ATTACHMENT

The Effect of Vehicle Mileage Accumulation on Tested Fuel Economy

by

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February 1981

Notice

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Technical Support Section
Certification Policy and Support Branch
Office of Mobile Source Air Pollution Control
U.S. Environmental Protection Agency

Background

EPA currently accepts fuel economy test data generated by vehicles with up to 10,000 miles accumulation on the drivetrain system. These data and data generated near the standard 4,000-mile test point are all used in the calculation of fuel economy values for the fuel economy labels and the Corporate Average Fuel Economy (CAFE). The vehicles tested above the standard 4,000-mile test point tend to produce higher measured fuel economy values than they would at the 4,000-mile test point. This increase is perhaps due to the effect of vehicle break-in which reduces drivetrain friction. The higher measured fuel economy value tends to bias upward the fuel economy calculations for labeling and CAFE when compared to calculations using only data generated close to the standard test point. EPA is proposing to adjust test values back to the projected 4,000-mile level when the mileage accumulation at the test point significantly influences the measured fuel economy value. This document presents the derivation of the proposed adjustments.

Data

We have examined several previous studies of mileage effects on tested fuel economy values. All of these previous studies were based on either certification emission durability vehicles, tested to 50,000 miles, or data from in-use fleets of vehicles. The durability data includes only two test points, at 5,000 and 10,000 miles, within the allowable range of testing for fuel economy calculation data. The in-use data included the effects of different drivers, vehicle maintenance, weather, etc. These variables can effect measured fuel economy values as much or more than the increase in vehicle mileage, thus preventing an analysis of the data for mileage effects alone. Therefore, we judged the existing studies of mileage effects on fuel economy as inadequate for our purposes.

To perform our own study of the effect of mileage accumulation on measured fuel economy values, we used the actual data being submitted to EPA for fuel economy calculation, i.e., the emission certification and fuel economy data vehicles. We examined all data with valid and passing emission tests that could have been used for fuel economy calculations, even if that particular test had not been selected or needed for the fuel economy calculation.

These data were then grouped by subconfiguration (a unique combination of engine displacement, fuel system, transmission, engine calibration, axle ratio, test weight, and road-load horsepower). Those groups were sorted to find groups that contained at least one city/highway test pair at (or within 250 miles of) the standard 4,000-mile test point, and another city/highway test pair at a test point more than 4,000 miles. There were over 800 tests that met these criteria. Multiple tests were averaged to include all available data, thus minimizing lab-to-lab and test-to-test differences in these data. These averaged data were normalized to a ratio

This equation gives a maximum correction factor of 5.3 percent at 10,000 miles. For example, a vehicle tested at 10,000 miles with test results of 25.0 mpg city and 35.0 mpg highway would be adjusted to the 4,000-mile test point fuel economy with values of 23.7 and 33.2 mpg. The benefit of the increased mileage on these test results were thus estimated to be about 1.3 mpg in the city and 1.8 mpg in the highway value.

Attachments

ATTACHMENT I

Sources of the Data Points Used in the Analysis
Distribution by Manufacturer and Model Year

	Model Year					
Manufacturer	1977	1978	1979	1980	1981	Mfr. Total
AMC	--	4	--	--	12	16
Chrysler	--	8	8	26	32	74
Ford	4	36	46	64	40	190
GM	8	54	78	32	36	208
Fiat	--	--	8	4	--	12
Model Year Total	12	102	140	126	120	500

ATTACHMENT II

Regression Results

Regression	Data	R. Coef.	Std. Error	Equation[1]	Correction Factors at Various Test Points[2] 4000	6200	10000
Linear	City	0.421	0.027	$.969 + .820 \times 10^{-5}(m)$	1.0018	1.0198	1.0510
	Highway	0.407	0.030	$.969 + .862 \times 10^{-5}(m)$	1.0035	1.0224	1.0552
	All	0.413	0.029	$.969 + .842 \times 10^{-5}(m)$	1.0027	1.0212	1.0532
Logarythmic	City	0.427	0.027	$.596 + .488 \times 10^{-1}(\ln m)$	1.0007	1.0221	1.0455
	Highway	0.422	0.030	$.566 + .526 \times 10^{-1}(\ln m)$	1.0023	1.0253	1.0505
	All	0.424	0.028	$.581 + .507 \times 10^{-1}(\ln m)$	1.0015	1.0237	1.0480
2nd Order	City	0.429	0.027	$.940 + .182 \times 10^{-4}(m) + -.795 \times 10^{-8}(m)^2$	1.0001	1.0223	1.0425
	Highway	0.439	0.029	$.899 + .331 \times 10^{-4}(m) + -.195 \times 10^{-8}(m)^2$	1.0002	1.0293	1.0350
	All	0.432	0.028	$.920 + .256 \times 10^{-4}(m) + -.138 \times 10^{-8}(m)^2$	1.0003	1.0257	1.0380
3rd Order	City	0.439	0.027	$.764 + .109 \times 10^{-3}(m) + -.157 \times 10^{-8}(m)^2 + .770 \times 10^{-12}(m)^3$	0.9981	1.0198	1.0540
	Highway	0.440	0.029	$.853 + .571 \times 10^{-4}(m) + -.587 \times 10^{-8}(m)^2 + .202 \times 10^{-12}(m)^3$	1.0004	1.0295	1.0390
	All	0.435	0.028	$.808 + .832 \times 10^{-4}(m) + -.108 \times 10^{-7}(m)^2 + .485 \times 10^{-12}(m)^3$	0.9990	1.0243	1.0450

1. m = System miles accumulated prior to test point. For system kilometers, divide the kilometers by 1.609344 to get miles or adjust the multiplicative constants in the equations.

2. To find the percent increase, substract one from the factor and multiply by 100. For example, linear correction factor at 10,000 miles = 1.0532 or 5.32 percent increase.

ATTACHMENT III

The following pages contain the data points used in this analysis. Each grouping of data contains the individual test result(s) for a given subconfiguration at a test point (separately for city and highway tests). The last line in each group, denoted by an indented manufacturer's name, contains the following:

A. The harmonically averaged fuel economy value.

B. The standard four thousand mile test points harmonically averaged fuel economy values (FE 4K).

C. The ratio of (A) divided by (B).

The headings are defined as follows:

MFR - Manufacturer of the vehicle.

ACYR - Active model year the test point is used for.

K - Code number, unique for each subconfiguration. This number has been assigned by the computer to sort the groups but cannot be used to identify what parameters were unique to the subconfiguration.

TNUM - Test number, assigned by EPA.

TPRO - Test procedure: C:1 - City test cycle; H:2 - Highway test cycle.

ODO - Odometer, in miles, at the test point.

RWMG - Rounded miles per gallon at the test point.

TTYP - Test type: EM:1 - Emission data vehicle;
FE:2 - Fuel economy data vehicle.

CTD - Certification test disposition;

PCRT[1] - Passed emission standards, used for emission certification.

PNCT[1] - Passed emission standards, not used for emission certification.

FED - Fuel economy disposition;

USED[2] - Used for fuel economy calculations.

NTUS[2] - Not used for fuel economy calculations.

1. PCRT, PNCT--EPA uses only one test, coded PCRT, to issue on Emission Certificate of Conformity, the other tests that pass the emission standards but are not used are coded PNCT.

2. USED, NTUS--EPA is restricted in its selection of fuel economy data for use in fuel economy calculations. Data that is used in these calculations are coded USED, data that were not selected are coded NTUS.

