00%
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	1	0.0	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	0	0.00%
	HDGT	110	1.6	66	60.00%	41	62.12%	27	24.55%	16	59.26%	12	10.91%	7	58.33%	2	1.82%	1	50.00%	3	3	1	33.33%
1997 Total		111	1.6	67	60.36%	41	61.19%	27	24.32%	16	59.26%	12	10.81%	7	58.33%	2	1.80%	1	50.00%	3	3	1	33.33%
1998	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	118	1.7	67	56.78%	40	59.70%	22	18.64%	10	45.45%	12	10.17%	3	25.00%	9	7.63%	4	44.44%	8	7	4	50.00%
1998 Total		118	1.7	67	56.78%	40	59.70%	22	18.64%	10	45.45%	12	10.17%	3	25.00%	9	7.63%	4	44.44%	8	7	4	50.00%
1999	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	151	1.5	99	65.56%	57	57.58%	31	20.53%	23	74.19%	6	3.97%	3	50.00%	5	3.31%	1	20.00%	10	7	2	20.00%
1999 Total		151	1.5	99	65.56%	57	57.58%	31	20.53%	23	74.19%	6	3.97%	3	50.00%	5	3.31%	1	20.00%	10	7	2	20.00%
2000	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	3	1.0	2	66.67%	2	100.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	123	1.5	90	73.17%	62	68.89%	16	13.01%	5	31.25%	9	7.32%	6	66.67%	4	3.25%	2	50.00%	4	3	2	50.00%
2000 Total		126	1.4	92	73.02%	64	69.57%	17	13.49%	5	29.41%	9	7.14%	6	66.67%	4	3.17%	2	50.00%	4	3	2	50.00%
2001	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	10	1.4	8	80.00%	5	62.50%	1	10.00%	1	100.00%	1	10.00%	1	100.00%	0	0.00%	0	0.00%	0	0	0	0.00%
	HDGT	72	1.3	55	76.39%	42	76.36%	12	16.67%	7	58.33%	4	5.56%	2	50.00%	1	1.39%	1	100.00%	0	0	0	0.00%
2001 Total		82	1.3	63	76.83%	47	74.60%	13	15.85%	8	61.54%	5	6.10%	3	60.00%	1	1.22%	1	100.00%	0	0	0	0.00%
2002	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	68	1.3	51	75.00%	42	82.35%	10	14.71%	6	60.00%	3	4.41%	1	33.33%	1	1.47%	0	0.00%	3	4	1	33.33%
2002 Total		69	1.3	52	75.36%	43	82.69%	10	14.49%	6	60.00%	3	4.35%	1	33.33%	1	1.45%	0	0.00%	3	4	1	33.33%
2003	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	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	37	1.1	33	89.19%	31	93.94%	2	5.41%	2	100.00%	1	2.70%	0	0.00%	1	2.70%	0	0.00%	0	0	0	0.00%
2003 Total		39	1.1	35	89.74%	33	94.29%	2	5.13%	2	100.00%	1	2.56%	0	0.00%	1	2.56%	0	0.00%	0	0	0	0.00%
2004	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	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	20	1.2	17	85.00%	15	88.24%	3	15.00%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0	0	0.00%

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%			
2004 Total			22	1.2	19	86.36%	17	89.47%	3	13.64%	3	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%		
2005	LDGV	5	1.0	3	60.00%	2	66.67%	1	20.00%	0	0.00%	1	20.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	25	1.1	24	96.00%	18	75.00%	1	4.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
2005 Total			31	1.0	28	90.32%	21	75.00%	2	6.45%	1	50.00%	1	3.23%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2006	LDGV	1	3.0	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	100.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	29	1.4	21	72.41%	16	76.19%	5	17.24%	3	60.00%	2	6.90%	1	50.00%	1	3.45%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	
2006 Total			32	1.4	23	71.88%	18	78.26%	5	15.63%	3	60.00%	3	9.38%	2	66.67%	1	3.13%	1	100.00%	0	0.00%	0	0.00%	0	0.00%
2007	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	11	1.3	8	72.73%	5	62.50%	2	18.18%	0	0.00%	1	9.09%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
2007 Total			12	1.3	9	75.00%	6	66.67%	2	16.67%	0	0.00%	1	8.33%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2008	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	11	1.2	9	81.82%	8	88.89%	1	9.09%	0	0.00%	1	9.09%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
2008 Total			11	1.2	9	81.82%	8	88.89%	1	9.09%	0	0.00%	1	9.09%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2009	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	2	2.0	1	50.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
2009 Total			2	2.0	1	50.00%	0	0.00%	1	50.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2010	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	9	1.5	6	66.67%	5	83.33%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11.11%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	
2010 Total			9	1.5	6	66.67%	5	83.33%	1	11.11%	0	0.00%	1	11.11%	0	0.00%	1	11.11%	1	100.00%	0	0.00%	0	0.00%	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	3	1.0	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%	0	0.00%	
2011 Total			3	1.0	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%	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
	HDGT	10	1.0	10	100.00%	9	90.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	
2012 Total			10	1.0	10	100.00%	9	90.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
2013	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	0.00%	0	0.00%	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
2013 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	0.00%	0	0.00%	0	0.00%
2014	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	0.00%	0	0.00%	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	0.00%	0	0.00%	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	0.00%	0	0.00%	0	0.00%	
2014 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	0.00%	0	0.00%	0	0.00%
2015	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	0.00%	0	0.00%	0	0.00%	

