

# **Nairobi, Kenya Vehicle Activity Study**

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## **Chapter One:** **Overview**

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A necessary information base for the calculation of on-road vehicular emissions is the distribution of technologies that are operating on the roads and at the times of interest. This distribution must relate to the amount of driving that is being carried out by each type of technology. A simple approach is to randomly count the number and types of vehicles that are operating on the roads and at the times of interest. Such a count will relate to the rate of driving of the various vehicular technologies recorded since they will be observed in the proportion to the amount of driving that is occurring.

A problem with this approach is the difficulty in making such counts on busy multilane roads and identifying the attendant technologies in real time. This problem can be partially remedied by video taping the traffic. The videotapes can then be studied at leisure and in slow motion to achieve accurate vehicle counts and to identify, to a degree, attendant technologies. Modern digital tapes can be freeze-framed as needed producing relatively high-resolution pictures for careful study if necessary. This approach was used in Los Angeles [Malcolm et. al., 2002] to acquire license plate numbers with excellent results.

Even with the resulting resolution, however, it is very difficult or impossible with respect to most vehicles to determine actual engine technologies, fuel, and emissions controls. The odometer readings of the vehicles are also not accessible using this approach. Even with this limitation, it is easy to review videotapes to establish the relative numbers of passenger cars compared to trucks, buses, and taxis and to make a reasonable estimate of vehicle sizes and even ages by simply carefully observing the collected tapes.

The variety of technologies with respect to passenger cars can vary widely in the modern fleet. In a developing country, the passenger vehicle fleet can contain uncontrolled, carbureted vehicles operating alongside modern multi-point injection, 3-way catalyst vehicles with emissions that are 1% of the uncontrolled vehicles. It is important to understand the relative proportions of passenger vehicle technologies to properly evaluate the emissions of the on-road fleet. Vehicle registration information is often used to establish these types of information in the United States and elsewhere. Unfortunately, such information is often not available or unreliable in developing countries. An alternate process is to examine an appropriate subset of the passenger vehicle fleet in the region of interest to establish information on the distribution of specific passenger vehicle technologies. Since stopping vehicles for this purpose is not normally practical, an alternate approach is to examine vehicles that are parked at representative locations in the region of interest. The assumption that must be made is that the observed vehicular technologies found in grocery store, shopping center, and industrial parking lots and roadside parking are reasonably representative of vehicular activity. A comparative study

of parked vehicles with on-road vehicle activity near the parking lots has confirmed that similar results are achieved. [Malcolm et. al., 2002].

The range of vehicular technologies associated with trucks and buses are typically more limited today especially in developing countries. Thus, the videotape information is adequate for most analysis. If the variety of vehicular technologies associated with buses and trucks should be significantly subdivided, then trucks and buses can be randomly inspected to establish the distribution of technologies. Care must be taken in this process to examine these technologies in a manner that produces results in reasonable proportion to vehicular activity.

This study consists of the collection of data by video taping vehicles on roads and by randomly sampling parked vehicles. The parked car sampling process was carried out over several days and collected data on close to a thousand vehicles. The video taping process allowed the collection of information on several thousand vehicles. A similar study was carried out in Santiago, Chile in Fall 2001.



## **Chapter Two: Videotaping Vehicular Activity**

Digital video cameras were used for the capture of on-road traffic. A two-person team, a person from CE-CERT and a local associate, was used to setup and operate the videotaping cameras. Two cameras were used to capture information at each location. One camera was set up to observe all lanes of traffic and a second camera was set up to observe vehicle detail and vehicle occupancy. The tapes that looked at all lanes were reviewed to make appropriate vehicular counts for traffic analysis. The close-up tapes will be reserved for later analysis of vehicle occupancy.

Videotaping was carried out over six days within a period of 6 hours each day. The three locations videotaped consisted of a generally low-income area, a commercial area, and an upper income area. In each of these areas, three types of roads were videotaped consisting of a major arterial (or freeway if available), a local arterial, and a residential street. This results in videotapes collected from nine representative locations in the region of interest. In order to create as much randomness in the observations as possible, videotaping was carried out for 20-minute intervals in each hour and then the cameras were rotated to the next roadway type.

The videotaping was alternated on different days between the morning and the evening. The morning hours used were 7am to 1pm. one day and the evening hours used were 3pm until 9pm.<sup>1</sup> Three 20 minute tapings were collected on each one-hour digital videotape resulting in 24 videotapes for the two cameras at the nine locations over six days.

The videotapes were reviewed in the office and the observed traffic broken into 12 categories indicated by an “X” in Table 2.1. Figure 2.1 shows the videotaping process.

**Table 2.1: Vehicle Technologies Recorded from Digital Videotapes**

<b>Vehicle Size</b>	<b>Passenger Cars</b>	<b>Trucks</b>	<b>Buses</b>	<b>Taxis</b>	<b>Motorcycles</b>
Small	X	n/a	X	X	X
Medium	X	X	X	X	n/a
Large	X	X	X	X	n/a

<sup>1</sup> The intention is to record a morning and evening in each location of interest. In the case of Santiago, Chile, the desired time order was disrupted so that the videotaping in the upper income area occurred in the morning hours while the videotaping in the lower income area occurred in the evening hours. This provided duplicate data to look at variability. However, in Nairobi, the observation times were set up to provide data over a wider range of hours.

Tables 2.2a-c show the results from the videotaping for the nine sites that were monitored.



Figure 2.1: Typical Videotaping Process<sup>2</sup>

Table 2.2a: Buruburu District Vehicle Counts

Buruburu/Highway/2 Lanes – Each Direction													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
8:00	8.63%	63.19%	20.52%	0.00%	3.75%	1.14%	0.00%	0.33%	0.16%	2.28%	1,842	921	3/7/2002
11:00	4.23%	68.78%	16.75%	0.16%	6.18%	0.16%	0.98%	0.16%	0.16%	2.44%	1,845	923	3/7/2002
14:00	4.42%	70.55%	16.60%	0.00%	4.02%	2.54%	0.00%	0.80%	0.00%	1.07%	2,165	1,083	3/6/2002
17:00	5.38%	66.43%	16.01%	0.00%	6.37%	1.27%	1.84%	0.57%	1.13%	0.99%	2,136	1,068	3/6/2002
Buruburu/Arterial/2 Lanes – Each Direction													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
9:00	1.83%	66.33%	12.78%	0.00%	13.39%	1.83%	1.83%	0.00%	0.61%	1.42%	1,479	740	3/7/2002
12:00	3.53%	62.86%	14.94%	0.41%	12.45%	3.11%	1.04%	0.00%	0.83%	0.83%	1,446	723	3/7/2002
15:00	1.65%	56.26%	18.91%	0.00%	14.18%	4.26%	0.47%	0.47%	0.24%	3.55%	1,241	621	3/6/2002
18:00	1.86%	63.40%	20.16%	0.00%	9.02%	2.65%	0.80%	0.27%	1.33%	0.53%	1,131	566	3/6/2002
Buruburu/Residential/1 Lane – Each Direction													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
7:00	3.33%	81.67%	6.67%	0.00%	3.33%	0.00%	0.00%	5.00%	0.00%	0.00%	265	265	3/7/2002
10:00	5.77%	71.15%	15.38%	1.92%	5.77%	0.00%	0.00%	0.00%	0.00%	0.00%	154	154	3/7/2002
13:00	4.88%	58.54%	29.27%	0.00%	7.32%	0.00%	0.00%	0.00%	0.00%	0.00%	123	123	3/6/2002
16:00	4.44%	60.00%	17.78%	0.00%	6.67%	0.00%	4.44%	6.67%	0.00%	0.00%	135	135	3/6/2002

<sup>2</sup> This picture was taken during the testing in Santiago, Chile.

<b>Overall:</b>	4.27%	65.54%	16.95%	0.09%	7.88%	1.89%	0.86%	0.47%	0.49%	1.55%	1,164	610		

**Table 2.2b: Central Nairobi Vehicle Counts  
Nairobi/Highway/4 Lanes - Each Direction**

Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
8:00	3.50%	59.47%	25.48%	0.59%	2.05%	0.66%	3.76%	2.57%	0.59%	1.32%	4,545	1,136	3/14/2002
11:00	2.96%	57.09%	29.42%	0.52%	2.79%	1.48%	0.70%	2.00%	0.61%	2.44%	3,447	862	3/14/2002
14:00	1.97%	66.26%	21.15%	1.13%	3.67%	0.38%	1.41%	1.03%	0.66%	2.35%	3,192	798	3/13/2002
17:00	2.64%	61.22%	25.30%	0.75%	1.81%	0.68%	0.83%	3.16%	1.66%	1.96%	3,984	996	3/13/2002

**Nairobi/Arterial/2 Lanes – Each Direction**

Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
9:00	0.00%	58.17%	38.46%	0.00%	2.40%	0.00%	0.48%	0.48%	0.00%	0.00%	624	312	3/14/2002
12:00	1.19%	70.75%	21.34%	0.40%	1.98%	1.19%	0.40%	1.98%	0.00%	0.79%	770	385	3/14/2002
15:00	2.59%	68.97%	21.55%	0.86%	2.59%	0.00%	1.29%	0.00%	0.00%	2.16%	696	348	3/13/2002
18:00	2.33%	69.77%	23.26%	0.00%	1.33%	0.00%	0.00%	1.66%	0.66%	1.00%	903	452	3/13/2002

**Nairobi/Residential/1 Lane – Each Direction**

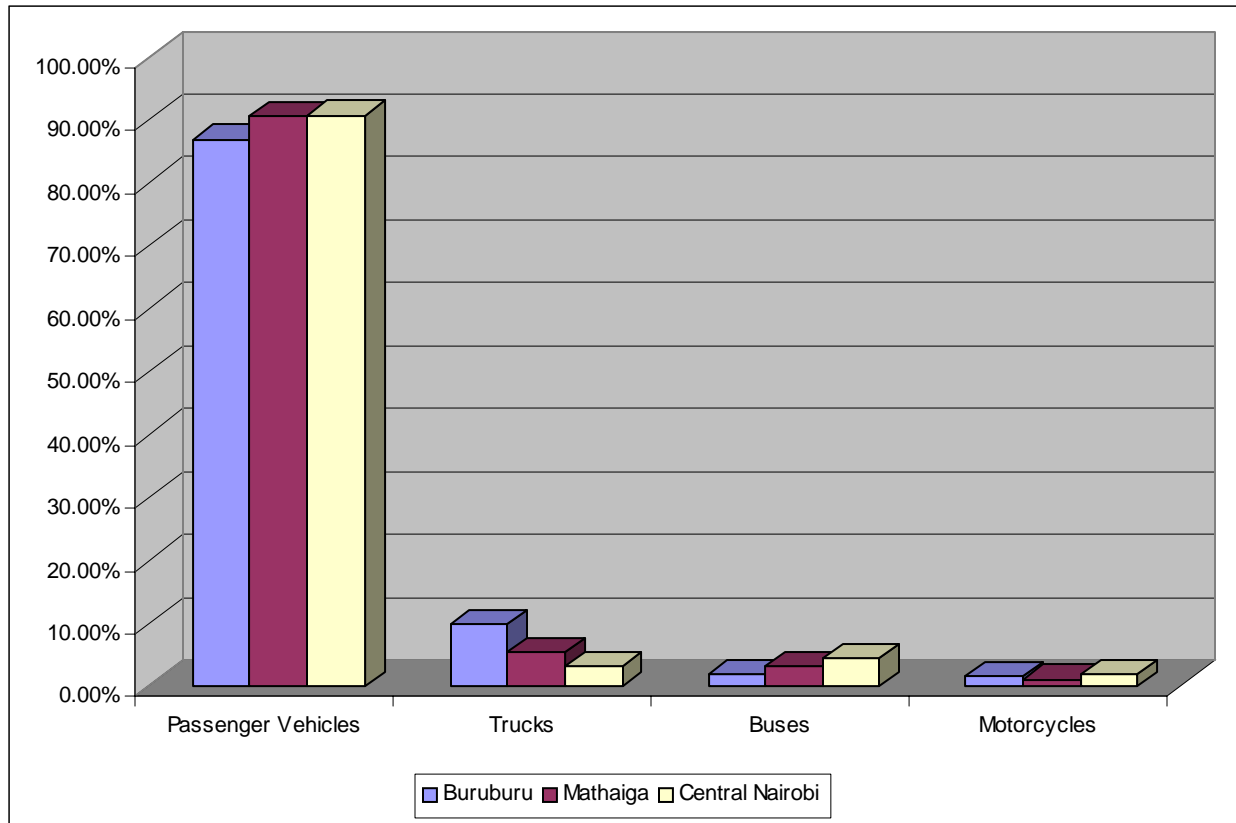
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
7:00	3.70%	66.67%	25.93%	0.00%	0.00%	0.00%	0.00%	3.70%	0.00%	0.00%	162	162	3/14/2002
10:00	17.86%	50.00%	32.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	84	84	3/14/2002
13:00	0.00%	53.49%	44.19%	0.00%	0.00%	0.00%	2.33%	0.00%	0.00%	0.00%	129	129	3/13/2002
16:00	0.00%	50.00%	33.33%	2.38%	2.38%	0.00%	7.14%	4.76%	0.00%	0.00%	126	126	3/13/2002
<b>Overall:</b>	2.67%	61.75%	25.66%	0.66%	2.36%	0.69%	1.61%	2.09%	0.76%	1.75%	1,555	482	

**Table 2.2c:  
Muthaiga District Vehicle Counts**

<b>Muthaiga /Highway/4 Lanes –Each Direction</b>													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
8:00	2.70%	52.25%	36.04%	0.54%	5.05%	0.00%	1.80%	1.08%	0.54%	0.00%	1,665	833	3/12/2002
11:00	5.25%	51.09%	35.14%	0.54%	2.54%	0.18%	1.81%	0.54%	1.09%	1.81%	1,656	828	3/12/2002
14:00	1.90%	50.00%	34.26%	1.38%	6.75%	0.17%	2.08%	0.87%	0.52%	2.08%	1,734	867	3/8/2002
17:00	2.72%	51.58%	34.81%	0.00%	5.16%	1.72%	0.43%	2.15%	0.72%	0.72%	2,094	1,047	3/8/2002
<b>Muthaiga /Arterial/1 Lane – Each Direction</b>													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
9:00	4.93%	59.15%	32.39%	0.00%	2.82%	0.00%	0.70%	0.00%	0.00%	0.00%	426	426	3/12/2002
12:00	4.35%	54.35%	34.78%	0.00%	5.43%	0.00%	1.09%	0.00%	0.00%	0.00%	276	276	3/12/2002
15:00	10.84%	48.19%	27.71%	0.00%	6.02%	0.00%	1.20%	3.61%	0.00%	2.41%	249	249	3/8/2002
18:00	0.96%	49.04%	43.27%	0.00%	4.81%	0.00%	0.00%	0.96%	0.00%	0.96%	312	312	3/8/2002
<b>Muthaiga /Residential/1 Lane –Each Direction</b>													
Time	Passenger Vehicles			Taxis	Trucks		Buses			Motor-cycles	Traffic Flow		Date
	Small	Medium	Large		Medium	Large	Small	Medium	Large		veh/hr	veh/ln/hr	
13:00	0.00%	90.91%	9.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33	33	3/8/2002
16:00	0.00%	85.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	60	60	3/8/2002
19:00	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21	21	3/12/2002
<b>Overall:</b>	3.34%	52.08%	34.62%	0.49%	4.79%	0.49%	1.34%	1.16%	0.60%	1.09%	775	450	

Overall, the passenger vehicles observed to be operating in Muthaiga, the higher income district, were larger sized vehicles (~35%) than the fraction of larger sized passenger vehicles operating in BuruBuru (~17%), a generally lower income district. This data is consistent with the Santiago findings. Wealthier people in these areas tend to buy larger vehicles. The vehicles in the US fleet have been getting larger in recent years in the U.S. during the strong economy. As the economies improve in developing countries, it is likely that the sizes of vehicles operating in the fleet will tend to grow as well. UN officials in Nairobi note that vehicle sizes have grown dramatically especially over the past decade. The relative distributions of passenger vehicles, buses, motorcycles, and trucks are shown in Figure 2.2. It should be noted that it is very likely that the taxis are undercounted in the previous tables. In Nairobi, the taxis are not required to be marked and more than half of the taxis (according to estimates by local taxi drivers) are unmarked. These vehicles serve as both personal and taxi vehicles and the drivers prefer that they are not marked.

Table 2.3 presents a comparison of data collected in Los Angeles, Nairobi, and Santiago. In all three locations, passenger cars clearly dominate the fleet. Passenger car fractions are greatest in the U.S. data at more than 95% of the fleet. There are clearly fewer motorcycles and buses in the U.S. compared to Nairobi or Santiago.



**Figure 2.2: Distribution of Passenger Vehicles, Buses, Motorcycles, and Trucks in Parts of the Nairobi Metropolitan Area Based on Video Collected Data**

**Table 2.3: Comparison of General Vehicle Populations in Los Angeles, Nairobi and Santiago**

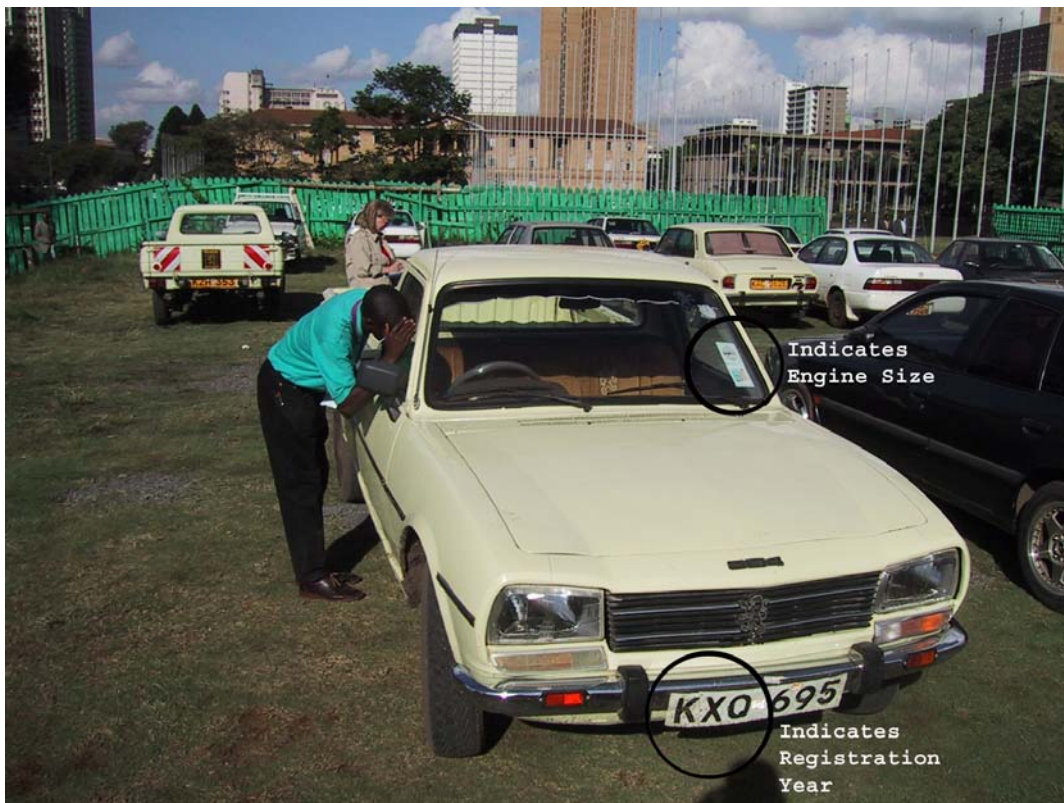
	Passenger Veh.	Trucks	Buses	Motorcycles
Buruburu (Kenya)	86.85%	9.77%	1.83%	1.55%
Maipu (Chile)	90.71%	5.40%	3.30%	0.59%
Puente Hills (U.S.)	92.95%	6.02%	0.90%	0.12%
Central Nairobi (Kenya)	90.74%	3.06%	4.46%	1.75%
Santiago (Chile)	83.36%	6.76%	8.14%	1.73%
Riverside (U.S.)	96.41%	3.00%	0.45%	0.14%
Muthaiga (Kenya)	90.53%	5.28%	3.10%	1.09%
Vitacura (Chile)	91.57%	1.91%	4.79%	1.74%
Yorba Linda (U.S.)	96.76%	2.68%	0.40%	0.16%
Overall Los Angeles	95.37%	3.90%	0.59%	0.14%
Overall Nairobi	89.37%	6.03%	3.13%	1.46%
Overall Santiago	88.55%	4.69%	5.41%	1.35%



## **Chapter Three: Parked Vehicle Technology Recording**

A two-person team visited grocery store, shopping center, and business parking lots, and roadside parking in each of the areas selected for videotaping. Parked car data collection was carried out over the same 6-hour period that videotaping occurred.

One team member recorded general information about the vehicle while the second team member collected odometer readings where visible, transmission type, and air conditioning information by looking through the vehicle windows. A third team member photographed each vehicle to provide a permanent record of data collected. Figure 3.1 illustrates the data collection process and Table 3.1 indicates the vehicle parameters collected.



**Figure 3.1: Parked Car Data Collection in Central Nairobi**

**Table 3.1: Vehicle Information Recorded**

Information Collected	Comment
Manufacturer	Almost always available
Model	Almost always available
Engine Size (liters)	Almost always indicated on the vehicle.
Registration Year/Model Year	Registration year was always estimated from licenses plate. Model year was estimated by observation.
Vehicle Condition	Subjective estimation.
Catalyst	Nairobi has a large used car market with vehicles primarily from Japan. Random observations indicated that virtually all of these vehicles had catalyst. However, all gasoline sold in Nairobi up until a month before the study began was leaded. Thus, all vehicles were recorded as non-catalyst.
Odometer Reading	Recorded by looking through the window. Not visible in some cases and many 2001/2002 vehicles have digital odometers, which are not visible when the vehicle is not operating.
Transmission Type	Recorded by looking through the window of the vehicle
Air Conditioning	Recorded by looking through the window of the vehicle.
Fuel Type	Based on indication on vehicle. Otherwise by knowledge of the vehicle model and looking at the exhaust pipe.
Licenses Number	Recorded from vehicle plates.

The data collected in the walk-around portion of the study is presented in Appendix A. Data from 865 vehicles were collected over six days of field studies. While this represents a significant dataset, there is still the potential for sampling errors especially in cases where the data is parsed into subgroups. A fundamental assumption used in this study is that people act somewhat randomly around norms producing driving statistics that should represent relatively smooth patterns with a standard statistical type of character. When samples appear to differ from these smooth patterns, it is assumed that traditional processes such as least square fits and other curve smoothing processes will work to improve the representativeness of the acquired data.

## **Passenger Vehicles**

### ***Fleet Distribution***

Passenger vehicles makeup almost 89% of the on-road fleet and are thus a key concern for vehicle analysis. Because only leaded fuel has been available in Nairobi in the past,



all Nairobi vehicles were treated as having no catalyst.<sup>3</sup> Most vehicles in Nairobi actually had catalyst since they were used cars bought from developed countries. Table 3.2 provides some comparative data for the Nairobi fleet. As can be seen, the vehicles in the poorer section of the city tend to be older, smaller engine, and of higher mileage compared to the wealthier part of Nairobi.

**Table 3.2: Comparison of Key Passenger Fleet Data Summaries Over Nairobi Metro Area**

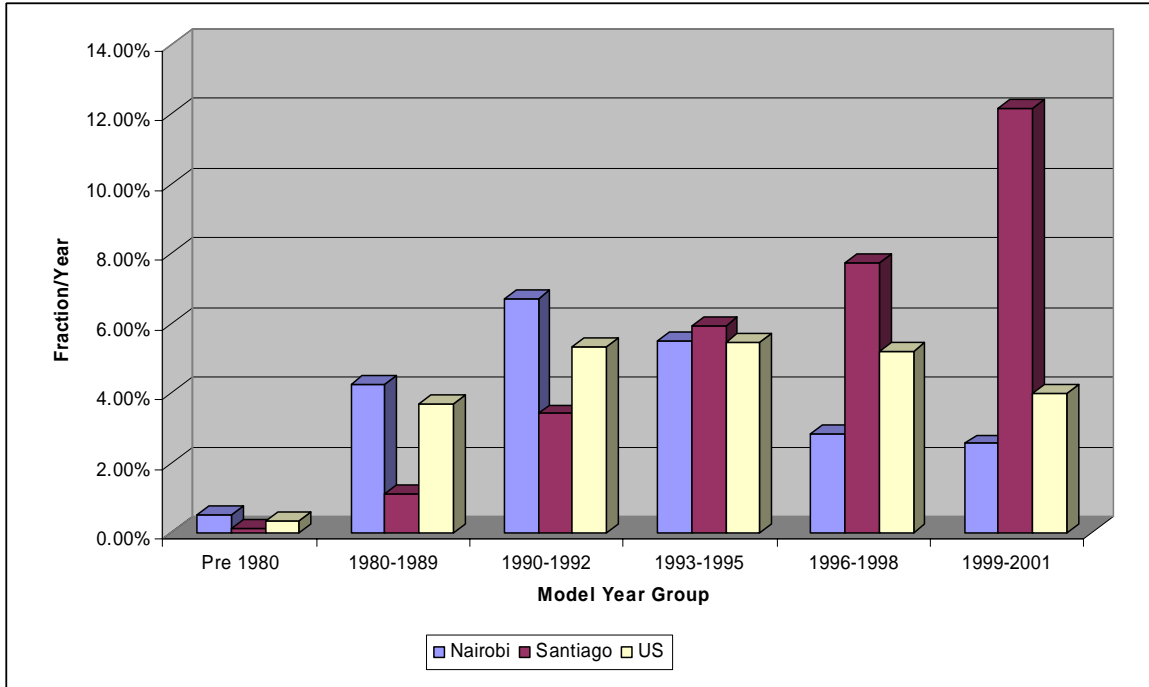
Location	Average Model Year	Average Age at Registration	Average Usage (Km)	Average Engine Size (l)	Air Conditioning	Automatic Transmission
<b>Buruburu</b>	1987.6	1994.0	162,153	1.60	47%	4.0%
<b>Central Nairobi</b>	1988.5	1995.3	128,414	1.59	62%	3.3%
<b>Muthaiga</b>	1992.4	1995.9	93,244	1.91	73%	6.7%
<b>Taxi</b>	1988.7	1994.2	122,480	1.50	73%	0%

The typical vehicle was about 6.2 years old when brought into Kenya. Air conditioning and automatic transmission fractions were consistent with income levels; although, a much higher fraction of vehicles in Nairobi had air conditioning than in Santiago. This is likely due to the fact that most Kenyan vehicles were brought in used from developed countries like Japan where air conditioning is common.

Figure 3.2 presents a comparison of model year data compared to Santiago and the United States [U.S. EPA]. The years are grouped to make the results more statistically robust.

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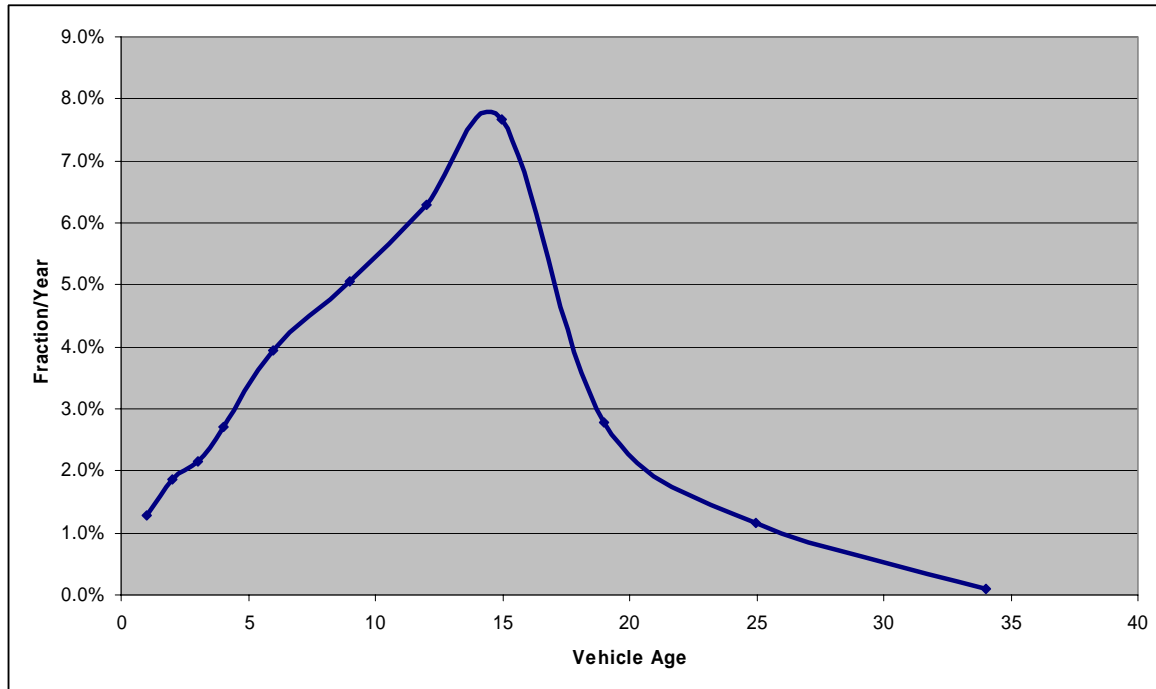
<sup>3</sup> One oil company in Kenya has offered unleaded fuel for sale since early 2002 on a voluntary basis. Thus, it will be possible for owners of catalyst vehicles to obtain leaded fuel, but all existing catalyst will have been destroyed by the lead in the fuel at the present time.



**Figure 3.2: Comparison of Fraction of Various Model Years in the Nairobi Fleet Compared to the Santiago and US Fleets (fraction per year for each model year grouping)**

As shown in Figure 3.2, the Nairobi fleet is the oldest fleet compared to the U.S. or Santiago. The relative distribution of the Nairobi fleet more closely resembles the U.S. fleet than does the Santiago fleet, which is actually newer than the U.S. fleet.

Figure 3.3 presents an analysis of the data collected in the Nairobi metropolitan area by individual model year. 1-year-old vehicles represent 2001 model year in this figure. Due to the overall sample size, there were as many as 132 vehicles in some age groups while only none in other age groups. Thus, model years were grouped for this analysis. In addition, 2001 and older vehicles will continue to be sold in Nairobi creating a continuing evolution of model year distributions in the future.



**Figure 3.3: Model Year Distribution of the Metropolitan Nairobi Fleet**

An important characteristic of the vehicle fleet is the size distribution of the passenger fleet. This will influence the fuel use by this sector of the fleet. Table 3.3 shows the overall passenger fleet vehicle distribution derived from the walk-around data broken into three size groups as used in the IVE model.