MFR	ACYR	K	TNUM	TPPO	ODO	RWMG	TTYP	CTO	FED	INT#	VRSN	VID
FORD	77	358	771228	C :1	3857.0	20.8	EM:1	PCRT	USED	157500		7Z1-2.3-F-2S
FORD	77	358	771207	C :1	4232.0	21.5	EM:1	PCRT	USED	157400		7E1-2.3-F-2S
----FORD	77	358		1	4044.5	21.1	FE4K:	21.1	RATIO:	1.0000		
FORD	77	358	71502	C :1	5233.0	22.5	FE:2	PNCT	USED	157400		7E1-2.3-F-2S
----FORD	77	358		1	5233.0	22.5	FE4K:	21.1	RATIO:	1.0841		
FORD	77	358	771202	HW:2	3818.8	29.2	EM:1	PNCT	USED	157500		7Z1-2.3-F-2S
FORD	77	358	771208	HW:2	4244.0	29.2	EM:1	PCRT	USED	157400		7E1-2.3-F-2S
---FORD	77	358		2	4081.4	29.2	FE4K:	29.2	RATIO:	1.0000		
FORD	77	358	71522	HW:2	5245.0	29.3	FE:2	PNCT	USED	157400		7E1-2.3-F-2S
----FORD	77	358		2	5245.0	29.3	FE4K:	29.2	RATIO:	1.0034		
GM	77	448	71528	C :1	4217.0	24.5	FE:2	PNCT	NTUS	188603		7125C6
---- GM	77	448		1	4217.0	24.5	FE4K:	24.5	RATIO:	1.0000		
GM	77	448	71528	C :1	4288.0	25.7	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	71527	C :1	4366.0	25.0	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	71523	C :1	4582.0	24.9	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	71524	C :1	4611.0	24.2	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	773674	C :1	4659.0	24.9	FE:2	PNCT	USED	188603		7125C6
GM	77	448	773787	C :1	4702.0	24.7	FE:2	PNCT	USED	188603		7125C6
---- GM	77	448		1	4531.3	24.9	FE4K:	24.5	RATIO:	1.0160		
GM	77	448	71526	HW:2	4228.0	34.3	FE:2	PNCT	NTUS	188603		7125C6
---- GM	77	448		2	4228.0	34.3	FE4K:	34.3	RATIO:	1.0000		
GM	77	448	71530	HW:2	4299.0	35.4	FE:2	PNCT	USED	188603		7125C6
GM	77	448	71528	HW:2	4386.0	33.8	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	773675	HW:2	4670.0	34.3	FE:2	PNCT	NTUS	188603		7125C6
GM	77	448	773788	HW:2	4713.0	34.7	FE:2	PNCT	USED	188603		7125C6
---- GM	77	448		2	4520.0	34.5	FE4K:	34.3	RATIO:	1.0070		
GM	77	582	71736	C :1	4129.0	12.0	FE:2	PNCT	NTUS	230501		7331S1
---- GM	77	582		1	4129.0	12.0	FE4K:	12.0	RATIO:	1.0000		
GM	77	582	773918	C :1	4532.0	12.1	FE:2	PNCT	USED	230501		7331S1
---- GM	77	582		1	4532.0	12.1	FE4K:	12.0	RATIO:	1.0083		
GM	77	582	71735	HW:2	4140.0	17.2	FE:2	PNCT	USED	230501		7331S1
---- GM	77	582		2	4140.0	17.2	FE4K:	17.2	RATIO:	1.0000		
GM	77	582	773918	HW:2	4543.0	17.7	FE:2	PNCT	NTUS	230501		7331S1
---- GM	77	582		2	4543.0	17.7	FE4K:	17.2	RATIO:	1.0281		
AMC	78	949	80350	C :1	3780.0	21.1	EM:1	PNCT	USED	276800		P74-21S
AMC	78	949	781188	C :1	3787.0	21.6	EM:1	PCRT	NTUS	276800		P74-21S
---- AMC	78	949		1	3773.5	21.3	FE4K:	21.3	RATIO:	1.0000		
AMC	78	949	80109	C :1	4710.0	20.5	EM:1	PNCT	USED	390100		D84-11S
---- AMC	78	949		1	4710.0	20.5	FE4K:	21.3	RATIO:	0.9803		
AMC	78	949	781191	HW:2	3818.0	33.1	EM:1	PNCT	USED	276800		P74-21S
---- AMC	78	949		2	3818.0	33.1	FE4K:	33.1	RATIO:	1.0000		
AMC	78	949	80111	HW:2	4721.0	32.2	EM:1	PNCT	USED	390100		D84-11S
---- AMC	78	949		2	4721.0	32.2	FE4K:	33.1	RATIO:	0.9728		
CHRY	78	1088	82729	C :1	3812.0	18.9	EM:1	PNCT	USED	362200		A213
----CHRY	78	1088		1	3812.0	18.8	FE4K:	18.9	RATIO:	1.0000		
CHRY	78	1088	785308	C :1	4928.3	18.8	EM:1	PCRT	USED	363200		A243R
---CHRY	78	1088		1	4928.3	18.8	FE4K:	18.9	RATIO:	0.9941		
CHRY	78	1088	82730	HW:2	3823.0	21.5	EM:1	PNCT	USED	362200		A213
CHRY	78	1088	785250	HW:2	3883.7	23.0	EM:1	PNCT	NTUS	362200		A213
----CHRY	78	1088		2	3853.3	22.2	FE4K:	22.2	RATIO:	1.0000		
CHRY	78	1088	82728	HW:2	4879.0	20.5	EM:1	PNCT	NTUS	363200		A243R
CHRY	78	1088	785307	HW:2	4939.0	21.7	EM:1	PNCT	USED	363200		A243R
----CHRY	78	1088		2	4909.0	21.1	FE4K:	22.2	RATIO:	0.9486		
CHRY	78	1070	81424	C :1	3873.0	16.5	EM:1	PNCT	USED	325700		A201
CHRY	78	1070	784024	C :1	3973.4	16.4	EM:1	PCRT	NTUS	325700		A201
----CHRY	78	1070		1	3923.2	16.5	FE4K:	16.5	RATIO:	1.0000		
CHRY	78	1070	81651	C :1	7698.0	14.0	EM:1	PNCT	NTUS	328200		A206R
CHRY	78	1070	783460	C :1	7759.0	14.9	EM:1	PCRT	USED	328200		A206R
----CHRY	78	1070		1	7728.5	14.4	FE4K:	16.5	RATIO:	0.8749		
CHRY	78	1070	81425	HW:2	3884.0	25.8	EM:1	PNCT	USED	325700		A201
CHRY	78	1070	783928	HW:2	3992.0	25.3	EM:1	PNCT	NTUS	325700		A201
----CHRY	78	1070		2	3938.0	25.5	FE4K:	25.5	RATIO:	1.0000		
CHRY	78	1070	81652	HW:2	7709.0	22.5	EM:1	PNCT	USED	328200		A206R
CHRY	78	1070	783461	HW:2	7771.1	23.5	EM:1	PNCT	NTUS	328200		A206R
----CHRY	78	1070		2	7740.1	23.0	FE4K:	25.5	RATIO:	0.8999		
FORD	78	1117	81313	C :1	3993.0	12.7	EM:1	PNCT	NTUS	315600		8L1-400-F-211
FORD	78	1117	783251	C :1	4102.0	12.4	EM:1	PCRT	USED	315600		8L1-400-F-211
----FORD	78	1117		1	4047.5	12.5	FE4K:	12.5	RATIO:	1.0000		
FORD	78	1117	90284	C :1	4742.0	11.9	EM:1	PNCT	NTUS	315600		8L1-400-F-211
----FORD	78	1117		1	4742 0	11.9	FE4K:	12.5	RATIO:	0.9483		
FORD	78	1117	81314	HW:2	4025.0	15.3	EM:1	PNCT	NTUS	315600		8L1-400-F-211
FORD	78	1117	783250	HW:2	4120.0	17.4	EM:1	PNCT	USED	315600		8L1-400-F-211
----FORD	78	1117		2	4072.5	16.3	FE4K:	16.3	RATIO:	1.0000		
FORD	78	1117	90285	HW:2	4753.0	17.4	EM:1	PNCT	NTUS	315600		8L1-400-F-211
----FORD	78	1117		2	4753.0	17.4	FE4K:	16.3	RATIO:	1.0686		
FORD	78	1122	82373	C :1	3919.0	11.6	EM:1	PNCT	NTUS	324700		8A1-400-F-220
----FORD	78	1122		1	3919.0	11.6	FE4K:	11.6	RATIO:	1.0000		
FORD	78	1122	783169	C :1	6051.0	12.2	EM:1	PCRT	USED	324700		8A1-400-F-220
----FORD	78	1122		1	6051.0	12.2	FE4K:	11.6	RATIO:	1.0517		
FORD	78	1122	82374	HW:2	3930.0	16.4	EM:1	PNCT	NTUS	324700		8A1-400-F-220
----FORD	78	1122		2	3930.0	16.4	FE4K:	16.4	RATIO:	1.0000		
FORD	78	1122	783168	HW:2	6089.8	16.9	EM:1	PNCT	USED	324700		8A1-400-F-220
----FORD	78	1122		2	6089.8	16.9	FE4K:	16.4	RATIO:	1.0305		
FORD	78	1138	80991	C :1	3925.0	28.9	EM:1	PNCT	NTUS	301700		892-1.6-D-3
FORD	78	1138	782485	C :1	3972.0	29.9	EM:1	PCRT	USED	301700		892-1.6-D-3
---FORD	78	1138		1	3948.5	29.4	FE4K:	29.4	RATIO:	1.0000		
FORD	78	1138	82235	C :1	7195.0	29.6	FE:2	PNCT	USED	259202		892-1.6-C-6
----FORD	78	1138		1	7195.0	29.6	FE4K:	29.4	RATIO:	1.0071		
FORD	78	1138	80990	HW:2	3895.0	41.3	EM:1	PNCT	NTUS	301700		892-1.6-D-3
FORD	78	1138	782486	HW:2	3983.0	42.6	EM:1	PNCT	USED	301700		892-1.6-D-3
----FORD	78	1138		2	3939.0	41.9	FE4K:	41.9	RATIO:	1.0000		

