

APPENDIX K

COMPUTER PRINTOUT AND HYDROCARBON SPECIATION DATA FOR TEST NO. B2FDC-01S

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B2FDC-01S RUN
VEHICLE MODEL 89 CROWN VICTORIA
ENGINE 4.9 L(302. CID) V-8
TRANSMISSION A4

VEHICLE NO.95
DATE 6/18/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 27.2 DEG C(81.0 DEG F)
ABS. HUMIDITY 12.0 GM/KG

TEST WEIGHT 1928. KG(4250. LBS)
ACTUAL ROAD LOAD 9.4 KW(12.6 HP)
METHANOL EM-1170-F
ODOMETER 0. KM(0. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.04

BAROMETER 739.65 MM HG(29.12 IN HG)
RELATIVE HUMIDITY 51. PCT
BAG RESULTS

BAG NUMBER
DESCRIPTION

	1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT
BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)	41.7 (107.0)	42.2 (108.0)
BLOWER REVOLUTIONS	39995.	68427.	39998.
TOT FLOW STD. CU. METRES(SCF)	71.9 (2539.)	123.0 (4343.)	71.8 (2534.)
THC SAMPLE METER/RANGE/PPM	38.6/ 2/ 39.	8.9/ 2/ 9.	8.1/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	8.5/ 2/ 8.	9.6/ 2/ 10.	7.7/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	83.0/ 13/ 202.	1.2/ 12/ 1.	1.2/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.5/ 13/ 1.	1.0/ 12/ 1.	1.1/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	77.5/ 1/1.4325	91.6/ 14/ .9066	66.9/ 1/1.2374
CO2 BCKGRD METER/RANGE/PCT	3.3/ 1/ .0579	16.3/ 14/ .0573	2.8/ 1/ .0490
NOX SAMPLE METER/RANGE/PPM	39.9/ 1/ 10.0	18.0/ 1/ 4.6	43.0/ 1/ 10.8
NOX BCKGRD METER/RANGE/PPM	2.0/ 1/ .5	2.3/ 1/ .6	2.1/ 1/ .6
DILUTION FACTOR	8.18	13.12	9.62
THC CONCENTRATION PPM	31.	0.	1.
CO CONCENTRATION PPM	190.	0.	0.
CO2 CONCENTRATION PCT	1.3817	.8536	1.1935
NOX CONCENTRATION PPM	9.6	4.0	10.3
THC MASS GRAMS	2.56	.00	.10
CO MASS GRAMS	15.90	.04	.01
CO2 MASS GRAMS	1818.9	1922.0	1568.4
NOX MASS GRAMS	1.37	.99	1.48
THC GRAMS/MI	.72	.00	.03
CO GRAMS/MI	4.46	.01	.00
CO2 GRAMS/MI	510.4	502.8	439.0
NOX GRAMS/MI	.39	.26	.41
FUEL ECONOMY IN MPG	9.17	9.46	10.83
RUN TIME SECONDS	505.	867.	504.
MEASURED DISTANCE MI	3.56	3.82	3.57
SCF, DRY	.958	.968	.962

COMPOSITE RESULTS

TEST NUMBER B2FDC-01S
BAROMETER MM HG 739.6
HUMIDITY G/KG 12.0
TEMPERATURE DEG C 27.2

CARBON DIOXIDE	G/MI	3-BAG	(4-BAG)
		486.8	(.0)
FUEL ECONOMY	MPG	9.73	(.00)
HYDROCARBONS (THC)	G/MI	.16	(.00)
CARBON MONOXIDE	G/MI	.93	(.00)
OXIDES OF NITROGEN	G/MI	.33	(.00)

SUMMARY OF HYDROCARBON SPECIATION DATA FOR TEST NO. B2FDC-01S

COMPOUND	BAG 1			BAG 2			BAG 3			FTP TOTAL		FTP OZONE	
	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG/MI	WGT. %	MG/MI	WGT. %
METHANOL	1828	513.0	69.85	0	0.0	0.00	0	0.0	0.00	108.4	66.88	148.98	0.00
METHANE	120	33.8	4.61	1	0.2	2.88	18	5.1	46.76	8.5	5.36	0.09	0.09
ETHYLENE	13	3.6	0.49	0	0.0	0.37	1	0.4	3.47	0.8	0.54	4.54	0.54
ETHANE	18	5.0	0.68	0	0.0	0.60	0	0.0	0.00	1.1	0.66	0.16	0.16
ACETYLENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
PROPANE	6	1.6	0.22	0	0.0	0.00	0	0.0	0.00	0.3	0.21	0.11	0.11
PROPYLENE	4	1.1	0.14	0	0.0	0.00	0	0.0	0.00	0.2	0.14	1.45	1.45
1,3-BUTADIENE	1	0.2	0.03	0	0.0	0.00	0	0.0	0.00	0.0	0.03	0.36	0.36
ISOBUTANE	6	1.7	0.23	1	0.3	3.87	0	0.0	0.00	0.5	0.32	0.43	0.43
BUTANE	22	6.1	0.83	15	3.9	50.61	0	0.0	0.00	3.3	2.06	2.10	2.10
1-BUTENE	2	0.6	0.08	0	0.0	0.00	0	0.0	0.00	0.1	0.08	0.75	0.75
ISOBUTYLENE	5	1.3	0.18	0	0.0	0.00	0	0.0	0.00	0.3	0.17	1.14	1.14
CIS-2-BUTENE	5	1.4	0.19	0	0.0	0.00	0	0.0	0.00	0.3	0.12	2.14	2.14
TRANS-2-BUTENE	3	0.9	0.13	0	0.0	0.00	0	0.0	0.00	0.2	0.12	1.43	1.43
BENZENE	119	33.3	4.54	10	2.7	34.40	3	0.9	8.05	8.5	5.35	2.39	2.39
TOLUENE	92	25.7	3.51	0	0.0	0.00	5	1.3	11.83	5.7	3.68	10.81	10.81
ISOPENTANE	44	12.5	1.70	0	0.0	0.00	10	2.8	25.62	3.4	2.11	2.95	2.95
1-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
PENTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2-METHYL-1-BUTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
ISOPRENE(2-METHYL-1,3-BUTADIENE)	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
TRANS-2-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
CIS-2-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2-METHYL-2-BUTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2,2-DIMETHYLBUTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
CYCLOPENTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
CYCLOPENTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
3-METHYL-1-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
4-METHYL-1-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2,3-DIMETHYLBUTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2,3-DIMETHYL-1-BUTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2-METHYLPENTANE	10	2.9	0.39	0	0.0	0.00	0	0.0	0.00	0.6	0.38	0.55	0.55
4-METHYL-2-PENTENE	10	2.8	0.39	0	0.0	0.00	0	0.0	0.00	0.6	0.37	3.11	3.11
MTBE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
3-METHYLPENTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2-METHYL-1-PENTENE/1-HEXENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
HEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00