**Table 3.3: Vehicle Engine Size Distribution in Various Parts of the Nairobi Metro Area**

Location/Engine Size	Vehicle Count	Fraction
<b>Buruburu</b>		
Small (0.6-1.5 liter engine)	57	57.0%
Medium (1.6-2.4 liter engine)	39	39.0%
Large (2.4 and larger liter engine)	4	4.0%
Total	100	
<b>Central Nairobi</b>		
Small (0.6-1.5 liter engine)	349	68.4%
Medium (1.6-2.4 liter engine)	139	27.3%
Large (2.4 and larger liter engine)	22	4.3%
Total	510	
<b>Muthaiga</b>		
Small (0.6-1.5 liter engine)	91	40.4%
Medium (1.6-2.4 liter engine)	90	40.0%
Large (2.4 and larger liter engine)	44	19.6%
Total	225	
<b>Overall</b>		
Small (0.6-1.5 liter engine)	497	59.5%
Medium (1.6-2.4 liter engine)	268	32.1%
Large (2.4 and larger liter engine)	70	8.4%
Total	835	

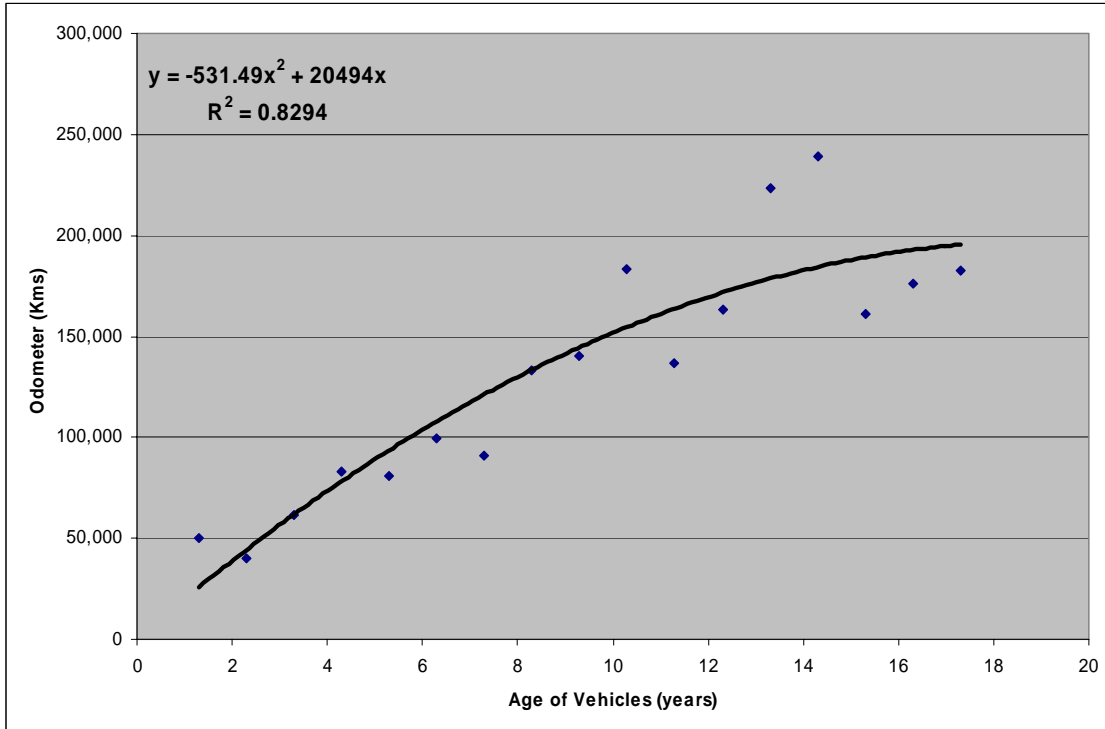
As shown earlier in Table 3.2, the vehicle fleet tends to be larger in the Muthaiga section of Nairobi Metro compared to the Buruburu section of Nairobi Metro. Overall, 59.5% of the Nairobi Metro fleet is made up of small vehicles while 8.4% are large vehicles. Comparing this to Santiago data, 34.1% are smaller vehicles and 8.5%, almost the same as Nairobi, are larger vehicles. The numbers presented in Table 3.3 show the same trends as the video counts presented in Tables 2.2a,b,c but vary considerably from the actual fractions estimated from the videotapes. This difference illustrates the difficulty in estimating specific vehicle size from the videotapes and the need for the parking lot surveys. The more specific data from the parking lot surveys will be used where available.

### ***Vehicle Activity***

The determination of average vehicle usage in Nairobi was complicated by the fact that many of the vehicles operating in Nairobi were used when they arrived there. Thus, estimates cannot be made directly from the odometer readings observed in the parking lot surveys. Usage estimates were made by use of a multiple regression analysis based on the odometer reading and the years operated in Kenya (Present Date-Registration Date) compared to the years the vehicle operated before arriving in Kenya (Registration Data-Model Year Data). The regression produced the equation shown below:

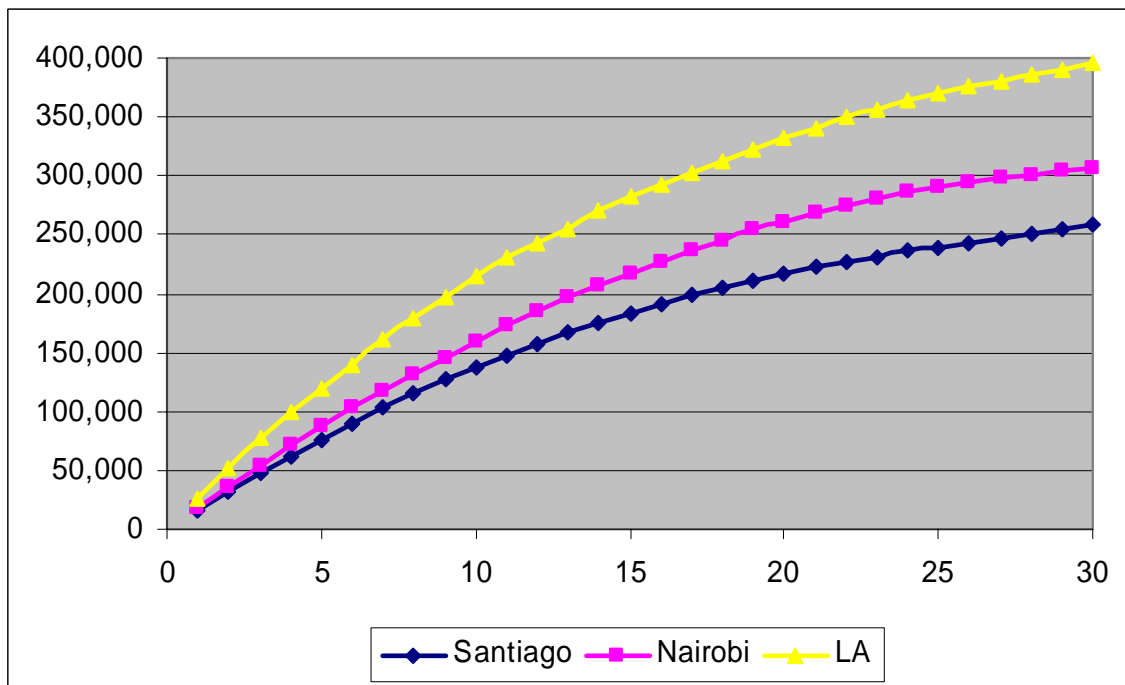
$$\text{Accumulated Use (km)} = 4989*(\text{Yrs Before Kenya}) + 19023*(\text{Yrs in Kenya}) - 458.3*(\text{Yrs in Kenya})^2$$

This result implies that the driving in Kenya averages about 16732 kilometers per year over the first five years of driving. The driving before arriving in Kenya was about 4989 kilometers per year. The result for driving before arrival in Kenya is absurdly low. This raises questions about the methodology or raises the possibility that the odometers are being run back before the vehicles are delivered in Nairobi. To test the annual driving in Nairobi, a subset of vehicles that were only driven in Nairobi was selected from the full data set. This resulted in an annual average usage of 17,837 kilometers per year at 5 years of age. This is in reasonable agreement with the multiple linear regression analysis on all of the vehicles implying that the multiple-regression seems to be reasonably accurate. This result also leads to the conclusion that vehicle odometers may be being run back before vehicles are delivered to Kenya. Figure 3.4 illustrates the least squares fit for vehicles operating their entire life in Kenya.



**Figure 3.4: Mileage Accumulation for Vehicles Operated Solely in Nairobi**

Figure 3.5 compares mileage accumulation for Santiago, Nairobi, and Los Angeles. As can be seen, the Nairobi driving is between that seen in Los Angeles and Santiago.



**Figure 3.5: Comparison of Vehicle Usage by Age for Los Angeles, Nairobi, and Santiago**

Since the odometer readings in Nairobi and Santiago were determined by collecting data in parking lots, it is possible, that the resulting average usage will be high compared to data, which looks at the entire fleet. This high bias results from the fact that it is more likely that the survey approach will find the more active vehicles since they are more likely to be found at supermarkets and shopping centers. These vehicles will have a higher average usage, which will lead to a high biased usage value. For example, Comision Nacional Del Medio Ambiente (CONAMA) reports that they believe that the typical usage is closer to 14,500 km per year [CONAMA] instead of the value of 16,600 km per year estimated from the Santiago parking lot surveys.

If it is assumed that the fleet observed in this portion of the experiment is representative of vehicle activity as opposed to base fleet composition, some corrections should be made to the data as follows.

Assume that

$N_i$  = actual number of vehicles in the  $i$ th usage group in an urban area.

$M_i$  = annual usage defined for the  $i$ th group.

Then,

$$\text{Total number of vehicles} = N_T = \sum N_i \quad (3.1)$$

$$\text{Total distance driven} = S_T = \sum (N_i * M_i) \quad (3.2)$$

$$\text{Average fleet usage} = A = S_T/N_T = (\sum (N_i * M_i)) / (\sum N_i) \quad (3.3)$$

If a total of  $K$  vehicles are randomly sampled then the probability of seeing a vehicle in the group is,

$$\text{Probability} = (N_i * M_i) / (\sum (N_i * M_i)) \quad (3.4)$$

and

$$\text{Likely number of vehicles observed} = N_{0i} = K * (N_i * M_i) / (\sum (N_i * M_i)) \quad (3.5)$$

where

$$K = \sum N_{0i}$$

Substituting equation (3.5) into equation (3.3) and solving for  $N_i$  yields,

$$N_i = (N_{O_i}/K) * (S_T/M_i) \quad (3.6)$$

and

$$A = K / \left( \sum (N_{O_i}/M_i) \right) \quad (3.7)$$

Equation (3.6) can also be rewritten as

$$(N_i/N_T) = (N_{O_i}/K) / (M_i/A) \quad (3.8)$$

Equation (3.8) makes the point that the actual fraction of vehicles in the  $i$ th use group of the base fleet is equal to the fraction of vehicles observed in the  $i$ th use group divided by the ratio of mileage in the  $i$ th use group to the actual fleet average.

Table 3.4 indicates the observed usage distribution for vehicles in the 1994 to 2000 age group for Santiago. This group was selected for evaluation because the age of the vehicle is more reliable.

**Table 3.4: Observed Vehicle Usage Distribution for Vehicles in the 1994-2000 Age Group**

<b>Annual Usage Range (1000s of Km)</b>	<b>Mid-Point of Annual Usage (Km)</b>	<b>Number of Vehicles Observed</b>
0 to 9	5,000	81
10 to 19	15,000	387
20 to 29	25,000	131
30 to 39	35,000	27
40 to 49	45,000	9
50 to 59	55,000	6
60 to 69	65,000	2
	<b>Total Vehicles (K)</b>	<b>643</b>

Using the values in Table 3.4 in equation (3.6) produces an actual average annual vehicle use of 13,300 Km for this group of 1994 to 2000 group of vehicles. These contrasts with the straight average of 16,600 Km noted earlier. If the surveyed data does correspond to the fleet activity distribution then the correct average driving for overall Santiago is 13,300 Km. As noted earlier, CONAMA reports that the average annual driving in Santiago is 14,500 Km. If the 14,500 reported by CONAMA is correct, then the straight average value of 16,600 Km per year is 14.5% higher than the reported value while the activity corrected factor is 8.2% below the reported value. This is not an issue for the fleet distributions developed in this report since the interest is in activity related distributions. However, it is an important consideration when comparing data collected from on-road counts or parking lot counts with data extracted from vehicle registration data in government data banks.

Table 3.5a uses the second order fit shown in Figure 3.4 to estimate accumulated vehicle driving and then to calculate annual estimated vehicle driving by vehicle age. As can be seen, vehicles in the first three years of their life are driven 17,800-19,900 kilometers per year. Vehicles that are 10-12 years old are driven only 8,200-10,400 kilometers per year. This reduced driving at higher age will reduce the impact of older vehicles on air pollution. Table 3.5 also presents similar data for the United States [U.S. EPA]. As can be seen U.S. drivers drive more than Nairobi drivers, and the U.S. shows a similar reduction in driving as vehicles age. The significant increase in the ratio of driving in the U.S. at higher ages compared to Nairobi driving is likely the result of the data collection method. There is no way to tell on older vehicles if the odometer has turned over. Thus, for older vehicles, the usage will be underestimated. To correct for this problem, the ratio of driving will be kept at 1.46 (the average ratio over the first 10 years of vehicle life) between Nairobi and U.S. driving for vehicle ages above 10 years of age.

**Table 3.5a: Estimated Annual Driving by Vehicle Age**

Vehicle Age (years)	Projected Nairobi Accumulated Driving (Km)	Annual Nairobi Driving (Km)	Annual U.S. Driving (Km) <sup>4</sup>	U.S./Nairobi Ratio
1	18,565	18,565	26,917	1.45
2	36,213	17,648	25,420	1.44
3	52,944	16,732	24,002	1.43
4	68,759	15,815	22,654	1.43
5	83,658	14,898	21,373	1.43
6	97,639	13,982	20,157	1.44
7	110,704	13,065	19,003	1.45
8	122,853	12,149	17,911	1.47
9	134,085	11,232	16,878	1.50
10	144,400	10,315	15,904	1.54
11	153,799	9,399	14,986	1.59
12	162,281	8,482	14,126	1.67
13	169,846	7,566	13,325	1.76
14	176,495	6,649	12,566	1.89
15	182,228	5,732	11,840	2.07
16	187,043	4,816	11,152	2.32
17	190,942	3,899	10,507	2.69
18	193,925	2,983	9,905	3.32
19	195,991	2,066	9,320	4.51
20	197,140	1,149	8,703	7.57
21	197,373	1,149	8,097	7.05
22	196,689	1,149	7,502	6.53
23	195,088	1,149	6,925	6.03
24	192,571	1,149	6,365	5.54
25	189,138	1,149	5,618	4.89

<sup>4</sup> U.S. Environmental Protection Agency, EPA420-R-01-047, Sept. 2001

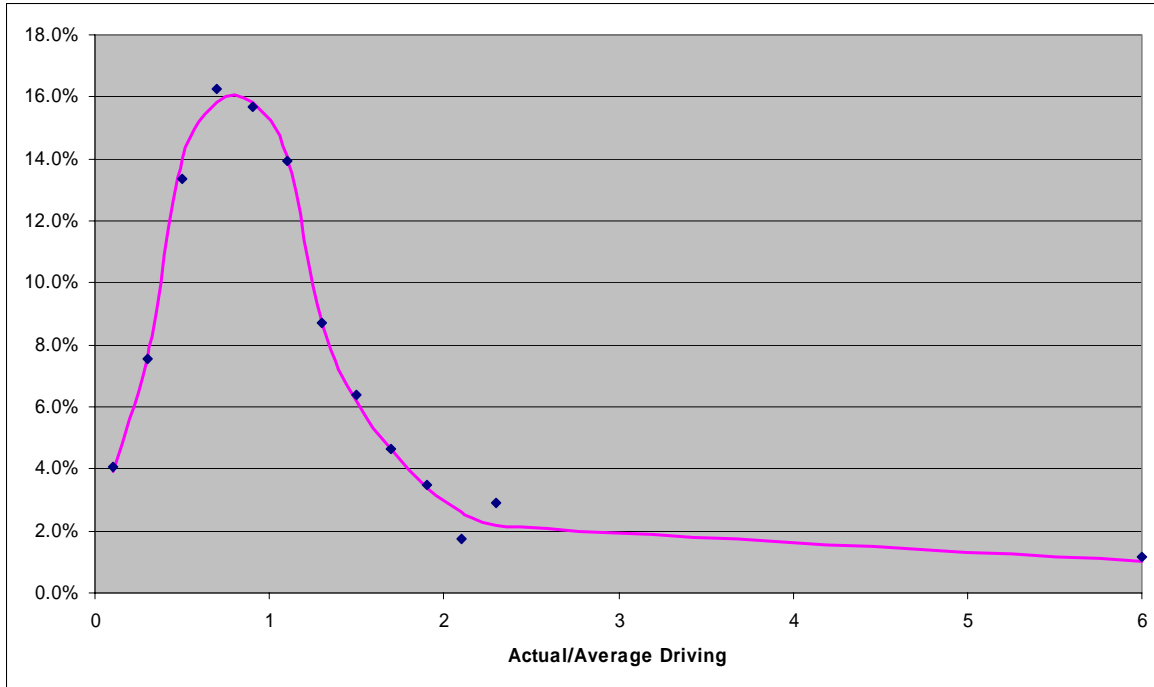


A corrected vehicle usage data for Nairobi is shown in Table 3.5b using the 1.40 ratio for post 10 year old vehicles in Nairobi.

**Table 3.5b: Corrected Vehicle Usage for Nairobi**

Vehicle Age (years)	Projected Nairobi Accumulated Driving (Km)	Annual Nairobi Driving (Km)
1	18,565	18,565
2	36,213	17,648
3	52,944	16,732
4	68,759	15,815
5	83,658	14,898
6	97,639	13,982
7	110,704	13,065
8	122,853	12,149
9	134,085	11,232
10	144,400	10,315
11	154,664	10,264
12	164,340	9,675
13	173,466	9,127
14	182,073	8,607
15	190,183	8,110
16	197,821	7,638
17	205,018	7,197
18	211,802	6,784
19	218,186	6,384
20	224,147	5,961
21	229,692	5,546
22	234,831	5,138
23	239,574	4,743
24	243,934	4,360
25	247,782	3,848

An important adjunct to the accumulated mileage and the typical mileage driven per year is the distribution of driving associated with each age group. Figure 3.4 and Table 3.5 above present averages derived from the whole data set. Figure 3.6 presents the distribution of driving around the average accumulated vehicle usage. The data for Figure 3.6 was developed by dividing the average vehicle usage projected using the second-order equation in Figure 3.4 into the actual usage recorded for each vehicle surveyed for which an odometer reading was available. This curve provides an indication of the fractions of drivers that exceed fall below driving norms.



**Figure 3.6: Distribution of Driving Around Projected Accumulated Usage**

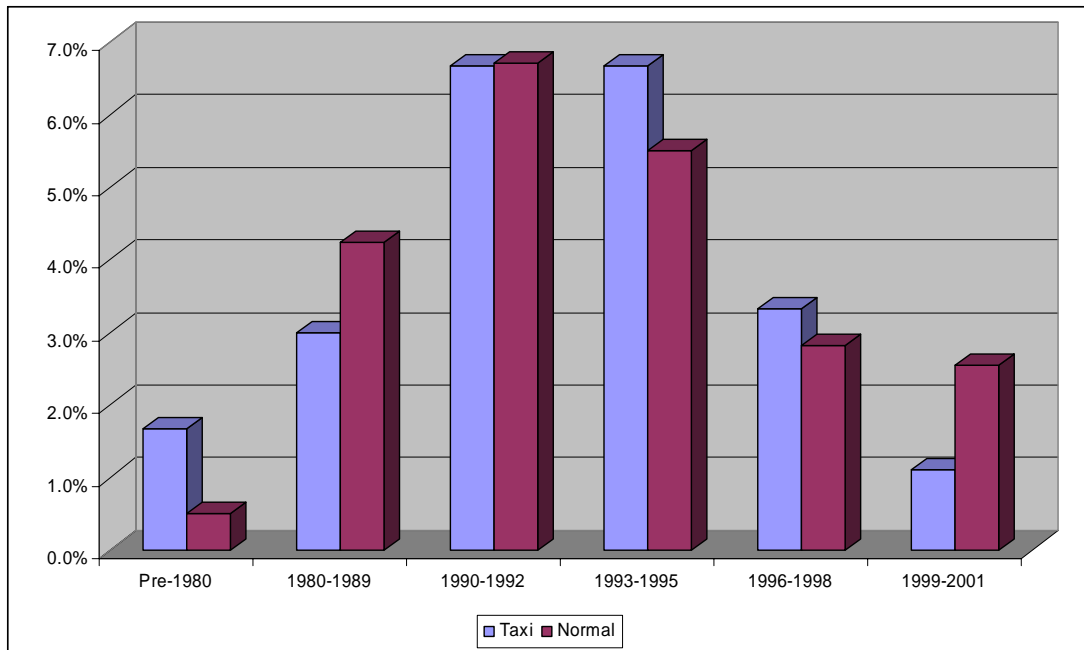
### Taxis

Only limited Taxi data was collected. The entire sample consists of 30 vehicles. All taxis surveyed were bought as used vehicles and the drivers reported that virtually taxis are bought today as used vehicles. The typical taxi was 5.4 years old when purchased based on the difference between vehicle model year and vehicle registration year. The average accumulated mileage on the odometers was 122,480 km. The 30 taxi drivers indicated that they drove between 20 and 240 km per day depending upon the taxi driver. The higher daily driving was reported by taxi drivers representing larger taxi companies while the lower daily driving was reported by freelance taxi drivers. The average of the daily driving estimates by the taxi drivers was 99 km per day at 365 days per year, which translates to 36,000 km per year. It is notable that the Santiago taxi analysis indicated that they drove 35,000 km per year, which is very consistent with the Nairobi results. The limited number of taxi odometer readings makes any regression analysis of the data suspect. Since taxis in Nairobi are purchased off of the same market as consumer vehicles, it is assumed for this analysis, that the original odometer reading conformed to the amounts observed with the rest of the vehicles analyzed earlier. This implies a value of 4989 km per year of age before arriving in Kenya. Using this value in a second order regression on the taxi data produces the result:

$$\text{Accumulated Use (km)} = 4,989 * (\text{Yrs Before Kenya}) + 24,880 * (\text{Yrs in Kenya}) - 855.5 * (\text{Yrs in Kenya})^2$$

This result, while indicating greater driving than non-taxi passenger vehicles, is at variance with the annual driving reported by the taxi drivers of 36,000 km per year. We have no explanation for this discrepancy unless the observed odometers have turned over one or more times or if taxi drivers also have a tendency to disconnect their odometers where possible. The estimates reported by the taxi drivers will be used rather than the odometer readings collected in this study.

The average engine size for taxis was 1.5 liters and 93% were gasoline and 7% diesel. All vehicles except one were in the 1.5/1.6 liter engine size. Figure 3.7 shows the model year distribution of the taxi fleet compared to the normal fleet.



**Figure 3.7: Model Year Distribution of Taxis for Nairobi**

As can be seen, the model year distribution observed for the taxi fleet is consistent with that observed for the overall fleet with the exception of very new vehicles. It appears that taxi companies tend to stay away from very new vehicles based on this data.



## Chapter Four: Vehicle Technology Matrix Based on Video

The International Vehicle Emissions model (IVE model), which this study is designed to support, categorizes on-road vehicles into 871<sup>5</sup> technology categories. The large number of technologies derives from the fact that the IVE model is intended to accommodate a wide array of urban areas around the world and to project emissions in these areas into the future. Thus, fuels as diverse as gasoline, diesel, ethanol, and natural gas must be accommodated along with a wide variety of control technologies for the passenger fleet, truck fleet, bus fleet, and for motorcycles. Appendix B shows the 871 technologies presently accommodated by the model.

As noted earlier, the videotapes were used to create a general breakdown of the on-road fleet. The stationary vehicle data was used to further break the passenger fleet into more finely divided subsets. The data was parsed on an excel spreadsheet into the categories of interest. Table 4.1 indicates the values used to parse the data.

**Table 4.1: Values Used to Parse Data**

	<b>Vehicle Size (based on engine size in liters)</b>	<b>Vehicle Usage (based on amount driven or model year in thousands of Km)<sup>6</sup></b>
Small/Low	0.5-1.5	0-79
Medium/Medium	1.6-2.4	80-159
Large/High	2.5-5	160-1,000

Using Tables 2.2 a, b, c a breakdown of on-road vehicle use was created and is shown in Table 4.2. The values shown in Table 4.2 were created by equally weighting the highway (freeway), arterial, and residential information and averaging it. The overall fleet data are created by equally weighting all of the video produced data and averaging it. A more accurate distribution can be created by determining the relative amount of driving that is occurring on residential streets compared to arterial streets compared to highways and

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<sup>5</sup> As more experience is gained in different locations it has been necessary to increase the technology choices. For example, when the model was first designed, it was assumed that all closed loop engine technologies would also include some form of catalyst and EGR. However, it was discovered in Chile that many closed loop engine technologies did not have EGR. In Kenya it was determined that the leaded fuel in use there will have rendered the catalyst ineffective so that in effect, these vehicles were operating without a catalyst.

<sup>6</sup> In cases where the odometer reading was visible, the value observed on the odometer was used. If no odometer reading was observable then a vehicle usage was approximated using the second order least squares fit equation shown in Figure 3.5. This projected odometer reading was then used to locate the vehicle in the proper use bin.

weighting the activity data. Similarly an improved overall data set can be developed by determining the relative amount of driving that is occurring in Buruburu like situations compared to Central Nairobi type situations compared to Muthaiga type situations. This information is not available at the present. Thus, equal weighting is being used for the present.

**Table 4.2: Breakdown of Vehicular Activity Based on Video Tapes of Nairobi Traffic Compared to Santiago Traffic**

		<b>Passenger Vehicles</b>	<b>Taxis<sup>7</sup></b>	<b>Medium Sized Trucks</b>	<b>Large Sized Trucks</b>	<b>Small Sized Buses</b>	<b>Medium Sized Buses</b>	<b>Large Sized Buses</b>	<b>Motorcycles</b>
<b>Overall Fleet</b>	Santiago	81.1%	9.2%	4.5%	0.6%	0.9%	0.4%	4%	1.4%
	Nairobi	88.6%	0.36%	5.4%	1.2%	1.2%	1.1%	0.6%	1.5%
<b>Lower Income Area</b>	Santiago	78.9%	11.8%	4.7%	0.7%	0.9%	0.9%	1.5%	0.6%
	Nairobi	86.8%	0.09%	7.9%	1.9%	0.9%	0.5%	0.5%	1.6%
<b>Commercial Area</b>	Santiago	74.7%	8.7%	5.6%	1.2%	0.1%	0.3%	7.8%	1.7%
	Nairobi	90.1%	0.7%	2.4%	0.7%	1.6%	2.1%	0.8%	1.8%
<b>Upper Income Area</b>	Santiago	85.1%	6.4%	1.9%	0.1%	1.8%	0.1%	2.9%	1.7%
	Nairobi	90.0%	0.5%	4.8%	0.5%	1.3%	1.2%	0.6%	1.1%

The parked car passenger vehicle information can be used to parse the passenger vehicle fractions into sub-fractions. This is accomplished by multiplying the parked car fractions for the area of interest by the overall passenger vehicle fractions in Table 4.2. The results can be found in Appendix C.

As discussed in Section 3, this process assumes that the observed vehicle fractions in the case of parked cars correspond to the relative use (activity) of these vehicles. Although one would expect the parked vehicle distributions to conform reasonably well to vehicle activity, this has not been proven to be the case. The Los Angeles study associated with this work adds credibility to this assumption. In the Los Angeles study, the video data was used to collect licenses plate data. The licenses plate data allowed the specific determination of vehicle technology for the moving fleet. This was compared with data collected in parking lots and the data was in good agreement.

This technology identification portion of the study did not include data collection concerning diesel trucks and buses. Thus, no data was available to parse diesel vehicles into various age or technology categories. For the present analysis, all diesel trucks and buses are considered to be uncontrolled using pre-chamber injection technology. The vehicles were broken arbitrarily half into the normal category and half into the improved category. The age distributions were estimated based on U.S. data [U.S. EPA]. Table 4.3 indicates the factors used to parse the truck and bus data into age bins. Motorcycles were assumed to be half 2-cycle and half 4-cycle and of less than 79,000 Km (50,000 miles) based on discussions with CONAMA and Nairobi officials. This assumption needs to be tested based on future studies.

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<sup>7</sup>It is likely that the Nairobi taxi fleet is significantly undercounted. Taxis are not required to be marked in Nairobi; thus, it is not possible to distinguish many of the taxis from normal passenger vehicles.

**Table 4.3: Assumptions Used to Parse Truck and Bus Data into Age Bins**

Vehicle Type	Vehicle Size		
	Low Use	Medium Use	High Use
Medium Truck	16.3%	15.5%	68.2%
Large Truck	13.0%	13.0%	74%
Small Bus	13.0%	13.0%	74%
Medium Bus	13.0%	13.0%	74%
Large Bus	13.0%	13.0%	74%

As noted earlier, the results for the overall Nairobi metro area and for the Buruburu, Central Nairobi, and Muthaiga districts are shown in Appendix C.



## References

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- Malcolm, C., Younglove, T., Tietjen, J., Barth, M., Davis, N., and Lents, J. 2002. University of California, College of Engineering, Center for Environmental Research and Technology (CE-CERT), Riverside, CA 92521 “Understanding Real-World Vehicle Activity Patterns and Vehicle Fleet Distributions in the SOCAB” 12<sup>th</sup> CRC On-Road Vehicle Emissions Workshop. San Diego, CA., April 2002.
- U.S. EPA, 2001. “Fleet Characterization Data for Mobile 6: Development and Use of Age Distributions Average Annual Mileage Accumulation Rates and projected Vehicle Counts for Use in MOBILE 6”. EPA420 –R-01047 (M6.FLT.007) September 2001.