MFR	ACYR	K	TNUM	TPRD	ODO	RWMG	TTYP	CTD	FED	INT#	VRSN	VID
GM	78	1353	82999	C :1	3838.0	25.1	FE:2	PNCT	NTUS	338502		81W1-240F
---- GM	78	1353		1	3938.0	25.1	FE4K:	25.1	RATIO:	1.0000		
GM	78	1353	83157	C :1	4795.0	25.5	FE:2	PNCT	NTUS	322703		81W1-195F
GM	78	1353	788399	C :1	4867.4	25.3	FE:2	PNCT	USED	322703		81W1-195F
---- GM	78	1353		1	4831.2	25.4	FE4K:	25.1	RATIO:	1.0119		
GM	78	1353	788081	HW:2	4218.0	30.1	FE:2	PNCT	NTUS	338502		81W1-240F
GM	78	1353	83000	HW:2	4219.0	32.9	FE:2	PNCT	NTUS	338502		81W1-240F
--- GM	78	1353		2	4218.5	31.4	FE4K:	31.4	RATIO:	1.0000		
GM	78	1353	83158	HW:2	4806.0	34.0	FE:2	PNCT	NTUS	322703		81W1-195F
GM	78	1353	788400	HW:2	4878.5	34.5	FE:2	PNCT	USED	322703		81W1-195F
---- GM	78	1353		2	4842.3	34.2	FE4K:	31.4	RATIO:	1.0894		
GM	78	1378	82195	C :1	4003.0	16.4	FE:2	PNCT	USED	304801		81Y2-141F
---- GM	78	1378		1	4003.0	16.4	FE4K:	16.4	RATIO:	1.0000		
GM	78	1378	83208	C :1	5747.0	16.3	FE:2	PNCT	USED	378702		81Y2-7X178F
---- GM	78	1378		1	5747.0	16.3	FE4K:	16.4	RATIO:	0.9939		
GM	78	1378	82197	HW:2	4014.0	22.8	FE:2	PNCT	USED	304801		81Y2-141F
---- GM	78	1378		2	4014.0	22.8	FE4K:	22.8	RATIO:	1.0000		
GM	78	1378	83209	HW:2	5769.0	23.3	FE:2	PNCT	USED	378702		81Y2-7X178F
---- GM	78	1378		2	5769.0	23.3	FE4K:	22.8	RATIO:	1.0219		
GM	78	1392	81190	C :1	3887.0	13.6	EM:1	PNCT	NTUS	307900		81Y2-146C
GM	78	1392	82464	C :1	4193.0	13.8	EM:1	PCRT	USED	307901		81Y2-146C
---- GM	78	1392		1	4040.0	13.8	FE4K:	13.6	RATIO:	1.0000		
GM	78	1392	90431	C :1	4441.0	13.7	EM:1	PNCT	NTUS	307901		81Y2-148C
GM	78	1392	90434	C :1	4482.0	13.8	EM:1	PNCT	NTUS	307901		81Y2-148C
GM	78	1392	90432	C :1	4518.0	13.9	EM:1	PNCT	NTUS	307901		81Y2-148C
---- GM	78	1392		1	4473.7	13.8	FE4K:	13.8	RATIO:	1.0147		
GM	78	1392	81191	HW:2	3928.0	20.8	EM:1	PNCT	USED	307900		81Y2-146C
---- GM	78	1392		2	3928.0	20.8	FE4K:	20.8	RATIO:	1.0000		
GM	78	1392	82488	HW:2	4284.0	20.7	EM:1	PNCT	USED	307901		81Y2-148C
GM	78	1392	90433	HW:2	4528.0	20.7	EM:1	PNCT	NTUS	307901		81Y2-148C
---- GM	78	1392		2	4391.5	20.7	FE4K:	20.8	RATIO:	0.9952		
GM	78	1517	81488	C :1	3861.0	13.5	EM:1	PNCT	NTUS	331600		83M4-102F-1
GM	78	1517	783492	C :1	3931.0	14.1	EM:1	PCRT	USED	331600		83M4-102F-1
---- GM	78	1517		1	3896.0	13.8	FE4K:	13.8	RATIO:	1.0000		
GM	78	1517	783389	C :1	4518.0	14.3	EM:1	PCRT	NTUS	281302		83M4-102F
---- GM	78	1517		1	4518.0	14.3	FE4K:	13.8	RATIO:	1.0387		
GM	78	1517	81470	HW:2	3872.0	18.5	EM:1	PNCT	USED	331600		83M4-102F-1
GM	78	1517	783493	HW:2	3970.0	18.5	EM:1	PNCT	NTUS	331600		83M4-102F-1
GM	78	1517	81864	HW:2	4078.0	19.9	FE:2	PNCT	USED	331600		83M4-102F-1
GM	78	1517	81865	HW:2	4088.0	18.8	FE:2	PNCT	USED	331600		83M4-102F-1
---- GM	78	1517		2	4004.5	19.4	FE4K:	19.4	RATIO:	1.0000		
GM	78	1517	783400	HW:2	4529.2	19.5	EM:1	PNCT	NTUS	281302		83M4-102F
---- GM	78	1517		2	4529.2	19.5	FE4K:	19.4	RATIO:	1.0047		
GM	78	1540	91058	C :1	3974.0	17.0	EM:1	PNCT	NTUS	434800		84B2-48284F
GM	78	1540	792814	C :1	4024.1	16.7	EM:1	PNCT	NTUS	434800		84B2-48284F
--- GM	78	1540		1	3999.0	16.8	FE4K:	16.8	RATIO:	1.0000		
GM	78	1540	793165	C :1	8058.4	16.6	EM:1	PNCT	USED	434600		84B2-48284F
---- GM	78	1540		1	8058.4	16.6	FE4K:	16.8	RATIO:	0.9852		
GM	78	1540	792815	HW:2	4035.0	26.9	EM:1	PNCT	NTUS	434800		84B2-48284F
---- GM	78	1540		2	4035.0	26.9	FE4K:	26.9	RATIO:	1.0000		
GM	78	1540	792983	HW:2	8077.4	26.8	EM:1	PNCT	USED	434800		84B2-48284F
---- GM	78	1540		2	8077.4	26.8	FE4K:	26.9	RATIO:	0.9983		
GM	78	1564	93852	C :1	4088.0	16.9	FE:2	PNCT	NTUS	386309		84B2-3750F
---- GM	78	1564		1	4088.0	16.9	FE4K:	16.9	RATIO:	1.0000		
GM	78	1564	93855	C :1	4693.0	16.2	FE:2	PNCT	USED	386309		84B2-3750F
---- GM	78	1564		1	4693.0	16.2	FE4K:	16.9	RATIO:	0.9586		
GM	78	1564	93953	HW:2	4125.0	23.3	FE:2	PNCT	NTUS	386309		84B2-3750F
---- GM	78	1564		2	4125.0	23.3	FE4K:	23.3	RATIO:	1.0000		
GM	78	1564	93954	HW:2	4326.0	23.8	FE:2	PNCT	NTUS	386309		84B2-3750F
GM	78	1564	94580	HW:2	4703.0	23.8	FE:2	PNCT	USED	386309		84B2-3750F
---- GM	78	1584		2	4514.5	23.7	FE4K:	23.3	RATIO:	1.0171		
GM	78	1583	81561	C :1	3823 1	15.4	EM:1	PNCT	NTUS	338000		84E5-235F
GM	78	1583	783715	C :1	3892.0	15.5	EM:1	PCRT	USED	338000		84E5-235F
---- GM	78	1583		1	3857.5	15.4	FE4K:	15.4	RATIO:	1.0000		
GM	78	1583	82186	C :1	4932.0	18.1	FE:2	PNCT	USED	353100		84E5-57116F
GM	78	1583	784852	C :1	5147.8	16.8	FE:2	PNCT	NTUS	353100		84E5-57116F
---- GM	78	1583		1	5039.9	16.3	FE4K:	15.4	RATIO:	1.0580		
GM	78	1583	81724	HW:2	3834.1	21.2	EM:1	PNCT	USED	338000		84E5-235F
GM	78	1583	783716	HW:2	3911.0	20.1	EM:1	PNCT	NTUS	338000		84E5-235F
---- GM	78	1583		2	3872.5	20.6	FE4K:	20.6	RATIO:	1.0000		
GM	78	1583	82187	HW:2	4943.0	21.8	FE:2	PNCT	NTUS	353100		84E5-57116F
GM	78	1583	784853	HW:2	5166.0	22.4	FE:2	PNCT	USED	353100		84E5-57116F
---- GM	78	1583		2	5054.5	22.1	FE4K:	20.6	RATIO:	1.0708		
GM	78	1593	80750	C :1	3856.0	11.0	EM:1	PNCT	NTUS	294900		86J0-130C
GM	78	1593	782112	C :1	3931.0	11.2	EM:1	PCRT	USED	294900		86J0-130C
---- GM	78	1593		1	3893.5	11.1	FE4K:	11.1	RATIO:	1.0000		
GM	78	1593	82180	C :1	9890.0	12.0	FE:2	PNCT	NTUS	340901		86J0-7023F
GM	78	1593	784846	C :1	9832.0	12.2	FE:2	PNCT	USED	340901		86J0-7023F
---- GM	78	1593		1	9761.0	12.1	FE4K:	11.1	RATIO:	1.0901		
GM	78	1593	80858	HW:2	3867.0	17.9	EM:1	PNCT	NTUS	294900		86J0-130C
GM	78	1593	782113	HW:2	3943.0	18.5	EM:1	PNCT	USED	294900		86J0-130C
---- GM	78	1593		2	3905.0	18.2	FE4K:	18.2	RATIO:	1.0000		
GM	78	1593	82181	HW:2	9701.0	19.9	FE:2	PNCT	NTUS	340901		86J0-7023F
GM	78	1593	784847	HW:2	9843.0	19.8	FE:2	PNCT	USED	340901		86J0-7023F
--- GM	78	1593		2	9772.0	19.8	FE4K:	18.2	RATIO:	1.0909		
GM	78	1595	80527	C :1	3886.0	13.7	EM:1	PNCT	USED	283500		86J0-111F
GM	78	1595	781723	C :1	3962.0	13.4	EM:1	PCRT	NTUS	283500		86J0-111F
GM	78	1595	81623	C :1	4085.0	13.5	EM:1	PNCT	USED	283500		86J0-111F
---- GM	78	1595		1	3970.7	13.5	FE4K:	13.5	RATIO:	1.0000		
GM	78	1595	81682	C :1	9498.0	14.1	FE:2	PNCT	NTUS	340800		86J0-7023F
GM	78	1595	784008	C :1	9596.0	13.8	FE:2	PNCT	USED	340800		86J0-7023F