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%
	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%
2015 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%
2016	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%
2016 Total		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%
Overall Total		4,242	1.6	2644	62.33%	1694	64.07%	800	18.86%	384	48.00%	361	8.51%	156	43.21%	179	4.22%	65	36.31%	258	6	80	31.01%

Idle Retest Frequency Report (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	831	1.6	512	61.61%	310	60.55%	164	19.74%	78	47.56%	72	8.66%	26	36.11%	33	3.97%	13	39.39%	50	6	12	24.00%	
LDGT	843	1.6	498	59.07%	283	56.83%	165	19.57%	72	43.64%	76	9.02%	29	38.16%	44	5.22%	11	25.00%	60	7	19	31.67%	
HDGT	2,568	1.5	1634	63.63%	1101	67.38%	471	18.34%	234	49.68%	213	8.29%	101	47.42%	102	3.97%	41	40.20%	148	6	49	33.11%	
Overall Total		4,242	1.6	2644	62.33%	1694	64.07%	800	18.86%	384	48.00%	361	8.51%	156	43.21%	179	4.22%	65	36.31%	258	6	80	31.01%

Appendix D1

I/M Eligible Vehicle Report

Evaluated Vehicles

Colorado

I/M Eligible Vehicle Report, Evaluated Vehicles

Tuesday, 05-May-2020

Report Start: Jan, 2019

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	3	0	3	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	100.00%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
	T	12	0	9	0	0	3	Clean:	1	33.33%	0.0000	75.0000	296.0000	0.00	
			0.00%	75.00%	0.00%	0.00%	25.00%	Not Clean:	2	66.67%	1.0625	285.8500	2,877.9751	1.35	25.00%
	U	372	372	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 1982		387	372	12	0	0	3	Clean:	1	33.33%	0.0000	75.0000	296.0000	0.00	
			96.12%	3.10%	0.00%	0.00%	0.78%	Not Clean:	2	66.67%	1.0625	285.8500	2,877.9751	1.35	0.78%
1983															
	P	14	0	8	0	0	6	Clean:	1	16.67%	0.0150	30.1500	321.7500	0.70	
			0.00%	57.14%	0.00%	0.00%	42.86%	Not Clean:	5	83.33%	0.7720	122.8000	1,348.8200	2.06	42.86%
	T	28	0	23	0	0	5	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	82.14%	0.00%	0.00%	17.86%	Not Clean:	5	100.00%	3.0470	273.7900	1,302.6600	0.90	17.86%
	U	513	513	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 1983		555	513	31	0	0	11	Clean:	1	9.09%	0.0150	30.1500	321.7500	0.70	
			92.43%	5.59%	0.00%	0.00%	1.98%	Not Clean:	10	90.91%	1.9095	198.2950	1,325.7400	1.48	1.98%
1984															
	P	21	0	13	0	0	8	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			0.00%	61.90%	0.00%	0.00%	38.10%	Not Clean:	8	100.00%	0.5450	177.3813	1,699.2000	0.73	38.10%
	T	43	0	21	0	0	22	Clean:	2	9.09%	0.1375	35.7250	342.8250	0.50	
			0.00%	48.84%	0.00%	0.00%	51.16%	Not Clean:	20	90.91%	2.6960	221.9800	1,152.2050	1.24	51.16%
	U	874	871	3	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.66%	0.34%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1984		938	871	37	0	0	30	Clean:	2	6.67%	0.1375	35.7250	342.8250	0.50	
			92.86%	3.94%	0.00%	0.00%	3.20%	Not Clean:	28	93.33%	2.0814	209.2375	1,308.4893	1.10	3.20%