# **Appendix A**

## **Stationary Vehicle Inspection Information**

**Table A.1: Parked Vehicle Data Collected in Central Nairobi**

Index	Date	License	Type	Size	Fuel	Manufac.	Model	Reg Yr	Mdl Yr	Odometer	AC	Auto Tran.	Catalyst	Fuel/Air	Maint.	Location
1	3/6/2002	KAH-C	PC	1.3	Gasoline	Toyota	Conquest	1996	1990	109,445			No	Carb.	Poor	Commercial
2	3/6/2002	KAD-G	PC	1.5	Gasoline	Nissan	Sunny	1993	1989	120,347			No	Carb.	Fair	Commercial
3	3/6/2002	KAD-D	PC	1.5	Gasoline	Nissan	Sunny	1993	1985	115,350	Yes		No	Carb.	Poor	Commercial
4	3/6/2002	KAE-C	PC	1.4	Gasoline	Hyundai	Excel	1994	1990	53,058	Yes		No	Carb.	Poor	Commercial
5	3/6/2002	KAH-J	PC	1.3	Gasoline	Nissan	Sunny	1997	1990	83,839	Yes		No	Carb.	Poor	Commercial
6	3/6/2002	KYV-	PC	1.8	Gasoline	Peugeot	504	1988	1981	255,759			No	Carb.	Fair	Commercial
7	3/6/2002	KAM-R	PC	1.5	Gasoline	Toyota	Sprinter	2000	1991	105,592	Yes		No	Man.FI	Good	Commercial
8	3/6/2002	KAC-E	PC	1.3	Gasoline	Mitsubishi	Lancer	1992	1990	261,708			No	Carb.	Poor	Commercial
9	3/6/2002	KAE-E	TR	1.2	Gasoline	Datsun	Pickup	1994	1990	99,683			No	Carb.	Good	Commercial
10	3/6/2002	KAK-J	PC	1.5	Gasoline	Toyota	Corolla	1998	1989	170,000	Yes		No	Carb.	Fair	Commercial
11	3/6/2002	KAM-J	VAN	2.7	Diesel	Nissan	Van	2000	1990	101,882	Yes		No	Carb.	Good	Commercial
12	3/6/2002	KWU-	PC	1.3	Gasoline	Toyota	Corolla	1985	1980	236,920			No	Carb.	Fair	Commercial
13	3/6/2002	KYH-	PC	1.8	Gasoline	Peugeot	504	1987	1981	373,485			No	Carb.	Poor	Commercial
14	3/6/2002	KAB-Y	PC	1.3	Gasoline	Toyota	Corolla	1991	1980	136,668			No	Carb.	Fair	Commercial
15	3/6/2002	KYX-	PC	1.3	Gasoline	Mazda	323	1988	1980	277,102			No	Carb.	Poor	Commercial
16	3/6/2002	KAM-Y	PC	1.5	Gasoline	Nissan	Sunny	2001	1990	57,256	Yes		No	Carb.	Good	Commercial
17	3/6/2002	KWS-	TR	1.8	Gasoline	Peugeot	Pickup/504	1985	1980	195,706			No	Carb.	Poor	Commercial
18	3/6/2002	KAA-Q	PC	1.2	Gasoline	Peugeot	205	1990	1990	85,940			No	Carb.	Good	Commercial
19	3/6/2002	KYR-	PC	1.5	Gasoline	Mazda	323	1987	1980	122,866			No	Carb.	Fair	Commercial
20	3/6/2002	KAE-W	PC	1.6	Gasoline	Subaru	Leone	1995	1985	236,660	Yes		No	Carb.	Fair	Commercial
21	3/6/2002	KAL-P	PC	1.7	Gasoline	Toyota	Stationwagon	1999	1991	114,718	Yes		No	Carb.	Fair	Commercial
22	3/6/2002	KAL-B	PC	2.4	Diesel	Toyota	Surf	1999	1991	89,217	Yes		No	Carb.	Good	Commercial
23	3/6/2002	KAM-B	PC	1.3	Gasoline	Peugeot	309	2000	1989	138,410			No	Carb.	Fair	Commercial
24	3/6/2002	KZR-	PC	1.3	Gasoline	Subaru	Leone	1989	1985	146,723	Yes		No	Carb.	Fair	Commercial
25	3/6/2002	KAH-J	PC	1.5	Gasoline	Nissan	Sunny	1997	1985	99,990	Yes		No	Carb.	Good	Commercial
26	3/6/2002	KZW-	PC	1.8	Gasoline	Peugeot		1989	1981	146,736			No	Carb.	Poor	Commercial
27	3/6/2002	KAK-K	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	104,141	Yes		No	Carb.	Fair	Commercial
28	3/6/2002	KAM-P	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	75,207	Yes		No	Man.FI	Good	Commercial
29	3/6/2002	KAB-F	PC	1.4	Gasoline	Chevrolet	Nova	1991	1980	86,476			No	Carb.	Fair	Commercial
30	3/6/2002	KAG-E	PC	1.5	Gasoline	Toyota	Corolla	1995	1985	153,791	Yes		No	Carb.	Good	Commercial
31	3/6/2002	KWQ-	PC	2	Gasoline	Peugeot	505	1984	1980	124,990			No	Carb.	Fair	Commercial
32	3/6/2002	KAM-P	TR	1.2	Gasoline	Datsun	Pickup	2000	1980	75,087			No	Carb.	Fair	Commercial
33	3/6/2002	KAM-C	PC	1.5	Gasoline	Toyota	Celica	2000	1990	139,380	Yes		No	Man.FI	Good	Commercial
34	3/6/2002	KQH-	PC	1.6	Gasoline	Toyota	Corolla	1975	1976	81,309			No	Carb.	Poor	Commercial
35	3/6/2002	KAN-T	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	35,748	Yes		No	Man.FI	Good	Commercial
36	3/6/2002	KAJ-P	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	117,592	Yes		No	Man.FI	Good	Commercial
37	3/6/2002	KAG-Q	PC	1.3	Gasoline	Nissan	Sunny	1996	1987	323,333	Yes		No	Carb.	Good	Commercial
38	3/6/2002	KAA-U	PC	1.5	Gasoline	Mazda	323	1990	1985	144,200			No	Carb.	Fair	Commercial
39	3/6/2002	KAM-X	PC	1.6	Gasoline	Toyota	Corolla	2001	1985	183,026	Yes	Yes	No	Man.FI	Excel.	Commercial
40	3/6/2002	KAN-T	PC	2	Diesel	Toyota	Corolla	2001	1990	57,503	Yes		No		Good	Commercial
41	3/6/2002	KAJ-L	PC	1.5	Gasoline	Toyota	Corolla	1997	1985	84,073	Yes		No	Man.FI	Fair	Commercial
42	3/6/2002	KAK-A	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	98,705	Yes		No	Man.FI	Good	Commercial
43	3/6/2002	KAN-S	PC	1.3	Gasoline	Toyota	Corolla	2001	1990	111,749	Yes		No	Man.FI	Good	Commercial
44	3/6/2002	KSL-	PC	1.2	Gasoline	Datsun	120Y	1980	1976	261,012			No	Carb.	Poor	Commercial
45	3/6/2002	KAD-D	PC	1	Gasoline	Daihatsu	Charade	1993	1985	87,496			No	Carb.	Fair	Commercial
46	3/6/2002	KAP-F	PC	1.3	Gasoline	Toyota	Corolla	2002	1990	78,534	Yes		No	Man.FI	Good	Commercial

47	3/6/2002	KAM-U	PC	1.5	Gasoline	Toyota	Corolla	2000	1995	102,221	Yes	No	Man.FI	Good	Commercial
48	3/6/2002	KAJ-F	PC	1.8	Gasoline	Subaru	Legacy	1997	1990	106,110	Yes	No	SingleFI	Good	Commercial
49	3/6/2002	KAK-L	PC	1.5	Gasoline	Toyota	Corolla	1998	1987	119,412	Yes	No	Man.FI	Good	Commercial
50	3/6/2002	KAJ-D	PC	1.5	Gasoline	Nissan	B-13	1997	1987	151,453	Yes	No	Carb.	Good	Commercial
51	3/6/2002	KAB-Z	PC	1.5	Gasoline	Honda	Civic	1991	1987	159,830		No	Carb.	Good	Commercial
52	3/6/2002	KAJ-M	PC	1.5	Gasoline	Toyota	Corolla	1998	1987	275,470	Yes	No	Carb.	Good	Commercial
53	3/6/2002	KAE-G	PC	1.5	Gasoline	Nissan	Sunny	1995	1985	135,262	Yes	No	Carb.	Good	Commercial
54	3/6/2002	KAN-Q	PC	1.3	Gasoline	Toyota	Corolla	2001	1990	73,922	Yes	No	Man.FI	Excel.	Commercial
55	3/6/2002	KWY-	PC	1.5	Gasoline	Peugeot	305	1985	1987	258,785		No	Carb.	Fair	Commercial
56	3/6/2002	KAA-V	PC	1.5	Gasoline	Peugeot	305	1990	1987	243,748		No	Carb.	Fair	Commercial
57	3/6/2002	KAM-Y	PC	1.5	Gasoline	Nissan	Sunny	2001	1990	54,898	Yes	No	Carb.	Excel.	Commercial
58	3/6/2002	KAM-S	PC	1.3	Gasoline	Toyota	Corolla	2000	1990	81,748	Yes	No	Carb.	Excel.	Commercial
59	3/6/2002	KAC-C	PC	1.3	Gasoline	Nissan	Sunny	1992	1987	259,053		No	Carb.	Fair	Commercial
60	3/6/2002	KAJ-E	PC	1.5	Gasoline	Toyota	Corolla	1997	1987	144,529	Yes	No	Carb.	Fair	Commercial
61	3/6/2002	KAL-R	PC	1.5	Gasoline	Toyota	Corolla	1999	1989	101,238	Yes	No	Man.FI	Excel.	Commercial
62	3/6/2002	KAH-T	PC	1.5	Gasoline	Honda	Ballade	1997	1995	129,918		No	Carb.	Good	Commercial
63	3/6/2002	KAE-U	PC	1.5	Gasoline	Nissan	Sunny	1995	1985	167,079	Yes	No	Carb.	Fair	Commercial
64	3/6/2002	KAN-N	TR	1.6	Gasoline	Dacia		2001	1999	11,689		No	Carb.	Good	Commercial
65	3/6/2002	KAM-G	VAN	2.1	Gasoline	Volkswagen	Van	2000	1990	237,549		No	Carb.	Fair	Commercial
66	3/6/2002	KQH-	PC	1.2	Gasoline	Toyota	Corolla	1975	1976	59,085		No	Carb.	Poor	Commercial
67	3/6/2002	KAH-C	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	77,850	Yes	No	Man.FI	Good	Commercial
68	3/6/2002	KAL-F	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	88,790	Yes	No	Man.FI	Excel.	Commercial
69	3/6/2002	KAG-N	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	193,240	Yes	No	Carb.	Good	Commercial
70	3/6/2002	KAH-T	PC	1.5	Gasoline	Toyota	Corolla	1997	1985	154,470	Yes	No	Carb.	Good	Commercial
71	3/6/2002	KZI-	PC	1	Gasoline	Peugeot	205	1988	1980	122,111		No	Carb.	Fair	Commercial
72	3/6/2002	KXX-	PC	1.6	Gasoline	Honda	Accord	1986	1980	302,404	Yes	No	Carb.	Poor	Commercial
73	3/6/2002	KAH-S	PC	1.3	Gasoline	Toyota	Starlet	1997	1985	98,242	Yes	No	Carb.	Good	Commercial
74	3/6/2002	KAH-W	PC	1.3	Gasoline	Toyota	Corolla	1997	1992	68,892		No	Carb.	Fair	Commercial
75	3/6/2002	KAC-U	PC	1.5	Gasoline	Nissan	Sunny	1993	1985	216,827	Yes	No	Carb.	Good	Commercial
76	3/6/2002	KAD-N	PC	1.3	Gasoline	Toyota	Corolla	1994	1980	223,201	Yes	No	Carb.	Fair	Commercial
77	3/6/2002	KAD-G	PC	1.3	Gasoline	Nissan	Sunny	1993	1985	120,479	Yes	No	Carb.	Good	Commercial
78	3/6/2002	KAJ-V	PC	1.6	Gasoline	Nissan	Bluebird	1998	1985	99,765	Yes	No	Carb.	Fair	Commercial
79	3/6/2002	KAE-L	PC	1.5	Gasoline	Toyota	Corolla	1995	1987	214,686	Yes	No	Carb.	Fair	Commercial
80	3/6/2002	KAJ-N	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	93,601	Yes	No	Carb.	Good	Commercial
81	3/6/2002	KAN-L	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	106,617	Yes	No	Man.FI	Good	Commercial
82	3/6/2002	KYV-	PC	1.8	Gasoline	Peugeot	504	1988	1980	417,163		No	Carb.	Fair	Commercial
83	3/6/2002	KAK-L	PC	1.3	Gasoline	Toyota	Corolla	1998	1992	110,450	Yes	No	Man.FI	Good	Commercial
84	3/6/2002	KSP-	PC	1.3	Gasoline	Mazda	323	1980	1975	70,573		No	Carb.	Poor	Commercial
85	3/6/2002	KAK-J	PC	1.6	Gasoline	Toyota	Camry	1998	1990	221,112	Yes	No	Carb.	Good	Commercial
86	3/6/2002	KYT-	PC	1.8	Gasoline	Peugeot	504	1987	1980	196,851		No	Carb.	Good	Commercial
87	3/6/2002	KAK-V	PC	1.5	Gasoline	Mitsubishi	Lancer	1999	1990	124,842	Yes	No	Carb.	Good	Commercial
88	3/6/2002	KAH-B	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	175,900	Yes	No	Carb.	Good	Commercial
89	3/6/2002	KAL-W	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	65,340	Yes	No	Man.FI	Good	Commercial
90	3/6/2002	KAD-C	PC	1.5	Gasoline	Toyota	Corolla	1993	1995	162,051		No	Carb.	Fair	Commercial
91	3/6/2002	KAG-T	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	125,670	Yes	No	Man.FI	Good	Commercial
92	3/6/2002	KAH-H	TR	2	Gasoline	Nissan	Pickup	1997	1995	99,021	Yes	No	Carb.	Good	Commercial
93	3/6/2002	KAA-L	TR	1.6	Gasoline	Nissan	Pickup	1990	1985	228,971		No	Carb.	Good	Commercial
94	3/6/2002	KAB-G	TR	1.2	Gasoline	Datsun	Pickup	1991	1990	1,757		No	Carb.	Good	Commercial

95	3/6/2002	KAK-E	TR	2	Gasoline	Nissan	Pickup	1998	1995	85,509		No	Carb.	Fair	Commercial
96	3/6/2002	KAK-E	TR	1.2	Gasoline	Nissan	Pickup	1998	1995	84,804		No	Carb.	Fair	Commercial
97	3/6/2002	KAP-D	PC	1.6	Gasoline	Toyota	Corolla	2002	1998	32,485	Yes	No	Man.FI	Excel.	Commercial
98	3/6/2002	KAJ-G	PC	1.5	Gasoline	Toyota	Corolla	1997	1980	126,911	Yes	No	Carb.	Poor	Commercial
99	3/6/2002	KAJ-L	PC	1.5	Gasoline	Daewoo	Racer	1997	1995	146,187	Yes	No	Man.FI	Good	Commercial
100	3/6/2002	KAK-E	PC	1.8	Gasoline	Nissan	Bluebird	1998	1987	119,383	Yes	No	Carb.	Good	Commercial
101	3/6/2002	KAH-D	PC	1.2	Gasoline	Nissan	Pickup	1996	1995	99,078		No	Carb.	Good	Commercial
102	3/6/2002	KAD-G	PC	1.3	Gasoline	Nissan	Sunny	1993	1987	228,881		No	Carb.	Poor	Commercial
103	3/6/2002	KAJ-L	PC	1.3	Gasoline	Toyota	Corolla	1996	1985	193,439	Yes	No	Carb.	Poor	Commercial
104	3/6/2002	KAE-C	PC	1.3	Gasoline	Nissan	Sunny	1994	1990	165,129		No	Carb.	Fair	Commercial
105	3/6/2002	KAB-S	PC	1	Gasoline	Daihatsu	Charade	1991	1988	14,997		No	Carb.	Fair	Commercial
106	3/6/2002	KAG-Y	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	128,276	Yes	No	Man.FI	Good	Commercial
107	3/6/2002	KAG-R	PC	1.8	Gasoline	Peugeot	504	1996	1987	123,187		No	Carb.	Poor	Commercial
108	3/6/2002	KAJ-F	PC	1.8	Gasoline	Peugeot	504	1997	1998	104,370	Yes	No	Carb.	Fair	Commercial
109	3/6/2002	KAC-L	PC	1.3	Gasoline	Nissan	Sunny	1992	1992	143,903		No	Carb.	Poor	Commercial
110	3/6/2002	KAM-J	PC	1.5	Gasoline	Peugeot	306	2000	2001		Yes	No	Man.FI	Excel.	Commercial
111	3/6/2002	KAJ-Z	PC	1.3	Gasoline	Toyota	Corolla	1998	1999	66,351		No	Carb.	Good	Commercial
112	3/6/2002	KAL-T	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	82,743	Yes	No	Man.FI	Good	Commercial
113	3/6/2002	KAE-Y	PC	1.5	Gasoline	Toyota	Corolla	1995	1990	137,595	Yes	No	Man.FI	Good	Commercial
114	3/6/2002	KAC-E	PC	1.3	Gasoline	Nissan	Sunny	1992	1987	168,202		No	Carb.	Poor	Commercial
115	3/6/2002	KAK-M	PC	1.4	Gasoline	Nissan	Sunny	1998	1995		Yes	No	Carb.	Fair	Commercial
116	3/6/2002	KAA-N	TR	1.6	Gasoline	Mitsubishi	Pickup	1990	1989	284,713		No	Carb.	Fair	Commercial
117	3/6/2002	KAJ-X	TR	1.6	Gasoline	Mitsubishi	Pickup	1998	1993	109,990		No	Carb.	Good	Commercial
118	3/6/2002	KAJ-F	PC	1.3	Gasoline	Nissan	Sunny	1997	1993	85,159	Yes	No	Carb.	Good	Commercial
119	3/6/2002	KAC-J	PC	1.4	Gasoline	Opel	Astra	1992	1990	33,881		No	Carb.	Fair	Commercial
120	3/6/2002	KAB-Y	PC	1.3	Gasoline	Nissan	Sunny	1991	1988	199,039		No	Carb.	Fair	Commercial
121	3/6/2002	KAD-P	PC	1.3	Gasoline	Toyota	Corolla	1994	1987	217,560	Yes	No	Carb.	Good	Commercial
122	3/6/2002	KAN-W	PC	1.5	Gasoline	Toyota	Carlina	2001	1995	53,672	Yes	No	Man.FI	Excel.	Commercial
123	3/6/2002	KAE-E	PC	2	Gasoline	Mercedes	123	1994	1987	136,432		No	Carb.	Good	Commercial
124	3/6/2002	KAN-S	PC	1.5	Gasoline	Toyota	Corolla	2001	1996	65,953	Yes	No	Man.FI	Good	Commercial
125	3/6/2002	KAK-R	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	164,771	Yes	No	Man.FI	Good	Commercial
126	3/6/2002	KAK-W	PC	1.5	Gasoline	Toyota	Corolla	1999	1993	114,889	Yes	No	Man.FI	Excel.	Commercial
127	3/6/2002	KYB-	PC	1.5	Gasoline	Toyota	Corolla	1986	1980	259,470		No	Carb.	Fair	Commercial
128	3/6/2002	KAN-H	PC	1.6	Gasoline	Suzuki	Escudo	2001	1990	70,070	Yes	No	Man.FI	Excel.	Commercial
129	3/6/2002	KAJ-R	PC	1.3	Gasoline	Toyota	Corolla	1998	1987	109,737	Yes	No	Carb.	Excel.	Commercial
130	3/6/2002	KAP-D	PC	1.3	Gasoline	Toyota	Corolla	2002	1992	35,015	Yes	No	Man.FI	Good	Commercial
131	3/6/2002	KAE-W	PC	1.8	Gasoline	Peugeot	504	1995	1987	101,507		No	Carb.	Fair	Commercial
132	3/6/2002	KAG-J	PC	1.3	Gasoline	Volkswagen	Polo	1996	1990	67,523		No	Carb.	Good	Commercial
133	3/6/2002	KTR-	PC	1.4	Gasoline	Volvo	345GL	1982	1975	77,766		No	Carb.	Fair	Commercial
134	3/6/2002	KAG-H	PC	1.5	Gasoline	Daewoo	Cielo	1996	1990	59,647	Yes	No	Man.FI	Good	Commercial
135	3/6/2002	KAN-F	PC	1.5	Gasoline	Toyota	Carib	2001	1992	94,846	Yes	No	Man.FI	Excel.	Commercial
136	3/6/2002	KAD-J	PC	1.3	Gasoline	Toyota	Corolla	1993	1992	132,441		No	Carb.	Poor	Commercial
137	3/6/2002	KAH-H	TR	1.2	Gasoline	Datsun	Pickup	1997	1987	14,492	Yes	No	Carb.	Fair	Commercial
138	3/6/2002	KZE-	PC	2.5	Gasoline	Isuzu	Trooper	1988	1985	191,617		No	Carb.	Good	Commercial
139	3/6/2002	KAJ-K	PC	1.5	Gasoline	Toyota	Corolla	1997	1987	112,338	Yes	No	Carb.	Fair	Commercial
140	3/6/2002	KAM-N	PC	1.8	Gasoline	Nissan	Sunny	2000	1995	86,432		No	SingleFI	Good	Commercial
141	3/6/2002	KXQ-	TR	1.8	Gasoline	Peugeot	Pickup/504	1986	1985	114,707		No	Carb.	Good	Commercial
142	3/6/2002	KZH-	TR	1.8	Gasoline	Peugeot	Pickup/504	1988	1987	240,901		No	Carb.	Fair	Commercial

143	3/6/2002	KAG-Q	PC	1.2	Gasoline	Nissan	March	1996	1985	133,177		No	Carb.	Fair	Commercial	
144	3/6/2002	KAK-R	PC	1.5	Gasoline	Toyota	Corolla	1999	1992	68,748	Yes	No	Man.FI	Good	Commercial	
145	3/6/2002	KAJ-L	PC	1.5	Gasoline	Nissan	Sunny/B-13	1997	1990	87,717	Yes	No	Carb.	Good	Commercial	
146	3/6/2002	KWL-	PC	1.2	Gasoline	Datsun	Sunny	1984	1976	836,779		No	Carb.	Fair	Commercial	
147	3/6/2002	KAE-E	PC	1.5	Gasoline	Toyota	Corolla	1994	1985	119,941	Yes	No	Carb.	Good	Commercial	
148	3/6/2002	KAE-W	PC	1.5	Gasoline	Toyota	Corolla	1995	1988	130,077	Yes	No	Carb.	Fair	Commercial	
149	3/6/2002	KAM-S	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	62,717	Yes	No	Man.FI	Good	Commercial	
150	3/6/2002	KWY-	PC	2	Gasoline	Peugeot	505	1985	1980	521,948		No	Carb.	Poor	Commercial	
151	3/6/2002	KAD-E	PC	1.6	Gasoline	Subaru	Leone	1993	1987	209,137		Yes	No	Carb.	Good	Commercial
152	3/6/2002	KUZ-	PC	2.3	Gasoline	Mercedes	123	1984	1987	85,027	Yes	No	Carb.	Fair	Commercial	
153	3/6/2002	KRY-	PC	1.2	Gasoline	Daihatsu	Charmant	1978	1976	75,748		No	Carb.	Poor	Commercial	
154	3/6/2002	KAK-W	PC	1.5	Gasoline	Toyota	Corolla	1999	1987	153,180	Yes	No	Carb.	Good	Commercial	
155	3/6/2002	KXJ-	PC	1.5	Gasoline	Toyota	Carina	1986	1980	273,870		No	Carb.	Good	Commercial	
156	3/6/2002	KAE-N	PC	1.3	Gasoline	Toyota	Corolla	1995	1985	145,868	Yes	No	Carb.	Fair	Commercial	
157	3/6/2002	KAA-K	PC	1.6	Gasoline	Toyota	Corolla	1990	1990	96,150	Yes	No	Carb.	Fair	Commercial	
158	3/6/2002	KAJ-L	PC	1.3	Gasoline	Toyota	Corolla	1997	1990	156,362	Yes	No	Carb.	Good	Commercial	
159	3/6/2002	KAJ-Q	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	198,089	Yes	No	Carb.	Good	Commercial	
160	3/6/2002	KAC-P	PC	1.5	Gasoline	Nissan	Sunny/B13	1992	1985	176,688	Yes	No	Carb.	Good	Commercial	
161	3/6/2002	KAD-B	PC	1.1	Gasoline	Fiat	Uno	1993	1990	76,794		No	Carb.	Good	Commercial	
162	3/6/2002	KAK-F	PC	1.3	Gasoline	Toyota	Starlet	1998	1987	185,588	Yes	No	Carb.	Good	Commercial	
163	3/6/2002	KAL-W	PC	1.6	Gasoline	Suzuki	Vitara	2000	1990	140,751	Yes	No	Man.FI	Excel.	Commercial	
164	3/6/2002	KAH-Z	PC	1.5	Gasoline	Toyota	Corolla	1997	1989	159,042	Yes	No	Man.FI	Good	Commercial	
165	3/6/2002	KAK-M	PC	1.5	Gasoline	Toyota	Corolla	1998	1989	60,169	Yes	No	Man.FI	Excel.	Commercial	
166	3/6/2002	KAN-J	PC	1.6	Gasoline	Honda	Civic	2001	1992	81,730	Yes	Yes	No	Man.FI	Excel.	Commercial
167	3/6/2002	KAN-Z	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	88,698	Yes	Yes	No	Man.FI	Good	Commercial
168	3/6/2002	KAP-E	TR	2.7	Diesel	Nissan	Caravan	2002	1989	4,818	Yes	No		Good	Commercial	
169	3/6/2002	KAN-T	PC	1.5	Gasoline	Nissan	Wagon	2001	1992	78,207	Yes	No	Carb.	Good	Commercial	
170	3/6/2002	KAH-M	PC	1.5	Gasoline	Nissan	Sunny	1997	1985	107,110	Yes	No	Carb.	Fair	Commercial	
171	3/6/2002	KAN-A	PC	1.8	Gasoline	Nissan	Bluebird	2001	1992	80,984	Yes	No	Man.FI	Good	Commercial	
172	3/6/2002	KAH-C	PC	1.5	Gasoline	Toyota	Corolla	1996	1990	93,767	Yes	No	Man.FI	Good	Commercial	
173	3/6/2002	KAB-P	PC	2.3	Gasoline	BMW	323i	1991	1986	204,039	Yes	Yes	No	Man.FI	Good	Commercial
174	3/6/2002	KAJ-B	PC	2	Gasoline	BMW	320i	1997	1986	166,521	Yes	Yes	No	Man.FI	Fair	Commercial
175	3/6/2002	KAD-F	PC	2	Gasoline	Mercedes	124	1993	1987	179,036		No	Carb.	Fair	Commercial	
176	3/6/2002	KAJ-K	PC	1.3	Gasoline	Toyota	Corolla	1997	1985	45,999	Yes	No	Carb.	Good	Commercial	
177	3/6/2002	KAD-P	PC	1.5	Gasoline	Hyundai	Excel	1994	1995	148,683		No	Carb.	Fair	Commercial	
178	3/6/2002	KAE-H	PC	1.5	Gasoline	Toyota	Corolla	1995	1985	276,800	Yes	No	Carb.	Fair	Commercial	
179	3/6/2002	KAD-B	PC	1.5	Gasoline	Hyundai	Elantra	1993	1995	169,752	Yes	No	Man.FI	Fair	Commercial	
180	3/6/2002	KAK-D	PC	1.5	Gasoline	Toyota	Corolla	1998	1987	143,954	Yes	No	Man.FI	Good	Commercial	
181	3/6/2002	KAN-L	PC	1.5	Gasoline	Toyota	Levin	2001	1992	60,011	Yes	No	Man.FI	Good	Commercial	
182	3/6/2002	KAN-J	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	53,175	Yes	No	Man.FI	Good	Commercial	
183	3/6/2002	KAM-B	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	76,604	Yes	No	Man.FI	Fair	Commercial	
184	3/6/2002	KAG-Y	PC	1.5	Gasoline	Nissan	Sunny/B-11	1996	1986	302,520		No	Carb.	Poor	Commercial	
185	3/6/2002	KAA-T	PC	1.5	Gasoline	Toyota	Corolla	1990	1985	251,514	Yes	No	Carb.	Poor	Commercial	
186	3/6/2002	KAN-W	PC	1.5	Gasoline	Nissan	Sunny/B-14	2001	1992	47,374	Yes	No	Man.FI	Excel.	Commercial	
187	3/6/2002	KWG-	PC	1.6	Gasoline	BMW	316	1984	1985	206,874		No	Carb.	Fair	Commercial	
188	3/6/2002	KAB-U	PC	1.6	Gasoline	Hyundai	Elantra	1991	1992	145,000	Yes	No	Man.FI	Good	Commercial	
189	3/6/2002	KXZ-	PC	1.6	Gasoline	Toyota	Carina	1986	1982	186,271		No	Carb.	Fair	Commercial	
190	3/6/2002	KSP-	PC	1.2	Gasoline	Datsun	120Y	1980	1975	377,883		No	Carb.	Fair	Commercial	

191	3/6/2002	KAN-A	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	56,019	Yes	No	Man.FI	Excel.	Commercial	
192	3/6/2002	KAM-U	PC	1.5	Gasoline	Toyota	Corolla	2000	1987	116,994	Yes	No	Man.FI	Fair	Commercial	
193	3/6/2002	KAL-T	PC	1.8	Gasoline	Subaru	Leone	2000	1987	116,313	Yes	No	Man.FI	Good	Commercial	
194	3/6/2002	KAB-M	PC	1	Gasoline	Daihatsu	Charade	1991	1990	8,333		No	Carb.	Poor	Commercial	
195	3/6/2002	KAE-D	PC	1.5	Gasoline	Nissan	Sunny/B-12	1994	1985	185,579	Yes	No	Carb.	Fair	Commercial	
196	3/7/2002	KAN-T	PC	1.3	Gasoline	Toyota	Corolla	2001	1992	63,292	Yes	No	Man.FI	Excel.	Commercial	
197	3/7/2002	KAA-T	PC	2	Gasoline	Mercedes	124	1990	1987	47,813	Yes	No	Carb.	Good	Commercial	
198	3/7/2002	KAN-Y	PC	2.5	Diesel	Mercedes	C250	2001	2001		Yes	No		Excel.	Commercial	
199	3/7/2002	KAP-E	PC	1.5	Gasoline	Toyota	Corolla	2002	1990	89,193	Yes	No	Man.FI	Excel.	Commercial	
200	3/7/2002	KAJ-K	PC	1.5	Gasoline	Toyota	Levin	1997	1987	52,018	Yes	No	Man.FI	Good	Commercial	
201	3/7/2002	KAL-D	PC	2	Gasoline	Nissan	Primera	1999	1990	68,172	Yes	No	Man.FI	Good	Commercial	
202	3/7/2002	KAC-K	PC	1.5	Gasoline	Mitsubishi	Lancer	1992	1986	111,852	Yes	No	Carb.	Good	Commercial	
203	3/7/2002	KWS-	PC	1.3	Gasoline	Toyota	Corolla	1985	1980	198,656		No	Carb.	Fair	Commercial	
204	3/7/2002	KAN-L	PC	1.5	Gasoline	Toyota	Corolla	2001	1990	56,646	Yes	No	Man.FI	Fair	Commercial	
205	3/7/2002	KAG-B	PC	1.5	Gasoline	Honda	Civic	1995	1986	164,473	Yes	No	Carb.	Fair	Commercial	
206	3/7/2002	KAP-B	PC	1.3	Gasoline	Toyota	Corsa	2002	1990	35,080	Yes	No	Carb.	Good	Commercial	
207	3/7/2002	KAL-Y	PC	1.3	Gasoline	Toyota	Starlet	2000	1987	80,582	Yes	No	Carb.	Excel.	Commercial	
208	3/7/2002	KAM-U	PC	1.2	Gasoline	Nissan	March	1991	1980	35,710		No	Carb.	Poor	Commercial	
209	3/7/2002	KAM-K	PC	1.5	Gasoline	Suzuki	Vitara	2000	1990	87,623	Yes	No	Man.FI	Good	Commercial	
210	3/7/2002	KAL-T	PC	1.3	Gasoline	Toyota	Corolla	2000	1987	91,510	Yes	No	Carb.	Good	Commercial	
211	3/7/2002	KAE-H	PC	1.3	Gasoline	Toyota	Corolla	1995	1990	87,075		No	Carb.	Good	Commercial	
212	3/7/2002	KAD-S	PC	1.3	Gasoline	Toyota	Starlet	1994	1985	168,597		No	Carb.	Fair	Commercial	
213	3/7/2002	KAP-E	PC	1.3	Gasoline	Nissan	Sunny/B-12	2002	1985	86,119	Yes	No	Carb.	Fair	Commercial	
214	3/7/2002	KAN-F	PC	1.5	Gasoline	Toyota	Corolla	2001	1987	60,014	Yes	No	Man.FI	Excel.	Commercial	
215	3/7/2002	KZR-	PC	1.3	Gasoline	Nissan	Sunny/B-12	1989	1980	241,488		No	Carb.	Fair	Commercial	
216	3/7/2002	KRQ-	PC	1.2	Gasoline	Datsun	120Y	1977	1976	820,352		No	Carb.	Fair	Commercial	
217	3/7/2002	KAD-T	PC	1.5	Gasoline	Toyota	Corolla	1994	1985	108,461	Yes	No	Carb.	Good	Commercial	
218	3/7/2002	KAK-T	VAN	2.7	Diesel	Nissan	Van/18 pass.	1999	1987	222,994	Yes	No		Fair	Commercial	
219	3/7/2002	KAJ-B	PC	2.1	Gasoline	Volvo	244DL	1997	1975	41,673		No	Carb.	Fair	Commercial	
220	3/7/2002	KAL-V	VAN	2.7	Gasoline	Nissan	Van/9 pass.	2000	1995	120,037		No		Good	Commercial	
221	3/7/2002	KAN-B	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	63,882	Yes	No	Man.FI	Excel.	Commercial	
222	3/7/2002	KAM-S	PC	1.6	Gasoline	Suzuki	Escudo	2000	1992	78,215	Yes	No	Man.FI	Excel.	Commercial	
223	3/7/2002	KAE-B	PC	1.1	Gasoline	Renault	Clio	1994	1995	104,919		No	Carb.	Excel.	Commercial	
224	3/7/2002	KAJ-W	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	140,130	Yes	No	Man.FI	Good	Commercial	
225	3/7/2002	KAL-J	PC	1.5	Gasoline	Toyota	Corolla	1999	1992	86,286	Yes	No	Man.FI	Good	Commercial	
226	3/7/2002	KAK-X	PC	2.4	Diesel	Toyota	Surf/SUV	1999	1985	156,614	Yes	No		Excel.	Commercial	
227	3/7/2002	KAK-W	PC	1.3	Gasoline	Toyota	Corolla	1999	1985	120,722	Yes	No	Carb.	Good	Commercial	
228	3/7/2002	KAM-W	PC	1.5	Gasoline	Toyota	Corolla	2000	1986	68,121	Yes	No	Man.FI	Excel.	Commercial	
229	3/7/2002	KAG-G	PC	1.5	Gasoline	Toyota	Corolla	1996	1986	213,492		No	Man.FI	Poor	Commercial	
230	3/7/2002	KAC-C	PC	1.3	Gasoline	Nissan	Sunny/B12	1992	1985	184,598		No	Carb.	Poor	Commercial	
231	3/7/2002	KXW-	PC	1.8	Gasoline	Peugeot	504	1986	1980	203,742		No	Carb.	Fair	Commercial	
232	3/7/2002	KAN-M	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	72,349	Yes	No	Man.FI	Excel.	Commercial	
233	3/7/2002	10CD-K	PC	1	Gasoline	Suzuki	Maruti	1997	1985	77,761		No	Carb.	Excel.	Commercial	
234	3/7/2002	KAH-R	PC	1.8	Gasoline	Subaru	Leone	1997	1987	236,140	Yes	No	Man.FI	Good	Commercial	
235	3/7/2002	KAA-J	PC	1.8	Gasoline	Peugeot	504	1990	1990	196,827		No	Carb.	Good	Commercial	
236	3/7/2002	KAM-A	PC	1.3	Gasoline	Toyota	Corolla	2000	1990	111,156	Yes	No	Carb.	Fair	Commercial	
237	3/7/2002	KRJ-	PC	1.2	Gasoline	Citroen	Club	1977	1975	28,789		No	Carb.	Poor	Commercial	
238	3/7/2002	90UN-K	PC	2	Gasoline	Toyota	Surf/SUV		1985	183,982	Yes	Yes	No	Carb.	Excel.	Commercial