SUMMARY OF HYDROCARBON SPECIATION DATA FOR TEST NO. B2FDC-01S

COMPOUND	BAG 1			BAG 2			BAG 3			FTP TOTAL		FTP OZONE
	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG/MI	WGT. %	
C6 OLEFINS	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,4-DIMETHYLPENTANE	7	2.0	0.28	0	0.0	0.00	0	0.0	0.00	0.4	0.27	0.45
METHYLCYCLOPENTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
CYCLOHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
METHYLCYCLOPENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
3-METHYL-1,3-PENTADIENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,3-DIMETHYLPENTANE/2-METHYLHEXANE	25	7.1	0.97	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
CYCLOHEXENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	1.5	0.92	1.25
5-METHYL-2-HEXENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
3-METHYLHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,2,4-TRIMETHYLPENTANE	87	24.4	3.32	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
N-HEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	5.1	3.17	3.64
2,4,4-TRIMETHYL-1-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,2,4-TRIMETHYL-1-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
METHYLCYCLOHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,4,4-TRIMETHYL-2-PENTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,4/2-5-DIMETHYLHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,3,4-TRIMETHYLPENTANE	15	4.1	0.56	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,3,3-TRIMETHYLPENTANE	11	3.1	0.43	0	0.0	0.00	0	0.0	0.00	0.8	0.53	0.61
2-METHYL-3-HEPTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.6	0.41	0.47
3,5,5-TRIMETHYL-1-HEXENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2/4-METHYLHEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
3-METHYLHEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,5-DIMETHYL-1,5-HEXADIENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,2,5-TRIMETHYLHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2-ETHYL-1-HEXENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
1-CIS-4-DIMETHYLCYCLOHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
OCTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,3,5-TRIMETHYLHEXANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,4-DIMETHYLHEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,5/3,5-DIMETHYLHEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
ETHYLBENZENE	10	2.9	0.40	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
2,3-DIMETHYLHEPTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
P-XYLENE/M-XYLENE	64	17.9	2.45	0	0.0	0.00	0	0.0	0.00	0.6	0.38	1.08
2-METHYLOCTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	3.7	2.34	20.85
4-METHYLOCTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00
3-METHYLOCTANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00

SUMMARY OF HYDROCARBON SPECIATION DATA FOR TEST NO. B2FDC-01S

COMPOUND	BAG 1			BAG 2			BAG 3			FTP TOTAL		FTP OZONE	
	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG	MG/MI	WGT. %	MG/MI	WGT. %	MG/MI	WGT. %
O-XYLENE	20	5.7	0.78	0	0.0	0.00	0	0.0	0.00	1.2	0.74	6.13	0.00
NONANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
TRANS-2-NONENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
PROPYLBENZENE	12	3.4	0.46	0	0.0	0.00	0	0.0	0.00	0.7	0.44	1.03	0.00
2,3-DIMETHYLOCTANE	8	2.3	0.31	0	0.0	0.00	0	0.0	0.00	0.5	0.30	0.28	0.00
O-ETHYLTOLUENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
1,2,4-TRIMETHYLBENZENE	17	4.8	0.66	0	0.0	0.00	0	0.0	0.00	1.0	0.63	7.40	0.00
ISOBUTYLBENZENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
DECANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
P-CYME	6	1.7	0.23	0	0.0	0.00	0	0.0	0.00	0.4	0.22	1.88	0.00
INDAN(E)	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
4-PHENYL-1-BUTENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
M-DIETHYLBENZENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
1-METHYL-3-PROPYLBENZENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
N-BUTYLBENZENE/P-DIETHYLBENZENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
O-DIETHYLBENZENE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
2-METHYLDECANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
BICYCLOPENTYL	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
UNDECANE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
1,3,5-TRIMETHYLBENZENE	9	2.6	0.35	0	0.0	0.00	0	0.0	0.00	0.5	0.34	4.01	0.00
C7 OLEFINS	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
C8-C9 OLEFINS	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
C9-C11 PARAFFINS, OLEFINS, AROMATICS	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
FORMALDEHYDE	10	2.9	0.39	2	0.5	5.91	2	0.5	4.27	1.0	0.60	5.94	0.28
ACETALDEHYDE	1	0.3	0.04	0	0.0	0.31	0	0.0	0.00	0.1	0.05	0.00	0.00
ACROLEIN	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
ACETONE	3	0.7	0.10	0	0.1	1.05	0	0.0	0.00	0.2	0.12	0.07	0.00
PROPIONALDEHYDE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
CROTONALDEHYDE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
ISOBUTYRALDEHYDE	0	0.0	0.01	0	0.0	0.00	0	0.0	0.00	0.0	0.01	0.04	0.01
METHYL ETHYL KETONE	0	0.0	0.01	0	0.0	0.00	0	0.0	0.00	0.0	0.01	0.01	0.01
BENZALDEHYDE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00
HEXANALDEHYDE	0	0.0	0.00	0	0.0	0.00	0	0.0	0.00	0.0	0.00	0.00	0.00