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	39	0	25	0	0	14	Clean:	2	14.29%	0.1800	16.7000	356.0500	1.82		
			0.00%	64.10%	0.00%	0.00%	35.90%	Not Clean:	12	85.71%	0.9854	151.3625	1,571.8542	1.85	35.90%
T	89	0	52	0	0	37	Clean:	2	5.41%	0.0925	80.8500	331.8750	0.20		
			0.00%	58.43%	0.00%	0.00%	41.57%	Not Clean:	35	94.59%	1.8777	216.2800	1,470.1772	0.97	41.57%
U	1,134	1,134	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 1985	1,262	1,134	77	0	0	51	Clean:	4	7.84%	0.1363	48.7750	343.9625	1.01		
			89.86%	6.10%	0.00%	0.00%	4.04%	Not Clean:	47	92.16%	1.6499	199.7053	1,496.1372	1.19	4.04%
1986															
P	37	0	16	0	0	21	Clean:	4	19.05%	0.2012	63.8500	289.5250	1.25		
			0.00%	43.24%	0.00%	0.00%	56.76%	Not Clean:	17	80.95%	0.8265	246.3735	1,411.0735	0.74	56.76%
T	116	0	56	0	0	60	Clean:	3	5.00%	0.1750	80.6500	531.7667	0.37		
			0.00%	48.28%	0.00%	0.00%	51.72%	Not Clean:	57	95.00%	1.7161	258.6123	1,301.3991	0.91	51.72%
U	1,201	1,200	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.92%	0.00%	0.00%	0.00%	0.08%	Not Clean:	1	100.00%	1.6950	15.0500	178.6000	2.10	0.08%
Total For 1986	1,354	1,200	72	0	0	82	Clean:	7	8.54%	0.1900	71.0500	393.3429	0.87		
			88.63%	5.32%	0.00%	0.00%	6.06%	Not Clean:	75	91.46%	1.5142	252.5907	1,311.2880	0.89	6.06%
1987															
P	64	0	39	0	0	25	Clean:	8	32.00%	0.1788	26.5062	338.4875	1.49		
			0.00%	60.94%	0.00%	0.00%	39.06%	Not Clean:	17	68.00%	1.0347	199.4059	1,099.2647	1.21	39.06%
T	139	0	79	1	0	59	Clean:	6	10.17%	0.2383	44.1917	428.2500	1.53		
			0.00%	56.83%	0.72%	0.00%	42.45%	Not Clean:	53	89.83%	1.1382	295.3962	1,532.6717	1.19	42.45%
U	1,721	1,719	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.88%	0.06%	0.00%	0.00%	0.06%	Not Clean:	1	100.00%	0.6950	138.6500	2,204.3501	0.75	0.06%
Total For 1987	1,924	1,719	119	1	0	85	Clean:	14	16.47%	0.2043	34.0857	376.9571	1.51		
			89.35%	6.19%	0.05%	0.00%	4.42%	Not Clean:	71	83.53%	1.1072	270.2049	1,438.3585	1.19	4.42%
1988															
P	82	0	54	0	0	28	Clean:	6	21.43%	0.0683	31.0333	506.6500	1.48		
			0.00%	65.85%	0.00%	0.00%	34.15%	Not Clean:	22	78.57%	0.6591	211.8659	1,305.3432	1.56	34.15%
T	177	0	97	0	0	80	Clean:	17	21.25%	0.0912	42.4059	397.5441	0.51		
			0.00%	54.80%	0.00%	0.00%	45.20%	Not Clean:	63	78.75%	1.4262	165.9976	1,246.2571	1.17	45.20%
U	1,749	1,746	2	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.83%	0.11%	0.00%	0.00%	0.06%	Not Clean:	1	100.00%	3.6400	109.9500	751.2500	1.60	0.06%
Total For 1988	2,008	1,746	153	0	0	109	Clean:	23	21.10%	0.0852	39.4391	426.0065	0.77		
			86.95%	7.62%	0.00%	0.00%	5.43%	Not Clean:	86	78.90%	1.2557	177.0797	1,255.6163	1.27	5.43%