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTD	FED	INT#	VRSN	VID
FORD	79	2434	93224	C :1	4119.0	18.0	FE:2	PNCT	NTUS	467703		9B1-3.3-F-138
----FORD	79	2434		1	4119.0	18.0	FE4K:	18.0	RATIO:	1.0000		
FORD	79	2434	93083	C :1	4509.0	17.2	FE:2	PNCT	NTUS	467703		9B1-3.3-F-138
FORD	79	2434	795389	C :1	4558.3	18.4	FE:2	PNCT	USED	467703		9B1-3.3-F-138
----FORD	79	2434		1	4533.6	17.8	FE4K:	18.0	RATIO:	0.9358		
FORD	79	2434	93225	HW:2	4130.0	26.6	FE:2	PNCT	NTUS	467703		9B1-3.3-F-138
---FORD	79	2434		2	4130.0	26.6	FE4K:	26.6	RATIO:	1.0000		
FORD	79	2434	93084	HW:2	4453.0	24.6	FE:2	PNCT	NTUS	467703		9B1-3.3-F-138
FORD	79	2434	795370	HW:2	4568.2	25.0	FE:2	PNCT	USED	467703		9B1-3.3-F-138
----FORD	79	2434		2	4511.1	24.8	FE4K:	26.6	RATIO:	0.9323		
FORD	79	2443	90897	C :1	4001.0	17.3	EM:1	PNCT	NTUS	408800		9D1-4.1-F-146
FORD	79	2443	792176	C :1	4145.0	17.1	EM:1	PCRT	USED	408800		9D1-4.1-F-146
----FORD	79	2443		1	4073.0	17.2	FE4K:	17.2	RATIO:	1.0000		
FORD	79	2443	95467	C :1	5761.0	17.6	FE:2	PNCT	USED	527404		9D1-4.1-H-405
FORD	79	2443	95470	C :1	5835.0	17.7	FE:2	PNCT	USED	527404		9D1-4.1-H-405
FORD	79	2443	95471	C :1	5874.0	17.9	FE:2	PNCT	USED	527404		9D1-4.1-H-405
----FORD	79	2443		1	5823.3	17.7	FE4K:	17.2	RATIO:	1.0310		
FORD	79	2443	94371	C :1	6492.0	17.9	FE:2	PNCT	NTUS	518200		9D1-4.1-H-147
FORD	79	2443	94373	C :1	6639.0	17.9	FE:2	PNCT	NTUS	518200		9D1-4.1-H-147
FORD	79	2443	797867	C :1	6702.0	17.8	FE:2	PNCT	USED	518200		9D1-4.1-H-147
----FORD	79	2443		1	6611.0	17.9	FE4K:	17.2	RATIO:	1.0388		
FORD	79	2443	90898	HW:2	4013.0	23.1	EM:1	PNCT	NTUS	408800		9D1-4.1-F-146
FORD	79	2443	791808	HW:2	4113.0	22.8	EM:1	PNCT	USED	408800		9D1-4.1-F-146
----FORD	79	2443		2	4063.0	22.9	FE4K:	22.9	RATIO:	1.0000		
FORD	79	2443	95468	HW:2	5772.0	24.5	FE:2	PNCT	USED	527404		9D1-4.1-H-405
FORD	79	2443	95469	HW:2	5807.0	24.6	FE:2	PNCT	USED	527404		9D1-4.1-H-405
FORD	79	2443	95472	HW:2	5885.0	24.1	FE:2	PNCT	USED	527404		9D1-4.1-H-405
----FORD	79	2443		2	5821.3	24.4	FE4K:	22.9	RATIO:	1.0631		
FORD	79	2443	94372	HW:2	6512.0	24.3	FE:2	PNCT	NTUS	518200		9D1-4.1-H-147
FORD	79	2443	94374	HW:2	6650.0	24.7	FE:2	PNCT	NTUS	518200		9D1-4.1-H-147
FORD	79	2443	797817	HW:2	6712.7	24.0	FE:2	PNCT	USED	518200		9D1-4.1-H-147
----FORD	79	2443		2	6624.9	24.3	FE4K:	22.9	RATIO:	1.0602		
FORD	79	2504	90738	C :1	3863.0	14.8	EM:1	PNCT	NTUS	417500		9S1-5.0-F-153
FORD	79	2504	792502	C :1	3867.7	14.2	EM:1	PCRT	USED	417500		9S1-5.0-F-153
----FORD	79	2504		1	3915.3	14.4	FE4K:	14.4	RATIO:	1.0000		
FORD	79	2504	95293	C :1	4704.0	14.2	FE:2	PNCT	USED	498902		9S1-5.0-G-327
FORD	79	2504	95295	C :1	4744.0	14.5	FE:2	PNCT	USED	498902		9S1-5.0-G-327
----FORD	79	2504		1	4724.0	14.3	FE4K:	14.4	RATIO:	0.9888		
FORD	79	2504	90739	HW:2	3844.0	21.0	EM:1	PNCT	NTUS	417500		9S1-5.0-F-153
FORD	79	2504	792187	HW:2	3928.0	20.2	EM:1	PNCT	USED	417500		9S1-5.0-F-153
----FORD	79	2504		2	3886.0	20.6	FE4K:	20.6	RATIO:	1.0000		
FORD	79	2504	95292	HW:2	4675.0	21.3	FE:2	PNCT	USED	498902		9S1-5.0-G-327
FORD	79	2504	95294	HW:2	4715.0	20.8	FE:2	PNCT	USED	498902		9S1-5.0-G-327
----FORD	79	2504		2	4695.0	21.0	FE4K:	20.6	RATIO:	1.0221		
FORD	79	2505	91049	C :1	3858.0	14.8	EM:1	PNCT	NTUS	425200		9D1-5.0-F-258
FORD	79	2505	792766	C :1	3814.8	14.7	EM:1	PCRT	USED	425200		9D1-5.0-F-258
----FORD	79	2505		1	3886.4	14.7	FE4K:	14.7	RATIO:	1.0000		
FORD	79	2505	94750	C :1	5088.0	14.0	EM:1	PNCT	NTUS	425204		9D1-5.0-F-256
FORD	79	2505	797762	C :1	5198.0	14.8	EM:1	PCRT	USED	425204		9D1-5.0-F-256
----FORD	79	2505		1	5142.0	14.4	FE4K:	14.7	RATIO:	0.9755		
FORD	79	2505	91050	HW:2	3803.0	21.8	EM:1	PNCT	NTUS	425200		9D1-5.0-F-256
FORD	79	2505	792765	HW:2	3925.9	20.4	EM:1	PNCT	USED	425200		9D1-5.0-F-256
----FORD	79	2505		2	3864.4	21.0	FE4K:	21.0	RATIO:	1.0000		
FORD	79	2505	94885	HW:2	5108.0	20.6	EM:1	PNCT	NTUS	425204		9D1-5.0-F-256
FORD	79	2505	797781	HW:2	5206.8	20.7	EM:1	PNCT	USED	425204		9D1-5.0-F-256
----FORD	79	2505		2	5157.4	20.6	FE4K:	21.0	RATIO:	0.9841		
FORD	79	2506	92935	C :1	4099.0	15.1	FE:2	PNCT	NTUS	425202		9D1-5.0-F-256
FORD	79	2506	92937	C :1	4139.0	15.5	FE:2	PNCT	NTUS	425202		9D1-5.0-F-256
----FORD	79	2506		1	4118.0	15.3	FE4K:	15.3	RATIO:	1.0000		
FORD	79	2506	795889	C :1	4989.7	14.9	FE:2	PNCT	USED	425202		9D1-5.0-F-256
----FORD	79	2506		1	4989.7	14.9	FE4K:	15.3	RATIO:	0.9740		
FORD	79	2506	92936	HW:2	4110.0	22.5	FE:2	PNCT	NTUS	425202		9D1-5.0-F-256
FORD	79	2506	92938	HW:2	4158.0	22.7	FE:2	PNCT	NTUS	425202		9D1-5.0-F-256
----FORD	79	2506		2	4134.0	22.6	FE4K:	22.6	RATIO:	1.0000		
FORD	79	2506	795670	HW:2	4980.7	24.7	FE:2	PNCT	USED	425202		9D1-5.0-F-256
FORD	79	2506	796138	HW:2	5008.2	20.8	FE:2	PNCT	USED	425202		9D1-5.0-F-256
----FORD	79	2506		2	4994.9	22.5	FE4K:	22.6	RATIO:	0.9840		
FORD	79	2519	91090	C :1	3895.0	13.0	EM:1	PNCT	USED	434500		9S1-5.8M-F-195
FORD	79	2519	792808	C :1	3964.0	13.5	EM:1	PCRT	NTUS	434500		9S1-5.8M-F-195
----FORD	79	2519		1	3929.5	13.2	FE4K:	13.2	RATIO:	1.0000		
FORD	79	2519	93792	C :1	5809.0	13.0	FE:2	PNCT	USED	493900		9W1-5.8M-H-193
FORD	79	2519	93794	C :1	5685.0	12.9	FE:2	PNCT	USED	493900		9W1-5.8M-H-193
----FORD	79	2519		1	5647.0	12.9	FE4K:	13.2	RATIO:	0.9777		
FORD	79	2519	91151	HW:2	3905.0	19.2	EM:1	PNCT	NTUS	434500		9S1-5.8M-F-195
FORD	79	2519	792827	HW:2	3982.8	18.9	EM:1	PNCT	USED	434500		9S1-5.8M-F-195
----FORD	79	2519		2	3944.4	19.0	FE4K:	19.0	RATIO:	1.0000		
FORD	79	2519	93791	HW:2	5780.0	19.9	FE:2	PNCT	USED	493900		9W1-5.8M-H-193
FORD	79	2519	93793	HW:2	5820.0	19.9	FE:2	PNCT	USED	493900		9W1-5.8M-H-193
----FORD	79	2519		2	5800.0	19.9	FE4K:	19.0	RATIO:	1.0447		
FORD	79	2546	92972	C :1	3878.0	13.5	FE:2	PNCT	USED	455300		9A1-5.8W-U-200
----FORD	79	2546		1	3878.0	13.5	FE4K:	13.5	RATIO:	1.0000		
FORD	79	2546	94375	C :1	5788.0	13.8	FE:2	PNCT	USED	519300		9M1-5.8W-H-407
FORD	79	2546	94377	C :1	5827.0	14.1	FE:2	PNCT	USED	519300		9M1-5.8W-H-407
----FORD	79	2546		1	5807.5	13.9	FE4K:	13.5	RATIO:	1.0332		
FORD	79	2546	92971	HW:2	4138.0	21.2	FE:2	PNCT	NTUS	455300		9A1-5.8W-U-200
FORD	79	2546	795352	HW:2	4216.6	19.6	FE:2	PNCT	USED	455300		9A1-5.8W-U-200
FORD	79	2546	795351	HW:2	4245.9	19.5	FE:2	PNCT	USED	455300		9A1-5.8W-U-200
---FORD	79	2546		2	4200.2	20.1	FE4K:	20.1	RATIO:	1.0000		
FORD	79	2546	94376	HW:2	5798.0	20.1	FE:2	PNCT	USED	519300		9M1-5.8W-H-407
FORD	79	2546	94378	HW:2	5838.0	20.4	FE:2	PNCT	USED	519300		9M1-5.8W-H-407
----FORD	79	2546		2	5818.0	20.2	FE4K:	20.1	RATIO:	1.0049		
GM	79	2598	91754	C :1	3965.0	16.1	EM:1	PNCT	USED	427901		91GF65
GM	79	2598	92190	C :1	3997.0	15.5	EM:1	PNCT	USED	427901		91GF65
---- GM	79	2598		1	3981.0	15.8	FE4K:	16.8	RATIO:	1.0000		