239	3/7/2002	KAK-D	PC	2	Gasoline	Subaru	Legacy	1998	1987	182,934	Yes	No	SingleFI	Excel.	Commercial
240	3/7/2002	KAG-H	PC	1.3	Gasoline	Toyota	Corolla	1996	1990	158,295		No	Carb.	Good	Commercial
241	3/7/2002	KAB-R	PC	1.3	Gasoline	Nissan	Sunny/B12	1991	1987	141,267		No	Carb.	Poor	Commercial
242	3/7/2002	KZF-	PC	1.3	Gasoline	Nissan	Sunny/B11	1988	1980	150,578		No	Carb.	Good	Commercial
243	3/7/2002	KAJ-V	PC	2.3	Gasoline	Volvo	740 GLE	1998	1985	211,655	Yes	No	Carb.	Good	Commercial
244	3/7/2002	KAM-R	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	92,465	Yes	No	Man.FI	Good	Commercial
245	3/7/2002	KAG-P	PC	1.3	Gasoline	Toyota	Starlet	1996	1985	129,392	Yes	No	Carb.	Fair	Commercial
246	3/7/2002	KAD-O	PC	1.3	Gasoline	Toyota	Corolla	1994	1980	219,249		No	Carb.	Fair	Commercial
247	3/7/2002	KAM-W	PC	1.5	Gasoline	Nissan	Sunny/B13	2000	1987	51,639	Yes	No	Carb.	Good	Commercial
248	3/7/2002	KSJ-	PC	1.2	Gasoline	Datsun	120Y	1980	1975	442,727		No	Carb.	Poor	Commercial
249	3/7/2002	KAB-Y	PC	1.3	Gasoline	Nissan	Sunny/B12	1991	1987	193,714		No	Carb.	Good	Commercial
250	3/7/2002	KAK-L	PC	1.5	Gasoline	Toyota	Corolla	1998	1987	76,934	Yes	No	Carb.	Good	Commercial
251	3/7/2002	KAN-Q	PC	1.5	Gasoline	Toyota	Sprinter	2001	1992	42,283	Yes	No	Man.FI	Excel.	Commercial
252	3/7/2002	KAB-T	PC	2	Gasoline	Peugeot	505	1991	1986	202,996		No	Carb.	Fair	Commercial
253	3/7/2002	KZH-	PC	1.3	Gasoline	Nissan	Sunny/B11	1988	1986	185,195		No	Carb.	Fair	Commercial
254	3/7/2002	KAK-H	PC	1.5	Gasoline	Mitsubishi	Mirage	1998	1988	107,114	Yes	No	Carb.	Good	Commercial
255	3/7/2002	KAN-G	PC	1.5	Gasoline	Nissan	Sunny/B13	2001	1987	62,595	Yes	No	Carb.	Good	Commercial
256	3/7/2002	KAH-U	TR	1.2	Gasoline	Datsun	Pickup	1997	1987	59,219	Yes	No	Carb.	Good	Commercial
257	3/7/2002	KAG-V	PC	1.5	Gasoline	Toyota	Corolla	1996	1987	192,803	Yes	No	Man.FI	Good	Commercial
258	3/7/2002	KAN-L	PC	1.3	Gasoline	Toyota	Corolla	2001	1992	77,777	Yes	No	Man.FI	Excel.	Commercial
259	3/7/2002	KAN-X	PC	1.3	Gasoline	Toyota	Corolla	2001	1992	62,969	Yes	No	Man.FI	Good	Commercial
260	3/7/2002	KAL-H	PC	1.5	Gasoline	Toyota	Sprinter	1999	1990	112,808	Yes	No	Man.FI	Good	Commercial
261	3/7/2002	KAD-V	PC	1.5	Gasoline	Nissan	Sunny/B12	1994	1985	183,172	Yes	No	Carb.	Fair	Commercial
262	3/7/2002	KAP-A	PC	1.6	Gasoline	Suzuki	Escudo	2002	1990	34,018	Yes	No	Man.FI	Excel.	Commercial
263	3/7/2002	KAM-G	PC	1.3	Gasoline	Toyota	Corolla	2000	1986	191,700		No	Carb.	Good	Commercial
264	3/7/2002	KAL-N	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	107,009		No	Man.FI	Excel.	Commercial
265	3/7/2002	KAK-H	PC	2	Gasoline	Subaru	Legacy	1998	1988	124,490		No	SingleFI	Excel.	Commercial
266	3/7/2002	KAE-X	TR	1.5	Gasoline	Mazda	Pickup	1995	1995	80,284		No	Carb.	Good	Commercial
267	3/7/2002	KAD-N	PC	1.3	Gasoline	Toyota	Corolla	1994	1986	169,451		No	Carb.	Fair	Commercial
268	3/7/2002	KAH-P	PC	1.5	Gasoline	Toyota	Corolla	1997	1986	144,852	Yes	No	Man.FI	Good	Commercial
269	3/7/2002	KAG-K	PC	1.5	Gasoline	Toyota	Corolla	1996	1986	114,570	Yes	No	Man.FI	Good	Commercial
270	3/7/2002	KAG-U	PC	1.6	Gasoline	Peugeot	405	1996	1992	101,620	Yes	No	Carb.	Excel.	Commercial
271	3/7/2002	KAL-R	PC	1.6	Gasoline	Suzuki	Vitara	1999	1991	118,841	Yes	No	Man.FI	Excel.	Commercial
272	3/7/2002	KAG-J	PC	0.8	Gasoline	Maruti	Omni	1996	1990	74,182		No	Carb.	Good	Commercial
273	3/7/2002	KAN-R	TR	2.8	Diesel	Toyota	Pickup/Ext.cab	2001	2001	16,291	Yes	No		Excel.	Commercial
274	3/7/2002	KTS-	PC	1.2	Gasoline	Hyundai		1982	1970	133,726		No	Carb.	Poor	Commercial
275	3/7/2002	KAN-Q	PC	2	Gasoline	Subaru	Legacy	2001	1995	81,130	Yes	No	Man.FI	Excel.	Commercial
276	3/7/2002	KAK-K	PC	1.8	Gasoline	Peugeot	406	1998	2000		Yes	No	Man.FI	Excel.	Commercial
277	3/7/2002	KAA-D	PC	1.3	Gasoline	Volkswagen	Golf	1989	1987	83,609		No	Carb.	Fair	Commercial
278	3/7/2002	KZY-	PC	1.5	Gasoline	Mitsubishi	Lancer	1989	1988	102,712	Yes	No	Carb.	Fair	Commercial
279	3/7/2002	KAH-Z	PC	1.6	Gasoline	Nissan	Primera	1997	1990	86,920		No	Carb.	Good	Commercial
280	3/7/2002	KAP-F	PC	1.5	Gasoline	Toyota	Corolla	2002	1992	61,528	Yes	No	Man.FI	Excel.	Commercial
281	3/7/2002	KJZ-	PC	1.2	Gasoline	Nissan	Lancer	1965	1971	77,481		No	Carb.	Excel.	Commercial
282	3/7/2002	KWK-	PC	1.3	Gasoline	Toyota	Corolla	1984	1977	78,140		No	Carb.	Poor	Commercial
283	3/7/2002	KAL-R	PC	1.8	Gasoline	Peugeot	405	1999	1993	45,741	Yes	No	Man.FI	Excel.	Commercial
284	3/7/2002	KAN-F	PC	1.8	Gasoline	Mitsubishi	Gallant	2001	1995	71,198	Yes	No	Man.FI	Excel.	Commercial
285	3/7/2002	KAK-R	PC	1.5	Gasoline	Daewoo	Cielo	1999	1992	141,255		No	Carb.	Excel.	Commercial
286	3/7/2002	KAN-N	PC	1.4	Gasoline	Renault	19	2001	1995	56,940		No	Man.FI	Excel.	Commercial



287	3/7/2002	KAM-J	PC	1.4	Gasoline	Nissan	Sunny/B14	2000	2001		Yes		No	Carb.	Excel.	Commercial
288	3/7/2002	KAM-H	PC	2	Gasoline	Nissan	Primera	2000	1992	65,597	Yes	Yes	No	Man.FI	Excel.	Commercial
289	3/7/2002	KAH-Y	PC	1.5	Gasoline	Toyota	Corolla	1997	1985	163,590	Yes		No	Carb.	Poor	Commercial
290	3/7/2002	KAK-R	PC	1.5	Gasoline	Mitsubishi	Mirage	1999	1987	110,239	Yes		No	Carb.	Good	Commercial
291	3/7/2002	KAA-H	PC	1.5	Gasoline	Mazda	323	1990	1990	131,390			No	Carb.	Fair	Commercial
292	3/7/2002	KAE-W	PC	1.3	Gasoline	Nissan	Sunny/B12	1995	1995	137,892			No	Carb.	Poor	Commercial
293	3/7/2002	KQB-	PC	1.8	Gasoline	MG	Convertible	1974	1976	4,694			No	Carb.	Excel.	Commercial
294	3/7/2002	KAG-L	PC	1.8	Gasoline	Peugeot	504	1996	1995	137,627			No	Carb.	Fair	Commercial
295	3/7/2002	KZR-	PC	1.5	Gasoline	Mazda	323	1989	1985	255,201			No	Carb.	Fair	Commercial
296	3/7/2002	KAN-L	PC	1.5	Gasoline	Nissan	Sunny/B14	2001	1992	53,834	Yes		No	Man.FI	Excel.	Commercial
297	3/7/2002	KAM-Y	PC	2	Gasoline	Toyota	Rav4	2001	1995	84,862	Yes		No	Man.FI	Excel.	Commercial
298	3/7/2002	KAH-B	PC	1.6	Gasoline	Subaru	Leone	1996	1987	195,545	Yes		No	Carb.	Excel.	Commercial
299	3/7/2002	KAK-Z	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	86,760	Yes		No	Man.FI	Excel.	Commercial
300	3/7/2002	KAC-H	PC	1.5	Gasoline	Nissan	Sunny/B12	1992	1985	165,125	Yes		No	Carb.	Fair	Commercial
301	3/7/2002	KXH-	PC	2	Gasoline	Mercedes	123	1986	1976	132,523			No	Carb.	Good	Commercial
302	3/7/2002	KAE-Z	PC	2.8	Diesel	Daihatsu	Rocky	1995	1986	94,030			No		Good	Commercial
303	3/7/2002	KAK-V	PC	1.5	Gasoline	Toyota	Corolla	1999	1985	173,062	Yes		No	Man.FI	Good	Commercial
304	3/7/2002	KAH-L	PC	1.5	Gasoline	Toyota	Corolla	1997	1986	205,932	Yes		No	Man.FI	Good	Commercial
305	3/7/2002	KAJ-G	PC	1.3	Gasoline	Nissan	Sunny/B12	1997	1988	74,699			No	Carb.	Good	Commercial
306	3/7/2002	KMN-	PC	1.6	Gasoline	Peugeot	404	1969	1969	27,243			No	Carb.	Poor	Commercial
307	3/7/2002	KAC-Y	PC	1.3	Gasoline	Toyota	Corolla	1993	1993	76,070			No	Carb.	Good	Commercial
308	3/7/2002	KAN-G	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	80,062	Yes		No	Man.FI	Excel.	Commercial
309	3/7/2002	KAA-R	PC	1.3	Gasoline	Nissan	Sunny/B12	1990	1990	161,849			No	Carb.	Good	Commercial
310	3/7/2002	KAN-L	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	83,192	Yes		No	Man.FI	Excel.	Commercial
311	3/7/2002	KAC-N	PC	1.5	Gasoline	Toyota	Corolla	1992	1985	163,777	Yes		No	Carb.	Fair	Commercial
312	3/7/2002	KAJ-S	VAN	4.3	Diesel	Isuzu	NQR	1998	1998	54,665			No		Good	Commercial
313	3/7/2002	KAD-L	PC	1.5	Gasoline	Toyota	Corolla	1994	1987	117,084	Yes		No	Carb.	Fair	Commercial
314	3/7/2002	KAJ-P	TR	2.5	Diesel	Isuzu	Pickup	1998	1998	175,940			No		Fair	Commercial
315	3/7/2002	KAN-H	PC	1.8	Gasoline	Peugeot	406	2001	2001		Yes		No	Man.FI	Excel.	Commercial
316	3/7/2002	KAK-Y	PC	2.8	Diesel	Toyota	Prado	1999	1999	75,093	Yes		No		Excel.	Commercial
317	3/7/2002	KAJ-B	PC	1.8	Gasoline	Subaru	Leone	1997	1985	88,864	Yes		No	Carb.	Good	Commercial
318	3/7/2002	KAL-X	PC	2	Gasoline	Toyota	Celica	2000	1990	92,059	Yes		No	Man.FI	Good	Commercial
319	3/7/2002	KAG-R	PC	1.5	Gasoline	Toyota	Sprinter	1996	1985	133,526	Yes		No	Carb.	Fair	Commercial
320	3/7/2002	KAD-C	PC	1.5	Gasoline	Toyota	Corolla	1993	1985	197,730	Yes		No	Carb.	Fair	Commercial
321	3/7/2002	KXA-	PC	1.3	Gasoline	Toyota	Corolla	1985	1983	182,763	Yes		No	Carb.	Poor	Commercial
322	3/7/2002	40UN-K	PC	2	Gasoline	Toyota	Rav4		1995	86,402	Yes		No	Carb.	Excel.	Commercial
323	3/7/2002	KAL-R	PC	2	Gasoline	Mitsubishi	Pagero	1999	1987	134,688			No	SingleFI	Good	Commercial
324	3/7/2002	KAJ-Y	PC	2	Gasoline	Kia	Sportage	1998	1993	47,362	Yes		No	Man.FI	Good	Commercial
325	3/7/2002	KAC-Y	PC	1.5	Gasoline	Nissan	Sunny/B12	1993	1985	142,208	Yes		No	Carb.	Fair	Commercial
326	3/7/2002	KAA-F	TR	1.6	Gasoline	Mitsubishi	Pickup	1989	1989	327,405			No	Carb.	Fair	Commercial
327	3/7/2002	KAN-X	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	44,341	Yes		No	Man.FI	Good	Commercial
328	3/7/2002	KAK-N	PC	1.3	Gasoline	Toyota	Corolla	1998	1998	107,162			No	Carb.	Fair	Commercial
329	3/7/2002	KAL-N	PC	1.5	Gasoline	Nissan	Sunny/B13	1999	1987	124,220	Yes		No	Carb.	Good	Commercial
330	3/7/2002	KAM-Z	PC	1.3	Gasoline	Toyota	Corolla	2001	2001	31,720			No	Carb.	Excel.	Commercial
331	3/7/2002	KAL-R	PC	1.8	Gasoline	Peugeot	405	1999	1999	40,180	Yes		No	Man.FI	Excel.	Commercial
332	3/7/2002	KAE-V	PC	1.3	Gasoline	Toyota	Corolla	1995	1986	209,420	Yes		No	Carb.	Good	Commercial
333	3/7/2002	KAK-T	PC	1.5	Gasoline	Suzuki	Escudo	1999	1990	50,234	Yes		No	Man.FI	Excel.	Commercial
334	3/7/2002	KAN-N	PC	1.3	Gasoline	Mitsubishi	Lancer	2001	2001				No	Carb.	Excel.	Commercial

335	3/7/2002	KAL-S	PC	1.5	Gasoline	Honda	Civic	1999	1993	81,552	Yes	No	Man.FI	Excel.	Commercial
336	3/7/2002	KAK-B	PC	1.4	Gasoline	Nissan	Sunny/B14	1998	1998		Yes	No	Carb.	Good	Commercial
337	3/7/2002	KAN-T	PC	1.3	Gasoline	Toyota	Corolla	2001	1990	21,943	Yes	No	Man.FI	Fair	Commercial
338	3/7/2002	KAN-X	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	50,153	Yes	No	Man.FI	Excel.	Commercial
339	3/7/2002	KAM-N	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	84,699	Yes	No	Man.FI	Excel.	Commercial
340	3/7/2002	KAN-A	PC	1.5	Gasoline	Toyota	Corolla	2001	2001	60,568	Yes	No	Man.FI	Fair	Commercial
341	3/7/2002	KAM-A	PC	2	Gasoline	Toyota	Corolla	2000	1990	85,600	Yes	No	Man.FI	Excel.	Commercial
342	3/7/2002	KAC-W	PC	1.3	Gasoline	Toyota	Corolla	1993	1993	154,655		No	Carb.	Excel.	Commercial
343	3/7/2002	KAD-Q	PC	1.5	Gasoline	Toyota	Sprinter	1994	1985	184,993	Yes	No	Man.FI	Good	Commercial
344	3/7/2002	KAB-V	PC	1.6	Gasoline	BMW	316	1991	1993	163,312	Yes	No	Carb.	Good	Commercial
345	3/7/2002	KAM-	PC	1.5	Gasoline	Nissan	Sunny/B13	2000	1989	69,245	Yes	No	Carb.	Good	Commercial
346	3/7/2002	KAJ-V	PC	1.5	Gasoline	Toyota	Corolla	1998	1983	921,930	Yes	No	Carb.	Poor	Commercial
347	3/7/2002	KAH-R	PC	1.6	Gasoline	Subaru	Leone	1997	1987	128,255	Yes	No	Carb.	Fair	Commercial
348	3/7/2002	KAL-L	PC	1.6	Gasoline	Opel	Astra	1999	1986	7,009		No	Carb.	Excel.	Commercial
349	3/7/2002	KAM-W	PC	1.5	Gasoline	Toyota	Sprinter	2000	1990	44,022	Yes	No	Man.FI	Excel.	Commercial
350	3/7/2002	KAG-E	PC	1.3	Gasoline	Nissan	Sunny/B12	1995	1985	94,342		No	Carb.	Fair	Commercial
351	3/7/2002	KAJ-W	PC	1.8	Gasoline	Nissan	Bluebird	1998	1993	109,218	Yes	No	SingleFI	Good	Commercial
352	3/7/2002	KAE-P	PC	2	Gasoline	Mercedes	123	1995	1986	114,020		No	Carb.	Excel.	Commercial
353	3/7/2002	KAE-V	PC	1.3	Gasoline	Toyota	Corolla	1995	1985	203,299	Yes	No	Carb.	Poor	Commercial
354	3/7/2002	KAL-Y	PC	1.3	Gasoline	Toyota	Corolla	2000	1992	83,408	Yes	No	Man.FI	Fair	Commercial
355	3/7/2002	KAJ-K	PC	1.5	Gasoline	Toyota	Corolla	1997	1986	102,033	Yes	No	Carb.	Good	Commercial
356	3/7/2002	KAJ-P	PC	2.9	Diesel	Mercedes	SUV	1998	1998	86,373	Yes	No		Excel.	Commercial
357	3/7/2002	KAL-A	PC	1.5	Gasoline	Toyota	Corolla	1999	1986	172,060	Yes	No	Man.FI	Good	Commercial
358	3/7/2002	KAD-S	PC	1.5	Gasoline	Toyota	Corolla	1994	1986	135,304	Yes	No	Carb.	Excel.	Commercial
359	3/7/2002	KAK-X	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	101,260	Yes	No	Man.FI	Excel.	Commercial
360	3/7/2002	KAK-C	PC	1.3	Gasoline	Nissan	Sunny	1998	1990	47,055		No	Carb.	Good	Commercial
361	3/12/2002	KAN-L	PC	1.5	Gasoline	Toyota	Corolla	2001	1989	58,641	Yes	No	Man.I	Excel.	Commercial
362	3/12/2002	KAD-W	PC	1.5	Gasoline	Nissan	Sunny/B-12	1994	1985	132,366	Yes	No	Carb.	Good	Commercial
363	3/12/2002	KAN-P	PC	1.6	Gasoline	Suzuki	Vitara	2001	1994	89,771	Yes	No	Man.I	Excel.	Commercial
364	3/12/2002	KAH-L	PC	1.3	Gasoline	Suzuki	Jimmy	1997	1980	54,488		No	Carb.	Good	Commercial
365	3/12/2002	KAG-N	PC	1.9	Gasoline	Mercedes	190E	1996	1986	157,790		Yes	Man.I	Excel.	Commercial
366	3/12/2002	KAJ-E	PC	1.5	Gasoline	Toyota	Corolla	1997	1985	100,880	Yes	No	Carb.	Excel.	Commercial
367	3/12/2002	KAL-E	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	144,333	Yes	No	Man.I	Good	Commercial
368	3/12/2002	KAK-K	PC	1.3	Gasoline	Toyota	Starlet	1998	1990	61,397	Yes	No	Carb.	Excel.	Commercial
369	3/12/2002	KAE-S	PC	1.3	Gasoline	Toyota	Starlet	1995	1987	152,998	Yes	No	Carb.	Excel.	Commercial
370	3/12/2002	KAH-Q	PC	1.5	Gasoline	Toyota	Starlet	1997	1985	180,930	Yes	No	Man.I	Good	Commercial
371	3/12/2002	KAA-A	PC	1.3	Gasoline	Nissan	Sunny/B-12	1989	1989	198,225		No	Carb.	Good	Commercial
372	3/12/2002	KAB-H	PC	1.3	Gasoline	Suzuki	SUV	1991	1987	30,344		No	Carb.	Good	Commercial
373	3/12/2002	KAL-X	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	81,423	Yes	No	Man.I	Excel.	Commercial
374	3/12/2002	KAJ-J	PC	1.5	Gasoline	Nissan	Sunny/B-13	1997	1989	57,677	Yes	No	Carb.	Good	Commercial
375	3/12/2002	KAB-Y	PC	1.5	Gasoline	Mazda	323	1991	1991	108,540		No	Carb.	Good	Commercial
376	3/12/2002	KXA-	PC	1.3	Gasoline	Toyota	Corolla	1985	1982	172,902	Yes	No	Carb.	Fair	Commercial
377	3/12/2002	KXP-	PC	1.2	Gasoline	Datsun	120Y	1986	1986	209,273		No	Carb.	Fair	Commercial
378	3/12/2002	KAM-H	PC	1.5	Gasoline	Toyota	Corolla	2000	1989	71,969	Yes	No	Man.I	Excel.	Commercial
379	3/12/2002	KAG-B	PC	1.9	Gasoline	Mercedes	190	1995	1988	144,287		No	Carb.	Excel.	Commercial
380	3/12/2002	KAN-T	PC	1.5	Gasoline	Toyota	Corolla	2001	1996	19,581	Yes	No	Man.I	Excel.	Commercial
381	3/12/2002	KAH-A	PC	1.6	Gasoline	BMW	316i	1996	1986	167,636	Yes	No	Man.I	Fair	Commercial
382	3/12/2002	KMC-	PC	1.2	Gasoline	Volkswagen	Beetle	1968	1968	8,763		No	Carb.	Poor	Commercial

383	3/12/2002	KAM-E	PC	1.1	Gasoline	Fiat	Uno	2000	1990	3,417		No	Carb.	Poor	Commercial	
384	3/12/2002	KZS-	PC	0.8	Gasoline	Suzuki	Omni	1989	1989	49,711		No	Carb.	Good	Commercial	
385	3/12/2002	KAM-A	PC	1.5	Gasoline	Toyota	Corolla	2000	1989	111,454	Yes	No	Man.I	Good	Commercial	
386	3/12/2002	KZG-	PC	1.3	Gasoline	Toyota	Corolla	1988	1988	214,495		No	Carb.	Excel.	Commercial	
387	3/12/2002	KAK-E	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	101,879	Yes	No	Carb.	Good	Commercial	
388	3/12/2002	KYZ-	PC	1.3	Gasoline	Toyota	Corolla	1988	1988	284,854		No	Carb.	Fair	Commercial	
389	3/12/2002	KAC-C	PC	1.3	Gasoline	Nissan	Sunny/B-12	1992	1992	196,949		No	Carb.	Fair	Commercial	
390	3/12/2002	KAL-W	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	91,061	Yes	No	Man.I	Excel.	Commercial	
391	3/12/2002	KAL-N	PC	1.3	Gasoline	Nissan	Sunny/B-12	1999	1987	124,135	Yes	No	Carb.	Good	Commercial	
392	3/12/2002	KAB-K	PC	1.8	Gasoline	Peugeot	504	1991	1991	205,414		No	Carb.	Good	Commercial	
393	3/12/2002	KAG-A	PC	1.5	Gasoline	Toyota	Corolla	1995	1986	92,677	Yes	No	Carb.	Excel.	Commercial	
394	3/12/2002	KAC-U	PC	1.5	Gasoline	Nissan	Sunny/B-11	1993	1986	138,221	Yes	No	Carb.	Good	Commercial	
395	3/12/2002	KRY-	PC	1.5	Gasoline	Mitsubishi	Gallant	1978	1978	46,741		No	Carb.	Good	Commercial	
396	3/12/2002	KAH-Y	PC	1.3	Gasoline	Mitsubishi	Lancer	1997	1986	39,600	Yes	No	Carb.	Fair	Commercial	
397	3/12/2002	KAK-Z	PC	1.5	Gasoline	Toyota	Corolla	1999	1989	122,383	Yes	No	Man.I	Fair	Commercial	
398	3/12/2002	KAE-V	PC	1.3	Gasoline	Toyota	Corolla	1995	1980	132,160	Yes	No	Carb.	Fair	Commercial	
399	3/12/2002	KPS-	PC	1.2	Gasoline	Datsun	120Y	1974	1974	228,355		No	Carb.	Fair	Commercial	
400	3/12/2002	KXL-	PC	3.5	Gasoline	Rover	RangeRover	1986	1986	56,586		No	Carb.	Excel.	Commercial	
401	3/12/2002	KAA-C	PC	1.3	Gasoline	Toyota	Corolla	1989	1989	213,875		No	Carb.	Good	Commercial	
402	3/12/2002	KAH-T	PC	1.8	Gasoline	Subaru	Legacy	1997	1991	75,321	Yes	No	SinglePt.I	Excel.	Commercial	
403	3/12/2002	KAJ-G	PC	1.5	Gasoline	Toyota	Corolla	1997	1989	199,321	Yes	No	Man.I	Excel.	Commercial	
404	3/12/2002	KAL-H	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	105,160	Yes	No	Man.I	Good	Commercial	
405	3/12/2002	KAJ-U	PC	2.3	Gasoline	Mercedes	CLK	1998	1998		Yes	No	Man.I	Excel.	Commercial	
406	3/12/2002	KAL-P	PC	1.3	Gasoline	Toyota	Corolla	1999	1990	103,771	Yes	No	Carb.	Excel.	Commercial	
407	3/12/2002	KXZ-	PC	2	Gasoline	Mercedes	123	1986	1986	294,785		No	Carb.	Good	Commercial	
408	3/12/2002	KAN-T	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	83,479	Yes	No	Man.I	Excel.	Commercial	
409	3/12/2002	KAL-X	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	46,590	Yes	No	Man.I	Excel.	Commercial	
410	3/12/2002	KAP-C	PC	1.4	Gasoline	Peugeot	306	2002	2002		Yes	No	Man.I	Excel.	Commercial	
411	3/12/2002	KAJ-P	PC	1.3	Gasoline	Toyota	Starlet	1998	1985	94,159	Yes	Yes	No	Carb.	Excel.	Commercial
412	3/12/2002	KAE-G	PC	1	Gasoline	Daihatsu	Charade	1995	1995	56,934		No	Carb.	Excel.	Commercial	
413	3/12/2002	KAP-C	PC	1.4	Gasoline	Peugeot	306	2002	2002		Yes	No	Man.I	Excel.	Commercial	
414	3/12/2002	KAL-J	PC	1.5	Gasoline	Toyota	Corolla	1999	1997	54,281	Yes	No	Man.I	Excel.	Commercial	
415	3/12/2002	KAD-N	PC	1.5	Gasoline	Mazda	323	1994	1994	89,097		No	Carb.	Excel.	Commercial	
416	3/12/2002	KAM-B	PC	2.2	Gasoline	Mercedes	124	2000	2000	30,873	Yes	No	Man.I	Excel.	Commercial	
417	3/12/2002	KAM-G	PC	1.8	Gasoline	Daihatsu		2000	1987	96,771		No	Carb.	Good	Commercial	
418	3/12/2002	KAA-W	PC	2	Gasoline	Peugeot	505	1990	1990	160,041	Yes	No	Carb.	Excel.	Commercial	
419	3/12/2002	KAC-S	PC	2	Gasoline	Mercedes	124	1992	1992	171,920	Yes	Yes	No	Man.I	Excel.	Commercial
420	3/12/2002	KAJ-X	PC	2.8	Gasoline	BMW	328i	1998	1992		Yes	Yes	No	Man.I	Excel.	Commercial
421	3/12/2002	KAM-L	PC	1.4	Gasoline	Daewoo	Lanos	2000	2000	44,430		No	Man.I	Excel.	Commercial	
422	3/12/2002	KAM-B	PC	2.2	Gasoline	Mercedes	124	2000	2000	46,174		No	Man.I	Excel.	Commercial	
423	3/12/2002	KAL-N	PC	1.5	Gasoline	Toyota	Corolla	1999	1992	85,448	Yes	No	Man.I	Excel.	Commercial	
424	3/12/2002	KAM-C	PC	1.5	Gasoline	Toyota	Corolla	2000	1992	63,553	Yes	No	Man.I	Excel.	Commercial	
425	3/12/2002	KAA-K	PC	1.5	Gasoline	Mitsubishi	Lancer	1990	1990	272,761		No	Carb.	Good	Commercial	
426	3/12/2002	KAC-W	PC	2	Gasoline	Peugeot	505	1993	1993	63,781		No	Carb.	Excel.	Commercial	
427	3/12/2002	KAL-X	PC	5	Gasoline	Ford	Bronco	2000	1985			No	Man.I	Excel.	Commercial	
428	3/12/2002	KAC-V	PC	2	Gasoline	Hyundai	Sonata	1993	1993	126,321		No	Carb.	Good	Commercial	
429	3/12/2002	KAC-T	PC	1.3	Gasoline	Nissan	Sunny/B-12	1992	1985	140,242	Yes	No	Carb.	Good	Commercial	
430	3/12/2002	KAC-X	PC	1.3	Gasoline	Hyundai	Excel	1993	1993	104,979		No	Carb.	Good	Commercial	