APPENDIX L

COMPUTER PRINTOUTS FOR VW JETTA FTP AND HFET EMISSION TEST PRIOR TO EHC CONTROLLER FAILURE

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08- -001

TEST NO. B1VHC-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 5/27/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1235-F
ODOMETER 29707. KM(18459. MILES)

BAROMETER 739.14 MM HG(29.10 IN HG)
RELATIVE HUMIDITY 62. PCT

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 11.5 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.03

BAG RESULTS

BAG NUMBER	1	2	3	4
DESCRIPTION	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.0 (104.0)	39.4 (103.0)	41.1 (106.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40108.	68638.	40012.	68577.
TOT FLOW STD. CU. METRES(SCF)	72.5 (2559.)	124.2 (4386.)	72.0 (2543.)	123.6 (4365.)
THC SAMPLE METER/RANGE/PPM	36.9/ 2/ 37.	14.5/ 2/ 14.	18.9/ 2/ 19.	14.1/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	8.5/ 2/ 8.	10.2/ 2/ 10.	10.4/ 2/ 10.	10.9/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	97.1/ 13/ 240.	20.2/ 12/ 20.	39.2/ 12/ 39.	19.6/ 12/ 20.
CO BCKGRD METER/RANGE/PPM	.4/ 13/ 1.	.5/ 12/ 1.	.5/ 12/ 1.	.1/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	57.2/ 1/1.0598	81.3/ 14/ .6828	94.4/ 14/ .9809	80.4/ 14/ .6661
CO2 BCKGRD METER/RANGE/PCT	2.9/ 1/ .0508	14.6/ 14/ .0502	14.5/ 14/ .0498	14.4/ 14/ .0494
NOX SAMPLE METER/RANGE/PPM	3.0/ 1/ .8	1.5/ 1/ .4	3.2/ 1/ .8	1.5/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	1.3/ 1/ .3	1.4/ 1/ .4	1.4/ 1/ .4	1.4/ 1/ .4
DILUTION FACTOR	12.33	19.53	13.58	20.02
THC CONCENTRATION PPM	29.	5.	9.	4.
CO CONCENTRATION PPM	230.	19.	37.	19.
CO2 CONCENTRATION PCT	1.0131	.6351	.9347	.6192
NOX CONCENTRATION PPM	.5	.0	.5	.0
THC MASS GRAMS	1.21	.35	.38	.27
CO MASS GRAMS	19.39	2.76	3.10	2.71
CO2 MASS GRAMS	1344.1	1444.4	1232.2	1401.5
NOX MASS GRAMS	.07	.01	.07	.01
THC GRAMS/MI	.34	.09	.11	.07
CO GRAMS/MI	5.36	.70	.86	.69
CO2 GRAMS/MI	371.5	369.5	339.9	357.9
NOX GRAMS/MI	.02	.00	.02	.00
FUEL ECONOMY IN MPG	23.28	23.60	25.96	25.28
RUN TIME SECONDS	505.	866.	505.	868.
MEASURED DISTANCE MI	3.62	7.53	3.63	7.54
SCF, DRY	.970	.972	.971	.973
DFC, WET (DRY)		.938(.919)		.941(.922)
TOT VOL (SCM) / SAM BLR (SCM)	196.7/	.00	195.6/	.00

COMPOSITE RESULTS

TEST NUMBER B1VHC-01
BAROMETER MM HG 739.1
HUMIDITY G/KG 11.5
TEMPERATURE DEG C 23.3

CARBON DIOXIDE	G/MI	361.8	(358.4)
FUEL ECONOMY	MPG	24.30	(24.53)
HYDROCARBONS (THC)	G/MI	.14	(.14)
CARBON MONOXIDE	G/MI	1.71	(1.70)
OXIDES OF NITROGEN	G/MI	.01	(.01)

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
PTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B2VHC01A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100

DATE 8/ 5/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)

ABS. HUMIDITY 10.2 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1179-F

ODOMETER 30096. KM(18701. MILES)

C = .436 H = .128 O = .437

FUEL DENSITY = 6.57

NOX HUMIDITY CORRECTION FACTOR .98

BAROMETER 741.93 MM HG(29.21 IN HG)