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTO	FED	INT#	VRSN	VID
GM	79	2780		1	4050.0	20.2	FE4K: 20.2	RATIO:	1.0000			
GM	79	2780	797480	C :1	4652.0	19.9	FE:2 PNCT USED			443302		93JF105
GM	79	2780		1	4652.0	19.9	FE4K: 20.2	RATIO:	0.9851			
GM	79	2780	94108	HW:2	4061.0	26.7	EM:1 PNCT USED			443302		93JF105
GM	79	2780		2	4061.0	26.7	FE4K: 26.7	RATIO:	1.0000			
GM	79	2780	797308	HW:2	4694.0	27.6	FE:2 PNCT NTUS			443302		93JF105
GM	79	2780		2	4694.0	27.8	FE4K: 28.7	RATIO:	1.0337			
GM	79	2798	90843	C :1	3777.2	13.5	EM:1 PNCT NTUS			419300		93MC46
GM	79	2798	792379	C :1	3849.0	13.5	EM:1 PCRT USED			419300		93MC46
GM	79	2798		1	3813.1	13.5	FE4K: 13.5	RATIO:	1.0000			
GM	79	2796	91738	C :1	6088.0	13.9	FE:2 PNCT USED			459701		93M4-78819C
GM	79	2796		1	6088.0	13.9	FE4K: 13.5	RATIO:	1.0296			
GM	79	2796	90844	HW:2	3788.0	19.1	EM:1 PNCT NTUS			419300		93MC46
GM	79	2796	792380	HW:2	3867.3	18.7	EM:1 PNCT USED			419300		93MC46
GM	79	2796		2	3827.8	18.9	FE4K: 18.9	RATIO:	1.0000			
GM	79	2796	91738	HW:2	8099.0	19.8	FE:2 PNCT USED			459701		93M4-78819C
GM	79	2796		2	8099.0	19.8	FE4K: 18.9	RATIO:	1.0477			
GM	79	2801	91838	C :1	3783.3	14.6	EM:1 PNCT NTUS			448000		93MF128
GM	79	2801	794001	C :1	3857.9	14.4	EM:1 PCRT USED			448000		93MF128
GM	79	2801		1	3820.8	14.5	FE4K: 14.5	RATIO:	1.0000			
GM	79	2801	92837	C :1	6217.0	15.9	FE:2 PNCT USED			459704		93M4-78819C
GM	79	2801		1	6217.0	15.9	FE4K: 14.5	RATIO:	1.0966			
GM	79	2801	91839	HW:2	3795.1	19.9	EM:1 PNCT USED			448000		93MF128
GM	79	2801	794002	HW:2	3868.0	18.9	EM:1 PNCT NTUS			448000		93MF128
GM	79	2801		2	3831.5	19.4	FE4K: 19.4	RATIO:	1.0000			
GM	79	2801	92838	HW:2	8228.0	21.6	FE:2 PNCT USED			459704		93M4-78819C
GM	79	2801		2	8228.0	21.6	FE4K: 19.4	RATIO:	1.1141			
GM	79	2840	91219	C :1	3787.8	18.0	EM:1 PNCT NTUS			438800		94BF80
GM	79	2840	793184	C :1	3858.1	17.8	EM:1 PCRT USED			438800		94BF80
GM	79	2840		1	3812.9	17.9	FE4K: 17.9	RATIO:	1.0000			
GM	79	2840	92480	C :1	5541.0	19.4	FE:2 PNCT NTUS			472300		94B2-4871
GM	79	2840		1	5541.0	19.4	FE4K: 17.9	RATIO:	1.0838			
GM	79	2840	91220	HW:2	3798.5	24.7	EM:1 PNCT USED			438800		94BF80
GM	79	2840	792981	HW:2	3869.0	23.2	EM:1 PNCT NTUS			438800		94BF80
GM	79	2840		2	3833.8	23.9	FE4K: 23.9	RATIO:	1.0000			
GM	79	2840	92481	HW:2	5559.0	23.8	FE:2 PNCT NTUS			472300		94B2-4871
GM	79	2840		2	5559.0	23.8	FE4K: 23.9	RATIO:	0.9947			
GM	79	2848	795205	C :1	4136.5	18.5	EM:1 PNCT USED			438802		94BF80
GM	79	2848		1	4136.5	18.5	FE4K: 18.5	RATIO:	1.0000			
GM	79	2848	92705	C :1	8082.0	19.5	FE:2 PNCT USED			472304		94B2-4871
GM	79	2848		1	8082.0	19.5	FE4K: 18.5	RATIO:	1.0541			
GM	79	2848	795206	HW:2	4147.3	24.6	EM:1 PNCT USED			438802		94BF80
GM	79	2848		2	4147.3	24.6	FE4K: 24.6	RATIO:	1.0000			
GM	79	2848	92706	HW:2	8093.0	27.4	FE:2 PNCT NTUS			472304		94B2-4871
GM	79	2848	795238	HW:2	6150.6	25.0	FE:2 PNCT USED			472304		94B2-4871
GM	79	2848		2	6121.9	26.1	FE4K: 24.6	RATIO:	1.0628			
GM	79	2859	92982	C :1	3853.0	18.2	EM:1 PNCT NTUS			475700		94B2-58148
GM	79	2859		1	3853.0	18.2	FE4K: 18.2	RATIO:	1.0000			
GM	79	2859	93847	C :1	7321.0	18.0	FE:2 PNCT NTUS			475700		94B2-58148
GM	79	2859	796111	C :1	7489.2	17.7	FE:2 PNCT USED			475700		94B2-58148
GM	79	2859		1	7405.1	17.8	FE4K: 18.2	RATIO:	0.9807			
GM	79	2859	92983	HW:2	3863.0	24.1	EM:1 PNCT NTUS			475700		94B2-58148
GM	79	2859		2	3863.0	24.1	FE4K: 24.1	RATIO:	1.0000			
GM	79	2859	93848	HW:2	7332.0	23.9	FE:2 PNCT NTUS			475700		94B2-58148
GM	79	2859	796101	HW:2	7459.0	22.8	FE:2 PNCT USED			475700		94B2-58148
GM	79	2859		2	7395.5	23.2	FE4K: 24.1	RATIO:	0.9840			
GM	79	2869	91266	C :1	3820.0	14.5	EM:1 PNCT NTUS			442600		94JF94
GM	79	2869	793338	C :1	3894.3	14.7	EM:1 PCRT USED			442600		94JF94
GM	79	2869		1	3857.1	14.6	FE4K: 14.6	RATIO:	1.0000			
GM	79	2869	92095	C :1	6410.0	16.1	FE:2 PNCT USED			466900		94J4-87116F
GM	79	2869		1	6410.0	16.1	FE4K: 14.6	RATIO:	1.1028			
GM	79	2869	91267	HW:2	3831.6	21.4	EM:1 PNCT NTUS			442600		94JF94
GM	79	2869	793337	HW:2	3905.3	20.2	EM:1 PNCT USED			442600		94JF94
GM	79	2869		2	3868.4	20.8	FE4K: 20.8	RATIO:	1.0000			
GM	79	2869	92094	HW:2	6378.0	21.3	FE:2 PNCT USED			466900		94J4-87116F
GM	79	2869	92096	HW:2	6421.0	22.2	FE:2 PNCT USED			466900		94J4-87116F
GM	79	2869		2	6399.5	21.7	FE4K: 20.8	RATIO:	1.0461			
GM	79	2890	91262	C :1	3877.2	14.9	EM:1 PNCT NTUS			440800		94JF89
GM	79	2890	793524	C :1	4019.3	14.3	EM:1 PCRT USED			440800		94JF89
GM	79	2890		1	3948.3	14.6	FE4K: 14.6	RATIO:	1.0000			
GM	79	2890	92097	C :1	6460.0	14.9	FE:2 PNCT NTUS			466901		94J4-87116F
GM	79	2890	92099	C :1	6500.0	15.2	FE:2 PNCT NTUS			466901		94J4-87116F
GM	79	2890	794671	C :1	6563.8	14.8	FE:2 PNCT USED			466901		94J4-87116F
GM	79	2890		1	6507.9	15.0	FE4K: 14.6	RATIO:	1.0254			
GM	79	2890	91263	HW:2	3913.6	20.1	EM:1 PNCT NTUS			440800		94JF89
GM	79	2890	793525	HW:2	4030.1	19.9	EM:1 PNCT USED			440800		94JF89
GM	79	2890		2	3971.8	20.0	FE4K: 20.0	RATIO:	1.0000			
GM	79	2890	92098	HW:2	6470.0	20.8	FE:2 PNCT NTUS			466901		94J4-87116F
GM	79	2890	92100	HW:2	6510.0	20.8	FE:2 PNCT NTUS			466901		94J4-87116F
GM	79	2890	794672	HW:2	6581.0	20.0	FE:2 PNCT USED			466901		94J4-87116F
GM	79	2890		2	6520.3	20.5	FE4K: 20.0	RATIO:	1.0263			
GM	79	2901	91345	C :1	3777.0	13.1	EM:1 PNCT USED			443200		96JC117
GM	79	2901	793402	C :1	3850.1	12.8	EM:1 PCRT NTUS			443200		96JC117
GM	79	2901		1	3813.5	12.9	FE4K: 12.9	RATIO:	1.0000			
GM	79	2901	92199	C :1	9723.0	13.4	FE:2 PNCT USED			466600		96J0-8038C
GM	79	2901		1	9723.0	13.4	FE4K: 12.9	RATIO:	1.0348			
GM	79	2901	91347	HW:2	3788.5	20.4	EM:1 PNCT NTUS			443200		96JC117
GM	79	2901	793713	HW:2	3900.8	20.1	EM:1 PNCT USED			443200		96JC117
GM	79	2901		2	3844.6	20.2	FE4K: 20.2	RATIO:	1.0000			
GM	79	2901	92200	HW:2	9735.0	20.9	FE:2 PNCT USED			466600		96J0-8038C