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	131	0	69	0	3	59	Clean:	19	30.65%	0.1129	15.6947	305.3316	1.39		
			0.00%	52.67%	0.00%	2.29%	45.04%	Not Clean:	43	69.35%	1.2484	182.4128	1,343.3988	0.74	47.33%
T	289	0	155	1	0	133	Clean:	20	15.04%	0.1570	61.0750	398.9375	0.78		
			0.00%	53.63%	0.35%	0.00%	46.02%	Not Clean:	113	84.96%	1.0221	157.4929	1,250.9562	1.13	46.02%
U	2,871	2,870	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.97%	0.00%	0.00%	0.00%	0.03%	Not Clean:	1	100.00%	2.8550	445.5500	709.7500	0.05	0.03%
Total For 1989	3,291	2,870	224	1	3	193	Clean:	39	19.90%	0.1355	38.9667	353.3346	1.07		
			87.21%	6.81%	0.03%	0.09%	5.86%	Not Clean:	157	80.10%	1.0957	166.1529	1,272.8277	1.02	5.96%
1990															
P	168	0	83	0	2	83	Clean:	25	29.41%	0.1088	28.8200	280.1240	1.05		
			0.00%	49.40%	0.00%	1.19%	49.40%	Not Clean:	60	70.59%	0.9104	114.6733	1,099.7758	0.95	50.60%
T	301	0	154	1	1	145	Clean:	28	19.18%	0.1307	37.9339	323.6482	1.07		
			0.00%	51.16%	0.33%	0.33%	48.17%	Not Clean:	118	80.82%	1.0586	339.3381	1,070.6741	0.92	48.50%
U	2,609	2,604	2	0	0	3	Clean:	1	33.33%	0.5000	18.5000	38.0000	1.00		
			99.81%	0.08%	0.00%	0.00%	0.11%	Not Clean:	2	66.67%	0.9050	101.5500	1,210.9250	1.05	0.11%
Total For 1990	3,078	2,604	239	1	3	231	Clean:	54	23.08%	0.1274	33.3546	298.2083	1.06		
			84.60%	7.76%	0.03%	0.10%	7.50%	Not Clean:	180	76.92%	1.0075	261.8078	1,081.9331	0.93	7.60%
1991															
P	283	0	150	0	5	128	Clean:	28	21.05%	0.0864	31.1714	297.8375	0.72		
			0.00%	53.00%	0.00%	1.77%	45.23%	Not Clean:	105	78.95%	0.9210	148.9438	1,263.5267	1.29	47.00%
T	407	0	182	1	15	209	Clean:	46	20.54%	0.0967	26.2978	218.3674	0.83		
			0.00%	44.72%	0.25%	3.69%	51.35%	Not Clean:	178	79.46%	1.0724	217.4969	1,123.8213	1.14	55.04%
U	4,006	4,002	4	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.90%	0.10%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1991	4,696	4,002	336	1	20	337	Clean:	74	20.73%	0.0928	28.1419	248.4372	0.79		
			85.22%	7.16%	0.02%	0.43%	7.18%	Not Clean:	283	79.27%	1.0162	192.0620	1,175.6555	1.20	7.60%
1992															
P	310	0	167	0	0	143	Clean:	40	27.97%	0.1524	32.5388	366.7688	0.96		
			0.00%	53.87%	0.00%	0.00%	46.13%	Not Clean:	103	72.03%	0.8594	125.2136	1,202.9675	1.47	46.13%
T	514	0	245	0	9	260	Clean:	49	18.22%	0.0882	39.9429	281.3408	0.72		
			0.00%	47.67%	0.00%	1.75%	50.58%	Not Clean:	220	81.78%	1.0971	284.4380	1,134.0818	1.17	52.33%
U	3,590	3,587	1	0	0	2	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
			99.92%	0.03%	0.00%	0.00%	0.06%	Not Clean:	2	100.00%	1.3025	107.7750	145.6000	2.65	0.06%
Total For 1992	4,414	3,587	413	0	9	405	Clean:	89	21.50%	0.1170	36.6152	319.7354	0.83		
			81.26%	9.36%	0.00%	0.20%	9.18%	Not Clean:	325	78.50%	1.0230	232.8889	1,149.8303	1.27	9.38%

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	463	0	244	0	6	213	Clean:	66	30.14%	0.1051	29.9417	311.4212	1.08		
		0.00%	52.70%	0.00%	1.30%	46.00%	Not Clean:	153	69.86%	0.8245	141.3418	1,102.0101	0.93	47.30%	
T	772	0	358	3	14	397	Clean:	90	21.90%	0.1555	33.2561	316.9811	0.78		
		0.00%	46.37%	0.39%	1.81%	51.42%	Not Clean:	321	78.10%	0.8722	159.8159	1,151.1400	1.14	53.24%	
U	5,503	5,502	0	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.98%	0.00%	0.00%	0.00%	0.02%	Not Clean:	1	100.00%	0.5000	140.0000	1,823.5000	1.00	0.02%	
Total For 1993		6,738	5,502	602	3	20	611	Clean:	156	24.72%	0.1342	31.8538	314.6288	0.91	
			81.66%	8.93%	0.04%	0.30%	9.07%	Not Clean:	475	75.28%	0.8560	153.8236	1,136.7305	1.07	9.36%
1994															
P	510	0	279	0	13	218	Clean:	102	44.16%	0.1272	26.0049	255.5054	1.03		
		0.00%	54.71%	0.00%	2.55%	42.75%	Not Clean:	129	55.84%	0.8550	119.8829	1,052.8116	1.24	45.29%	
T	1,082	0	488	4	25	565	Clean:	122	20.68%	0.1003	37.6893	261.9619	0.53		
		0.00%	45.10%	0.37%	2.31%	52.22%	Not Clean:	468	79.32%	0.8690	129.4813	1,203.5313	1.11	54.53%	
U	6,579	6,577	0	0	0	2	Clean:	1	50.00%	0.0650	9.8000	27.8000	0.60		
		99.97%	0.00%	0.00%	0.00%	0.03%	Not Clean:	1	50.00%	1.0000	161.5000	2,649.0000	2.50	0.03%	
Total For 1994		8,171	6,577	767	4	38	785	Clean:	225	27.34%	0.1123	32.2684	257.9942	0.76	
			80.49%	9.39%	0.05%	0.47%	9.61%	Not Clean:	598	72.66%	0.8662	127.4643	1,173.4354	1.14	10.07%
1995															
P	815	0	410	0	53	352	Clean:	183	45.19%	0.0725	22.9552	194.5391	0.89		
		0.00%	50.31%	0.00%	6.50%	43.19%	Not Clean:	222	54.81%	0.9789	149.6725	920.0953	1.13	49.69%	
T	1,542	0	695	5	45	797	Clean:	210	24.94%	0.0861	28.4833	242.8976	0.71		
		0.00%	45.07%	0.32%	2.92%	51.69%	Not Clean:	632	75.06%	0.8198	135.8554	1,200.3785	1.14	54.60%	
U	9,386	9,383	3	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.97%	0.03%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%	
Total For 1995		11,743	9,383	1,108	5	98	1,149	Clean:	393	31.52%	0.0797	25.9092	220.3795	0.80	
			79.90%	9.44%	0.04%	0.83%	9.78%	Not Clean:	854	68.48%	0.8611	139.4472	1,127.5180	1.14	10.62%
1996															
P	966	0	430	0	77	459	Clean:	278	51.87%	0.0867	20.2061	175.2863	0.93		
		0.00%	44.51%	0.00%	7.97%	47.52%	Not Clean:	258	48.13%	0.7849	110.4211	771.8314	1.36	55.49%	
T	1,766	0	652	8	126	980	Clean:	502	45.39%	0.0955	18.7721	207.7116	0.80		
		0.00%	36.92%	0.45%	7.13%	55.49%	Not Clean:	604	54.61%	0.6269	113.2983	1,177.9764	1.16	62.63%	
U	8,604	8,601	3	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00		
		99.97%	0.03%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%	
Total For 1996		11,336	8,601	1,085	8	203	1,439	Clean:	780	47.50%	0.0924	19.2832	196.1549	0.85	
			75.87%	9.57%	0.07%	1.79%	12.69%	Not Clean:	862	52.50%	0.6742	112.4371	1,056.4156	1.22	14.48%