431	3/12/2002	KAL-J	PC	1.5	Gasoline	Toyota	Corolla	1999	1995	54,288	Yes	No	Man.I	Excel.	Commercial	
432	3/12/2002	KAM-V	PC	1.5	Gasoline	Hyundai	Accent	2000	2000	41,355	Yes	No	Carb.	Excel.	Commercial	
433	3/12/2002	KAC-R	Van	2	Diesel	Toyota	Van(18seat)	1992	1981	23,242	No	No	Good	Commercial		
434	3/12/2002	KAM-V	PC	1.5	Gasoline	Hyundai	Accent	2000	2000	34,859	Yes	No	Carb.	Excel.	Commercial	
435	3/12/2002	KAL-T	Van	2	Gasoline	Toyota	Hiace (7seats)	2000	1987	124,641	Yes	No	Carb.	Excel.	Commercial	
436	3/12/2002	KUC-	TR	1.2	Gasoline	Datsun	Pickup	1982	1982	50,262	No	No	Carb.	Good	Commercial	
437	3/12/2002	KAB-M	PC	1.3	Gasoline	Nissan	Sunny/B-12	1991	1991	105,566	No	No	Carb.	Excel.	Commercial	
438	3/12/2002	KAD-Y	PC	3.8	Gasoline	Mercedes	126	1994	1986	153,043	Yes	No	Man.I	Good	Commercial	
439	3/12/2002	KAL-Q	PC	1.3	Gasoline	Toyota	Corolla	1999	1999	43,401	No	No	Carb.	Excel.	Commercial	
440	3/12/2002	KAC-V	PC	1.3	Gasoline	Nissan	Sunny/B-12	1993	1993	226,671	No	No	Carb.	Good	Commercial	
441	3/12/2002	KAC-E	PC	1.1	Gasoline	Peugeot	205	1992	1992	151,330	No	No	Carb.	Good	Commercial	
442	3/12/2002	KAM-N	PC	1.5	Gasoline	Toyota	Corolla	2000	1995	93,633	Yes	No	Man.I	Excel.	Commercial	
443	3/12/2002	KAC-T	PC	1.8	Gasoline	Peugeot	504	1992	1992	348,646	No	No	Carb.	Good	Commercial	
444	3/12/2002	KAP-D	PC	1.5	Gasoline	Toyota	Corolla	2002	1992	39,725	Yes	No	Man.I	Excel.	Commercial	
445	3/12/2002	KAN-J	PC	1.3	Gasoline	Toyota	Starlet	2001	1985	67,850	Yes	No	Man.I	Excel.	Commercial	
446	3/12/2002	KAD-P	PC	1.8	Gasoline	Mitsubishi	Gallant	1994	1994	156,700	Yes	No	Carb.	Excel.	Commercial	
447	3/12/2002	KXV-	PC	1.5	Gasoline	Peugeot	305	1986	1986	156,218	No	No	Carb.	Fair	Commercial	
448	3/12/2002	KAG-X	PC	1.5	Gasoline	Mazda	323	1996	1996	190,171	No	No	Carb.	Good	Commercial	
449	3/12/2002	KAJ-B	PC	1.8	Gasoline	Renault	Laguna	1997	1997	164,091	Yes	No	Man.I	Excel.	Commercial	
450	3/12/2002	KAG-D	PC	1.5	Gasoline	Mazda	323	1995	1995	201,580	No	No	Carb.	Good	Commercial	
451	3/12/2002	KAL-X	PC	1.3	Gasoline	Suzuki	Jimmy	2000	1988	64,144	Yes	No	Carb.	Excel.	Commercial	
452	3/12/2002	KAH-X	TR	2	Gasoline	Nissan	Pickup	1997	1997	77,305	No	No	Carb.	Good	Commercial	
453	3/12/2002	KZS-	PC	1.3	Gasoline	Toyota	Corolla	1989	1980	185,131	No	No	Carb.	Fair	Commercial	
454	3/12/2002	KXV-	PC	1.5	Gasoline	Isuzu	Uhuru	1986	1986	214,427	No	No	Carb.	Fair	Commercial	
455	3/12/2002	KAC-N	PC	1.5	Gasoline	Nissan	Sunny/B-12	1992	1985	86,549	Yes	No	Carb.	Good	Commercial	
456	3/12/2002	KAB-Z	PC	1	Gasoline	Daihatsu	Charade	1991	1991	21,109	No	No	Carb.	Good	Commercial	
457	3/12/2002	KAN-B	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	74,700	Yes	No	Man.I	Excel.	Commercial	
458	3/12/2002	KAC-Q	PC	2	Gasoline	Peugeot	406	1992	1992	88,300	Yes	No	Man.I	Excel.	Commercial	
459	3/12/2002	KAJ-U	PC	1.8	Gasoline	Nissan	Primera	1998	1998	121,292	Yes	No	Carb.	Excel.	Commercial	
460	3/12/2002	KYM-	PC	1.3	Gasoline	Toyota	Corolla	1987	1980	223,665	No	No	Carb.	Excel.	Commercial	
461	3/12/2002	KUC-	PC	1.2	Gasoline	Datsun	120Y	1982	1982	227,087	No	No	Carb.	Good	Commercial	
462	3/12/2002	KAA-S	TR	1.8	Gasoline	Peugeot	Pickup	1990	1990	192,298	No	No	Carb.	Good	Commercial	
463	3/12/2002	KAN-D	PC	1.5	Gasoline	Toyota	Corolla	2001	1996	80,437	Yes	No	Man.I	Excel.	Commercial	
464	3/12/2002	KAN-X	PC	1.5	Gasoline	Nissan	Sunny	2001	1995	43,172	Yes	No	Man.I	Excel.	Commercial	
465	3/12/2002	KAD-H	PC	1.5	Gasoline	Toyota	Corolla	1993	1985	195,678	Yes	No	Carb.	Excel.	Commercial	
466	3/12/2002	KAM-H	PC	1.8	Gasoline	Toyota	Corona	2000	1993	76,420	Yes	No	Man.I	Excel.	Commercial	
467	3/12/2002	KAG-R	PC	1.3	Gasoline	Hyundai	Accent	1996	1996	127,856	No	No	Carb.	Good	Commercial	
468	3/12/2002	KAK-E	PC	1.3	Gasoline	Toyota	Corolla	1998	1998	168,460	No	No	Carb.	Fair	Commercial	
469	3/12/2002	KXZ-ZA17	PC	1.6	Gasoline	BMW	316i	1986	1992		No	No	Man.I	Excel.	Commercial	
470	3/12/2002	KAM-L	TR	2.8	Diesel	Toyota	Hilux Pickup	2000	2000	46,478	Yes	No		Excel.	Commercial	
471	3/12/2002	KAK-G	PC	1.6	Gasoline	Toyota	Corolla	1998	1998	88,531	Yes	No	Man.I	Excel.	Commercial	
472	3/12/2002	KAL-L	PC	1.3	Gasoline	Toyota	Corolla	1999	1990	71,864	Yes	No	Carb.	Fair	Commercial	
473	3/12/2002	KAL-S	PC	3	Gasoline	Mercedes	124	1999	1999		Yes	Yes	No	SinglePt.I	Excel.	Commercial
474	3/12/2002	KAK-V	PC	3.5	Diesel	Nissan	Patrol (SUV)	1999	1999		Yes	No		Excel.	Commercial	
475	3/12/2002	KAL-L	PC	1.8	Gasoline	Subaru	Legacy	1999	1989	60,351	Yes	No	SinglePt.I	Excel.	Commercial	
476	3/12/2002	KAM-K	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	68,663	Yes	No	Carb.	Excel.	Commercial	
477	3/12/2002	KAC-A	PC	1.3	Gasoline	Nissan	Sunny/B-12	1991	1991	110,286	No	No	Carb.	Fair	Commercial	
478	3/12/2002	KZQ-	TR	1.8	Gasoline	Peugeot	Pickup	1988	1988	79,514	No	No	Carb.	Fair	Commercial	

479	3/12/2002	KAN-F	PC	1.5	Gasoline	Toyota	Corolla	2001	1996	63,165	Yes		No	Man.I	Excel.	Commercial
480	3/12/2002	KAG-G	PC	1.8	Gasoline	Volkswagen	Corrado	1996	1995	120,304			No	Man.I	Excel.	Commercial
481	3/12/2002	KAK-M	PC	1.6	Gasoline	Toyota	Corolla	1998	1998	127,621	Yes		No	Man.I	Excel.	Commercial
482	3/12/2002	KYP-	PC	1.5	Gasoline	Mazda	323	1987	1987	231,710			No	Carb.	Fair	Commercial
483	3/12/2002	KAD-F	PC	1.6	Gasoline	Peugeot	405	1993	1989	197,470			No	Carb.	Excel.	Commercial
484	3/12/2002	KAG-Y	PC	1.5	Gasoline	Toyota	Corolla	1996	1986	118,370	Yes		No	Carb.	Good	Commercial
485	3/12/2002	KAJ-Y	PC	2	Gasoline	Toyota	LiteAce	1998	1988	126,140	Yes	Yes	No	Man.I	Good	Commercial
486	3/12/2002	KAJ-G	PC	1.3	Gasoline	Toyota	Starlet	1997	1988	132,130	Yes		No	Carb.	Excel.	Commercial
487	3/12/2002	KAJ-V	PC	1.8	Gasoline	Volvo	540	1998	1998	35,070	Yes		No	Man.I	Excel.	Commercial
488	3/12/2002	KAN-F	PC	1.8	Gasoline	Toyota	Carina	2001	1995	60,125	Yes		No	Man.I	Excel.	Commercial
489	3/12/2002	KAH-T	PC	1.5	Gasoline	Nissan	Sunny/B-13	1997	1990	215,080	Yes		No	Carb.	Good	Commercial
490	3/12/2002	KAK-B	PC	1.8	Gasoline	Toyota	Mark2	1998	1987	180,020	Yes	Yes	No	Man.I	Good	Commercial
491	3/12/2002	KAB-W	PC	1.5	Gasoline	Toyota	Sprinter	1991	1982	278,190	Yes		No	Carb.	Fair	Commercial
492	3/12/2002	KAM-E	TR	2.2	Diesel	Isuzu	Pickup	2000	2000	61,258			No		Good	Commercial
493	3/12/2002	ICD 35K	PC	2	Gasoline	Toyota	Rav4		1997		Yes		No	Man.I	Excel.	Commercial
494	3/12/2002	KAM-C	PC	2	Gasoline	BMW	520i	2000	1993		Yes		No	Man.I	Excel.	Commercial
495	3/12/2002	KAJ-R	PC	1.6	Gasoline	Opel	Astra	1998	1998	144,460	Yes		No	Man.I	Excel.	Commercial
496	3/12/2002	KAJ-N	PC	3	Diesel	Ssangyong	Musso	1998	1997	100,335	Yes		No		Excel.	Commercial
497	3/12/2002	KAE-H	PC	2.3	Gasoline	Mitsubishi	Pajero	1995	1988	126,107	Yes		No	Man.I	Excel.	Commercial
498	3/12/2002	KAP-C	PC	2	Diesel	Mitsubishi	Gallant	2002	1993		Yes		No		Excel.	Commercial
499	3/12/2002	KZM-	PC	2	Gasoline	Mercedes	124	1988	1983	536			No	Carb.	Excel.	Commercial
500	3/12/2002	KAK-N	PC	2	Gasoline	Subaru	Legacy	1998	1993	87,870	Yes		No	Man.I	Good	Commercial
501	3/12/2002	KAK-V	PC	1.5	Gasoline	Toyota	Corolla	1999	1992	59,349	Yes		No	Man.I	Excel.	Commercial
502	3/12/2002	KAM-R	Van	2	Gasoline	Toyota	TownAce	2000	1993	75,870	Yes		No	Man.I	Good	Commercial
503	3/12/2002	KAD-N	PC	2	Gasoline	Toyota	Mark2	1994	1987	140,284	Yes		No	Man.I	Good	Commercial
504	3/12/2002	KAL-J	PC	1.5	Gasoline	Nissan	Sunny/B-13	1999	1988	90,425	Yes		No	Carb.	Excel.	Commercial
505	3/12/2002	KAL-V	PC	1.6	Gasoline	Suzuki	Escudo	2000	1994	113,120	Yes		No	Man.I	Good	Commercial
506	3/12/2002	KAA-N	PC	2.6	Gasoline	Mitsubishi	Pajero	1990	1990	225,946			No	Carb.	Fair	Commercial
507	3/12/2002	KAC-U	PC	1.4	Gasoline	Opel	Astra	1993	1993	6,904			No	Carb.	Good	Commercial
508	3/12/2002	KAM-K	PC	2.8	Diesel	Isuzu	Trooper	2000	1989	132,172	Yes		No		Good	Commercial
509	3/12/2002	KAC-Q	PC	2.4	Gasoline	Volvo	240GL	1992	1989	210,874			No	Carb.	Fair	Commercial
510	3/12/2002	KAL-K	PC	1.6	Gasoline	Volkswagen	Polo	1999	1999	50,013	Yes		No	Man.I	Excel.	Commercial

**Table A.2: Parked Vehicle Data Collected in the Buruburu Section of Nairobi**

Index	Date	License	Type	Size	Fuel	Manufact.	Model	Reg Yr	Mdl Yr	Odometer	AC	Auto Trans.	Catalyst	Fuel/Air	Maint.	Location
1	3/8/2002	KAG-D	PC	1.4	Gasoline	Toyota	Corolla	1995	1990	113,365	Yes		No	Man.FI	Excellent	Lower Income
2	3/8/2002	KAN-E	PC	1.4	Gasoline	Ford	Escort	2001	2001	179,710			No	Carburetor	Excellent	Lower Income
3	3/8/2002	KAN-V	TR	2.4	Diesel	Nissan	Pickup	2001	2001				No	Diesel	Excellent	Lower Income
4	3/8/2002	KVV-	PC	1.2	Gasoline	Peugeot	204	1984	1984				No	Carburetor	Poor	Lower Income
5	3/8/2002	KAN-C	PC	1.3	Gasoline	Toyota	Corolla	2001	2001	57,954			No	Carburetor	Excellent	Lower Income
6	3/8/2002	KAH-X	Van	2	Diesel	Toyota	9 passngr	1997	1996	91,770			No	Diesel	Excellent	Lower Income
7	3/8/2002	KAL-H	TR	2	Diesel	Isuzu	Pickup	1999	1995	302,916			No	Diesel	Good	Lower Income
8	3/8/2002	KAM-W	PC	1.5	Gasoline	Nissan	Sunny	2000	1987	88,250	Yes		No	Carburetor	Excellent	Lower Income
9	3/8/2002	KSQ-	PC	1.3	Gasoline	Toyota	Corolla	1980	1980				No	Carburetor	Fair	Lower Income
10	3/8/2002	KAB-R	PC	1.3	Gasoline	Mitsubishi	Lancer	1991	1991	268,251			No	Carburetor	Good	Lower Income
11	3/8/2002	KXN-	PC	1.6	Gasoline	Honda	Accord	1986	1985	282,850			No	Carburetor	Poor	Lower Income
12	3/8/2002	KQP-	PC	1.2	Gasoline	Datsun	120Y	1975	1976	957,361			No	Carburetor	Poor	Lower Income
13	3/8/2002	KAK-S	PC	1.6	Gasoline	Subaru	Leone	1999	1985	148,689	Yes		No	Carburetor	Good	Lower Income
14	3/8/2002	KAM-S	PC	1.5	Gasoline	Toyota	Corolla	2000	1985	159,320	Yes		No	Carburetor	Good	Lower Income
15	3/8/2002	KAB-A	PC	2	Gasoline	Mercedes	123	1990	1986	133,226			No	Carburetor	Excellent	Lower Income
16	3/8/2002	KAL-A	PC	1.6	Gasoline	Datsun	Bluebird	1999	1980	111,699			No	Carburetor	Fair	Lower Income
17	3/8/2002	KAL-R	PC	1.6	Gasoline	Suzuki	SUV	1999	1994		Yes		No	Man.FI	Excellent	Lower Income
18	3/8/2002	KAJ-H	PC	1.3	Gasoline	Toyota	Sprinter	1997	1987	169,940	Yes		No	Carburetor	Good	Lower Income
19	3/8/2002	KAM-J	PC	0.8	Gasoline	Maruti	Omni	2000	1996	42,719			No	Carburetor	Good	Lower Income
20	3/8/2002	KZD-	PC	2	Gasoline	Mercedes	124	1988	1980	169,978			No	Carburetor	Good	Lower Income
21	3/8/2002	KAK-S	PC	3.2	Gasoline	Isuzu	SUV	1999	1999		Yes		No	Man.FI	Excellent	Lower Income
22	3/8/2002	KAL-R	PC	2	Gasoline	Peugeot	505	1999	1989	391,267			No	Carburetor	Fair	Lower Income
23	3/8/2002	KAE-B	PC	1.6	Gasoline	Mitsubishi	Galant	1994	1988		Yes		No	Carburetor	Good	Lower Income
24	3/8/2002	KAE-G	PC	1.8	Gasoline	Toyota	Carina	1995	1989		Yes		No	Single FI	Good	Lower Income
25	3/8/2002	KAG-P	TR	2.5	Diesel	Isuzu	Pickup	1996	1996	143,432			No	Diesel	Good	Lower Income
26	3/8/2002	KAM-H	TR	1.8	Gasoline	Toyota	Pickup	2000	1990	133,815			No	Carburetor	Good	Lower Income
27	3/8/2002	KAK-V	PC	1.5	Gasoline	Toyota	Corolla	1999	1990	155,450	Yes		No	Man.FI	Excellent	Lower Income
28	3/8/2002	KAK-X	PC	1.8	Gasoline	Peugeot	504	1999	1999	316,218			No	Carburetor	Poor	Lower Income
29	3/8/2002	KYP-	TR	1.2	Gasoline	Datsun	Pickup	1987	1988	55,134			No	Carburetor	Poor	Lower Income
30	3/8/2002	KAH-M	PC	1.3	Gasoline	Nissan	Sunny	1997	1986	171,995	Yes	Yes	No	Carburetor	Good	Lower Income
31	3/8/2002	KAJ-J	PC	1.3	Gasoline	Toyota	Corolla	1997	1990	81,867	Yes		No	Man.FI	Excellent	Lower Income
32	3/8/2002	KAG-L	PC	1.3	Gasoline	Toyota	Corolla	1996	1986	117,612	Yes		No	Carburetor	Excellent	Lower Income
33	3/8/2002	KYT-	PC	1.6	Gasoline	Mitsubishi	Lancer	1987	1987	232,781			No	Carburetor	Fair	Lower Income
34	3/8/2002	KTT-	PC	1.2	Gasoline	Peugeot	305	1982	1982	192,013			No	Carburetor	Poor	Lower Income
35	3/8/2002	KAC-U	PC	1.3	Gasoline	Toyota	Corolla	1993	1985	227,877			No	Carburetor	Fair	Lower Income
36	3/8/2002	KUD-	PC	2	Gasoline	Mercedes	115	1982	1973				No	Carburetor	Good	Lower Income
37	3/8/2002	KKT-	PC	1.6	Gasoline	Peugeot	404	1967	1967	115,474			No	Carburetor	Poor	Lower Income
38	3/8/2002	KAA-X	PC	1.5	Gasoline	Toyota	Corolla	1990	1986	214,586			No	Carburetor	Fair	Lower Income
39	3/8/2002	KAB-A	PC	1.8	Gasoline	Nissan	Bluebird	1990	1986				No	Carburetor	Poor	Lower Income
40	3/8/2002	KAC-P	PC	2	Gasoline	Mitsubishi	Pajero	1992	1989	154,441			No	Carburetor	Good	Lower Income
41	3/8/2002	KWZ-	PC	1.3	Gasoline	Nissan	Sunny	1985	1985	136,554			No	Carburetor	Fair	Lower Income
42	3/8/2002	KYY-	PC	1.8	Gasoline	Peugeot	504	1988	1982	236,592			No	Carburetor	Good	Lower Income
43	3/8/2002	KAD-X	PC	1.6	Gasoline	Honda	Accord	1994	1994	201,234			No	Carburetor	Fair	Lower Income
44	3/8/2002	KVV-	PC	1.5	Gasoline	Audi	100	1984	1970	69,738			No	Carburetor	Poor	Lower Income
45	3/8/2002	KAK-F	PC	1.5	Gasoline	Toyota	Sprinter	1998	1987	127,078	Yes		No	Carburetor	Good	Lower Income
46	3/8/2002	KAN-A	PC	1.3	Gasoline	Nissan	Sunny	2001	1990	73,399	Yes		No	Carburetor	Good	Lower Income

47	3/8/2002	KAP-F	PC	1.6	Gasoline	Toyota	Sprinter	2002	1993	49,334	Yes	No	Man.FI	Excellent	Lower Income	
48	3/8/2002	KAL-D	TR	2.4	Diesel	Toyota	Pickup	1999	1993	121,928		No	Diesel	Fair	Lower Income	
49	3/8/2002	KZF-	PC	1.5	Gasoline	Toyota	Corolla	1988	1980	253,580		No	Carburetor	Fair	Lower Income	
50	3/8/2002	KAA-C	PC	1.5	Gasoline	Toyota	Corolla	1989	1989	369,260		No	Carburetor	Fair	Lower Income	
51	3/8/2002	KAG-J	PC	1.3	Gasoline	Nissan	Sunny	1996	1990	112,862		No	Carburetor	Good	Lower Income	
52	3/8/2002	KAL-P	PC	1.3	Gasoline	Toyota	Starlet	1999	1992	75,980	Yes	No	Man.FI	Excellent	Lower Income	
53	3/8/2002	KAG-D	PC	1.6	Gasoline	Toyota	Corolla	1995	1987	146,961	Yes	No	Carburetor	Fair	Lower Income	
54	3/8/2002	KAM-E	PC	1.8	Gasoline	Peugeot	405	2000	1999		Yes	No	Man.FI	Excellent	Lower Income	
55	3/8/2002	KAP-E	PC	2	Diesel	Toyota	Van	2002	1993	81,154	Yes	Yes	No	Diesel	Excellent	Lower Income
56	3/8/2002	KAK-A	PC	1.3	Gasoline	Toyota	Starlet	1998	1987	47,144	Yes	No	Carburetor	Good	Lower Income	
57	3/8/2002	KVG-	PC	1.3	Gasoline	Mazda	323	1984	1973	89,596		No	Carburetor	Fair	Lower Income	
58	3/8/2002	KZN-	PC	1.3	Gasoline	Toyota	Corolla	1988	1980	262,910	Yes	No	Carburetor	Good	Lower Income	
59	3/8/2002	KAJ-K	PC	1.3	Diesel	Toyota	Corolla	1997	1985	131,720	Yes	No	Carburetor	Good	Lower Income	
60	3/8/2002	KAE-D	PC	2	Gasoline	Toyota	Camry	1994	1991	190,090	Yes	No	Diesel	Fair	Lower Income	
61	3/8/2002	KAN-Q	PC	1.5	Gasoline	Nissan	Sunny	2001	1993	34,971	Yes	No	Carburetor	Fair	Lower Income	
62	3/8/2002	KAL-C	PC	1.5	Gasoline	Toyota	Corolla	1999	1987	196,208	Yes	No	Man.FI	Good	Lower Income	
63	3/8/2002	KRM-	PC	1.2	Gasoline	Datsun	120Y	1977	1976	807,301		No	Carburetor	Poor	Lower Income	
64	3/8/2002	KAL-N	PC	1.3	Gasoline	Toyota	Corolla	1999	1990	60,456	Yes	No	Carburetor	Good	Lower Income	
65	3/8/2002	KYN-	PC	1.8	Gasoline	Peugeot	504	1987	1987	194,268		No	Carburetor	Fair	Lower Income	
66	3/8/2002	KAP-E	PC	2	Gasoline	Subaru	Legacy	2002	1991	58,731	Yes	No	Man.FI	Good	Lower Income	
67	3/8/2002	KZD-	PC	1.3	Diesel	Toyota	Corolla	1988	1988	303,000		No	Carburetor	Fair	Lower Income	
68	3/8/2002	KWR-	PC	4	Gasoline	Toyota	Land Cruiser	1985	1985	287,934		No	Diesel	Good	Lower Income	
69	3/8/2002	KAA-Q	PC	1.5	Gasoline	Toyota	Corolla	1990	1980	198,865	Yes	No	Carburetor	Fair	Lower Income	
70	3/8/2002	KAN-P	PC	1.5	Gasoline	Toyota	Corolla	2001	1992	46,460	Yes	No	Man.FI	Excellent	Lower Income	
71	3/8/2002	KAD-H	PC	1.4	Gasoline	Opel	Astra	1993	1993	288,150		No	Carburetor	Fair	Lower Income	
72	3/8/2002	KAJ-X	PC	1.5	Gasoline	Toyota	Corolla	1998	1986	112,600	Yes	Yes	No	Man.FI	Excellent	Lower Income
73	3/8/2002	KAH-Z	PC	1.6	Gasoline	Toyota	Corolla	1997	1997	88,731	Yes	No	Man.FI	Excellent	Lower Income	
74	3/8/2002	KZH-	PC	1.5	Diesel	Mitsubishi	Lancer	1988	1988	173,430		No	Carburetor	Good	Lower Income	
75	3/8/2002	KAL-X	PC	2.5	Gasoline	Mitsubishi	Pajero	2000	1993	139,098	Yes	No	Diesel	Excellent	Lower Income	
76	3/8/2002	KAA-F	PC	1.3	Gasoline	Nissan	Sunny	1989	1990	112,767		No	Carburetor	Fair	Lower Income	
77	3/8/2002	KAC-W	PC	1.6	Gasoline	Subaru	Leone	1993	1993	251,774		No	Carburetor	Excellent	Lower Income	
78	3/8/2002	KAM-W	PC	1.5	Gasoline	Toyota	Sprinter	2000	1993	55,201	Yes	No	Man.FI	Excellent	Lower Income	
79	3/8/2002	KAL-N	PC	1.3	Gasoline	Toyota	Corolla	1999	1990	104,508	Yes	No	Man.FI	Excellent	Lower Income	
80	3/8/2002	KAE-U	PC	1	Gasoline	Daihatsu	Charade	1995	1986	37,947	Yes	No	Carburetor	Excellent	Lower Income	
81	3/8/2002	KAP-D	PC	1.5	Gasoline	Toyota	Corolla	2002	1995	91,132	Yes	Yes	No	Man.FI	Excellent	Lower Income
82	3/8/2002	KAK-F	PC	2	Gasoline	Toyota	Carina	1998	1987	116,460	Yes	No	Man.FI	Excellent	Lower Income	
83	3/8/2002	KYL-	PC	1.8	Gasoline	Peugeot	504	1987	1987	185,278		No	Carburetor	Good	Lower Income	
84	3/8/2002	KAN-X	PC	1.5	Gasoline	Toyota	Corolla	2001	1993	69,695	Yes	No	Man.FI	Excellent	Lower Income	
85	3/8/2002	KAM-N	PC	1.5	Gasoline	Toyota	Corolla	2000	1991	95,021	Yes	No	Man.FI	Excellent	Lower Income	
86	3/8/2002	KAB-W	PC	1.8	Gasoline	Subaru	Leone	1991	1988	240,765	Yes	No	Carburetor	Fair	Lower Income	
87	3/8/2002	KUG-	PC	1.3	Gasoline	Toyota	Corolla	1982	1973	88,998		No	Carburetor	Poor	Lower Income	
88	3/8/2002	KAG-W	PC	1.3	Gasoline	Toyota	Corolla	1996	1988	136,150		No	Carburetor	Good	Lower Income	
89	3/8/2002	KZD-	PC	1.2	Gasoline	Datsun	Pickup	1988	1980	52,983		No	Carburetor	Fair	Lower Income	
90	3/8/2002	KAB-A	PC	1.3	Gasoline	Nissan	Sunny	1990	1993	193,012		No	Carburetor	Fair	Lower Income	
91	3/8/2002	KAH-H	PC	1.3	Gasoline	Toyota	Starlet	1997	1986	134,480	Yes	No	Carburetor	Good	Lower Income	
92	3/8/2002	KAN-Q	PC	2.4	Diesel	Toyota	SUV	2001	1990		Yes	No	Diesel	Excellent	Lower Income	
93	3/8/2002	KAH-M	PC	1.6	Gasoline	Nissan	Primera	1997	1993	97,739	Yes	No	Carburetor	Excellent	Lower Income	
94	3/8/2002	KAJ-C	TR	1.6	Gasoline	Mazda	Pickup	1997	1997	138,229		No	Carburetor	Good	Lower Income	

95	3/8/2002	KAE-H	PC	1.3	Gasoline	Peugeot	205	1995	1990	188,762		No	Carburetor	Good	Lower Income
96	3/8/2002	KAM-Y	PC	1.5	Gasoline	Toyota	Sprinter	2001	1993	57,493	Yes	No	Man.FI	Excellent	Lower Income
97	3/8/2002	KAJ-V	PC	1.3	Gasoline	Nissan	Sunny	1998	1998	61,749		No	Carburetor	Excellent	Lower Income
98	3/8/2002	KAL-C	PC	1.6	Gasoline	Toyota	Corolla	1999	1999	131,640	Yes	No	Man.FI	Excellent	Lower Income
99	3/8/2002	KAN-F	PC	1.3	Gasoline	Nissan	Sunny	2001	1996	54,333	Yes	No	Man.FI	Excellent	Lower Income
100	3/8/2002	KAC-Z	TR	1.8	Gasoline	Peugeot	Pickup	1993	1989	145,532		No	Carburetor	Fair	Lower Income