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTD	FED	INT#	VRSN	VID
CHRY	80	3586	98328	HW:2	4636.0	17.1	EM:1	PNCT	USED	585107		C312
----CHRY	80	3586		2	4636.0	17.1	FE4K:	16.7	RATIO:	1.0241		
CHRY	80	3608	95452	C :1	3785.0	9.2	EM:1	PNCT	NTUS	542400		C308
CHRY	80	3608	798272	C :1	3878.8	9.4	EM:1	PCRT	USED	542400		C308
----CHRY	80	3608		1	3821.8	9.3	FE4K:	9.3	RATIO:	1.0000		
CHRY	80	3608	97309	C :1	4325.0	9.7	FE:2	PNCT	NTUS	542403		C308
CHRY	80	3608	799698	C :1	4551.0	9.6	FE:2	PNCT	USED	542403		C308
---CHRY	80	3608		1	4438.0	9.6	FE4K:	9.3	RATIO:	1.0323		
CHRY	80	3608	95453	HW:2	3778.0	11.3	EM:1	PNCT	USED	542400		C308
CHRY	80	3608	97528	HW:2	3992.0	12.1	EM:1	PNCT	USED	542400		C308
----CHRY	80	3608		2	3884.0	11.7	FE4K:	11.7	RATIO:	1.0000		
CHRY	80	3608	97310	HW:2	4337.0	12.6	FE:2	PNCT	NTUS	542403		C308
CHRY	80	3608	799697	HW:2	4562.0	12.7	FE:2	PNCT	USED	542403		C308
----CHRY	80	3608		2	4448.5	12.6	FE4K:	11.7	RATIO:	1.0824		
FORD	80	3680	98729	C :1	4027.0	16.5	EM:1	PCRT	USED	621501		081-2.3-C-249
FORD	80	3680	98964	C :1	4188.0	17.4	EM:1	PNCT	USED	621501		081-2.3-C-249
----FORD	80	3680		1	4107.5	16.9	FE4K:	16.9	RATIO:	1.0000		
FORD	80	3680	98731	C :1	4580.0	18.5	FE:2	PNCT	USED	601305		021-2.3-F-238
FORD	80	3680	98961	C :1	4638.0	18.5	FE:2	PNCT	USED	601305		021-2.3-F-238
----FORD	80	3680		1	4609.0	17.4	FE4K:	16.9	RATIO:	1.0298		
FORD	80	3680	98730	HW:2	4038.0	22.8	EM:1	PNCT	USED	621501		081-2.3-C-249
FORD	80	3680	98963	HW:2	4162.0	24.1	EM:1	PNCT	USED	621501		081-2.3-C-249
----FORD	80	3680		2	4100.0	23.4	FE4K:	23.4	RATIO:	1.0000		
FORD	80	3680	98728	HW:2	4552.0	23.9	FE:2	PNCT	USED	601305		021-2.3-F-238
FORD	80	3680	98962	HW:2	4648.0	23.2	FE:2	PNCT	USED	601305		021-2.3-F-238
----FORD	80	3680		2	4600.5	23.5	FE4K:	23.4	RATIO:	1.0048		
FORD	80	3727	97575	C :1	3782.0	16.5	EM:1	PNCT	NTUS	608700		0A1-5.0-F-325
FORD	80	3727	799965	C :1	3948.5	16.9	EM:1	PCRT	USED	608700		0A1-5.0-F-325
----FORD	80	3727		1	3865.3	16.7	FE4K:	16.7	RATIO:	1.0000		
FORD	80	3727	98024	C :1	5648.0	17.0	FE:2	PNCT	NTUS	619800		9M07
FORD	80	3727	98148	C :1	5730.0	17.1	FE:2	PNCT	USED	619800		9M07
----FORD	80	3727		1	5689.0	17.0	FE4K:	16.7	RATIO:	1.0211		
FORD	80	3727	97576	HW:2	3783.0	25.5	EM:1	PNCT	NTUS	608700		0A1-5.0-F-325
FORD	80	3727	799966	HW:2	3974.2	25.1	EM:1	PNCT	USED	608700		0A1-5.0-F-325
----FORD	80	3727		2	3883.8	25.3	FE4K:	25.3	RATIO:	1.0000		
FORD	80	3727	98025	HW:2	5882.0	26.6	FE:2	PNCT	NTUS	619800		9M07
FORD	80	3727	98147	HW:2	5741.0	26.1	FE:2	PNCT	USED	619800		9M07
----FORD	80	3727		2	5716.5	26.3	FE4K:	25.3	RATIO:	1.0415		
FORD	80	3743	99168	C :1	3759.0	15.9	EM:1	PNCT	NTUS	630000		0D1-4.2-D-311
FORD	80	3743	800831	C :1	3942.0	15.9	EM:1	PCRT	USED	630000		0D1-4.2-D-311
----FORD	80	3743		1	3850.5	15.9	FE4K:	15.9	RATIO:	1.0000		
FORD	80	3743	99103	C :1	4688.0	16.0	FE:2	PNCT	USED	614802		0S1-4.2-C-305
----FORD	80	3743		1	4688.0	16.0	FE4K:	15.9	RATIO:	1.0063		
FORD	80	3743	99169	HW:2	3770.0	20.1	EM:1	PNCT	USED	630000		0D1-4.2-D-311
FORD	80	3743	800732	HW:2	3952.9	19.6	EM:1	PNCT	NTUS	630000		0D1-4.2-D-311
----FORD	80	3743		2	3861.4	19.8	FE4K:	19.8	RATIO:	1.0000		
FORD	80	3743	99104	HW:2	4701.0	21.3	FE:2	PNCT	USED	614802		0S1-4.2-C-305
---FORD	80	3743		2	4701.0	21.3	FE4K:	19.8	RATIO:	1.0732		
FORD	80	3772	98980	C :1	4186.0	16.2	EM:1	PCRT	USED	571001		0A1-5.0-F-321
----FORD	80	3772		1	4186.0	16.2	FE4K:	16.2	RATIO:	1.0000		
FORD	80	3772	99788	C :1	4410.0	15.3	EM:1	PNCT	USED	571004		0A1-5.0-F-321
FORD	80	3772	802261	C :1	4777.0	16.8	EM:1	PCRT	NTUS	571004		0A1-5.0-F-321
----FORD	80	3772		1	4593.5	16.0	FE4K:	16.2	RATIO:	0.9888		
FORD	80	3772	98979	HW:2	4161.0	20.8	EM:1	PNCT	USED	571001		0A1-5.0-F-321
----FORD	80	3772		2	4161.0	20.8	FE4K:	20.8	RATIO:	1.0000		
FORD	80	3772	99832	HW:2	4421.0	20.3	EM:1	PNCT	NTUS	571004		0A1-5.0-F-321
FORD	80	3772	802262	HW:2	4787.7	21.3	EM:1	PNCT	USED	571004		0A1-5.0-F-321
----FORD	80	3772		2	4604.3	20.8	FE4K:	20.8	RATIO:	0.9994		
FORD	80	3787	94627	C :1	3832.0	16.6	EM:1	PNCT	NTUS	529900		0U2-4.9-F-556
FORD	80	3787	797610	C :1	3936.7	17.1	EM:1	PCRT	USED	529900		0U2-4.9-F-556
----FORD	80	3787		1	3884.3	16.8	FE4K:	16.8	RATIO:	1.0000		
FORD	80	3787	95661	C :1	8052.0	17.4	FE:2	PNCT	USED	561602		8U245
----FORD	80	3787		1	8052.0	17.4	FE4K:	16.8	RATIO:	1.0329		
FORD	80	3787	94628	HW:2	3880.0	22.6	EM:1	PNCT	USED	529900		0U2-4.9-F-556
FORD	80	3787	797611	HW:2	3955.0	21.7	EM:1	PNCT	NTUS	529900		0U2-4.9-F-556
----FORD	80	3787		2	3917.5	22.1	FE4K:	22.1	RATIO:	1.0000		
FORD	80	3787	95660	HW:2	7990.0	23.5	FE:2	PNCT	USED	561802		8U245
----FORD	80	3787		2	7990.0	23.5	FE4K:	22.1	RATIO:	1.0614		
FORD	80	3793	94626	C :1	3895.0	16.2	EM:1	PNCT	NTUS	529800		0F1-4.9-F-226
FORD	80	3793	797608	C :1	3954.1	16.2	EM:1	PCRT	USED	529800		0F1-4.9-F-226
FORD	80	3793	98357	C :1	4173.0	15.5	EM:1	PCRT	USED	529801		0F1-4.9-F-226
----FORD	80	3793		1	4010.7	16.0	FE4K:	16.0	RATIO:	1.0000		
FORD	80	3793	95793	C :1	6515.0	16.9	FE:2	PNCT	USED	563801		8F259
----FORD	80	3793		1	6515.0	16.9	FE4K:	16.0	RATIO:	1.0589		
FORD	80	3793	94625	HW:2	3906.0	20.0	EM:1	PNCT	NTUS	529800		0F1-4.9-F-226
FORD	80	3793	797609	HW:2	3988.0	19.9	EM:1	PNCT	USED	529800		0F1-4.9-F-226
FORD	80	3793	98358	HW:2	4184.0	20.2	EM:1	PNCT	USED	529801		0F1-4.9-F-226
----FORD	80	3793		2	4026.0	20.0	FE4K:	20.0	RATIO:	1.0000		
FORD	80	3793	95792	HW:2	6442.0	21.6	FE:2	PNCT	USED	563801		8F259
FORD	80	3793	96070	HW:2	6557.0	20.9	FE:2	PNCT	USED	563801		8F259
----FORD	80	3793		2	6499.5	21.2	FE4K:	20.0	RATIO:	1.0805		
FORD	80	3811	95161	C :1	3789.0	17.1	EM:1	PNCT	NTUS	553100		0F2-4.9-C-230
FORD	80	3811	798333	C :1	3889.0	17.0	EM:1	PCRT	USED	553100		0F2-4.9-C-230
----FORD	80	3811		1	3829.0	17.0	FE4K:	17.0	RATIO:	1.0000		
FORD	80	3811	95833	C :1	6249.0	17.4	FE:2	PNCT	USED	571700		0F2-4.9-E-760
----FORD	80	3811		1	6249.0	17.4	FE4K:	17.0	RATIO:	1.0205		
FORD	80	3811	95162	HW:2	3780.0	23.9	EM:1	PNCT	NTUS	553100		0F2-4.9-C-230
FORD	80	3811	798334	HW:2	3907.0	23.1	EM:1	PNCT	USED	553100		0F2-4.9-C-230
----FORD	80	3811		2	3843.5	23.5	FE4K:	23.5	RATIO:	1.0000		
FORD	80	3811	95834	HW:2	6260.0	25.0	FE:2	PNCT	NTUS	571700		0F2-4.9-E-760
FORD	80	3811	96269	HW:2	6349.0	23.7	FE:2	PNCT	USED	571700		0F2-4.9-E-760
----FORD	80	3811		2	6304.5	24.3	FE4K:	23.5	RATIO:	1.0357		

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTD	FED	INT#	VRSN	VID
----FORD	80	3983		2	3842.0	17.0	FE4K:	17.0	RATIO:	1.0000		
FORD	80	3983	96858	HW:2	6432.0	17.1	FE:2	PNCT	USED	583804		0U1-5.8W-E-583
----FORD	80	3983		2	6432.0	17.1	FE4K:	17.0	RATIO:	1.0059		
GM	80	4016	98614	C :1	3807.0	14.6	EM:1	PNCT	USED	627500		C9F172A
---- GM	80	4016		1	3807.0	14.6	FE4K:	14.8	RATIO:	1.0000		
GM	80	4016	99071	C :1	5863.0	14.5	EM:1	PNCT	USED	642700		COF015
GM	80	4016	801188	C :1	6068.4	14.0	EM:1	PCRT	NTUS	642700		COF015
-- GM	80	4016		1	6015.7	14.2	FE4K:	14.8	RATIO:	0.9757		
GM	80	4016	98615	HW:2	3918.0	22.6	EM:1	PNCT	USED	627500		C9F172A
GM	80	4016	800598	HW:2	4018.9	23.1	EM:1	PNCT	NTUS	627500		C9F172A
---- GM	80	4016		2	3988.4	22.8	FE4K:	22.8	RATIO:	1.0000		
GM	80	4016	99072	HW:2	5974.0	22.7	EM:1	PNCT	USED	642700		COF015
GM	80	4016	801125	HW:2	6038.4	21.3	EM:1	PNCT	NTUS	642700		COF015
---- GM	80	4016		2	6006.2	22.0	FE4K:	22.8	RATIO:	0.9618		
GM	80	4052	98116	C :1	4222.0	18.8	EM:1	PNCT	USED	580902		C9N383
---- GM	80	4052		1	4222.0	18.8	FE4K:	18.8	RATIO:	1.0000		
GM	80	4052	98581	C :1	4537.0	18.1	EM:1	PCRT	USED	580903		C9N383
---- GM	80	4052		1	4537.0	18.1	FE4K:	18.8	RATIO:	0.9583		
GM	80	4052	98117	HW:2	4233.0	24.7	EM:1	PNCT	USED	580902		C9N383
---- GM	80	4052		2	4233.0	24.7	FE4K:	24.7	RATIO:	1.0000		
GM	80	4052	98582	HW:2	4547.0	24.9	EM:1	PNCT	USED	580903		C9N383
---- GM	80	4052		2	4547.0	24.9	FE4K:	24.7	RATIO:	1.0081		
GM	80	4162	99170	C :1	4215.0	21.1	FE:2	PNCT	NTUS	598304		097428
---- GM	80	4162		1	4215.0	21.1	FE4K:	21.1	RATIO:	1.0000		
GM	80	4162	19544	C :1	5724.0	20.9	FE:2	PNCT	USED	598304		097428
---- GM	80	4162		1	5724.0	20.9	FE4K:	21.1	RATIO:	0.9905		
GM	80	4162	99171	HW:2	4227.0	31.8	FE:2	PNCT	NTUS	598304		097428
---- GM	80	4162		2	4227.0	31.8	FE4K:	31.8	RATIO:	1.0000		
GM	80	4162	19543	HW:2	5888.0	31.3	FE:2	PNCT	USED	598304		097428
---- GM	80	4162		2	5888.0	31.3	FE4K:	31.8	RATIO:	0.9843		
GM	80	4178	98138	C :1	4142.0	16.9	EM:1	PNCT	NTUS	552200		098847
GM	80	4178	798814	C :1	4231.9	16.9	EM:1	PCRT	USED	552200		098847
---- GM	80	4178		1	4188.9	16.9	FE4K:	15.9	RATIO:	1.0000		
GM	80	4178	99059	C :1	4648.0	16.6	EM:1	PNCT	NTUS	552202		098647
---- GM	80	4178		1	4648.0	16.6	FE4K:	15.9	RATIO:	0.9822		
GM	80	4178	98137	HW:2	4153.0	24.4	EM:1	PNCT	NTUS	552200		098847
GM	80	4178	798815	HW:2	4242.5	24.7	EM:1	PNCT	USED	552200		098847
---- GM	80	4178		2	4197.8	24.5	FE4K:	24.5	RATIO:	1.0000		
GM	80	4178	99060	HW:2	4659.0	25.4	EM:1	PNCT	NTUS	552202		098847
---- GM	80	4178		2	4659.0	25.4	FE4K:	24.5	RATIO:	1.0347		
GM	80	4207	97058	C :1	3980.5	18.1	EM:1	PNCT	NTUS	538301		869115
GM	80	4207	97389	C :1	4090.0	18.1	FE:2	PNCT	USED	538301		869115
---- GM	80	4207		1	4025.3	18.1	FE4K:	18.1	RATIO:	1.0000		
GM	80	4207	98677	C :1	4536.0	17.2	EM:1	PCRT	USED	538302		869115
-- GM	80	4207		1	4536.0	17.2	FE4K:	18.1	RATIO:	0.9503		
GM	80	4207	97059	HW:2	3978.0	24.6	EM:1	PNCT	NTUS	538301		869115
GM	80	4207	97390	HW:2	4101.0	24.4	FE:2	PNCT	USED	538301		869115
---- GM	80	4207		2	4039.5	24.5	FE4K:	24.5	RATIO:	1.0000		
GM	80	4207	98678	HW:2	4548.0	23.8	EM:1	PNCT	USED	538302		869115
---- GM	80	4207		2	4548.0	23.8	FE4K:	24.5	RATIO:	0.9714		
GM	80	4223	11108	C :1	3748.0	18.6	EM:1	PNCT	USED	663600		860153
GM	80	4223	801872	C :1	3981.3	18.2	EM:1	PCRT	NTUS	663600		860153
---- GM	80	4223		1	3854.8	18.4	FE4K:	18.4	RATIO:	1.0000		
GM	80	4223	99358	C :1	5079.0	18.8	EM:1	PCRT	NTUS	612601		869178
GM	80	4223	99651	C :1	5437.0	18.4	FE:2	PNCT	USED	612601		869178
---- GM	80	4223		1	5258.0	18.6	FE4K:	18.4	RATIO:	1.0109		
GM	80	4223	11110	HW:2	3792.0	25.3	EM:1	PNCT	USED	663600		860153
GM	80	4223	801971	HW:2	3972.1	24.4	EM:1	PNCT	NTUS	663600		860153
---- GM	80	4223		2	3882.0	24.8	FE4K:	24.8	RATIO:	1.0000		
GM	80	4223	99359	HW:2	5090.0	25.0	EM:1	PNCT	USED	612601		869178
GM	80	4223	99652	HW:2	5448.0	24.9	FE:2	PNCT	NTUS	612601		869178
---- GM	80	4223		2	5269.0	24.9	FE4K:	24.8	RATIO:	1.0043		
GM	80	4234	98648	C :1	4217.0	16.1	EM:1	PNCT	NTUS	553202		88992
---- GM	80	4234		1	4217.0	16.1	FE4K:	16.1	RATIO:	1.0000		
GM	80	4234	99399	C :1	5313.0	16.4	FE:2	PNCT	USED	553202		88992
---- GM	80	4234		1	5313.0	16.4	FE4K:	16.1	RATIO:	1.0188		
GM	80	4234	98649	HW:2	4228.0	22.8	EM:1	PNCT	USED	553202		88992
---- GM	80	4234		2	4228.0	22.8	FE4K:	22.8	RATIO:	1.0000		
GM	80	4234	99400	HW:2	5324.0	22.4	FE:2	PNCT	NTUS	553202		88992
---- GM	80	4234		2	5324.0	22.4	FE4K:	22.8	RATIO:	0.9825		
GM	80	4237	98128	C :1	4019.0	17.1	EM:1	PCRT	USED	553301		869153
---- GM	80	4237		1	4019.0	17.1	FE4K:	17.1	RATIO:	1.0000		
GM	80	4237	99178	C :1	5083.0	16.5	EM:1	PCRT	USED	553205		88992
---- GM	80	4237		1	5083.0	16.5	FE4K:	17.1	RATIO:	0.9649		
GM	80	4237	98129	HW:2	4060.0	23.5	EM:1	PNCT	USED	553301		869153
---- GM	80	4237		2	4060.0	23.5	FE4K:	23.5	RATIO:	1.0000		
GM	80	4237	99179	HW:2	5083.0	22.4	EM:1	PNCT	NTUS	553205		88992
GM	80	4237	11100	HW:2	5567.0	23.9	EM:1	PNCT	USED	553205		88992
---- GM	80	4237		2	5330.0	23.1	FE4K:	23.5	RATIO:	0.9841		
FIAT	80	4447	95418	C :1	3943.0	20.4	EM:1	PNCT	NTUS	542700		0470173
FIAT	80	4447	798283	C :1	4008.8	20.3	EM:1	PCRT	USED	542700		0470173
----FIAT	80	4447		1	3976.4	20.3	FE4K:	20.3	RATIO:	1.0000		
FIAT	80	4447	12972	C :1	4854.0	20.3	EM:1	PCRT	USED	676001		0485019
---FIAT	80	4447		1	4854.0	20.3	FE4K:	20.3	RATIO:	0.8875		
FIAT	80	4447	95419	HW:2	3954.0	25.4	EM:1	PNCT	NTUS	542700		0470173
FIAT	80	4447	798282	HW:2	4028.7	24.4	EM:1	PNCT	USED	542700		0470173
----FIAT	80	4447		2	3991.3	24.9	FE4K:	24.9	RATIO:	1.0000		
FIAT	80	4447	12973	HW:2	4700.0	25.6	FE:2	PNCT	USED	676001		0485019