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	1,490	1,490	0	586	0	206	698	Clean:	576	63.72%	0.0665	16.5013	158.5809	0.72	
			0.00%	39.33%	0.00%	13.83%	46.85%	Not Clean:	328	36.28%	0.9500	105.3759	764.3581	1.14	60.67%
T	2,976	2,976	0	1300	17	56	1,603	Clean:	740	44.61%	0.1016	20.4364	253.8578	0.99	
			0.00%	43.68%	0.57%	1.88%	53.86%	Not Clean:	919	55.39%	0.5591	116.6194	1,070.6205	1.19	55.75%
U	14,167	14,167	14,165	1	0	0	1	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.99%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	100.00%	0.1150	27.6500	607.7000	0.75	0.01%
Total For 1997		18,633	14,165	1,887	17	262	2,302	Clean:	1,316	51.33%	0.0863	18.7141	212.1561	0.87	
			76.02%	10.13%	0.09%	1.41%	12.35%	Not Clean:	1,248	48.67%	0.6615	113.5931	989.7575	1.18	13.76%
1998															
P	1,815	1,815	0	817	0	163	835	Clean:	610	61.12%	0.0798	17.8193	154.2479	0.77	
			0.00%	45.01%	0.00%	8.98%	46.01%	Not Clean:	388	38.88%	0.9572	119.1059	685.2419	1.17	54.99%
T	3,365	3,365	0	1405	13	105	1,842	Clean:	1,061	54.49%	0.1114	20.1816	244.7553	0.90	
			0.00%	41.75%	0.39%	3.12%	54.74%	Not Clean:	886	45.51%	0.6024	97.9820	969.1161	1.15	57.86%
U	13,877	13,877	13,876	1	0	0	0	Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	
			99.99%	0.01%	0.00%	0.00%	0.00%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.00%
Total For 1998		19,057	13,876	2,223	13	268	2,677	Clean:	1,671	56.74%	0.0998	19.3192	211.7155	0.85	
			72.81%	11.67%	0.07%	1.41%	14.05%	Not Clean:	1,274	43.26%	0.7105	104.4153	882.6615	1.16	15.45%
1999															
P	2,368	2,368	0	943	0	290	1,135	Clean:	942	66.11%	0.0733	15.0203	136.8393	0.79	
			0.00%	39.82%	0.00%	12.25%	47.93%	Not Clean:	483	33.89%	0.8246	99.4410	670.9614	1.35	60.18%
T	5,597	5,597	0	2162	23	392	3,020	Clean:	2,214	64.89%	0.0810	15.7499	177.6454	0.89	
			0.00%	38.63%	0.41%	7.00%	53.96%	Not Clean:	1,198	35.11%	0.5375	98.8122	902.7341	1.17	60.96%
U	21,586	21,586	21,582	2	0	0	2	Clean:	1	50.00%	0.1500	46.8500	43.6000	0.25	
			99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	50.00%	0.9150	378.1500	788.5000	0.35	0.01%
Total For 1999		29,551	21,582	3,107	23	682	4,157	Clean:	3,157	65.24%	0.0787	15.5420	165.4270	0.86	
			73.03%	10.51%	0.08%	2.31%	14.07%	Not Clean:	1,682	34.76%	0.6202	99.1588	836.1107	1.22	16.38%
2000															
P	3,016	3,016	0	1071	0	462	1,483	Clean:	1,422	73.11%	0.0601	14.6101	113.1849	0.85	
			0.00%	35.51%	0.00%	15.32%	49.17%	Not Clean:	523	26.89%	0.9225	85.8287	650.3226	1.15	64.49%
T	6,109	6,109	0	1904	29	762	3,414	Clean:	2,962	70.93%	0.0748	13.7863	147.5934	0.83	
			0.00%	31.17%	0.47%	12.47%	55.88%	Not Clean:	1,214	29.07%	0.6160	91.0000	874.2331	1.12	68.36%
U	21,023	21,023	21,017	2	0	0	4	Clean:	2	50.00%	0.0600	42.1250	328.6250	0.42	
			99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	2	50.00%	0.8600	49.3250	642.8000	0.98	0.02%
Total For 2000		30,148	21,017	2,977	29	1,224	4,901	Clean:	4,386	71.61%	0.0700	14.0663	136.5203	0.83	
			69.71%	9.87%	0.10%	4.06%	16.26%	Not Clean:	1,739	28.39%	0.7085	89.3968	806.6264	1.13	20.32%