RELATIVE HUMIDITY 58. PCT

G RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT
BLOWER DIF P MM. H2O(IN. H2O)	1041.4 (41.0)	1041.4 (41.0)	1041.4 (41.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	45.0 (113.0)	41.7 (107.0)	44.4 (112.0)
BLOWER REVOLUTIONS	40138.	68775.	40044.
TOT FLOW STD. CU. METRES(SCF)	71.0 (2506.)	122.1 (4311.)	70.7 (2498.)
THC SAMPLE METER/RANGE/PPM	11.1/ 2/ 11.	9.7/ 2/ 10.	10.8/ 2/ 11.
THC BCKGRD METER/RANGE/PPM	7.2/ 2/ 7.	7.3/ 2/ 7.	7.7/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	31.2/ 12/ 31.	31.3/ 12/ 31.	34.7/ 12/ 35.
CO BCKGRD METER/RANGE/PPM	1.5/ 12/ 2.	1.3/ 12/ 1.	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	55.9/ 1/1.0359	80.0/ 14/ .6589	92.3/ 14/ .9245
CO2 BCKGRD METER/RANGE/PCT	3.0/ 1/ .0526	15.3/ 14/ .0531	15.4/ 14/ .0535
NOX SAMPLE METER/RANGE/PPM	13.2/ 1/ 3.4	1.4/ 1/ .4	2.8/ 1/ .7
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3	1.2/ 1/ .3	1.2/ 1/ .3
DILUTION FACTOR	11.45	17.97	12.82
THC CONCENTRATION PPM	5.	3.	4.
CO CONCENTRATION PPM	28.	29.	32.
CO2 CONCENTRATION PCT	.9879	.6087	.8751
NOX CONCENTRATION PPM	3.1	.1	.4
THC MASS GRAMS	.37	.39	.30
CO MASS GRAMS	2.33	4.09	2.65
CO2 MASS GRAMS	1283.8	1360.7	1133.4
NOX MASS GRAMS	.42	.02	.06
THC GRAMS/MI	.10	.10	.08
CO GRAMS/MI	.65	1.06	.74
CO2 GRAMS/MI	359.0	351.6	315.2
NOX GRAMS/MI	.12	.00	.02
FUEL ECONOMY IN MPG	13.20	13.45	15.02
RUN TIME SECONDS	505.	868.	505.
MEASURED DISTANCE MI	3.58	3.87	3.60
SCF, DRY	.963	.970	.965

POSITIVE RESULTS

TEST NUMBER B2VHC01A
BAROMETER MM HG 741.9
HUMIDITY G/KG 10.2
TEMPERATURE DEG C 22.8

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	343.1	(.0)
FUEL ECONOMY	MPG	13.79	(.00)
HYDROCARBONS (THC)	G/MI	.10	(.00)
CARBON MONOXIDE	G/MI	.89	(.00)
OXIDES OF NITROGEN	G/MI	.03	(.00)

APPENDIX N

COMPUTER PRINTOUTS OF TASK 2 EMISSION TEST RESULTS FOR VW JETTA

Page N.	Test No.	Fuel	Catalyst	Test Cycle
2	B2VBL-01	M85	OEM	FTP
3	B2VBL-01	M85	OEM	HFET
4	B2VBL-01	M85	OEM	NYCC
5	B2VJM-01	M85	JM	FTP
6	B2VJM-01	M85	JM	HFET
7	B2VJM-01	M85	JM	NYCC
8	B2VJM-02	M85	JM	FTP
9	B2VJM-02	M85	JM	HFET
10	B2VJM-02	M85	JM	NYCC
11	B2VDC-01	M85	Degussa	FTP
12	B2VDC-01	M85	Degussa	HFET
13	B2VDC-01	M85	Degussa	NYCC
14	B2VDC-02	M85	Degussa	FTP
15	B2VDC-02	M85	Degussa	HFET
16	B2VDC-02	M85	Degussa	NYCC
17	B2VHC-01A	M85	Camet	FTP
18	B2VHC-01A	M85	Camet	HFET
19	B2VHC-01A	M85	Camet	NYCC
20	B2VHC-02A	M85	Camet	FTP
21	B2VHC-02A	M85	Camet	HFET
22	B2VHC-02A	M85	Camet	NYCC
23	B1VBL-01	Howell EEE	OEM	FTP
24	B1VBL-01	Howell EEE	OEM	HFET
25	B1VBL-01	Howell EEE	OEM	NYCC
26	B1VJM-01	Howell EEE	JM	FTP
27	B1VJM-01	Howell EEE	JM	HFET
28	B1VJM-01	Howell EEE	JM	NYCC
29	B1VJM-02	Howell EEE	JM	FTP
30	B1VJM-02	Howell EEE	JM	HFET
31	B1VJM-02	Howell EEE	JM	NYCC
32	B1VDC-01	Howell EEE	Degussa	FTP
33	B1VDC-01	Howell EEE	Degussa	HFET
34	B1VDC-01	Howell EEE	Degussa	NYCC
35	B1VDC-02	Howell EEE	Degussa	FTP
36	B1VDC-02	Howell EEE	Degussa	HFET
37	B1VDC-02	Howell EEE	Degussa	NYCC
38	B1VHC-01A	Howell EEE	Camet	FTP
39	B1VHC-01A	Howell EEE	Camet	HFET
40	B1VHC-01A	Howell EEE	Camet	NYCC
41	B1VHC-02A	Howell EEE	Camet	FTP
42	B1VHC-02A	Howell EEE	Camet	HFET
43	B1VHC-02A	Howell EEE	Camet	NYCC
44	J2HC/OEM-1	M85	Camet + OEM	FTP
45	J2HC/OEM-2	M85	Camet + OEM	FTP
46	J2HC/DC-1	M85	Camet + Degussa	FTP
47	J2HC/DC-2	M85	Camet + Degussa	FTP