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTO	N	VID
CHRY	81	4931	804942	C :1	7848.0	25.2	FE:2	PNCT USED 732001		D180
----CHRY	81	4931		1	7550.5	25.5	FE4K:	24.9 RATIO: 1.0240		
CHRY	81	4931	15997	HW:2	3830.0	41.2	EM:1	PNCT NTUS 698500		D188
CHRY	81	4931	803288	HW:2	3917.8	39.4	EM:1	PNCT USED 698500		D188
----CHRY	81	4931		2	3873.9	40.3	FE4K:	40.3 RATIO: 1.0000		
CHRY	81	4931	18188	HW:2	7466.0	42.8	FE:2	PNCT NTUS 732001		D180
CHRY	81	4931	804837	HW:2	7615.0	41.5	FE:2	PNCT USED 732001		D180
---CHRY	81	4931		2	7540.5	42.1	FE4K:	40.3 RATIO: 1.0462		
CHRY	81	4948	13215	C :1	3713.0	21.9	EM:1	PNCT NTUS 686100		D181
CHRY	81	4948	802246	C :1	3848.0	22.9	EM:1	PCRT USED 686100		D181
CHRY	81	4948	16281	C :1	4137.0	23.2	EM:1	PNCT NTUS 686100		D181
CHRY	81	4948	18282	C :1	4183.0	22.1	EM:1	PCRT USED 686103		D181
----CHRY	81	4948		1	3968.8	22.5	FE4K:	22.5 RATIO: 1.0000		
CHRY	81	4948	16588	C :1	4330.0	23.1	EM:1	PNCT USED 686101		D181
----CHRY	81	4948		1	4330.0	23.1	FE4K:	22.5 RATIO: 1.0281		
CHRY	81	4948	16956	C :1	4388.0	23.6	EM:1	PCRT USED 686102		D181
----CHRY	81	4948		1	4388.0	23.8	FE4K:	22.5 RATIO: 1.0572		
CHRY	81	4948	17653	C :1	4473.0	23.9	EM:1	PCRT NTUS 686101		D181
----CHRY	81	4948		1	4473.0	23.9	FE4K:	22.5 RATIO: 1.0617		
CHRY	81	4948	13218	HW:2	3724.0	30.6	EM:1	PNCT NTUS 686100		D181
CHRY	81	4948	802212	HW:2	3794.0	30.6	EM:1	PNCT USED 686100		D181
CHRY	81	4948	802240	HW:2	3864.0	30.4	EM:1	PNCT NTUS 686100		D181
CHRY	81	4948	16567	HW:2	4183.0	30.2	EM:1	PNCT USED 686103		D181
----CHRY	81	4948		2	3893.8	30.4	FE4K:	30.4 RATIO: 1.0000		
CHRY	81	4948	16589	HW:2	4341.0	31.8	EM:1	PNCT USED 686101		D181
----CHRY	81	4948		2	4341.0	31.8	FE4K:	30.4 RATIO: 1.0444		
CHRY	81	4948	16957	HW:2	4378.0	31.3	EM:1	PNCT USED 686102		D181
----CHRY	81	4948		2	4378.0	31.3	FE4K:	30.4 RATIO: 1.0279		
CHRY	81	4948	17654	HW:2	4484.0	33.6	EM:1	PNCT NTUS 686101		D181
----CHRY	81	4948		2	4484.0	33.6	FE4K:	30.4 RATIO: 1.1036		
FORD	81	5034	18412	C :1	3974.0	27.9	EM:1	PNCT NTUS 739000		1E2-1.6-F-441
FORD	81	5034	804656	C :1	4068.4	27.3	EM:1	PCRT USED 739000		1E2-1.6-F-441
----FORD	81	5034		1	4028.7	27.6	FE4K:	27.8 RATIO: 1.0000		
FORD	81	5034	20405	C :1	4408.0	28.7	FE:2	PNCT NTUS 739001		1E2-1.6-F-441
FORD	81	5034	805348	C :1	4512.7	27.9	FE:2	PNCT USED 739001		1E2-1.6-F-441
----FORD	81	5034		1	4460.8	28.3	FE4K:	27.8 RATIO: 1.0253		
FORD	81	5034	18413	HW:2	3886.0	44.9	EM:1	PNCT NTUS 739000		1E2-1.6-F-441
FORD	81	5034	804657	HW:2	4115.4	44.0	EM:1	PNCT USED 739000		1E2-1.6-F-441
----FORD	81	5034		2	4050.7	44.4	FE4K:	44.4 RATIO: 1.0000		
FORD	81	5034	20406	HW:2	4421.0	44.0	FE:2	PNCT NTUS 739001		1E2-1.6-F-441
FORD	81	5034	805349	HW:2	4523.7	44.4	FE:2	PNCT USED 739001		1E2-1.6-F-441
----FORD	81	5034		2	4472.3	44.2	FE4K:	44.4 RATIO: 0.9945		
FORD	81	5049	23544	C :1	4201.0	21.5	FE:2	PNCT NTUS 748901		1Z1-2.3-F-272
FORD	81	5049	807058	C :1	4233.0	20.0	FE:2	PNCT USED 748901		1Z1-2.3-F-272
----FORD	81	5049		1	4217.0	20.7	FE4K:	20.7 RATIO: 1.0000		
FORD	81	5049	22937	C :1	5683.0	21.5	FE:2	PNCT NTUS 778500		1Z1-2.3-H-274
FORD	81	5049	806991	C :1	5975.0	20.2	FE:2	PNCT USED 778500		1Z1-2.3-H-274
---FORD	81	5049		1	5834.0	20.8	FE4K:	20.7 RATIO: 1.0052		
FORD	81	5049	23545	HW:2	4220.0	31.9	FE:2	PNCT NTUS 748901		1Z1-2.3-F-272
FORD	81	5049	807059	HW:2	4241.4	31.3	FE:2	PNCT USED 748901		1Z1-2.3-F-272
----FORD	81	5049		2	4230.7	31.6	FE4K:	31.6 RATIO: 1.0000		
FORD	81	5049	22938	HW:2	5710.0	32.6	FE:2	PNCT NTUS 778500		1Z1-2.3-H-274
FORD	81	5049	806992	HW:2	5981.2	31.1	FE:2	PNCT USED 778500		1Z1-2.3-H-274
----FORD	81	5049		2	5850.6	31.8	FE4K:	31.6 RATIO: 1.0074		
FORD	81	5051	19986	C :1	3835.0	20.4	EM:1	PCRT NTUS 748900		1Z1-2.3-F-272
FORD	81	5051	805680	C :1	4095.6	20.2	EM:1	PNCT USED 748900		1Z1-2.3-F-272
----FORD	81	5051		1	4015.3	20.3	FE4K:	20.3 RATIO: 1.0000		
FORD	81	5051	23031	C :1	5855.0	21.0	FE:2	PNCT USED 778502		1Z1-2.3-H-274
----FORD	81	5051		1	5855.0	21.0	FE4K:	20.3 RATIO: 1.0345		
FORD	81	5051	19832	HW:2	3903.0	29.3	EM:1	PNCT NTUS 748900		1Z1-2.3-F-272
FORD	81	5051	805295	HW:2	4057.0	30.9	EM:1	PNCT USED 748900		1Z1-2.3-F-272
----FORD	81	5051		2	3980.0	30.1	FE4K:	30.1 RATIO: 1.0000		
FORD	81	5051	23032	HW:2	5686.0	31.5	FE:2	PNCT USED 778502		1Z1-2.3-H-274
----FORD	81	5051		2	5686.0	31.5	FE4K:	30.1 RATIO: 1.0473		
FORD	81	5107	16830	C :1	3807.0	15.2	EM:1	PNCT NTUS 710400		1F1-5.0-F-936
FORD	81	5107	18254	C :1	3872.0	14.4	EM:1	PCRT USED 710400		1F1-5.0-F-936
----FORD	81	5107		1	3839.5	14.8	FE4K:	14.8 RATIO: 1.0000		
FORD	81	5107	18088	C :1	5806.0	15.2	FE:2	PNCT USED 735100		1F1-5.0-H-810
FORD	81	5107	19836	C :1	5953.0	14.2	FE:2	PNCT NTUS 735100		1F1-5.0-H-810
----FORD	81	5107		1	5879.5	14.7	FE4K:	14.8 RATIO: 0.9928		
FORD	81	5107	16831	HW:2	3826.0	18.8	EM:1	PNCT NTUS 710400		1F1-5.0-F-936
FORD	81	5107	18255	HW:2	3884.0	18.0	EM:1	PNCT USED 710400		1F1-5.0-F-936
----FORD	81	5107		2	3855.0	18.3	FE4K:	18.3 RATIO: 1.0000		
FORD	81	5107	18089	HW:2	5818.0	19.1	FE:2	PNCT USED 735100		1F1-5.0-H-810
FORD	81	5107	19835	HW:2	5922.0	19.4	FE:2	PNCT NTUS 735100		1F1-5.0-H-810
----FORD	81	5107		2	5870.0	19.2	FE4K:	18.3 RATIO: 1.0521		
FORD	81	5188	14245	C :1	3848.0	17.6	EM:1	PNCT NTUS 675400		1U2-4.9-F-950
FORD	81	5188	16283	C :1	4057.0	17.5	EM:1	PNCT NTUS 675400		1U2-4.9-F-950
FORD	81	5188	803367	C :1	4184.0	17.2	EM:1	PCRT USED 675400		1U2-4.9-F-950
----FORD	81	5188		1	4030.0	17.4	FE4K:	17.4 RATIO: 1.0000		
FORD	81	5188	18092	C :1	5959.0	17.9	FE:2	PNCT USED 730802		1U2-4.9-H-847
----FORD	81	5188		1	5959.0	17.9	FE4K:	17.4 RATIO: 1.0289		
FORD	81	5188	16284	HW:2	4087.0	23.1	EM:1	PNCT NTUS 675400		1U2-4.9-F-950
FORD	81	5188	803368	HW:2	4203.0	22.7	EM:1	PNCT USED 675400		1U2-4.9-F-950
----FORD	81	5188		2	4145.0	22.9	FE4K:	22.9 RATIO: 1.0000		
FORD	81	5188	18093	HW:2	5970.0	23.3	FE:2	PNCT USED 730802		1U2-4.9-H-847
---FORD	81	5188		2	5970.0	23.3	FE4K:	22.9 RATIO: 1.0175		
FORD	81	5192	13497	C :1	3857.0	14.7	EM:1	PNCT NTUS 679700		1U1-4.9-F-104
FORD	81	5192	802408	C :1	3958.1	15.2	EM:1	PCRT USED 679700		1U1-4.9-F-104
----FORD	81	5192		1	3907.5	14.9	FE4K:	14.9 RATIO: 1.0000		
FORD	81	5192	17587	C :1	5810.0	15.8	FE:2	PNCT USED 729800		1U1-4.9-H-834
----FORD	81	5192		1	5810.0	15.8	FE4K:	14.9 RATIO: 1.0872		