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	3,905	0	1245	0	740	1,920	Clean:	2,090	78.57%	0.0534	11.3921	84.9725	0.78		
			0.00%	31.88%	0.00%	18.95%	49.17%	Not Clean:	570	21.43%	0.7675	80.3225	634.3952	1.43	68.12%
T	8,533	0	2581	45	1,215	4,692	Clean:	4,681	79.24%	0.0623	13.0093	117.0179	0.81		
			0.00%	30.25%	0.53%	14.24%	54.99%	Not Clean:	1,226	20.76%	0.6760	88.0894	714.7277	1.21	69.23%
U	28,926	28,917	5	0	0	4	Clean:	2	50.00%	0.1450	18.1500	47.2500	0.63		
			99.97%	0.02%	0.00%	0.00%	0.01%	Not Clean:	2	50.00%	0.0325	21.8500	755.9000	1.88	0.01%
Total For 2001	41,364	28,917	3,831	45	1,955	6,616	Clean:	6,773	79.02%	0.0596	12.5118	107.1088	0.80		
			69.91%	9.26%	0.11%	4.73%	15.99%	Not Clean:	1,798	20.98%	0.7043	85.5535	689.3066	1.28	20.72%
2002															
P	3,914	0	1077	0	852	1,985	Clean:	2,223	78.36%	0.0502	10.8360	80.8279	0.73		
			0.00%	27.52%	0.00%	21.77%	50.72%	Not Clean:	614	21.64%	0.7443	96.1581	635.3370	1.11	72.48%
T	8,474	0	2000	33	1,536	4,905	Clean:	5,217	81.00%	0.0604	12.0532	112.0290	0.81		
			0.00%	23.60%	0.39%	18.13%	57.88%	Not Clean:	1,224	19.00%	0.6304	73.4815	735.2391	1.19	76.01%
U	25,890	25,887	1	0	0	2	Clean:	2	100.00%	0.1300	11.4250	88.8500	1.33		
			99.99%	0.00%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
Total For 2002	38,278	25,887	3,078	33	2,388	6,892	Clean:	7,442	80.19%	0.0574	11.6894	102.7027	0.79		
			67.63%	8.04%	0.09%	6.24%	18.01%	Not Clean:	1,838	19.81%	0.6684	81.0568	701.8659	1.17	24.24%
2003															
P	5,248	0	1357	0	1,273	2,618	Clean:	3,282	84.35%	0.0479	10.6452	70.2797	0.74		
			0.00%	25.86%	0.00%	24.26%	49.89%	Not Clean:	609	15.65%	0.7201	79.2915	622.4679	1.26	74.14%
T	11,488	0	2400	26	2,616	6,446	Clean:	7,736	85.37%	0.0541	10.7035	83.0166	0.76		
			0.00%	20.89%	0.23%	22.77%	56.11%	Not Clean:	1,326	14.63%	0.7468	79.5102	652.1710	1.21	78.88%
U	34,951	34,941	5	0	0	5	Clean:	4	80.00%	0.1787	6.8625	180.9000	1.20		
			99.97%	0.01%	0.00%	0.00%	0.01%	Not Clean:	1	20.00%	1.0450	83.4000	1,194.5000	-13.80	0.01%
Total For 2003	51,687	34,941	3,762	26	3,889	9,069	Clean:	11,022	85.06%	0.0523	10.6847	79.2595	0.75		
			67.60%	7.28%	0.05%	7.52%	17.55%	Not Clean:	1,936	14.94%	0.7385	79.4434	643.1075	1.22	25.07%
2004															
P	4,711	0	1024	0	1,232	2,455	Clean:	3,115	84.49%	0.0481	9.6639	58.7548	0.75		
			0.00%	21.74%	0.00%	26.15%	52.11%	Not Clean:	572	15.51%	0.7487	93.2549	626.0374	1.40	78.26%
T	11,400	0	2081	55	2,635	6,629	Clean:	8,136	87.82%	0.0483	9.7001	62.1701	0.80		
			0.00%	18.25%	0.48%	23.11%	58.15%	Not Clean:	1,128	12.18%	0.7689	79.2693	580.7131	1.24	81.26%
U	28,917	28,907	3	0	0	7	Clean:	5	71.43%	0.0460	20.5000	132.4900	0.33		
			99.97%	0.01%	0.00%	0.00%	0.02%	Not Clean:	2	28.57%	0.3950	44.7500	927.9000	2.98	0.02%
Total For 2004	45,028	28,907	3,108	55	3,867	9,091	Clean:	11,256	86.87%	0.0483	9.6949	61.2562	0.79		
			64.20%	6.90%	0.12%	8.59%	20.19%	Not Clean:	1,702	13.13%	0.7617	83.9289	596.3535	1.29	28.78%