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FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 88-2346-001

TEST NO. B2VBL-01 RUN 1
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(112. CID) L-4
TRANSMISSION AS

VEHICLE NO. M100
DATE 12/20/90
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG (2750. LBS)
ACTUAL ROAD LOAD 5.2 RW (7.0 HP)
GASOLINE EM-1179-F
ODDMETER 29416. KM (18276. MILES)

BAROMETER 737.87 MM HG (29.05 IN HG)
RELATIVE HUMIDITY 49. PCT

DRY BULB TEMP. 24.4 DEG C (75.9 DEG F)
ABS. HUMIDITY 9.6 GM/KG

NOX HUMIDITY CORRECTION FACTOR .96

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O (IN. H2O)	787.4 (31.0)	789.9 (31.1)	805.2 (31.7)	789.9 (31.1)
BLOWER INLET P MM. H2O (IN. H2O)	779.8 (30.7)	784.9 (30.9)	787.4 (31.0)	784.9 (30.9)
BLOWER INLET TEMP. DEG. C (DEG. F)	42.2 (108.0)	41.1 (106.0)	41.7 (107.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40521.	69436.	40416.	69377.
TOT FLOW STD. CU. METRES (SCF)	74.9 (2644.)	128.5 (4537.)	74.6 (2635.)	128.5 (4537.)
THC SAMPLE METER/RANGE/PPM	56.4/ 2/ 56.	15.77/ 2/ 16.	19.0/ 2/ 19.	15.6/ 2/ 16.
THC BCKGRD METER/RANGE/PPM	13.6/ 2/ 14.	13.5/ 2/ 13.	13.0/ 2/ 13.	12.9/ 2/ 13.
CO SAMPLE METER/RANGE/PPM	61.4/ 14/ 395.	22.8/ 12/ 23.	57.8/ 12/ 58.	24.6/ 12/ 25.
CO BCKGRD METER/RANGE/PPM	.1/ 14/ 0.	1.2/ 12/ 1.	1.1/ 12/ 1.	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	93.5/ 14/ .9562	77.0/ 14/ .6068	69.5/ 14/ .6551	76.0/ 14/ .5983
CO2 BCKGRD METER/RANGE/PCT	14.2/ 14/ .0486	14.1/ 14/ .0482	14.1/ 14/ .0482	14.0/ 14/ .0478
NOX SAMPLE METER/RANGE/PPM	19.0/ 1/ 4.9	1.0/ 1/ .3	3.0/ 1/ .6	1.1/ 1/ .3
NOX BCKGRD METER/RANGE/PPM	.9/ 1/ .2	.9/ 1/ .2	.8/ 1/ .2	.9/ 1/ .2
DILUTION FACTOR	12.04	19.71	13.95	20.25
THC CONCENTRATION PPM	44.	3.	7.	3.
CO CONCENTRATION PPM	378.	21.	54.	23.
CO2 CONCENTRATION PCT	.9116	.5611	.8104	.5449
NOX CONCENTRATION PPM	4.6	.2	.6	.1
THC MASS GRAMS	3.66	.41	.58	.48
CO MASS GRAMS	32.97	3.13	4.72	3.44
CO2 MASS GRAMS	1249.8	1319.8	1107.5	1231.9
NOX MASS GRAMS	.64	.01	.06	.02
THC GRAMS/MI	1.20	.11	.16	.12
CO GRAMS/MI	9.04	.80	1.30	.86
CO2 GRAMS/MI	342.8	338.2	305.8	327.8
NOX GRAMS/MI	.18	.00	.02	.00
FUEL ECONOMY IN MPG	13.75	14.14	16.01	15.45
RUN TIME SECONDS	505.	867.	505.	868.
MEASURED DISTANCE MI	3.65	7.53	3.62	7.53
SCF, DRY	.968	.972	.970	.974
DFC, WET (DRY)		.937 (.923)		.942 (.928)
TOT VOL (SCM) / SAM BLR (SCM)		203.4/ .20		203.1/ .20

COMPOSITE RESULTS

TEST NUMBER B2VBL-01
BAROMETER MM HG 737.9
HUMIDITY G/KG 9.6
TEMPERATURE DEG C 24.4

	3-BAG	(4-BAG)
CARBON DIOXIDE G/MI	330.3	(327.2)
FUEL ECONOMY MPG	14.72	(14.86)
HYDROCARBONS (THC) G/MI	.31	(.31)
CARBON MONOXIDE G/MI	2.65	(2.67)
OXIDES OF NITROGEN G/MI	.04	(.04)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 88-2346-001

TEST NO. 82VBL-01 RUN 1
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 737.11 MM HG(29.02 IN HG)
RELATIVE HUMIDITY 49. PCT
BAG RESULTS

VEHICLE NO. M100
DATE 12/20/90
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2

DRY BULB TEMP. 24.4 DEG C(76.0 DEG F)
ABS. HUMIDITY 9.6 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 26440. KM(16293. MILES)
C = .449 H = .127 G = .424
FUEL DENSITY = 6.61
NOX HUMIDITY CORRECTION FACTOR .96