MFR	ACYR	K	TNUM	TPRO	ODO	RWMG	TTYP	CTD	FED	INT#	VRSN	VID
GM	81	5411	20379	HW:2	7776.0	27.3	FE:2	PNCT	USED	780100		14E4-5078F
---- GM	81	5411		2	7752.0	27.3	FE4K: 27.0	RATIO:		1.0085		
GM	81	5415	802880	C :1	3978.8	18.0	EM:1	PCRT	USED	898400		B80131
---- GM	81	5415		1	3978.8	18.0	FE4K: 18.0	RATIO:		1.0000		
GM	81	5415	20080	C :1	4732.0	18.4	FE:2	PNCT	USED	898403		B80131
---- GM	81	5415		1	4732.0	18.4	FE4K: 18.0	RATIO:		1.0222		
GM	81	5415	20082	C :1	7825.0	18.2	FE:2	PNCT	NTUS	755200		14F4-8053F
GM	81	5415	805431	C :1	7920.3	18.0	FE:2	PNCT	USED	755200		14F4-8053F
--- GM	81	5415		1	7772.8	18.1	FE4K: 18.0	RATIO:		1.0611		
GM	81	5415	15709	HW:2	3844.0	23.8	EM:1	PNCT	NTUS	898400		B80131
GM	81	5415	802881	HW:2	3998.9	23.6	EM:1	PNCT	USED	898400		B80131
---- GM	81	5415		2	3920.4	23.6	FE4K: 23.8	RATIO:		1.0000		
GM	81	5415	20081	HW:2	4743.0	25.1	FE:2	PNCT	USED	898403		B80131
---- GM	81	5415		2	4743.0	25.1	FE4K: 23.8	RATIO:		1.0836		
GM	81	5415	20083	HW:2	7836.0	27.8	FE:2	PNCT	NTUS	755200		14F4-8053F
GM	81	5415	805430	HW:2	7831.1	27.8	FE:2	PNCT	USED	755200		14F4-8053F
---- GM	81	5415		2	7783.6	27.7	FE4K: 23.8	RATIO:		1.1737		
GM	81	5417	18813	C :1	3752.0	17.2	EM:1	PNCT	NTUS	711700		B80116
GM	81	5417	803500	C :1	3930.0	17.4	EM:1	PCRT	USED	711700		B80116
GM	81	5417	18842	C :1	4095.0	17.5	FE:2	PNCT	NTUS	711700		B80116
---- GM	81	5417		1	3925.7	17.4	FE4K: 17.4	RATIO:		1.0000		
GM	81	5417	20206	C :1	7945.0	18.1	FE:2	PNCT	USED	758200		14F4-80115F
---- GM	81	5417		1	7945.0	18.1	FE4K: 17.4	RATIO:		1.0423		
GM	81	5417	18814	HW:2	3763.0	28.4	EM:1	PNCT	NTUS	711700		B80116
GM	81	5417	803924	HW:2	3994.6	28.7	EM:1	PNCT	USED	711700		B80116
GM	81	5417	18843	HW:2	4106.0	28.7	FE:2	PNCT	NTUS	711700		B80116
---- GM	81	5417		2	3954.5	28.6	FE4K: 28.6	RATIO:		1.0000		
GM	81	5417	20207	HW:2	7956.0	28.6	FE:2	PNCT	USED	758200		14F4-80115F
---- GM	81	5417		2	7956.0	28.6	FE4K: 28.6	RATIO:		1.0350		
GM	81	5418	17754	C :1	3824.0	17.0	EM:1	PNCT	NTUS	724100		B90101
GM	81	5418	18435	C :1	4074.0	17.1	EM:1	PCRT	USED	724100		B90101
GM	81	5418	20152	C :1	4110.0	17.8	FE:2	PNCT	USED	726001		B90103
GM	81	5418	20154	C :1	4154.0	17.7	FE:2	PNCT	USED	726001		B90103
---- GM	81	5418		1	4065.5	17.4	FE4K: 17.4	RATIO:		1.0000		
GM	81	5418	20208	C :1	7842.0	17.4	FE:2	PNCT	USED	758300		14F4-9084F
GM	81	5418	20210	C :1	7886.0	17.8	FE:2	PNCT	USED	758300		14F4-9084F
GM	81	5418	20212	C :1	7731.0	17.6	FE:2	PNCT	USED	758300		14F4-9084F
---- GM	81	5418		1	7886.3	17.6	FE4K: 17.4	RATIO:		1.0118		
GM	81	5418	17753	HW:2	3835.0	23.6	EM:1	PNCT	NTUS	724100		B90101
GM	81	5418	18438	HW:2	4085.0	23.6	EM:1	PNCT	USED	724100		B90101
GM	81	5418	20153	HW:2	4121.0	24.1	FE:2	PNCT	USED	726001		B90103
GM	81	5418	20156	HW:2	4185.0	24.4	FE:2	PNCT	USED	726001		B90103
---- GM	81	5418		2	4081.5	23.9	FE4K: 23.8	RATIO:		1.0000		
GM	81	5418	20211	HW:2	7897.0	24.7	FE:2	PNCT	USED	758300		14F4-9084F
---- GM	81	5418		2	7897.0	24.7	FE4K: 23.8	RATIO:		1.0328		
GM	81	5420	17044	C :1	3830.0	16.8	EM:1	PNCT	NTUS	720900		B80117
GM	81	5420	803761	C :1	4022.0	16.6	EM:1	PCRT	USED	720900		B80117
---- GM	81	5420		1	3926.0	16.7	FE4K: 16.7	RATIO:		1.0000		
GM	81	5420	20219	C :1	8080.0	17.0	FE:2	PNCT	USED	758201		14F4-80115F
---- GM	81	5420		1	8080.0	17.0	FE4K: 16.7	RATIO:		1.0180		
GM	81	5420	17045	HW:2	3841.0	25.6	EM:1	PNCT	NTUS	720900		B80117
GM	81	5420	803760	HW:2	4033.7	25.2	EM:1	PNCT	USED	720900		B80117
---- GM	81	5420		2	3937.3	25.4	FE4K: 25.4	RATIO:		1.0000		
GM	81	5420	20220	HW:2	8091.0	27.2	FE:2	PNCT	NTUS	758201		14F4-80115F
GM	81	5420	20527	HW:2	8188.0	27.3	FE:2	PNCT	USED	758201		14F4-80115F
---- GM	81	5420		2	8139.5	27.2	FE4K: 25.4	RATIO:		1.0728		

COUNTS(4K): CITY.EMISS : 93 HW.EMISS : 92 CITY.FE : 28 HW.FE : 29
COUNTS(+K): CITY.EMISS : 30 HW.EMISS : 30 CITY.FE : 99 HW.FE : 99