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	7,217	0	1384	0	2,191	3,642	Clean:	5,069	86.90%	0.0386	8.6195	45.7252	0.71		
			0.00%	19.18%	0.00%	30.36%	50.46%	Not Clean:	764	13.10%	0.7608	75.7497	526.7271	1.30	80.82%
T	15,016	0	2829	64	3,533	8,590	Clean:	11,003	90.76%	0.0427	9.5478	56.7913	0.81		
			0.00%	18.84%	0.43%	23.53%	57.21%	Not Clean:	1,120	9.24%	0.7618	77.5799	539.6723	1.25	80.73%
U	41,930	41,920	7	0	0	3	Clean:	3	100.00%	0.0833	21.5833	182.4167	1.40		
			99.98%	0.02%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
Total For 2005	64,163	41,920	4,220	64	5,724	12,235	Clean:	16,075	89.51%	0.0414	9.2573	53.3252	0.78		
			65.33%	6.58%	0.10%	8.92%	19.07%	Not Clean:	1,884	10.49%	0.7614	76.8377	534.4227	1.27	27.99%
2006															
P	6,355	0	1593	0	1,549	3,213	Clean:	4,229	88.81%	0.0465	9.7014	50.0352	0.82		
			0.00%	25.07%	0.00%	24.37%	50.56%	Not Clean:	533	11.19%	0.7471	74.1937	459.0818	1.31	74.93%
T	12,938	0	2483	81	2,908	7,466	Clean:	9,475	91.33%	0.0459	9.8678	52.9988	0.84		
			0.00%	19.19%	0.63%	22.48%	57.71%	Not Clean:	899	8.67%	0.7745	83.7569	507.7882	1.24	80.18%
U	32,851	32,844	4	0	0	3	Clean:	3	100.00%	0.0300	9.0333	31.2833	1.75		
			99.98%	0.01%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
Total For 2006	52,144	32,844	4,080	81	4,457	10,682	Clean:	13,707	90.54%	0.0461	9.8163	52.0797	0.84		
			62.99%	7.82%	0.16%	8.55%	20.49%	Not Clean:	1,432	9.46%	0.7643	80.1974	489.6593	1.27	29.03%
2007															
P	9,017	0	2102	0	2,440	4,475	Clean:	6,296	91.05%	0.0395	9.2769	41.6441	0.81		
			0.00%	23.31%	0.00%	27.06%	49.63%	Not Clean:	619	8.95%	0.8190	74.6714	389.7779	1.40	76.69%
T	18,799	0	3642	67	4,282	10,808	Clean:	13,995	92.74%	0.0410	9.3094	45.0401	0.85		
			0.00%	19.37%	0.36%	22.78%	57.49%	Not Clean:	1,095	7.26%	0.8187	69.8114	353.6210	1.26	80.27%
U	45,817	45,805	8	0	0	4	Clean:	4	100.00%	0.1925	14.1125	22.9750	0.00		
			99.97%	0.02%	0.00%	0.00%	0.01%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.01%
Total For 2007	73,633	45,805	5,752	67	6,722	15,287	Clean:	20,295	92.21%	0.0405	9.3003	43.9822	0.84		
			62.21%	7.81%	0.09%	9.13%	20.76%	Not Clean:	1,714	7.79%	0.8188	71.5665	366.6788	1.31	29.89%
2008															
P	7,265	0	1950	0	1,703	3,612	Clean:	4,873	91.68%	0.0465	9.4997	44.5100	0.86		
			0.00%	26.84%	0.00%	23.44%	49.72%	Not Clean:	442	8.32%	0.8822	79.3872	388.4366	1.45	73.16%
T	14,610	0	3249	32	2,684	8,645	Clean:	10,287	90.80%	0.0546	10.1646	47.1761	0.91		
			0.00%	22.24%	0.22%	18.37%	59.17%	Not Clean:	1,042	9.20%	0.7470	61.7125	313.6815	1.33	77.54%
U	32,988	32,967	15	0	0	6	Clean:	3	50.00%	0.1733	32.4167	55.4500	0.78		
			99.94%	0.05%	0.00%	0.00%	0.02%	Not Clean:	3	50.00%	0.6733	553.4500	1,217.6333	0.97	0.02%
Total For 2008	54,863	32,967	5,214	32	4,387	12,263	Clean:	15,163	91.07%	0.0520	9.9553	46.3209	0.90		
			60.09%	9.50%	0.06%	8.00%	22.35%	Not Clean:	1,487	8.93%	0.7870	67.9583	337.7256	1.36	30.35%