**Table A.3: Parked Vehicle Data Collected in the Muthaiga Region of Nairobi**

Index	Date	License	Type	Size	Fuel	Manufact.	Model	Reg Yr	Mdl Yr	Odometer	AC	Auto Trans.	Catalyst	Fuel/Air	Maint.	Location
1	3/13/2002	105UN	TR	2.4	Diesel	Toyota	Pickup		1985	127,893	Yes		No	Diesel	Good	Upper Income
2	3/13/2002	KAA-C	PC	1.5	Gasoline	Mazda	323	1989	1989	182,662			No	Carburetor	Good	Upper Income
3	3/13/2002	KAD-A	PC	1.6	Gasoline	Subaru	Leone	1993	1983	63,392	Yes		No	Carburetor	Good	Upper Income
4	3/13/2002	KAK-B	PC	1.5	Gasoline	Toyota	Sprinter	1998	1987	101,227	Yes		No	Man. FI	Good	Upper Income
5	3/13/2002	UNEP2	PC	2	Gasoline	Honda	CRV		1996	110,663	Yes	Yes	No	Man. FI	Excellent	Upper Income
6	3/13/2002	UNEP1	PC	2.3	Diesel	Volvo	850		1998	34,974	Yes	Yes	No	Man. FI	Excellent	Upper Income
7	3/13/2002	UNEP2	PC	2.5	Gasoline	Rover	Discovery	1995	1995	37,772	Yes		No	Diesel	Excellent	Upper Income
8	3/13/2002	UNEP3	PC	1.5	Diesel	Hyundai	Excel	1996	1996	96,928	Yes		No	Carburetor	Good	Upper Income
9	3/13/2002	105UN	PC	2.5	Gasoline	Toyota	Prado	1998	1998		Yes		No	Diesel	Excellent	Upper Income
10	3/13/2002	KAM-Y	PC	1.5	Gasoline	Toyota	Corolla	2001	1995	25,419	Yes		No	Man. FI	Good	Upper Income
11	3/13/2002	KAG-N	PC	1.3	Gasoline	Toyota	Corolla	1996	1983	132,041	Yes		No	Carburetor	Good	Upper Income
12	3/13/2002	KAM-G	PC	1.8	Gasoline	Nissan	Bluebird	2000	1992	45,282	Yes		No	Man. FI	Good	Upper Income
13	3/13/2002	UNEP4	PC	1.6	Gasoline	Volkswagon	Polo	1997	1997	33,048	Yes		No	Carburetor	Excellent	Upper Income
14	3/13/2002	UNEP3	PC	1.8	Gasoline	Mitsubishi	Lancer		1986	101,236	Yes		No	Carburetor	Good	Upper Income
15	3/13/2002	63UN1	PC	1.1	Gasoline	Fiat	Uno		1993	36,984			No	Man. FI	Good	Upper Income
16	3/13/2002	KAN-L	PC	1.5	Gasoline	Toyota	Sprinter	2001	1993	85,242	Yes		No	Man. FI	Excellent	Upper Income
17	3/13/2002	KAA-C	PC	1.8	Gasoline	BMW	318	1989	1983	92,821			No	Man. FI	Good	Upper Income
18	3/13/2002	KAC-A	PC	1.6	Gasoline	Toyota	Corona	1991	1990	162,000	Yes		No	Carburetor	Good	Upper Income
19	3/13/2002	KAL-E	TR	1.2	Gasoline	Datsun	Pickup	1999	1980	86,192	Yes		No	Carburetor	Fair	Upper Income
20	3/13/2002	KAA-K	PC	1.5	Gasoline	Toyota	Corolla	1990	1980	217,038			No	Carburetor	Good	Upper Income
21	3/13/2002	105UN	PC	2.5	Diesel	Toyota	Prado	1998	1998	40,247	Yes		No	Diesel	Excellent	Upper Income
22	3/13/2002	KAE-Q	PC	2.3	Gasoline	Isuzu	SUV	1995	1995	104,929	Yes		No	Carburetor	Excellent	Upper Income
23	3/13/2002	UNEP7	PC	4	Diesel	Toyota	SUV		1987	237,160			No	Diesel	Poor	Upper Income
24	3/13/2002	KAG-E	PC	1.8	Gasoline	Subaru	Leone	1995	1988	186,070	Yes		No	Carburetor	Fair	Upper Income
25	3/13/2002	UNEP3	PC	1.5	Gasoline	Toyota	Corolla		1992	99,726	Yes		No	Man. FI	Good	Upper Income
26	3/13/2002	UNEP6	PC	2.8	Diesel	Mitsubishi	Pajero		1995	65,560	Yes		No	Diesel	Excellent	Upper Income
27	3/13/2002	KRF-	PC	1.2	Gasoline	Volkswagon	Beetle	1977	1977	6,543			No	Carburetor	Poor	Upper Income
28	3/13/2002	UNEP2	PC	1.6	Gasoline	Toyota	Corolla		2000	53,244	Yes		No	Man. FI	Excellent	Upper Income
29	3/13/2002	105UN	PC	1.8	Gasoline	Mitsubishi	Pajero	1999	1999		Yes		No	Man. FI	Excellent	Upper Income
30	3/13/2002	79UN1	PC	3	Diesel	Nissan	Patrol	1993	1993	125,267	Yes		No	Diesel	Good	Upper Income
31	3/13/2002	UNEP2	PC	3	Gasoline	Mitsubishi	Pajero		1993	85,816	Yes		No	Man. FI	Excellent	Upper Income
32	3/13/2002	KAP-C	PC	1.6	Gasoline	Suzuki	Escudo	2002	1994	91,032	Yes		No	Man. FI	Good	Upper Income
33	3/13/2002	UNEP3	PC	2	Gasoline	Hyundai	Sonata	1995	1995	49,476	Yes		No	Man. FI	Good	Upper Income
34	3/13/2002	KXB-	PC	1.3	Gasoline	Nissan	Sunny	1985	1988	197,374			No	Carburetor	Poor	Upper Income
35	3/13/2002	KAK-E	PC	1.8	Gasoline	Toyota	Mark II	1998	1987	131,156	Yes		No	Single FI	Fair	Upper Income
36	3/13/2002	KAN-L	PC	1.3	Gasoline	Toyota	Corolla	2001	1993	55,351	Yes		No	Man. FI	Fair	Upper Income
37	3/13/2002	105UN	PC	2	Gasoline	Mercedes	124		1988	184,276	Yes		No	Carburetor	Excellent	Upper Income
38	3/13/2002	UNEP1	PC	1.6	Gasoline	Peugeot	309		1983	93,860			No	Carburetor	Fair	Upper Income
39	3/13/2002	KSC-	PC	1.6	Gasoline	Peugeot	504	1979	1979	235,378			No	Carburetor	Poor	Upper Income
40	3/13/2002	UNEP2	PC	3	Gasoline	Nissan	Terrano		1995	72,330	Yes		No	Man. FI	Excellent	Upper Income
41	3/13/2002	KAG-N	PC	1.4	Gasoline	Opel	Astra	1996	1996	164,698	Yes		No	Carburetor	Good	Upper Income
42	3/13/2002	KAE-T	PC	1.4	Gasoline	Peugeot	306	1995	1993	110,790	Yes		No	Carburetor	Good	Upper Income
43	3/13/2002	KAG-L	PC	1.5	Gasoline	Toyota	Corolla	1996	1986	146,870	Yes		No	Man. FI	Good	Upper Income
44	3/13/2002	105UN	PC	1.6	Gasoline	Peugeot	206	2001	2001		Yes		No	Man. FI	Excellent	Upper Income
45	3/13/2002	KAK-E	PC	1.5	Gasoline	Toyota	Corolla	1998	1986	172,520	Yes		No	Carburetor	Fair	Upper Income

46	3/13/2002	KAH-E	PC	1.3	Gasoline	Toyota	Corolla	1996	1986	83,543	Yes	No	Carburetor	Good	Upper Income	
47	3/13/2002	KRC-	PC	1.5	Gasoline	Volkswagon	Beetle	1976	1976	82,398		No	Carburetor	Good	Upper Income	
48	3/13/2002	UNEP1	PC	2	Gasoline	Toyota	Corolla		1989	110,935		No	Carburetor	Fair	Upper Income	
49	3/13/2002	105UN	PC	1.5	Gasoline	Toyota	Corolla		1987	137,388	Yes	No	Carburetor	Fair	Upper Income	
50	3/13/2002	63UN1	PC	1.5	Gasoline	Toyota	Corolla		1995	58,281	Yes	No	Man. FI	Good	Upper Income	
51	3/13/2002	KWW-	PC	2	Gasoline	Isuzu	Trooper	1985	1985	172,940		No	Carburetor	Good	Upper Income	
52	3/13/2002	KAD-L	PC	1.3	Gasoline	Suzuki	SUV	1994	1994	75,846		No	Carburetor	Good	Upper Income	
53	3/13/2002	105UN	PC	4	Diesel	Toyota	Land Cruiser		1997	87,458	Yes	No	Diesel	Good	Upper Income	
54	3/13/2002	KAK-T	PC	1.5	Gasoline	Toyota	Corolla	1999	1987	108,530	Yes	No	Man. FI	Fair	Upper Income	
55	3/13/2002	UNEP2	PC	1.5	Gasoline	Daewoo	Cielo	1998	1998	44,891	Yes	No	Man. FI	Good	Upper Income	
56	3/13/2002	KAP-D	PC	1.6	Diesel	Suzuki	Escudo	2002	1995	74,440	Yes	No	Man. FI	Excellent	Upper Income	
57	3/13/2002	79UN1	PC	2.5	Gasoline	Mitsubishi	Pajero		1984	131,379	Yes	No	Carburetor	Good	Upper Income	
58	3/13/2002	UNEP2	PC	2.4	Gasoline	Toyota	Hillux		1994	49,285	Yes	No	Diesel	Excellent	Upper Income	
59	3/13/2002	105UN	PC	1.5	Gasoline	Nissan	Sunny		1987	112,923	Yes	No	Carburetor	Fair	Upper Income	
60	3/13/2002	KAK-V	PC	1.3	Gasoline	Toyota	Corolla	1999	1992	192,736	Yes	No	Man. FI	Excellent	Upper Income	
61	3/13/2002	KAM-C	PC	1.2	Gasoline	Opel	Corsa	2000	1992	69,398		No	Carburetor	Excellent	Upper Income	
62	3/13/2002	UNEP3	PC	1.6	Gasoline	Toyota	Corolla	1996	1996	89,573	Yes	No	Man. FI	Good	Upper Income	
63	3/13/2002	KAG-R	PC	1.3	Gasoline	Toyota	Corolla	1996	1986	114,375	Yes	No	Carburetor	Good	Upper Income	
64	3/13/2002	UNEP3	PC	1.3	Gasoline	Suzuki	Samurai	1996	1996	70,175		No	Carburetor	Good	Upper Income	
65	3/13/2002	79UN1	PC	2.3	Gasoline	BMW	520		1993		Yes	Yes	No	Man. FI	Excellent	Upper Income
66	3/13/2002	105UN	PC	1.6	Gasoline	Hyundai	Elantra	1998	1998	35,990		No	Man. FI	Good	Upper Income	
67	3/13/2002	UNEP1	PC	1.6	Gasoline	Peugeot	405	1995	1995	157,547		No	Carburetor	Good	Upper Income	
68	3/13/2002	UNEP1	PC	1.5	Gasoline	Hyundai	Excel	1995	1995	61,413	Yes	No	Carburetor	Excellent	Upper Income	
69	3/13/2002	KAN-S	PC	1.6	Gasoline	Toyota	Ceres	2001	1993	59,000	Yes	No	Man. FI	Excellent	Upper Income	
70	3/13/2002	KAM-A	PC	1.6	Gasoline	Suzuki	Escudo	2000	1995	75,877	Yes	No	Man. FI	Good	Upper Income	
71	3/13/2002	UNEP1	PC	1.3	Gasoline	Toyota	Corolla		1987	96,147		No	Carburetor	Fair	Upper Income	
72	3/13/2002	40UN2	PC	3.8	Gasoline	Rover	Range Rover		1983	94,543	Yes	Yes	No	Man. FI	Fair	Upper Income
73	3/13/2002	UNEP2	PC	2.5	Gasoline	Mitsubishi	Pajero	2000	2000	15,122	Yes	No	Carburetor	Good	Upper Income	
74	3/13/2002	KAK-K	PC	2.5	Diesel	Mitsubishi	Pajero	1998	1985	160,705	Yes	No	Diesel	Fair	Upper Income	
75	3/13/2002	KXO6A	PC	1.5	Gasoline	Nissan	Sunny		1987	85,530		No	Carburetor	Fair	Upper Income	
76	3/13/2002	KSG-	PC	3.8	Gasoline	Rover	Range Rover	1980	1980	51,382		No	Carburetor	Fair	Upper Income	
77	3/13/2002	UNEP3	PC	2	Gasoline	Suzuki	Vitara	2000	2000		Yes	No	Man. FI	Excellent	Upper Income	
78	3/13/2002	UNEP3	PC	1.5	Gasoline	Nissan	Sunny		1987	49,784		No	Carburetor	Good	Upper Income	
79	3/13/2002	105UN	PC	1.6	Gasoline	Toyota	Corolla		2002	1,250	Yes	No	Man. FI	Excellent	Upper Income	
80	3/13/2002	KAN-T	PC	1.3	Gasoline	Toyota	Starlet	2001	1990	59,319	Yes	No	Carburetor	Good	Upper Income	
81	3/13/2002	UNEP1	TR	2.8	Diesel	Toyota	Pickup	1997	1997	66,567	Yes	No	Diesel	Good	Upper Income	
82	3/13/2002	UNEP1	PC	1.3	Gasoline	Toyota	Starlet		1985	144,724	Yes	No	Carburetor	Fair	Upper Income	
83	3/13/2002	UNEP3	PC	1.5	Gasoline	Hyundai	Excel	1995	1995	72,863	Yes	No	Carburetor	Fair	Upper Income	
84	3/13/2002	UNEP3	PC	1.3	Gasoline	Toyota	Corolla	1995	1995	95,782		No	Carburetor	Fair	Upper Income	
85	3/13/2002	KAH-B	PC	1	Gasoline	Suzuki	Jimmy	1996	1987	28,822		No	Carburetor	Fair	Upper Income	
86	3/13/2002	UNEP1	PC	1.6	Gasoline	Volkswagon	Polo	1999	1999	53,505	Yes	No	Man. FI	Excellent	Upper Income	
87	3/13/2002	105UN	PC	2.7	Diesel	Nissan	Terrano	2001	2001	24,553	Yes	No	Diesel	Excellent	Upper Income	
88	3/13/2002	79UN1	PC	1.6	Gasoline	Suzuki	SUV		1995	46,360	Yes	No	Man. FI	Excellent	Upper Income	
89	3/13/2002	UNEP3	PC	2	Gasoline	Volvo	740	1995	1995	94,814	Yes	No	Man. FI	Good	Upper Income	
90	3/13/2002	KAC-X	PC	1.8	Gasoline	Subaru	Leone	1993	1993	171,150		No	Carburetor	Fair	Upper Income	
91	3/13/2002	KAJ-Z	PC	1.5	Gasoline	Mitsubishi	Lancer	1998	1987	166,839	Yes	No	Carburetor	Fair	Upper Income	
92	3/13/2002	KAL-T	PC	1.5	Gasoline	Nissan	Sunny	2000	1987	60,822	Yes	No	Carburetor	Good	Upper Income	
93	3/13/2002	105UN	PC	1.6	Gasoline	Subaru	Impreza		1993		Yes	No	Carburetor	Good	Upper Income	

94	3/13/2002	KAN-H	PC	1.3	Gasoline	Toyota	Corolla	2001	1992	69,158	Yes		No	Man. FI	Good	Upper Income
95	3/13/2002	105UN	PC	1.6	Gasoline	Suzuki	Escudo		1993	78,000	Yes		No	Man. FI	Good	Upper Income
96	3/13/2002	KAM-G	PC	1.8	Gasoline	Mitsubishi	Galant	2000	2000	20,537	Yes		No	Carburetor	Good	Upper Income
97	3/13/2002	UNEP4	PC	1.5	Gasoline	Daewoo	Cielo	1998	1998	51,551	Yes		No	Man. FI	Good	Upper Income
98	3/13/2002	KAN-V	PC	1.4	Gasoline	Peugeot	306	2001	2001	59,039			No	Carburetor	Good	Upper Income
99	3/13/2002	KAN-B	PC	1.5	Gasoline	Mitsubishi	Lancer	2001	1990	70,613	Yes		No	Carburetor	Fair	Upper Income
100	3/13/2002	KAG-W	PC	1.5	Gasoline	Daewoo	Cielo	1996	1996	59,617			No	Man. FI	Fair	Upper Income
101	3/13/2002	KAN-W	PC	1.6	Gasoline	Toyota	Corolla	2001	1995	62,021	Yes	Yes	No	Man. FI	Good	Upper Income
102	3/13/2002	79UN8	PC	1.6	Gasoline	Suzuki	Escudo		1994	88,999	Yes		No	Man. FI	Excellent	Upper Income
103	3/13/2002	105UN	PC	2	Gasoline	Suzuki	Escudo		1996	49,510	Yes		No	Man. FI	Excellent	Upper Income
104	3/13/2002	KAC-P	PC	2	Gasoline	BMW	320	1992	1992		Yes		No	Man. FI	Excellent	Upper Income
105	3/13/2002	KAN-X	PC	1.6	Gasoline	Toyota	Corolla	2001	1993	74,303	Yes		No	Man. FI	Fair	Upper Income
106	3/13/2002	79UN2	PC	2	Gasoline	Mitsubishi	Pajero	2000	2000	62,448	Yes		No	Carburetor	Good	Upper Income
107	3/13/2002	UNEP9	PC	2	Gasoline	Mercedes	124	1998	1998	56,615	Yes		No	Man. FI	Excellent	Upper Income
108	3/13/2002	UNEP5	PC	2.4	Diesel	Nissan	Terrano		1995	74,658	Yes		No	Diesel	Excellent	Upper Income
109	3/13/2002	KX06B	PC	2.4	Diesel	Toyota	Hillux		1993	128,469	Yes		No	Diesel	Good	Upper Income
110	3/13/2002	40UN7	PC	2.5	Diesel	Toyota	SUV		2002		Yes		No	Diesel	Excellent	Upper Income
111	3/13/2002	KAE-N	PC	1.6	Gasoline	BMW	316	1995	1995				No	Man. FI	Excellent	Upper Income
112	3/13/2002	79UN1	PC	1.5	Gasoline	Mitsubishi	Lancer		1998		Yes	Yes	No	Man. FI	Excellent	Upper Income
113	3/13/2002	UNEP1	PC	3.5	Gasoline	Mitsubishi	Pajero		1993	84,178	Yes	Yes	No	Man. FI	Good	Upper Income
114	3/13/2002	40UN2	PC	4	Diesel	Toyota	Land Cruiser		1995	113,706	Yes		No	Diesel	Fair	Upper Income
115	3/13/2002	KAH-D	PC	1.5	Gasoline	Mitsubishi	Lancer	1996	1996		Yes		No	Carburetor	Good	Upper Income
116	3/13/2002	79UN1	PC	1.6	Gasoline	Suzuki	Vitara		1994	39,606	Yes		No	Man. FI	Good	Upper Income
117	3/13/2002	KAM-P	PC	1.5	Gasoline	Toyota	Corolla	2000	1990	112,399	Yes		No	Man. FI	Good	Upper Income
118	3/13/2002	KAE-V	PC	2	Gasoline	Toyota	Mark II	1995	1986	178,920	Yes		No	Man. FI	Fair	Upper Income
119	3/13/2002	UNEP3	PC	2	Gasoline	Toyota	Rav4				Yes		No	Man. FI	Good	Upper Income
120	3/13/2002	KAN-Y	PC	4	Diesel	Toyota	Land Cruiser	2001	2001		Yes		No	Diesel	Excellent	Upper Income
121	3/13/2002	UNEP2	PC	1.5	Gasoline	Hyundai	Coupe		1993	81,679	Yes		No	Man. FI	Good	Upper Income
122	3/13/2002	40UN4	PC	2.6	Gasoline	Mitsubishi	Pajero	1995	1995	228,702	Yes		No	Carburetor	Good	Upper Income
123	3/13/2002	KAA-T	PC	1.8	Gasoline	Peugeot	504	1990	1990	111,386			No	Carburetor	Poor	Upper Income
124	3/13/2002	KAN-M	PC	1.5	Gasoline	Nissan	Sunny	2001	1993	35,511	Yes		No	Man. FI	Good	Upper Income
125	3/13/2002	KAL-E	PC	1	Gasoline	Diahatsu	Charade	1999	1999	78,816			No	Carburetor	Fair	Upper Income
126	3/13/2002	KAH-X	PC	1.5	Gasoline	Toyota	Corolla	1997	1987	95,410	Yes		No	Carburetor	Good	Upper Income
127	3/13/2002	KYE-	PC	1.3	Gasoline	Suzuki	Sierra	1987	1987	17,170			No	Carburetor	Good	Upper Income
128	3/13/2002	KAK-E	PC	1.5	Gasoline	Toyota	Corolla	1998	1985	156,941	Yes		No	Carburetor	Fair	Upper Income
129	3/13/2002	40UN1	PC	2	Gasoline	Toyota	HiAce		1998	151,353	Yes		No	Carburetor	Fair	Upper Income
130	3/13/2002	110UN	PC	2.4	Gasoline	Volvo	240		1990	111,307			No	Carburetor	Fair	Upper Income
131	3/13/2002	KZF-	PC	1.5	Gasoline	Mazda	323	1988	1988	250,540			No	Carburetor	Poor	Upper Income
132	3/13/2002	40UN0	PC	1.6	Gasoline	Suzuki	Vitara		1995	81,642			No	Man. FI	Good	Upper Income
133	3/13/2002	UNEP2	PC	1.6	Gasoline	Peugeot	405	1996	1996	118,597		Yes	No	Carburetor	Fair	Upper Income
134	3/13/2002	KAG-Q	PC	2	Gasoline	Toyota	Celica	1996	1993	57,640	Yes		No	Man. FI	Fair	Upper Income
135	3/13/2002	KAG-Q	PC	1.5	Gasoline	Toyota	Corolla	1996	1985	80,299	Yes		No	Carburetor	Poor	Upper Income
136	3/13/2002	79UN1	PC	2.7	Gasoline	Nissan	Terrano	2001	2001	11,898	Yes		No	Diesel	Excellent	Upper Income
137	3/13/2002	KXY-	PC	4	Gasoline	Toyota	Land Cruiser	1986	1986	186,534			No	Diesel	Fair	Upper Income
138	3/13/2002	40UN2	PC	2	Gasoline	Toyota	Prado	2002	2002		Yes		No	Diesel	Excellent	Upper Income
139	3/13/2002	79UN8	PC	2.6	Gasoline	Toyota	Prado	2000	2000	37,892	Yes		No	Carburetor	Excellent	Upper Income
140	3/13/2002	UNEP1	PC	2.6	Gasoline	Toyota	Prado	2000	2000	39,643	Yes		No	Carburetor	Excellent	Upper Income
141	3/13/2002	79UN3	PC	3	Gasoline	Toyota	Prado		1990	94,536	Yes		No	Diesel	Excellent	Upper Income

142	3/13/2002	KAD-H	PC	1.5	Gasoline	Nissan	Sunny	1993	1986	128,706	Yes	No	Carburetor	Poor	Upper Income	
143	3/13/2002	79UN6	PC	2	Gasoline	Toyota	Rav4		1996	49,066	Yes	No	Man. FI	Excellent	Upper Income	
144	3/13/2002	79UN2	PC	3.5	Gasoline	Rover	Range Rover		1987	194,308	Yes	No	Man. FI	Good	Upper Income	
145	3/13/2002	KXX-	PC	1.2	Gasoline	Peugeot	205	1986	1986	113,199		No	Carburetor	Poor	Upper Income	
146	3/13/2002	40UN1	MC	0.1	Gasoline	Yamaha	2 cycle					No	Carburetor	Fair	Upper Income	
147	3/13/2002	40UN6	MC	0.1	Gasoline	Honda	2 cycle					No	Carburetor	Fair	Upper Income	
148	3/13/2002		MC	0.1	Gasoline	Honda	2 cycle					No	Carburetor	Fair	Upper Income	
149	3/13/2002	KAM-S	PC	1.3	Gasoline	Toyota	Corolla	2000	1993	77,162	Yes	No	Man. FI	Good	Upper Income	
150	3/13/2002	KAH-B	PC	1.5	Gasoline	Toyota	Corolla	1996	1988	138,170	Yes	No	Man. FI	Fair	Upper Income	
151	3/13/2002	40UN0	PC	1.8	Gasoline	Nissan	Primera	1997	1997	118,442	Yes	No	Carburetor	Good	Upper Income	
152	3/13/2002	KAK-H	PC	1.5	Gasoline	Nissan	Sunny	1998	1986	98,616	Yes	No	Carburetor	Fair	Upper Income	
153	3/13/2002	79UN5	PC	4.5	Gasoline	Toyota	Land Cruiser		1998		Yes	No	Man. FI	Excellent	Upper Income	
154	3/13/2002	KAK-V	PC	2.8	Gasoline	Mitsubishi	Turbo	1999	1999	60,490	Yes	No	Diesel	Excellent	Upper Income	
155	3/13/2002	UNEP3	PC	1.6	Gasoline	Suzuki	Vitara		1993	77,930		No	Man. FI	Fair	Upper Income	
156	3/13/2002	79UN7	PC	4	Gasoline	Toyota	Land Cruiser		1997	131,282	Yes	No	Diesel	Fair	Upper Income	
157	3/13/2002	79UN1	PC	2.5	Gasoline	Rover	Defender	2000	2000	37,031	Yes	No	Diesel	Excellent	Upper Income	
158	3/13/2002	79UN1	PC	2.8	Gasoline	Mitsubishi	Pajero		1993	58,928	Yes	No	Diesel	Excellent	Upper Income	
159	3/13/2002	79UN1	PC	1.3	Gasoline	Suzuki	Samurai	1999	1999	53,413		No	Carburetor	Excellent	Upper Income	
160	3/13/2002	79UN1	PC	1.5	Gasoline	Mitsubishi	Lancer	1993	1993	91,716		No	Carburetor	Good	Upper Income	
161	3/13/2002	KUD-	PC	3.5	Gasoline	Rover	Range Rover	1982	1982	94,865		No	Carburetor	Poor	Upper Income	
162	3/13/2002	KAG-M	PC	1.6	Gasoline	Toyota	Corolla	1996	1993	86,463	Yes	No	Man. FI	Fair	Upper Income	
163	3/13/2002	UNEP2	PC	2.4	Gasoline	Toyota	Hillux		1993	192,611	Yes	No	Diesel	Excellent	Upper Income	
164	3/13/2002	UNEP2	PC	2	Gasoline	Suzuki	Escudo		1995	59,966	Yes	Yes	No	Man. FI	Excellent	Upper Income
165	3/13/2002	KAN-D	PC	1.5	Gasoline	Nissan	Sunny	2001	1993	42,781	Yes	No	Man. FI	Excellent	Upper Income	
166	3/13/2002	UNEP3	PC	1.5	Gasoline	Nissan	Sunny		1994	86,941	Yes	No	Carburetor	Excellent	Upper Income	
167	3/13/2002	KAD-R	PC	1.3	Gasoline	Toyota	Corolla	1994	1994	143,816		No	Carburetor	Good	Upper Income	
168	3/13/2002	105UN	PC	2.7	Gasoline	Nissan	Terrano	2001	2001	12,115	Yes	No	Diesel	Excellent	Upper Income	
169	3/13/2002	UNEP5	PC	1.8	Gasoline	Peugeot	504	1988	1988	365,843		No	Carburetor	Fair	Upper Income	
170	3/13/2002	105UN	PC	1.8	Gasoline	Hyundai	Elantra	1996	1996	12,762	Yes	No	Man. FI	Good	Upper Income	
171	3/13/2002	UNEP8	PC	1.6	Gasoline	Toyota	Corolla		2000	50,744	Yes	No	Man. FI	Excellent	Upper Income	
172	3/13/2002	79UN6	PC	1.5	Gasoline	Hyundai	Excel	1996	1996	111,870	Yes	No	Carburetor	Good	Upper Income	
173	3/13/2002	UNEP1	PC	1.5	Gasoline	Mitsubishi	Lancer	2000	2000		Yes	No	Carburetor	Excellent	Upper Income	
174	3/13/2002	KAB-C	PC	1.3	Gasoline	Nissan	Sunny	1990	1985	159,006		No	Carburetor	Poor	Upper Income	
175	3/13/2002	KAH-Z	PC	4	Gasoline	Toyota	Land Cruiser	1997	1976	24,596		No	Carburetor	Good	Upper Income	
176	3/13/2002	KAE-R	PC	1.5	Gasoline	Toyota	Corolla	1995	1987	118,375	Yes	No	Man. FI	Good	Upper Income	
177	3/13/2002	KAD-P	PC	1.5	Gasoline	Toyota	Corolla	1994	1987	157,490	Yes	Yes	No	Carburetor	Good	Upper Income
178	3/13/2002	105UN	PC	1.5	Gasoline	Toyota	Corolla		1985	95,420	Yes	No	Carburetor	Good	Upper Income	
179	3/13/2002	UNEP3	PC	2	Gasoline	Daihatsu	Rocky		1986	71,180		No	Carburetor	Excellent	Upper Income	
180	3/13/2002	UNEP2	PC	1.3	Gasoline	Toyota	Corolla		1985	118,078		No	Carburetor	Good	Upper Income	
181	3/13/2002	UNEP1	PC	2.6	Gasoline	Toyota	Prado		1999	40,886	Yes	No	Carburetor	Excellent	Upper Income	
182	3/13/2002	UNEP2	PC	2	Gasoline	Toyota	Rav4		1995	36,381	Yes	No	Man. FI	Good	Upper Income	
183	3/13/2002	UNEP3	PC	1.6	Gasoline	Toyota	Corolla		1995	49,850	Yes	No	Man. FI	Good	Upper Income	
184	3/13/2002	105UN	PC	2.7	Gasoline	Nissan	Terrano		1997	122,229	Yes	Yes	No	Diesel	Excellent	Upper Income
185	3/13/2002	KAK-V	PC	1.5	Gasoline	Volkswagon	Golf	1999	1986	159,600		No	Carburetor	Good	Upper Income	
186	3/13/2002	UNEP4	PC	2.5	Gasoline	Rover	Defender	1999	1999	19,058	Yes	No	Carburetor	Excellent	Upper Income	
187	3/13/2002	KAJ-Y	PC	1.8	Gasoline	Volkswagon	Golf	1998	1988	161,009		No	Man. FI	Good	Upper Income	
188	3/13/2002	63UN1	PC	1.5	Gasoline	Hyundai	Excel	1995	1995	84,492	Yes	No	Carburetor	Good	Upper Income	
189	3/13/2002	UNEP2	PC	1.3	Gasoline	Toyota	Corolla		1992	74,182	Yes	No	Man. FI	Good	Upper Income	