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	789.9 (31.1)
BLOWER INLET P MM. H2O(IN. H2O)	787.4 (31.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)
BLOWER REVOLUTIONS	61225.
TOT FLOW STD. CU. METRES(SCF)	113.0 (3990.)
THC SAMPLE METER/RANGE/PPM	21.8/ 2/ 22.
THC BCKGRD METER/RANGE/PPM	12.8/ 2/ 13.
CO SAMPLE METER/RANGE/PPM	51.5/ 13/ 121.
CO BCKGRD METER/RANGE/PPM	.5/ 13/ 1.
CO2 SAMPLE METER/RANGE/PCT	55.9/ 1/1.2123
CO2 BCKGRD METER/RANGE/PCT	2.6/ 1/ .0459
NOX SAMPLE METER/RANGE/PPM	5.2/ 1/ 1.4
NOX BCKGRD METER/RANGE/PPM	1.1/ 1/ .3
DILUTION FACTOR	9.82
THC CONCENTRATION PPM	10.
CO CONCENTRATION PPM	114.
CO2 CONCENTRATION PCT	1.1711
NOX CONCENTRATION PPM	1.1
THC MASS GRAMS	1.29
CO MASS GRAMS	14.97
CO2 MASS GRAMS	2422.9
NOX MASS GRAMS	.23
RUN TIME SECONDS	766.
DFC, WET (DRY)	.898 (.884)
SCF, WET (DRY)	1.000 (.964)
VOL (SCM)	113.0
SAM BLR (SCM)	.00
MI (MEASURED)	10.33

TEST NUMBER.	82VBL-01
BAROMETER.	MM HG 737.1
HUMIDITY.	G/KG 9.6
TEMPERATURE.	DEG C 24.4
CARBON DIOXIDE.	G/MI 234.5
FUEL ECONOMY.	MPG 20.8
HYDROCARBONS. (THC)	G/MI .13
CARBON MONOXIDE.	G/MI 1.45
OXIDES OF NITROGEN.	G/MI .02

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NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 28-2346-001

TEST NO. 82VBL-01 RUN 1
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 12/20/90
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
ABS. HUMIDITY 11.5 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 29457. KM(18304. MILES)
C = .449 H = .127 O = .424
FUEL DENSITY = 6.61
NOX HUMIDITY CORRECTION FACTOR 1.03

BAROMETER 736.85 MM HG(29.01 IN HG)
RELATIVE HUMIDITY 56. PCT

BAG RESULTS

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	789.9 (31.1)
BLOWER INLET P MM. H2O(IN. H2O)	784.9 (30.9)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)
BLOWER REVOLUTIONS	47730.
TOT FLOW STD. CU. METRES(SCF)	58.1 (3110.)
THC SAMPLE METER/RANGE/PPM	13.0/ 2/ 13.
THC BCKGRD METER/RANGE/PPM	11.7/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	5.9/ 12/ 6.
CO BCKGRD METER/RANGE/PPM	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	68.3/ 14/ .4760
CO2 BCKGRD METER/RANGE/PCT	13.6/ 14/ .0462
NOX SAMPLE METER/RANGE/PPM	1.4/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3
DILUTION FACTOR	25.18
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	5.
CO2 CONCENTRATION PCT	.4317
NOX CONCENTRATION PPM	.1
THC MASS GRAMS	.17
CO MASS GRAMS	.49
CO2 MASS GRAMS	696.1
NOX MASS GRAMS	.01
RUN TIME	597.
DFC, WET (DRY)	.960 (.943)
SCF, WET (DRY)	1.000 (.974)
VOL (SCM)	88.1
SAM BLR (SCM)	.00
MI (MEASURED)	1.18

TEST NUMBER,	82VBL-01
BAROMETER, MM HG	736.9
HUMIDITY, G/KG	11.5
TEMPERATURE, DEG C	25.0
CARBON DIOXIDE, G/MI	590.9
FUEL ECONOMY, MPG	8.3

HYDROCARBONS, (THC) G/MI	.15
CARBON MONOXIDE, G/MI	.42
OXIDES OF NITROGEN, G/MI	.01

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FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B2FHC-01 RUN
VEHICLE MODEL 89 CROWN VICTORIA
ENGINE 4.9 L(302. CID) V-8
TRANSMISSION A4

VEHICLE NO.95
DATE 5/ 2/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1928. KG(4250. LBS)
ACTUAL ROAD LOAD 9.4 KW(12.6 HP)
GASOLINE EM-1179-F
ODOMETER 0. KM(0. MILES)

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.7 GM/KG

MOX HUMIDITY CORRECTION FACTOR 1.03

BAG NUMBER
DESCRIPTION

1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
44.4 (112.0)	43.3 (110.0)	44.4 (112.0)	43.9 (111.0)
39951.	68687.	39943.	68644.
71.0 (2507.)	122.5 (4325.)	71.0 (2507.)	122.2 (4315.)
16.3/ 2/ 16.	12.2/ 2/ 12.	13.3/ 2/ 13.	12.5/ 2/ 12.
10.3/ 2/ 10.	10.8/ 2/ 11.	11.1/ 2/ 11.	11.1/ 2/ 11.
51.2/ 12/ 51.	.6/ 12/ 1.	13.1/ 12/ 13.	1.6/ 12/ 2.
.5/ 12/ 1.	.5/ 12/ 1.	1.8/ 12/ 2.	1.6/ 12/ 2.
80.3/ 1/1.4848	91.7/ 14/ .9091	67.8/ 1/1.2539	91.3/ 14/ .8990
2.6/ 1/ .0455	12.8/ 14/ .0430	2.5/ 1/ .0437	13.4/ 14/ .0454
62.9/ 1/ 15.8	29.1/ 1/ 7.4	62.5/ 1/ 15.7	29.0/ 1/ 7.3
.3/ 1/ .1	.3/ 1/ .1	.6/ 1/ .2	.5/ 1/ .1
7.99	13.08	9.48	13.23
7.	2.	3.	2.
47.	0.	11.	0.
1.4450	.8694	1.2148	.8571
15.7	7.3	15.5	7.2
.59	.31	.27	.31
3.91	.02	.89	.01
1878.4	1949.7	1578.9	1917.5
2.20	1.76	2.18	1.74
.17	.08	.08	.08
1.09	.00	.25	.00
523.7	504.7	439.3	495.2
.61	.46	.61	.45
9.04	9.23	9.42	10.81
504.	868.	504.	868.
3.59	7.45	3.86	7.47
.953	.959	.963	.961
	.906(.887)		.913(.894)
	193.5/ .00		193.2/ .00