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								
2009															
P	3,498	0	902	0	813	1,783	Clean:	2,334	89.91%	0.0463	9.6459	39.8284	0.86		
			0.00%	25.79%	0.00%	23.24%	50.97%	Not Clean:	262	10.09%	0.7555	85.5878	382.5691	1.47	74.21%
T	4,835	0	1010	19	855	2,951	Clean:	3,496	91.85%	0.0543	10.1117	46.4626	0.93		
			0.00%	20.89%	0.39%	17.68%	61.03%	Not Clean:	310	8.15%	0.8249	57.5582	269.1579	1.26	78.72%
U	12,612	12,602	7	0	0	3	Clean:	3	100.00%	0.1150	19.8833	214.7000	1.00		
			99.92%	0.06%	0.00%	0.00%	0.02%	Not Clean:	0	0.00%	0.0000	0.0000	0.0000	0.00	0.02%
Total For 2009		20,945	12,602	1,919	19	1,668	4,737	Clean:	5,833	91.07%	0.0511	9.9304	43.8945	0.90	
			60.17%	9.16%	0.09%	7.96%	22.62%	Not Clean:	572	8.93%	0.7931	70.3969	321.1050	1.35	30.58%
2010															
P	10,470	0	2803	0	2,335	5,332	Clean:	6,956	90.73%	0.0414	9.3915	39.9188	0.94		
			0.00%	26.77%	0.00%	22.30%	50.93%	Not Clean:	711	9.27%	0.7920	78.5243	227.2838	1.57	73.23%
T	20,137	0	3534	42	4,596	11,965	Clean:	15,308	92.43%	0.0392	8.6085	38.5079	0.88		
			0.00%	17.55%	0.21%	22.82%	59.42%	Not Clean:	1,253	7.57%	0.8338	51.7844	227.1156	1.34	82.24%
U	44,722	44,520	106	0	0	96	Clean:	86	89.58%	0.0905	16.9721	62.0017	1.64		
			99.55%	0.24%	0.00%	0.00%	0.21%	Not Clean:	10	10.42%	0.8900	23.3000	124.2700	1.40	0.21%
Total For 2010		75,329	44,520	6,443	42	6,931	17,393	Clean:	22,350	91.88%	0.0400	8.8843	39.0374	0.90	
			59.10%	8.55%	0.06%	9.20%	23.09%	Not Clean:	1,974	8.12%	0.8191	61.2713	226.6552	1.43	32.29%
2011															
P	707	0	127	0	164	416	Clean:	528	91.03%	0.0376	10.4233	40.2119	0.90		
			0.00%	17.96%	0.00%	23.20%	58.84%	Not Clean:	52	8.97%	0.7755	62.6356	304.2096	2.40	82.04%
T	1,699	0	223	5	263	1,208	Clean:	1,336	90.82%	0.0446	10.0728	45.4993	0.96		
			0.00%	13.13%	0.29%	15.48%	71.10%	Not Clean:	135	9.18%	0.8906	54.8533	180.7426	1.37	86.58%
U	16,320	10,421	2709	0	0	3,190	Clean:	2,882	90.34%	0.0802	13.0378	58.0278	1.29		
			63.85%	16.60%	0.00%	0.00%	19.55%	Not Clean:	308	9.66%	0.7637	56.4570	219.8864	1.43	19.55%
Total For 2011		18,726	10,421	3,059	5	427	4,814	Clean:	4,746	90.56%	0.0654	11.9123	52.5190	1.15	
			55.65%	16.34%	0.03%	2.28%	25.71%	Not Clean:	495	9.44%	0.7996	56.6687	218.0690	1.52	27.99%
2012															
P	5,472	0	948	0	955	3,569	Clean:	4,044	89.39%	0.0322	10.9679	40.5481	1.03		
			0.00%	17.32%	0.00%	17.45%	65.22%	Not Clean:	480	10.61%	0.8142	61.3198	273.6056	1.42	82.68%
T	11,969	0	1317	62	2,019	8,571	Clean:	9,640	91.03%	0.0319	10.1919	42.6078	0.98		
			0.00%	11.00%	0.52%	16.87%	71.61%	Not Clean:	950	8.97%	0.8892	50.3481	187.4285	1.38	88.48%
U	82,876	58,001	13053	0	0	11,822	Clean:	10,770	91.10%	0.0731	13.0149	54.2801	1.33		
			69.99%	15.75%	0.00%	0.00%	14.26%	Not Clean:	1,052	8.90%	0.7374	52.7960	196.4475	1.42	14.26%
Total For 2012		100,317	58,001	15,318	62	2,974	23,962	Clean:	24,454	90.79%	0.0501	11.5635	47.4078	1.14	
			57.82%	15.27%	0.06%	2.96%	23.89%	Not Clean:	2,482	9.21%	0.8103	53.5075	207.9172	1.40	26.85%
Overall Total		795,761	519,053	75,253	637	48,219	152,599	Clean:	171,508	85.40%	0.0502	10.6906	63.8686	0.89	
			65.23%	9.46%	0.08%	6.06%	19.18%	Not Clean:	29,310	14.60%	0.7669	90.1262	638.0982	1.26	25.24%