190	3/13/2002	UNEP2	PC	2	Gasoline	Toyota	Corona		1991	59,189	Yes		No	Carburetor	Good	Upper Income
191	3/13/2002	KAK-Y	PC	1.4	Gasoline	Peugeot	205	1999	1999	99,561			No	Carburetor	Good	Upper Income
192	3/13/2002	UNEP2	PC	2.4	Gasoline	Nissan	Pathfinder		1996	183,171			No	Carburetor	Fair	Upper Income
193	3/13/2002	UNEP1	PC	1.5	Gasoline	Nissan	Sunny		1987	91,016	Yes		No	Carburetor	Good	Upper Income
194	3/13/2002	KAN-F	PC	1.5	Gasoline	Toyota	Corolla	2001	1993	82,662	Yes		No	Man. FI	Good	Upper Income
195	3/13/2002	105UN	PC	2.7	Gasoline	Nissan	Terrano		2002	9,586	Yes		No	Diesel	Excellent	Upper Income
196	3/13/2002	105UN	PC	2.5	Gasoline	Mitsubishi	Pajero		1986	138,541	Yes		No	Diesel	Excellent	Upper Income
197	3/13/2002	63UN1	PC	1.6	Gasoline	Toyota	Corolla		1999	58,284	Yes		No	Man. FI	Good	Upper Income
198	3/13/2002	UNEP2	PC	2	Gasoline	Toyota	Rav4				Yes		No	Man. FI	Excellent	Upper Income
199	3/13/2002	UNEP1	PC	3	Gasoline	Toyota	Prado		1993	69,950	Yes	Yes	No	Diesel	Excellent	Upper Income
200	3/13/2002	105UN	PC	2	Gasoline	Toyota	Rav4				Yes		No	Man. FI	Excellent	Upper Income
201	3/13/2002	UNEP6	PC	2.4	Gasoline	Nissan	Pathfinder	1997	1997	58,388			No	Carburetor	Good	Upper Income
202	3/13/2002	79UN8	PC	2.4	Gasoline	Mitsubishi	Pajero		1986	67,489	Yes		No	Diesel	Good	Upper Income
203	3/13/2002	KAH-Z	PC	1.8	Gasoline	Peugeot	405	1997	1997	30,400	Yes		No	Carburetor	Good	Upper Income
204	3/13/2002	79UN9	PC	1.5	Gasoline	Hyundai	Accent	1997	1997	36,170	Yes		No	Carburetor	Good	Upper Income
205	3/13/2002	79UN1	PC	1.5	Gasoline	Nissan	Sunny		1989	36,753	Yes		No	Carburetor	Good	Upper Income
206	3/13/2002	79UN8	PC	1.5	Gasoline	Hyundai	Excel	1995	1995	97,278	Yes		No	Carburetor	Good	Upper Income
207	3/13/2002	79UN1	PC	2.4	Gasoline	Mercedes	124		1999		Yes	Yes	No	Man. FI	Excellent	Upper Income
208	3/13/2002	KVU-	PC	2	Gasoline	Mercedes	123	1984	1984	133,819		Yes	No	Carburetor	Good	Upper Income
209	3/13/2002	UNEP1	PC	2.6	Gasoline	Mitsubishi	SUV	1999	1999	31,020	Yes		No	Carburetor	Good	Upper Income
210	3/13/2002	KAB-E	PC	1.5	Gasoline	Peugeot	305	1991	1983	199,679			No	Carburetor	Poor	Upper Income
211	3/13/2002	40UN0	PC	4	Gasoline	Nissan	Patrol		1999		Yes		No	Diesel	Good	Upper Income
212	3/13/2002	KYN-	PC	1.3	Gasoline	Nissan	Sunny	1987	1987	105,342			No	Carburetor	Poor	Upper Income
213	3/13/2002	UNEP2	PC	2	Gasoline	Toyota	Rav4		1996	67,225	Yes		No	Man. FI	Excellent	Upper Income
214	3/13/2002	79UN1	PC	1.5	Gasoline	Daewoo	Racer	1995	1995	89,988	Yes		No	Man. FI	Good	Upper Income
215	3/13/2002	79UN3	TR	2.3	Gasoline	Nissan	Pickup		1989	182,254	Yes		No	Diesel	Good	Upper Income
216	3/13/2002	79UN1	PC	1.3	Gasoline	Mazda	Familia		1985	102,881			No	Carburetor	Good	Upper Income
217	3/13/2002	UNEP2	PC	2.3	Gasoline	Peugeot	505		1986	136,400			No	Diesel	Good	Upper Income
218	3/13/2002	UNEP1	PC	2	Gasoline	Toyota	Rav4		1996	53,107	Yes	Yes	No	Man. FI	Excellent	Upper Income
219	3/13/2002	KAK-X	TR	1.6	Gasoline	Datsun	Pickup	1999	1996	71,912			No	Carburetor	Fair	Upper Income
220	3/13/2002	KAK-L	PC	1.3	Gasoline	Suzuki	Samurai	1998	1998	8,650			No	Carburetor	Good	Upper Income
221	3/13/2002	UNEP3	PC	1.8	Gasoline	Toyota	Corolla		1992	116,144	Yes		No	Man. FI	Fair	Upper Income
222	3/13/2002	63UN3	PC	1.6	Gasoline	Toyota	Corolla		1998	26,540	Yes		No	Man. FI	Good	Upper Income
223	3/13/2002	KAL-W	Van	2.5	Gasoline	Nissan	18 passngr	2000	1993	119,598	Yes		No	Diesel	Fair	Upper Income
224	3/13/2002	UNEP1	PC	2	Gasoline	Toyota	Rav4		1996	56,685	Yes		No	Man. FI	Good	Upper Income
225	3/13/2002	UNEP2	PC	1.5	Gasoline	Daewoo	Cielo	1995	1995	30,020	Yes		No	Man. FI	Good	Upper Income

## **Appendix B**

### **On-Road Vehicle Technologies Allowed in IVE Model**

## Vehicle Technologies Used in the IVE Model

Description	Fuel	Weight	Air/Fuel Control	Exhaust Control	Evaporative Control	Age	Index	Fraction of	
								Miles Driven Standard Vehicles	Fraction with AC Standard Vehicles
Automobile/Small Truck	Gasoline	Light	Carburetor	None	PCV	0-50K miles (0-79K km)	0		
Automobile/Small Truck	Gasoline	Light	Carburetor	None	PCV	51K-100K miles (80K-161K km)	1		
Automobile/Small Truck	Gasoline	Light	Carburetor	None	PCV	>100K miles (>162K km)	2		
Automobile/Small Truck	Gasoline	Medium	Carburetor	None	PCV	0-50K miles (0-79K km)	3		
Automobile/Small Truck	Gasoline	Medium	Carburetor	None	PCV	51K-100K miles (80K-161K km)	4		
Automobile/Small Truck	Gasoline	Medium	Carburetor	None	PCV	>100K miles (>162K km)	5		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	None	PCV	0-50K miles (0-79K km)	6		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	None	PCV	51K-100K miles (80K-161K km)	7		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	None	PCV	>100K miles (>162K km)	8		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	9		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	10		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way	PCV	>100K miles (>162K km)	11		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	12		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	13		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way	PCV	>100K miles (>162K km)	14		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	15		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	16		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way	PCV	>100K miles (>162K km)	17		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	18		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	19		
Automobile/Small Truck	Gasoline	Light	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	20		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	21		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	22		
Automobile/Small Truck	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	23		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	24		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	25		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	26		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	27		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	28		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way	PCV	>100K miles (>162K km)	29		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	30		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	31		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way	PCV	>100K miles (>162K km)	32		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	33		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	34		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way	PCV	>100K miles (>162K km)	35		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	36		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	37		
Automobile/Small Truck	Gasoline	Light	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	38		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	39		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	40		
Automobile/Small Truck	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	41		
Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	42		

Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	43
Automobile/Small Truck	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	44
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none	PCV	0-50K miles (0-79K km)	45
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none	PCV	51K-100K miles (80K-161K km)	46
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none	PCV	>100K miles (>162K km)	47
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none	PCV	0-50K miles (0-79K km)	48
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none	PCV	51K-100K miles (80K-161K km)	49
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none	PCV	>100K miles (>162K km)	50
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none	PCV	0-50K miles (0-79K km)	51
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none	PCV	51K-100K miles (80K-161K km)	52
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none	PCV	>100K miles (>162K km)	53
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none/EGR	PCV	0-50K miles (0-79K km)	54
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none/EGR	PCV	51K-100K miles (80K-161K km)	55
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	none/EGR	PCV	>100K miles (>162K km)	56
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none/EGR	PCV	0-50K miles (0-79K km)	57
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none/EGR	PCV	51K-100K miles (80K-161K km)	58
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	none/EGR	PCV	>100K miles (>162K km)	59
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none/EGR	PCV	0-50K miles (0-79K km)	60
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none/EGR	PCV	51K-100K miles (80K-161K km)	61
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	none/EGR	PCV	>100K miles (>162K km)	62
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	63
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	64
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	65
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	66
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	67
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	68
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	69
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	70
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	71
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	72
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	73
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	74
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	75
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	76
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	77
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	78
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	79
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	80
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	81
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	82
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	83
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	84
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	85
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	86
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	87
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	88
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	89
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	90



Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	91
Automobile/Small Truck	Gasoline	Light	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	92
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	93
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	94
Automobile/Small Truck	Gasoline	Medium	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	95
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	96
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	97
Automobile/Small Truck	Gasoline	Heavy	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	98
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none	PCV	0-50K miles (0-79K km)	99
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none	PCV	51K-100K miles (80K-161K km)	100
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none	PCV	>100K miles (>162K km)	101
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none	PCV	0-50K miles (0-79K km)	102
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none	PCV	51K-100K miles (80K-161K km)	103
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none	PCV	>100K miles (>162K km)	104
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none	PCV	0-50K miles (0-79K km)	105
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none	PCV	51K-100K miles (80K-161K km)	106
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none	PCV	>100K miles (>162K km)	107
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none/EGR	PCV	0-50K miles (0-79K km)	108
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none/EGR	PCV	51K-100K miles (80K-161K km)	109
Automobile/Small Truck	Gasoline	Light	Fuel Injection	none/EGR	PCV	>100K miles (>162K km)	110
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none/EGR	PCV	0-50K miles (0-79K km)	111
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none/EGR	PCV	51K-100K miles (80K-161K km)	112
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	none/EGR	PCV	>100K miles (>162K km)	113
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none/EGR	PCV	0-50K miles (0-79K km)	114
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none/EGR	PCV	51K-100K miles (80K-161K km)	115
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	none/EGR	PCV	>100K miles (>162K km)	116
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	117
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	118
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	119
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	120
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	121
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	122
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	123
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	124
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	125
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	126
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	127
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	128
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	129
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	130
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	131
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	132
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	133
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	134
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV/Tank	0-50K miles (0-79K km)	135
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV/Tank	51K-100K miles (80K-161K km)	136
Automobile/Small Truck	Gasoline	Light	Fuel Injection	3-Way/EGR	PCV/Tank	>100K miles (>162K km)	137
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV/Tank	0-50K miles (0-79K km)	138

Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV/Tank	51K-100K miles (80K-161K km)	139
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	3-Way/EGR	PCV/Tank	>100K miles (>162K km)	140
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	0-50K miles (0-79K km)	141
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	51K-100K miles (80K-161K km)	142
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	>100K miles (>162K km)	143
Automobile/Small Truck	Gasoline	Light	Fuel Injection	LEV	PCV/Tank	0-50K miles (0-79K km)	144
Automobile/Small Truck	Gasoline	Light	Fuel Injection	LEV	PCV/Tank	51K-100K miles (80K-161K km)	145
Automobile/Small Truck	Gasoline	Light	Fuel Injection	LEV	PCV/Tank	>100K miles (>162K km)	146
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	LEV	PCV/Tank	0-50K miles (0-79K km)	147
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	LEV	PCV/Tank	51K-100K miles (80K-161K km)	148
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	LEV	PCV/Tank	>100K miles (>162K km)	149
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	LEV	PCV/Tank	0-50K miles (0-79K km)	150
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	LEV	PCV/Tank	51K-100K miles (80K-161K km)	151
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	LEV	PCV/Tank	>100K miles (>162K km)	152
Automobile/Small Truck	Gasoline	Light	Fuel Injection	ULEV	PCV/Tank	0-50K miles (0-79K km)	153
Automobile/Small Truck	Gasoline	Light	Fuel Injection	ULEV	PCV/Tank	51K-100K miles (80K-161K km)	154
Automobile/Small Truck	Gasoline	Light	Fuel Injection	ULEV	PCV/Tank	>100K miles (>162K km)	155
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	ULEV	PCV/Tank	0-50K miles (0-79K km)	156
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	ULEV	PCV/Tank	51K-100K miles (80K-161K km)	157
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	ULEV	PCV/Tank	>100K miles (>162K km)	158
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	ULEV	PCV/Tank	0-50K miles (0-79K km)	159
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	ULEV	PCV/Tank	51K-100K miles (80K-161K km)	160
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	ULEV	PCV/Tank	>100K miles (>162K km)	161
Automobile/Small Truck	Gasoline	Light	Fuel Injection	SULEV	PCV/Tank	0-50K miles (0-79K km)	162
Automobile/Small Truck	Gasoline	Light	Fuel Injection	SULEV	PCV/Tank	51K-100K miles (80K-161K km)	163
Automobile/Small Truck	Gasoline	Light	Fuel Injection	SULEV	PCV/Tank	>100K miles (>162K km)	164
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	SULEV	PCV/Tank	0-50K miles (0-79K km)	165
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	SULEV	PCV/Tank	51K-100K miles (80K-161K km)	166
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	SULEV	PCV/Tank	>100K miles (>162K km)	167
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	SULEV	PCV/Tank	0-50K miles (0-79K km)	168
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	SULEV	PCV/Tank	51K-100K miles (80K-161K km)	169
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	SULEV	PCV/Tank	>100K miles (>162K km)	170
Automobile/Small Truck	Gasoline	Light	Fuel Injection	Hybrid	PCV/Tank	0-50K miles (0-79K km)	171
Automobile/Small Truck	Gasoline	Light	Fuel Injection	Hybrid	PCV/Tank	51K-100K miles (80K-161K km)	172
Automobile/Small Truck	Gasoline	Light	Fuel Injection	Hybrid	PCV/Tank	>100K miles (>162K km)	173
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	Hybrid	PCV/Tank	0-50K miles (0-79K km)	174
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	Hybrid	PCV/Tank	51K-100K miles (80K-161K km)	175
Automobile/Small Truck	Gasoline	Medium	Fuel Injection	Hybrid	PCV/Tank	>100K miles (>162K km)	176
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	Hybrid	PCV/Tank	0-50K miles (0-79K km)	177
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	Hybrid	PCV/Tank	51K-100K miles (80K-161K km)	178
Automobile/Small Truck	Gasoline	Heavy	Fuel Injection	Hybrid	PCV/Tank	>100K miles (>162K km)	179
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	180
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	181
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	182
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	183
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	184
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	185
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	186

Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	187
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	188
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way	PCV	0-50K miles (0-79K km)	189
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way	PCV	51K-100K miles (80K-161K km)	190
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way	PCV	>100K miles (>162K km)	191
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way	PCV	0-50K miles (0-79K km)	192
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way	PCV	51K-100K miles (80K-161K km)	193
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way	PCV	>100K miles (>162K km)	194
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way	PCV	0-50K miles (0-79K km)	195
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way	PCV	51K-100K miles (80K-161K km)	196
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way	PCV	>100K miles (>162K km)	197
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	198
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	199
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	200
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	201
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	202
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	203
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	204
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	205
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	206
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way	PCV	0-50K miles (0-79K km)	207
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way	PCV	51K-100K miles (80K-161K km)	208
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way	PCV	>100K miles (>162K km)	209
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way	PCV	0-50K miles (0-79K km)	210
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way	PCV	51K-100K miles (80K-161K km)	211
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way	PCV	>100K miles (>162K km)	212
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way	PCV	0-50K miles (0-79K km)	213
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way	PCV	51K-100K miles (80K-161K km)	214
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way	PCV	>100K miles (>162K km)	215
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	216
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	217
Automobile/Small Truck	NG Retrofit	Light	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	218
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	219
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	220
Automobile/Small Truck	NG Retrofit	Medium	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	221
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	222
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	223
Automobile/Small Truck	NG Retrofit	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	224
Automobile/Small Truck	Natural Gas	Light	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	225
Automobile/Small Truck	Natural Gas	Light	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	226
Automobile/Small Truck	Natural Gas	Light	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	227
Automobile/Small Truck	Natural Gas	Medium	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	228
Automobile/Small Truck	Natural Gas	Medium	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	229
Automobile/Small Truck	Natural Gas	Medium	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	230
Automobile/Small Truck	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	231
Automobile/Small Truck	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	232
Automobile/Small Truck	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	233
Automobile/Small Truck	Natural Gas	Light	Carburetor/Mixer	2-Way	PCV	0-50K miles (0-79K km)	234



Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	283
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	284
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	285
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	286
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	287
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	288
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	289
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	290
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	291
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	292
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	293
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	294
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	295
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	3-Way/EGR	PCV	>100K miles (>162K km)	296
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	ULEV	PCV	0-50K miles (0-79K km)	297
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	ULEV	PCV	51K-100K miles (80K-161K km)	298
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	ULEV	PCV	>100K miles (>162K km)	299
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	ULEV	PCV	0-50K miles (0-79K km)	300
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	ULEV	PCV	51K-100K miles (80K-161K km)	301
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	ULEV	PCV	>100K miles (>162K km)	302
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	ULEV	PCV	0-50K miles (0-79K km)	303
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	ULEV	PCV	51K-100K miles (80K-161K km)	304
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	ULEV	PCV	>100K miles (>162K km)	305
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	SULEV	PCV	0-50K miles (0-79K km)	306
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	SULEV	PCV	51K-100K miles (80K-161K km)	307
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	SULEV	PCV	>100K miles (>162K km)	308
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	SULEV	PCV	0-50K miles (0-79K km)	309
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	SULEV	PCV	51K-100K miles (80K-161K km)	310
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	SULEV	PCV	>100K miles (>162K km)	311
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	SULEV	PCV	0-50K miles (0-79K km)	312
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	SULEV	PCV	51K-100K miles (80K-161K km)	313
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	SULEV	PCV	>100K miles (>162K km)	314
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	Hybrid	PCV	0-50K miles (0-79K km)	315
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	Hybrid	PCV	51K-100K miles (80K-161K km)	316
Automobile/Small Truck	Natural Gas	Light	Fuel Injection	Hybrid	PCV	>100K miles (>162K km)	317
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	Hybrid	PCV	0-50K miles (0-79K km)	318
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	Hybrid	PCV	51K-100K miles (80K-161K km)	319
Automobile/Small Truck	Natural Gas	Medium	Fuel Injection	Hybrid	PCV	>100K miles (>162K km)	320
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	Hybrid	PCV	0-50K miles (0-79K km)	321
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	Hybrid	PCV	51K-100K miles (80K-161K km)	322
Automobile/Small Truck	Natural Gas	Heavy	Fuel Injection	Hybrid	PCV	>100K miles (>162K km)	323
Automobile/Small Truck	EthOH Retrofit	Light	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	324
Automobile/Small Truck	EthOH Retrofit	Light	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	325
Automobile/Small Truck	EthOH Retrofit	Light	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	326
Automobile/Small Truck	EthOH Retrofit	Medium	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	327
Automobile/Small Truck	EthOH Retrofit	Medium	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	328
Automobile/Small Truck	EthOH Retrofit	Medium	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	329
Automobile/Small Truck	EthOH Retrofit	Heavy	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	330





Automobile/Small Truck	EthOH Retrofit	Medium	Fuel Injection	3-Way/EGR	PCV/Tank	51K-100K miles (80K-161K km)	427
Automobile/Small Truck	EthOH Retrofit	Medium	Fuel Injection	3-Way/EGR	PCV/Tank	>100K miles (>162K km)	428
Automobile/Small Truck	EthOH Retrofit	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	0-50K miles (0-79K km)	429
Automobile/Small Truck	EthOH Retrofit	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	51K-100K miles (80K-161K km)	430
Automobile/Small Truck	EthOH Retrofit	Heavy	Fuel Injection	3-Way/EGR	PCV/Tank	>100K miles (>162K km)	431
Automobile/Small Truck	Ethanol	Light	Carburetor	None	PCV	0-50K miles (0-79K km)	432
Automobile/Small Truck	Ethanol	Light	Carburetor	None	PCV	51K-100K miles (80K-161K km)	433
Automobile/Small Truck	Ethanol	Light	Carburetor	None	PCV	>100K miles (>162K km)	434
Automobile/Small Truck	Ethanol	Medium	Carburetor	None	PCV	0-50K miles (0-79K km)	435
Automobile/Small Truck	Ethanol	Medium	Carburetor	None	PCV	51K-100K miles (80K-161K km)	436
Automobile/Small Truck	Ethanol	Medium	Carburetor	None	PCV	>100K miles (>162K km)	437
Automobile/Small Truck	Ethanol	Heavy	Carburetor	None	PCV	0-50K miles (0-79K km)	438
Automobile/Small Truck	Ethanol	Heavy	Carburetor	None	PCV	51K-100K miles (80K-161K km)	439
Automobile/Small Truck	Ethanol	Heavy	Carburetor	None	PCV	>100K miles (>162K km)	440
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	441
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	442
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way	PCV	>100K miles (>162K km)	443
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	444
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	445
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way	PCV	>100K miles (>162K km)	446
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	447
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	448
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way	PCV	>100K miles (>162K km)	449
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	450
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	451
Automobile/Small Truck	Ethanol	Light	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	452
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	453
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	454
Automobile/Small Truck	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	455
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	456
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	457
Automobile/Small Truck	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	458
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	459
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	460
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way	PCV	>100K miles (>162K km)	461
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	462
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	463
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way	PCV	>100K miles (>162K km)	464
Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	465
Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	466
Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way	PCV	>100K miles (>162K km)	467
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	468
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	469
Automobile/Small Truck	Ethanol	Light	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	470
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	471
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	472
Automobile/Small Truck	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	473
Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	474



Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	475
Automobile/Small Truck	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	476
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	477
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	478
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	479
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	480
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	481
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	482
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way	PCV	0-50K miles (0-79K km)	483
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way	PCV	51K-100K miles (80K-161K km)	484
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way	PCV	>100K miles (>162K km)	485
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	486
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	487
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	488
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	489
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	490
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	491
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	492
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	493
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	2-Way/EGR	PCV	>100K miles (>162K km)	494
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	495
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	496
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	497
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	498
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	499
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	500
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way	PCV	0-50K miles (0-79K km)	501
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way	PCV	51K-100K miles (80K-161K km)	502
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way	PCV	>100K miles (>162K km)	503
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	504
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	505
Automobile/Small Truck	Ethanol	Light	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	506
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	507
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	508
Automobile/Small Truck	Ethanol	Medium	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	509
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	510
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	511
Automobile/Small Truck	Ethanol	Heavy	Throttle Body FI	3-Way/EGR	PCV	>100K miles (>162K km)	512
Automobile/Small Truck	Ethanol	Light	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	513
Automobile/Small Truck	Ethanol	Light	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	514
Automobile/Small Truck	Ethanol	Light	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	515
Automobile/Small Truck	Ethanol	Medium	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	516
Automobile/Small Truck	Ethanol	Medium	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	517
Automobile/Small Truck	Ethanol	Medium	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	518
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	3-Way	PCV	0-50K miles (0-79K km)	519
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	3-Way	PCV	51K-100K miles (80K-161K km)	520
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	3-Way	PCV	>100K miles (>162K km)	521
Automobile/Small Truck	Ethanol	Light	Fuel Injection	3-Way/EGR	PCV	0-50K miles (0-79K km)	522



Automobile/Small Truck	Ethanol	Medium	Fuel Injection	Hybrid	PCV/Tank	51K-100K miles (80K-161K km)	571
Automobile/Small Truck	Ethanol	Medium	Fuel Injection	Hybrid	PCV/Tank	>100K miles (>162K km)	572
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	Hybrid	PCV/Tank	0-50K miles (0-79K km)	573
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	Hybrid	PCV/Tank	51K-100K miles (80K-161K km)	574
Automobile/Small Truck	Ethanol	Heavy	Fuel Injection	Hybrid	PCV/Tank	>100K miles (>162K km)	575
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	576
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	577
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	578
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	579
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	580
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	581
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	582
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	583
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	584
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	Improved	None	0-50K miles (0-79K km)	585
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	Improved	None	51K-100K miles (80K-161K km)	586
Automobile/Small Truck	Diesel	Light	Pre-Chamber Inject.	Improved	None	>100K miles (>162K km)	587
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	Improved	None	0-50K miles (0-79K km)	588
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	Improved	None	51K-100K miles (80K-161K km)	589
Automobile/Small Truck	Diesel	Medium	Pre-Chamber Inject.	Improved	None	>100K miles (>162K km)	590
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	Improved	None	0-50K miles (0-79K km)	591
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	Improved	None	51K-100K miles (80K-161K km)	592
Automobile/Small Truck	Diesel	Heavy	Pre-Chamber Inject.	Improved	None	>100K miles (>162K km)	593
Automobile/Small Truck	Diesel	Light	Direct Injection	EGR+Improv	None	0-50K miles (0-79K km)	594
Automobile/Small Truck	Diesel	Light	Direct Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	595
Automobile/Small Truck	Diesel	Light	Direct Injection	EGR+Improv	None	>100K miles (>162K km)	596
Automobile/Small Truck	Diesel	Medium	Direct Injection	EGR+Improv	None	0-50K miles (0-79K km)	597
Automobile/Small Truck	Diesel	Medium	Direct Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	598
Automobile/Small Truck	Diesel	Medium	Direct Injection	EGR+Improv	None	>100K miles (>162K km)	599
Automobile/Small Truck	Diesel	Heavy	Direct Injection	EGR+Improv	None	0-50K miles (0-79K km)	600
Automobile/Small Truck	Diesel	Heavy	Direct Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	601
Automobile/Small Truck	Diesel	Heavy	Direct Injection	EGR+Improv	None	>100K miles (>162K km)	602
Automobile/Small Truck	Diesel	Light	Injection	Particulate	None	0-50K miles (0-79K km)	603
Automobile/Small Truck	Diesel	Light	Injection	Particulate	None	51K-100K miles (80K-161K km)	604
Automobile/Small Truck	Diesel	Light	Injection	Particulate	None	>100K miles (>162K km)	605
Automobile/Small Truck	Diesel	Medium	Injection	Particulate	None	0-50K miles (0-79K km)	606
Automobile/Small Truck	Diesel	Medium	Injection	Particulate	None	51K-100K miles (80K-161K km)	607
Automobile/Small Truck	Diesel	Medium	Injection	Particulate	None	>100K miles (>162K km)	608
Automobile/Small Truck	Diesel	Heavy	Injection	Particulate	None	0-50K miles (0-79K km)	609
Automobile/Small Truck	Diesel	Heavy	Injection	Particulate	None	51K-100K miles (80K-161K km)	610
Automobile/Small Truck	Diesel	Heavy	Injection	Particulate	None	>100K miles (>162K km)	611
Automobile/Small Truck	Diesel	Light	Injection	Particulate/NOx	None	0-50K miles (0-79K km)	612
Automobile/Small Truck	Diesel	Light	Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	613
Automobile/Small Truck	Diesel	Light	Injection	Particulate/NOx	None	>100K miles (>162K km)	614
Automobile/Small Truck	Diesel	Medium	Injection	Particulate/NOx	None	0-50K miles (0-79K km)	615
Automobile/Small Truck	Diesel	Medium	Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	616
Automobile/Small Truck	Diesel	Medium	Injection	Particulate/NOx	None	>100K miles (>162K km)	617
Automobile/Small Truck	Diesel	Heavy	Injection	Particulate/NOx	None	0-50K miles (0-79K km)	618

Automobile/Small Truck	Diesel	Heavy	Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	619
Automobile/Small Truck	Diesel	Heavy	Injection	Particulate/NOx	None	>100K miles (>162K km)	620
Automobile/Small Truck	Diesel	Light	Injection	Hybrid	None	0-50K miles (0-79K km)	621
Automobile/Small Truck	Diesel	Light	Injection	Hybrid	None	51K-100K miles (80K-161K km)	622
Automobile/Small Truck	Diesel	Light	Injection	Hybrid	None	>100K miles (>162K km)	623
Automobile/Small Truck	Diesel	Medium	Injection	Hybrid	None	0-50K miles (0-79K km)	624
Automobile/Small Truck	Diesel	Medium	Injection	Hybrid	None	51K-100K miles (80K-161K km)	625
Automobile/Small Truck	Diesel	Medium	Injection	Hybrid	None	>100K miles (>162K km)	626
Automobile/Small Truck	Diesel	Heavy	Injection	Hybrid	None	0-50K miles (0-79K km)	627
Automobile/Small Truck	Diesel	Heavy	Injection	Hybrid	None	51K-100K miles (80K-161K km)	628
Automobile/Small Truck	Diesel	Heavy	Injection	Hybrid	None	>100K miles (>162K km)	629
Truck/Bus	Gasoline	Light	Carburetor	None	PCV	0-50K miles (0-79K km)	630
Truck/Bus	Gasoline	Light	Carburetor	None	PCV	51K-100K miles (80K-161K km)	631
Truck/Bus	Gasoline	Light	Carburetor	None	PCV	>100K miles (>162K km)	632
Truck/Bus	Gasoline	Medium	Carburetor	None	PCV	0-50K miles (0-79K km)	633
Truck/Bus	Gasoline	Medium	Carburetor	None	PCV	51K-100K miles (80K-161K km)	634
Truck/Bus	Gasoline	Medium	Carburetor	None	PCV	>100K miles (>162K km)	635
Truck/Bus	Gasoline	Heavy	Carburetor	None	PCV	0-50K miles (0-79K km)	636
Truck/Bus	Gasoline	Heavy	Carburetor	None	PCV	51K-100K miles (80K-161K km)	637
Truck/Bus	Gasoline	Heavy	Carburetor	None	PCV	>100K miles (>162K km)	638
Truck/Bus	Gasoline	Light	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	639
Truck/Bus	Gasoline	Light	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	640
Truck/Bus	Gasoline	Light	Carburetor	2-Way	PCV	>100K miles (>162K km)	641
Truck/Bus	Gasoline	Medium	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	642
Truck/Bus	Gasoline	Medium	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	643
Truck/Bus	Gasoline	Medium	Carburetor	2-Way	PCV	>100K miles (>162K km)	644
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way	PCV	0-50K miles (0-79K km)	645
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way	PCV	51K-100K miles (80K-161K km)	646
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way	PCV	>100K miles (>162K km)	647
Truck/Bus	Gasoline	Light	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	648
Truck/Bus	Gasoline	Light	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	649
Truck/Bus	Gasoline	Light	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	650
Truck/Bus	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	651
Truck/Bus	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	652
Truck/Bus	Gasoline	Medium	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	653
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	654
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	655
Truck/Bus	Gasoline	Heavy	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	656
Truck/Bus	Gasoline	Light	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	657
Truck/Bus	Gasoline	Light	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	658
Truck/Bus	Gasoline	Light	Carburetor	3-Way	PCV	>100K miles (>162K km)	659
Truck/Bus	Gasoline	Medium	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	660
Truck/Bus	Gasoline	Medium	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	661
Truck/Bus	Gasoline	Medium	Carburetor	3-Way	PCV	>100K miles (>162K km)	662
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way	PCV	0-50K miles (0-79K km)	663
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way	PCV	51K-100K miles (80K-161K km)	664
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way	PCV	>100K miles (>162K km)	665
Truck/Bus	Gasoline	Light	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	666