COMPOSITE RESULTS

TEST NUMBER B2FHC-01
BAROMETER MM HG 738.1
HUMIDITY G/KG 11.7
TEMPERATURE DEG C 22.8

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	490.7	(487.9)
FUEL ECONOMY	MPG	9.68	(9.73)
HYDROCARBONS (THC)	G/MI	.10	(.10)
CARBON MONOXIDE	G/MI	.30	(.30)
OXIDES OF NITROGEN	G/MI	.53	(.53)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B2VJM-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.63 MM HG(29.08 IN HG)
RELATIVE HUMIDITY 61. PCT
BAG RESULTS

VEHICLE NO. M100
DATE 5/ 9/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 10.5 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 29512. KM(18338. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .99

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60622.
TOT FLOW STD. CU. METRES(SCF)	108.2 (3821.)
THC SAMPLE METER/RANGE/PPM	13.9/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	15.1/ 2/ 15.
CO SAMPLE METER/RANGE/PPM	53.5/ 12/ 53.
CO BCKGRD METER/RANGE/PPM	3.9/ 12/ 4.
CO2 SAMPLE METER/RANGE/PCT	64.5/ 1/1.1935
CO2 BCKGRD METER/RANGE/PCT	3.0/ 1/ .0526
NOX SAMPLE METER/RANGE/PPM	3.3/ 1/ .9
NOX BCKGRD METER/RANGE/PPM	2.1/ 1/ .6
DILUTION FACTOR	9.93
THC CONCENTRATION PPM	0.
CO CONCENTRATION PPM	47.
CO2 CONCENTRATION PCT	1.1462
NOX CONCENTRATION PPM	.4
THC MASS GRAMS	.04
CO MASS GRAMS	5.92
CO2 MASS GRAMS	2270.7
NOX MASS GRAMS	.08
RUN TIME SECONDS	765.
DPC, WET (DRY)	.899 (.882)
SCF, WET (DRY)	1.000 (.959)
VOL (SCH)	108.2
SAM BLR (SCH)	.00
MI (MEASURED)	10.15

TEST NUMBER,	B2VJM-01
BAROMETER, MM HG	738.6
HUMIDITY, G/KG	10.5
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	223.7
FUEL ECONOMY, MPG	21.2

HYDROCARBONS, (THC) G/MI	.00
CARBON MONOXIDE, G/MI	.58
OXIDES OF NITROGEN, G/MI	.01

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PROJECT 08-3381-001

TEST NO. B2VJH-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.63 MM HG(29.08 IN HG)
RELATIVE HUMIDITY 65. PCT
TAG RESULTS

TEST CYCLE

BLOWER DIF P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPM
THC BCKGRD METER/RANGE/PPM
CO SAMPLE METER/RANGE/PPM
CO BCKGRD METER/RANGE/PPM
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPM
NOX BCKGRD METER/RANGE/PPM
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCH)
SAM BLR (SCH)
MI (MEASURED)

VEHICLE NO.M100
DATE 5/ 9/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 10.8 GM/KG

NYCC

1066.8 (42.0)
1117.6 (44.0)
42.2 (108.0)
47502.
85.1 (3005.)
14.2/ 2/ 14.
14.6/ 2/ 15.
3.3/ 12/ 3.
3.4/ 12/ 3.
67.9/ 14/ .4706
15.6/ 14/ .0544
7.7/ 1/ 2.0
2.3/ 1/ .6
25.22
0.
0.
.4184
1.4
.02
.00
651.9
.23
599.
.960 (.940)
1.000 (.971)
85.1
.00
1.13

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 29530. KM(18349. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.00

TEST NUMBER,
BAROMETER, MM HG
HUMIDITY, G/KG
TEMPERATURE, DEG C
CARBON DIOXIDE, G/MI
FUEL ECONOMY, MPG

B2VJH-01
738.6
10.8
21.7
577.4
8.2

HYDROCARBONS, (THC) G/MI
CARBON MONOXIDE, G/MI
OXIDES OF NITROGEN, G/MI

.02
.00
.21

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PROJECT 08-3381-001

TEST NO. B2VJM-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 5/10/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EN-1179-F
ODOMETER 29531. KM(18350. MILES)

BAROMETER 738.38 MM HG(29.07 IN HG)
RELATIVE HUMIDITY 60. PCT

DRY BULB TEMP. 25.6 DEG C(78.0 DEG F)
ABS. HUMIDITY 12.8 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.07