Truck/Bus	Gasoline	Light	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	667
Truck/Bus	Gasoline	Light	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	668
Truck/Bus	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	669
Truck/Bus	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	670
Truck/Bus	Gasoline	Medium	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	671
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	672
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	673
Truck/Bus	Gasoline	Heavy	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	674
Truck/Bus	Gasoline	Light	FI	none	PCV	0-50K miles (0-79K km)	675
Truck/Bus	Gasoline	Light	FI	none	PCV	51K-100K miles (80K-161K km)	676
Truck/Bus	Gasoline	Light	FI	none	PCV	>100K miles (>162K km)	677
Truck/Bus	Gasoline	Medium	FI	none	PCV	0-50K miles (0-79K km)	678
Truck/Bus	Gasoline	Medium	FI	none	PCV	51K-100K miles (80K-161K km)	679
Truck/Bus	Gasoline	Medium	FI	none	PCV	>100K miles (>162K km)	680
Truck/Bus	Gasoline	Heavy	FI	none	PCV	0-50K miles (0-79K km)	681
Truck/Bus	Gasoline	Heavy	FI	none	PCV	51K-100K miles (80K-161K km)	682
Truck/Bus	Gasoline	Heavy	FI	none	PCV	>100K miles (>162K km)	683
Truck/Bus	Gasoline	Light	FI	2-Way	PCV	0-50K miles (0-79K km)	684
Truck/Bus	Gasoline	Light	FI	2-Way	PCV	51K-100K miles (80K-161K km)	685
Truck/Bus	Gasoline	Light	FI	2-Way	PCV	>100K miles (>162K km)	686
Truck/Bus	Gasoline	Medium	FI	2-Way	PCV	0-50K miles (0-79K km)	687
Truck/Bus	Gasoline	Medium	FI	2-Way	PCV	51K-100K miles (80K-161K km)	688
Truck/Bus	Gasoline	Medium	FI	2-Way	PCV	>100K miles (>162K km)	689
Truck/Bus	Gasoline	Heavy	FI	2-Way	PCV	0-50K miles (0-79K km)	690
Truck/Bus	Gasoline	Heavy	FI	2-Way	PCV	51K-100K miles (80K-161K km)	691
Truck/Bus	Gasoline	Heavy	FI	2-Way	PCV	>100K miles (>162K km)	692
Truck/Bus	Gasoline	Light	FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	693
Truck/Bus	Gasoline	Light	FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	694
Truck/Bus	Gasoline	Light	FI	2-Way/EGR	PCV	>100K miles (>162K km)	695
Truck/Bus	Gasoline	Medium	FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	696
Truck/Bus	Gasoline	Medium	FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	697
Truck/Bus	Gasoline	Medium	FI	2-Way/EGR	PCV	>100K miles (>162K km)	698
Truck/Bus	Gasoline	Heavy	FI	2-Way/EGR	PCV	0-50K miles (0-79K km)	699
Truck/Bus	Gasoline	Heavy	FI	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	700
Truck/Bus	Gasoline	Heavy	FI	2-Way/EGR	PCV	>100K miles (>162K km)	701
Truck/Bus	Gasoline	Light	FI	3-Way	PCV	0-50K miles (0-79K km)	702
Truck/Bus	Gasoline	Light	FI	3-Way	PCV	51K-100K miles (80K-161K km)	703
Truck/Bus	Gasoline	Light	FI	3-Way	PCV	>100K miles (>162K km)	704
Truck/Bus	Gasoline	Medium	FI	3-Way	PCV	0-50K miles (0-79K km)	705
Truck/Bus	Gasoline	Medium	FI	3-Way	PCV	51K-100K miles (80K-161K km)	706
Truck/Bus	Gasoline	Medium	FI	3-Way	PCV	>100K miles (>162K km)	707
Truck/Bus	Gasoline	Heavy	FI	3-Way	PCV	0-50K miles (0-79K km)	708
Truck/Bus	Gasoline	Heavy	FI	3-Way	PCV	51K-100K miles (80K-161K km)	709
Truck/Bus	Gasoline	Heavy	FI	3-Way	PCV	>100K miles (>162K km)	710
Truck/Bus	Gasoline	Light	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	711
Truck/Bus	Gasoline	Light	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	712
Truck/Bus	Gasoline	Light	FI	3-Way/EGR	PCV	>100K miles (>162K km)	713
Truck/Bus	Gasoline	Medium	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	714

Truck/Bus	Gasoline	Medium	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	715
Truck/Bus	Gasoline	Medium	FI	3-Way/EGR	PCV	>100K miles (>162K km)	716
Truck/Bus	Gasoline	Heavy	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	717
Truck/Bus	Gasoline	Heavy	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	718
Truck/Bus	Gasoline	Heavy	FI	3-Way/EGR	PCV	>100K miles (>162K km)	719
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	720
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	721
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	722
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	723
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	724
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	725
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	0-50K miles (0-79K km)	726
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	51K-100K miles (80K-161K km)	727
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	None	PCV	>100K miles (>162K km)	728
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	729
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	730
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	731
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	732
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	733
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	734
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	0-50K miles (0-79K km)	735
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	736
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	2-Way/EGR	PCV	>100K miles (>162K km)	737
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	738
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	739
Truck/Bus	Natural Gas	Light	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	740
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	741
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	742
Truck/Bus	Natural Gas	Medium	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	743
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	0-50K miles (0-79K km)	744
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	745
Truck/Bus	Natural Gas	Heavy	Carburetor/Mixer	3-Way/EGR	PCV	>100K miles (>162K km)	746
Truck/Bus	Natural Gas	Light	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	747
Truck/Bus	Natural Gas	Light	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	748
Truck/Bus	Natural Gas	Light	FI	3-Way/EGR	PCV	>100K miles (>162K km)	749
Truck/Bus	Natural Gas	Medium	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	750
Truck/Bus	Natural Gas	Medium	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	751
Truck/Bus	Natural Gas	Medium	FI	3-Way/EGR	PCV	>100K miles (>162K km)	752
Truck/Bus	Natural Gas	Heavy	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	753
Truck/Bus	Natural Gas	Heavy	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	754
Truck/Bus	Natural Gas	Heavy	FI	3-Way/EGR	PCV	>100K miles (>162K km)	755
Truck/Bus	Diesel	Light	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	756
Truck/Bus	Diesel	Light	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	757
Truck/Bus	Diesel	Light	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	758
Truck/Bus	Diesel	Medium	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	759
Truck/Bus	Diesel	Medium	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	760
Truck/Bus	Diesel	Medium	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	761
Truck/Bus	Diesel	Heavy	Pre-Chamber Inject.	None	None	0-50K miles (0-79K km)	762

Truck/Bus	Diesel	Heavy	Pre-Chamber Inject.	None	None	51K-100K miles (80K-161K km)	763
Truck/Bus	Diesel	Heavy	Pre-Chamber Inject.	None	None	>100K miles (>162K km)	764
Truck/Bus	Diesel	Light	Fuel Injection	Improved	None	0-50K miles (0-79K km)	765
Truck/Bus	Diesel	Light	Fuel Injection	Improved	None	51K-100K miles (80K-161K km)	766
Truck/Bus	Diesel	Light	Fuel Injection	Improved	None	>100K miles (>162K km)	767
Truck/Bus	Diesel	Medium	Fuel Injection	Improved	None	0-50K miles (0-79K km)	768
Truck/Bus	Diesel	Medium	Fuel Injection	Improved	None	51K-100K miles (80K-161K km)	769
Truck/Bus	Diesel	Medium	Fuel Injection	Improved	None	>100K miles (>162K km)	770
Truck/Bus	Diesel	Heavy	Fuel Injection	Improved	None	0-50K miles (0-79K km)	771
Truck/Bus	Diesel	Heavy	Fuel Injection	Improved	None	51K-100K miles (80K-161K km)	772
Truck/Bus	Diesel	Heavy	Fuel Injection	Improved	None	>100K miles (>162K km)	773
Truck/Bus	Diesel	Light	Fuel Injection	EGR+Improv	None	0-50K miles (0-79K km)	774
Truck/Bus	Diesel	Light	Fuel Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	775
Truck/Bus	Diesel	Light	Fuel Injection	EGR+Improv	None	>100K miles (>162K km)	776
Truck/Bus	Diesel	Medium	Fuel Injection	EGR+Improv	None	0-50K miles (0-79K km)	777
Truck/Bus	Diesel	Medium	Fuel Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	778
Truck/Bus	Diesel	Medium	Fuel Injection	EGR+Improv	None	>100K miles (>162K km)	779
Truck/Bus	Diesel	Heavy	Fuel Injection	EGR+Improv	None	0-50K miles (0-79K km)	780
Truck/Bus	Diesel	Heavy	Fuel Injection	EGR+Improv	None	51K-100K miles (80K-161K km)	781
Truck/Bus	Diesel	Heavy	Fuel Injection	EGR+Improv	None	>100K miles (>162K km)	782
Truck/Bus	Diesel	Light	Fuel Injection	Particulate	None	0-50K miles (0-79K km)	783
Truck/Bus	Diesel	Light	Fuel Injection	Particulate	None	51K-100K miles (80K-161K km)	784
Truck/Bus	Diesel	Light	Fuel Injection	Particulate	None	>100K miles (>162K km)	785
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate	None	0-50K miles (0-79K km)	786
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate	None	51K-100K miles (80K-161K km)	787
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate	None	>100K miles (>162K km)	788
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate	None	0-50K miles (0-79K km)	789
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate	None	51K-100K miles (80K-161K km)	790
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate	None	>100K miles (>162K km)	791
Truck/Bus	Diesel	Light	Fuel Injection	Particulate/NOx	None	0-50K miles (0-79K km)	792
Truck/Bus	Diesel	Light	Fuel Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	793
Truck/Bus	Diesel	Light	Fuel Injection	Particulate/NOx	None	>100K miles (>162K km)	794
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate/NOx	None	0-50K miles (0-79K km)	795
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	796
Truck/Bus	Diesel	Medium	Fuel Injection	Particulate/NOx	None	>100K miles (>162K km)	797
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate/NOx	None	0-50K miles (0-79K km)	798
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate/NOx	None	51K-100K miles (80K-161K km)	799
Truck/Bus	Diesel	Heavy	Fuel Injection	Particulate/NOx	None	>100K miles (>162K km)	800
Truck/Bus	Diesel	Light	Fuel Injection	Hybrid	None	0-50K miles (0-79K km)	801
Truck/Bus	Diesel	Light	Fuel Injection	Hybrid	None	51K-100K miles (80K-161K km)	802
Truck/Bus	Diesel	Light	Fuel Injection	Hybrid	None	>100K miles (>162K km)	803
Truck/Bus	Diesel	Medium	Fuel Injection	Hybrid	None	0-50K miles (0-79K km)	804
Truck/Bus	Diesel	Medium	Fuel Injection	Hybrid	None	51K-100K miles (80K-161K km)	805
Truck/Bus	Diesel	Medium	Fuel Injection	Hybrid	None	>100K miles (>162K km)	806
Truck/Bus	Diesel	Heavy	Fuel Injection	Hybrid	None	0-50K miles (0-79K km)	807
Truck/Bus	Diesel	Heavy	Fuel Injection	Hybrid	None	51K-100K miles (80K-161K km)	808
Truck/Bus	Diesel	Heavy	Fuel Injection	Hybrid	None	>100K miles (>162K km)	809
Truck/Bus	Ethanol	Light	Carburetor	None	PCV	0-50K miles (0-79K km)	810

Truck/Bus	Ethanol	Light	Carburetor	None	PCV	51K-100K miles (80K-161K km)	811
Truck/Bus	Ethanol	Light	Carburetor	None	PCV	>100K miles (>162K km)	812
Truck/Bus	Ethanol	Medium	Carburetor	None	PCV	0-50K miles (0-79K km)	813
Truck/Bus	Ethanol	Medium	Carburetor	None	PCV	51K-100K miles (80K-161K km)	814
Truck/Bus	Ethanol	Medium	Carburetor	None	PCV	>100K miles (>162K km)	815
Truck/Bus	Ethanol	Heavy	Carburetor	None	PCV	0-50K miles (0-79K km)	816
Truck/Bus	Ethanol	Heavy	Carburetor	None	PCV	51K-100K miles (80K-161K km)	817
Truck/Bus	Ethanol	Heavy	Carburetor	None	PCV	>100K miles (>162K km)	818
Truck/Bus	Ethanol	Light	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	819
Truck/Bus	Ethanol	Light	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	820
Truck/Bus	Ethanol	Light	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	821
Truck/Bus	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	822
Truck/Bus	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	823
Truck/Bus	Ethanol	Medium	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	824
Truck/Bus	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	0-50K miles (0-79K km)	825
Truck/Bus	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	51K-100K miles (80K-161K km)	826
Truck/Bus	Ethanol	Heavy	Carburetor	2-Way/EGR	PCV	>100K miles (>162K km)	827
Truck/Bus	Ethanol	Light	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	828
Truck/Bus	Ethanol	Light	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	829
Truck/Bus	Ethanol	Light	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	830
Truck/Bus	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	831
Truck/Bus	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	832
Truck/Bus	Ethanol	Medium	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	833
Truck/Bus	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	0-50K miles (0-79K km)	834
Truck/Bus	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	835
Truck/Bus	Ethanol	Heavy	Carburetor	3-Way/EGR	PCV	>100K miles (>162K km)	836
Truck/Bus	Ethanol	Light	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	837
Truck/Bus	Ethanol	Light	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	838
Truck/Bus	Ethanol	Light	FI	3-Way/EGR	PCV	>100K miles (>162K km)	839
Truck/Bus	Ethanol	Medium	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	840
Truck/Bus	Ethanol	Medium	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	841
Truck/Bus	Ethanol	Medium	FI	3-Way/EGR	PCV	>100K miles (>162K km)	842
Truck/Bus	Ethanol	Heavy	FI	3-Way/EGR	PCV	0-50K miles (0-79K km)	843
Truck/Bus	Ethanol	Heavy	FI	3-Way/EGR	PCV	51K-100K miles (80K-161K km)	844
Truck/Bus	Ethanol	Heavy	FI	3-Way/EGR	PCV	>100K miles (>162K km)	845
MotorCycle	Gasoline	N/A	2-Cycle	None	None	0-50K miles (0-79K km)	846
MotorCycle	Gasoline	N/A	2-Cycle	None	None	51K-100K miles (80K-161K km)	847
MotorCycle	Gasoline	N/A	2-Cycle	None	None	>100K miles (>162K km)	848
MotorCycle	Gasoline	N/A	4-Cycle, Carb	None	None	0-50K miles (0-79K km)	849
MotorCycle	Gasoline	N/A	4-Cycle, Carb	None	None	51K-100K miles (80K-161K km)	850
MotorCycle	Gasoline	N/A	4-Cycle, Carb	None	None	>100K miles (>162K km)	851
MotorCycle	Gasoline	N/A	4-Cycle, Carb	Catalyst	None	0-50K miles (0-79K km)	852
MotorCycle	Gasoline	N/A	4-Cycle, Carb	Catalyst	None	51K-100K miles (80K-161K km)	853
MotorCycle	Gasoline	N/A	4-Cycle, Carb	Catalyst	None	>100K miles (>162K km)	854
MotorCycle	Gasoline	N/A	4-Cycle, FI	None	None	0-50K miles (0-79K km)	855
MotorCycle	Gasoline	N/A	4-Cycle, FI	None	None	51K-100K miles (80K-161K km)	856
MotorCycle	Gasoline	N/A	4-Cycle, FI	None	None	>100K miles (>162K km)	857
MotorCycle	Gasoline	N/A	4-Cycle, FI	Catalyst	None	0-50K miles (0-79K km)	858



MotorCycle	Gasoline	N/A	4-Cycle, FI	Catalyst	None	51K-100K miles (80K-161K km)	859
MotorCycle	Gasoline	N/A	4-Cycle, FI	Catalyst	None	>100K miles (>162K km)	860
MotorCycle	Ethanol	N/A	2-Cycle	None	None	0-50K miles (0-79K km)	861
MotorCycle	Ethanol	N/A	2-Cycle	None	None	51K-100K miles (80K-161K km)	862
MotorCycle	Ethanol	N/A	2-Cycle	None	None	>100K miles (>162K km)	863
MotorCycle	Ethanol	N/A	4-Cycle	None	None	0-50K miles (0-79K km)	864
MotorCycle	Ethanol	N/A	4-Cycle	None	None	51K-100K miles (80K-161K km)	865
MotorCycle	Ethanol	N/A	4-Cycle	None	None	>100K miles (>162K km)	866
MotorCycle	Ethanol	N/A	4-Cycle	Catalyst	None	0-50K miles (0-79K km)	867
MotorCycle	Ethanol	N/A	4-Cycle	Catalyst	None	51K-100K miles (80K-161K km)	868
MotorCycle	Ethanol	N/A	4-Cycle	Catalyst	None	>100K miles (>162K km)	869
Zero Emissions Vehicle	N/A	N/A	N/A	N/A	N/A	N/A	870

## **Appendix C**

### **Distribution of Vehicle Technologies Based on Video and Parked Vehicle Data Collected During this Study**

**Table C.1 Overall Nairobi Fleet Activity Distribution**

Fleet: Nairobi General Technology File/2002 (Covers entire metropolitan area)

Description	Fuel	Weight	Air/Fuel Control	Exhaust Control	Evaporative Control	Age	Index	Activity Fraction Standard Vehicles	Fraction with AC Standard Vehicles	Activity Fraction Multi-Stop Vehicles	Fraction with AC Multi-Stop Vehicles
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	0-50K miles (0-79K km)	0	0.07599	0.45		
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	51K-100K miles (80K-161K km)	1	0.2559	0.45	0.005	0.61
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	>100K miles (>162K km)	2	0.04805	0.45	0.01	0.61
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	0-50K miles (0-79K km)	3	0.01453	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	51K-100K miles (80K-161K km)	4	0.09163	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	>100K miles (>162K km)	5	0.03129	0.45	0.004	0.61
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	0-50K miles (0-79K km)	6	0.0067	0.45		
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	51K-100K miles (80K-161K km)	7	0.00782	0.45		
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	>100K miles (>162K km)	8	0.00223	0.45		
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	0-50K miles (0-79K km)	45				
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	46				
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	>100K miles (>162K km)	47				
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	0-50K miles (0-79K km)	48	0.00223	0.93		
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	49	0.0067	0.93		
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	>100K miles (>162K km)	50	0.00112	0.93		
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	0-50K miles (0-79K km)	51	0.00112	0.93		
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	52				
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	>100K miles (>162K km)	53				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	99	0.02235	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	100	0.05699	0.93	0.003	1
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	>100K miles (>162K km)	101	0.00615	0.93	0.007	1
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	102	0.02235	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	103	0.02067	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	>100K miles (>162K km)	104	0.00168	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	105	0.00112	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	106	0.00335	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	>100K miles (>162K km)	107	0.00056	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	108	0.02235	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	109	0.05699	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	110	0.00615	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	111	0.02235	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	112	0.02067	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	113	0.00168	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	114	0.00112	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	115	0.00335	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	116	0.00056	0.93		
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	576				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	577				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	578			0.002	0.5
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	579	0.00335	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	580	0.00559	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	581	0.00223	0.67		

Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	582	0.01229	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	583	0.01006	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	584	0.00168	0.67		
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	585				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	586				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	587				
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	588	0.00335	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	589	0.00559	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	590	0.00223	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	591	0.01229	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	592	0.01006	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	593	0.00168	0.67		
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	756	0.00443	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	757	0.00421	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	758	0.01854	0	0.0003	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	759	0.00443	0	0	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	760	0.00421	0	0	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	761	0.01854	0	0.0003	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	762	0.00151	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	763	0.00151	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	764	0.00862	0	0.0001	0
MotorCycle	Gasoline	N/A	2-Cycle	none	none	0-50K miles (0-79K km)	846	0.00743	0		
MotorCycle	Gasoline	N/A	2-Cycle	none	none	51K-100K miles (80K-161K km)	847				
MotorCycle	Gasoline	N/A	2-Cycle	none	none	>100K miles (>162K km)	848				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	0-50K miles (0-79K km)	849	0.00743	0		
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	51K-100K miles (80K-161K km)	850				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	>100K miles (>162K km)	851				

END

0.967

0.033

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**Table C.2: Buruburu District Fleet Activity Distribution**

Fleet: Buruburu Section of Nairobi Metropolitan Area/2002 (Lower Income Area)

Description	Fuel	Weight	Air/Fuel Control	Exhaust Control	Evaporative Control	Age	Index	Activity Fraction Standard Vehicles	Fraction with AC Standard Vehicles	Activity Fraction Multi-Stop Vehicles	Fraction with AC Multi-Stop Vehicles
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	0-50K miles (0-79K km)	0	0.08136	0.45		
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	51K-100K miles (80K-161K km)	1	0.23503	0.45	0.0031	0.61
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	>100K miles (>162K km)	2	0.07232	0.45	0.0056	0.61
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	0-50K miles (0-79K km)	3	0.00904	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	51K-100K miles (80K-161K km)	4	0.13559	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	>100K miles (>162K km)	5	0.06328	0.45	0.0025	0.61
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	0-50K miles (0-79K km)	6				
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	51K-100K miles (80K-161K km)	7				
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	>100K miles (>162K km)	8				
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	45				
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	46				
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	>100K miles (>162K km)	47				
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	48				
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	49				
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	>100K miles (>162K km)	50				
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	51				
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	52				
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	>100K miles (>162K km)	53				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	99	0.02712	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	100	0.03164	0.93	0.0019	1
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	>100K miles (>162K km)	101	0.00452	0.93	0.0043	1
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	102	0.01808	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	103	0.00904	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	>100K miles (>162K km)	104				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	105	0.00452	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	106				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	>100K miles (>162K km)	107				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	108	0.02712	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	109	0.03164	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	110	0.00452	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	111	0.01808	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	112	0.00904	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	113				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	114	0.00452	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	115				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	116				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	576				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	577				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	578			0.0013	0.5
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	579	0.00452	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	580	0.01356	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	581	0.00904	0.67		

Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	582					
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	583	0.01356	0.67			
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	584					
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	585					
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	586					
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	587					
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	588	0.00452	0.67			
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	589	0.01356	0.67			
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	590	0.00904	0.67			
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	591					
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	592	0.01356	0.67			
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	593					
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	756	0.00659	0	0	0	
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	757	0.00525	0	0	0	
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	758	0.02757	0	0.0001	0	
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	759	0.00659	0	0	0	
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	760	0.00525	0	0	0	
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	761	0.02757	0	0.0001	0	
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	762	0.00246	0	0	0	
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	763	0.00246	0	0	0	
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	764	0.01399	0	0.0001	0	
MotorCycle	Gasoline	N/A	2-Cycle	none	none	0-50K miles (0-79K km)	846	0.00773	0			
MotorCycle	Gasoline	N/A	2-Cycle	none	none	51K-100K miles (80K-161K km)	847					
MotorCycle	Gasoline	N/A	2-Cycle	none	none	>100K miles (>162K km)	848					
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	0-50K miles (0-79K km)	849	0.00773	0			
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	51K-100K miles (80K-161K km)	850					
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	>100K miles (>162K km)	851					
END								0.981		0.019		
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**Table C.3: Central Nairobi District Fleet Activity Distribution**

Fleet: Central Nairobi District/2002 (Downtown/Commercial Area)

Description	Fuel	Weight	Air/Fuel Control	Exhaust Control	Evaporative Control	Age	Index	Activity Fraction Standard Vehicles	Fraction with AC Standard Vehicles	Activity Fraction Multi-Stop Vehicles	Fraction with AC Multi-Stop Vehicles
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	0-50K miles (0-79K km)	0	<b>0.07508</b>	0.45		
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	51K-100K miles (80K-161K km)	1	0.30594	0.45	0.008	0.61
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	>100K miles (>162K km)	2	0.05631	0.45	0.015	0.61
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	0-50K miles (0-79K km)	3	0.00938	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	51K-100K miles (80K-161K km)	4	0.0976	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	>100K miles (>162K km)	5	0.02815	0.45	0.007	0.61
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	0-50K miles (0-79K km)	6				
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	51K-100K miles (80K-161K km)	7	0.00563	0.45		
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	>100K miles (>162K km)	8	0.00188	0.45		
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	45				
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	46				
Auto/Sml Truck	Gasoline	Light	Single-Pt FI	none	PCV	>100K miles (>162K km)	47				
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	48	0.00375	0.93		
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	49	0.00938	0.93		
Auto/Sml Truck	Gasoline	Medium	Single-Pt FI	none	PCV	>100K miles (>162K km)	50	0.00188	0.93		
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	0-50K miles (0-79K km)	51	0.00188	0.93		
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	51K-100K miles (80K-161K km)	52				
Auto/Sml Truck	Gasoline	Heavy	Single-Pt FI	none	PCV	>100K miles (>162K km)	53				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	99	0.01971	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	100	0.07883	0.93	0.005	1
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	>100K miles (>162K km)	101	0.00845	0.93	0.011	1
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	102	0.00188	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	103	0.01971	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	>100K miles (>162K km)	104	0.00282	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	105				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	106	0.00282	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	>100K miles (>162K km)	107				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	108	0.01971	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	109	0.07883	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	110	0.00845	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	111	0.00188	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	112	0.01971	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	113	0.00282	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	114				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	115	0.00282	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	116				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	576				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	577				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	578			0.003	0.5
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	579	0.00188	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	580	0.00282	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	581				

Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	582	0.00657	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	583	0.00469	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	584	0.00188	0.67		
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	585				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	586				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	587				
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	588	0.00188	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	589	0.00282	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	590				
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	591	0.00657	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	592	0.00469	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	593	0.00188	0.67		
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	756	0.00196	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	757	0.00157	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	758	0.00822	0	0.0006	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	759	0.00196	0	0.0001	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	760	0.00157	0	0.0001	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	761	0.00822	0	0.0008	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	762	0.00091	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	763	0.00091	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	764	0.0052	0	0.0003	0
MotorCycle	Gasoline	N/A	2-Cycle	none	none	0-50K miles (0-79K km)	846	0.00877	0		
MotorCycle	Gasoline	N/A	2-Cycle	none	none	51K-100K miles (80K-161K km)	847				
MotorCycle	Gasoline	N/A	2-Cycle	none	none	>100K miles (>162K km)	848				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	0-50K miles (0-79K km)	849	0.00877	0		
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	51K-100K miles (80K-161K km)	850				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	>100K miles (>162K km)	851				

END

0.949

0.051

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**Table C.4: Muthaiga District Fleet Activity Data**

Fleet: Muthaiga Section of Nairobi Metropolitan Area/2002 (Upper)

Description	Fuel	Weight	Air/Fuel Control	Exhaust Control	Evaporative Control	Age	Index	Activity Fraction	Fraction with AC	Activity Fraction	Fraction with AC
								Standard Vehicles	Standard Vehicles	Multi-Stop Vehicles	Multi-Stop Vehicles
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	0-50K miles (0-79K km)	0	<b>0.07883</b>	0.45		
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	51K-100K miles (80K-161K km)	1	0.16596	0.45	0.006	0.61
Auto/Sml Truck	Gasoline	Light	Carburetor	none	PCV	>100K miles (>162K km)	2	0.02074	0.45	0.011	0.61
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	0-50K miles (0-79K km)	3	0.02904	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	51K-100K miles (80K-161K km)	4	0.06223	0.45		
Auto/Sml Truck	Gasoline	Medium	Carburetor	none	PCV	>100K miles (>162K km)	5	0.02489	0.45	0.005	0.61
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	0-50K miles (0-79K km)	6	0.02489	0.45		
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	51K-100K miles (80K-161K km)	7	0.0166	0.45		
Auto/Sml Truck	Gasoline	Heavy	Carburetor	none	PCV	>100K miles (>162K km)	8	0.00415	0.45		
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	0-50K miles (0-79K km)	45				
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	46				
Auto/Sml Truck	Gasoline	Light	Single Pt FI	none	PCV	>100K miles (>162K km)	47				
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	0-50K miles (0-79K km)	48				
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	49	0.00415	0.93		
Auto/Sml Truck	Gasoline	Medium	Single Pt FI	none	PCV	>100K miles (>162K km)	50				
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	0-50K miles (0-79K km)	51				
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	51K-100K miles (80K-161K km)	52				
Auto/Sml Truck	Gasoline	Heavy	Single Pt FI	none	PCV	>100K miles (>162K km)	53				
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	99	0.02697	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	100	0.02282	0.93	0.004	1
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none	PCV	>100K miles (>162K km)	101	0.00207	0.93	0.008	1
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	102	0.07053	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	103	0.02904	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none	PCV	>100K miles (>162K km)	104				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	0-50K miles (0-79K km)	105	0.00207	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	51K-100K miles (80K-161K km)	106	0.00622	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none	PCV	>100K miles (>162K km)	107	0.00207	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	108	0.02697	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	109	0.02282	0.93		
Auto/Sml Truck	Gasoline	Light	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	110	0.00207	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	111	0.07053	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	112	0.02904	0.93		
Auto/Sml Truck	Gasoline	Medium	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	113				
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	0-50K miles (0-79K km)	114	0.00207	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	51K-100K miles (80K-161K km)	115	0.00622	0.93		
Auto/Sml Truck	Gasoline	Heavy	Multi-Pt FI	none/EGR	PCV	>100K miles (>162K km)	116	0.00207	0.93		
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	576				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	577				

Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	578		0.002	0.5	
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	579	0.00622	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	580	0.0083	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	581	0.00415	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	582	0.03112	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	583	0.02074	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	584	0.00207	0.67		
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	585				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	586				
Auto/Sml Truck	Diesel	Light	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	587				
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	588	0.00622	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	589	0.0083	0.67		
Auto/Sml Truck	Diesel	Medium	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	590	0.00415	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	0-50K miles (0-79K km)	591	0.03112	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	51K-100K miles (80K-161K km)	592	0.02074	0.67		
Auto/Sml Truck	Diesel	Heavy	Pre-Chamber FI	Improved	none	>100K miles (>162K km)	593	0.00207	0.67		
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	756	0.004	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	757	0.00319	0	0.0001	0
Truck/Bus	Diesel	Light	Pre-Chamber FI	none	none	>100K miles (>162K km)	758	0.01673	0	0.0003	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	759	0.004	0	0.0001	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	760	0.00319	0	0.0001	0
Truck/Bus	Diesel	Medium	Pre-Chamber FI	none	none	>100K miles (>162K km)	761	0.01673	0	0.0003	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	0-50K miles (0-79K km)	762	0.00064	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	51K-100K miles (80K-161K km)	763	0.00064	0	0	0
Truck/Bus	Diesel	Heavy	Pre-Chamber FI	none	none	>100K miles (>162K km)	764	0.00365	0	0.0002	0
MotorCycle	Gasoline	N/A	2-Cycle	none	none	0-50K miles (0-79K km)	846	0.00545	0		
MotorCycle	Gasoline	N/A	2-Cycle	none	none	51K-100K miles (80K-161K km)	847				
MotorCycle	Gasoline	N/A	2-Cycle	none	none	>100K miles (>162K km)	848				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	0-50K miles (0-79K km)	849	0.00545	0		
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	51K-100K miles (80K-161K km)	850				
MotorCycle	Gasoline	N/A	4-Cycle, Carb	none	none	>100K miles (>162K km)	851				

END

0.964

0.036

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