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	44.4 (112.0)	40.6 (105.0)	43.9 (111.0)	43.3 (110.0)
BLOWER REVOLUTIONS	40103.	68815.	39945.	68719.
TOT FLOW STD. CU. METRES(SCF)	71.3 (2518.)	123.9 (4376.)	71.1 (2512.)	122.6 (4329.)
THC SAMPLE METER/RANGE/PPM	34.1/ 2/ 34.	14.6/ 2/ 15.	13.1/ 2/ 13.	12.2/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	17.0/ 2/ 17.	15.2/ 2/ 15.	13.5/ 2/ 13.	12.4/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	87.3/ 13/ 214.	2.9/ 12/ 3.	9.8/ 12/ 10.	1.4/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.4/ 13/ 1.	1.0/ 12/ 1.	.8/ 12/ 1.	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	93.3/ 14/ .9508	76.5/ 14/ .5985	87.9/ 14/ .8182	75.4/ 14/ .5806
CO2 BCKGRD METER/RANGE/PCT	12.6/ 14/ .0422	12.3/ 14/ .0411	12.6/ 14/ .0422	12.8/ 14/ .0430
NOX SAMPLE METER/RANGE/PPM	7.8/ 1/ 2.0	3.0/ 1/ .8	3.2/ 1/ .8	4.6/ 1/ 1.2
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2	.8/ 1/ .2	.7/ 1/ .2	.8/ 1/ .2
DILUTION FACTOR	12.22	19.84	14.52	20.47
THC CONCENTRATION PPM	18.	0.	1.	0.
CO CONCENTRATION PPM	203.	2.	9.	1.
CO2 CONCENTRATION PCT	.9121	.5595	.7789	.5397
NOX CONCENTRATION PPM	1.9	.6	.7	1.0
THC MASS GRAMS	1.51	.02	.04	.06
CO MASS GRAMS	16.87	.27	.72	.09
CO2 MASS GRAMS	1190.9	1269.5	1014.5	1211.4
NOX MASS GRAMS	.27	.15	.10	.25
THC GRAMS/MI	.42	.01	.01	.01
CO GRAMS/MI	4.69	.07	.20	.02
CO2 GRAMS/MI	331.1	328.2	282.9	314.0
NOX GRAMS/MI	.08	.04	.03	.07
FUEL ECONOMY IN MPG	14.02	14.26	14.48	15.89
RUN TIME SECONDS	505.	868.	504.	869.
MEASURED DISTANCE MI	3.60	7.46	3.59	7.44
SCF, DRY	.964	.968	.966	.969
DFC, WET (DRY)		.938(.920)		.944(.925)
TOT VOL (SCH) / SAM BLR (SCH)		195.2/ .00		193.7/ .00

COMPOSITE RESULTS

TEST NUMBER B2VJM-02
BAROMETER MM HG 738.4
HUMIDITY G/KG 12.8
TEMPERATURE DEG C 25.6

CARBON DIOXIDE	G/MI	316.4	(312.2)
FUEL ECONOMY	MPG	14.94	(15.14)
HYDROCARBONS (THC)	G/MI	.09	(.10)
CARBON MONOXIDE	G/MI	1.06	(1.05)
OXIDES OF NITROGEN	G/MI	.04	(.05)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B2VJH-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 63. PCT
BAG RESULTS

VEHICLE NO. M100
DATE 5/10/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
ABS. HUMIDITY 13.0 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 29556. KM(18365. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.08

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60631.
TOT FLOW STD. CU. METRES(SCF)	108.1 (3818.)
THC SAMPLE METER/RANGE/PPM	12.2/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	12.3/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	45.1/ 12/ 45.
CO BCKGRD METER/RANGE/PPM	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	64.3/ 1/1.1898
CO2 BCKGRD METER/RANGE/PCT	2.6/ 1/ .0455
NOX SAMPLE METER/RANGE/PPM	2.2/ 1/ .6
NOX BCKGRD METER/RANGE/PPM	.9/ 1/ .2
DILUTION FACTOR	9.96
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	42.
CO2 CONCENTRATION PCT	1.1489
NOX CONCENTRATION PPM	.4
THC MASS GRAMS	.14
CO MASS GRAMS	5.23
CO2 MASS GRAMS	2274.3
NOX MASS GRAMS	.08
RUN TIME SECONDS	767.
DPC, WET (DRY)	.900 (.881)
SCF, WET (DRY)	1.000 (.959)
VOL (SCH)	108.1
SAM BLR (SCH)	.00
MI (MEASURED)	10.19

TEST NUMBER,	B2VJH-02
BAROMETER, MM HG	738.1
HUMIDITY, G/KG	13.0
TEMPERATURE, DEG C	25.0
CARBON DIOXIDE, G/MI	223.3
FUEL ECONOMY, MPG	21.2
HYDROCARBONS, (THC) G/MI	.01
CARBON MONOXIDE, G/MI	.51
OXIDES OF NITROGEN, G/MI	.01

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NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B2VJH-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 63. PCT
BAG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPM
THC BCKGRD METER/RANGE/PPM
CO SAMPLE METER/RANGE/PPM
CO BCKGRD METER/RANGE/PPM
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPM
NOX BCKGRD METER/RANGE/PPM
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCM)
SAM BLR (SCM)
MI (MEASURED)

VEHICLE NO.M100
DATE 5/10/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
ABS. HUMIDITY 13.0 GM/KG

NYCC

1066.8 (42.0)
1117.6 (44.0)
43.3 (110.0)
47396.
84.5 (2984.)
12.2/ 2/ 12.
12.2/ 2/ 12.
1.0/ 12/ 1.
.7/ 12/ 1.
67.6/ 14/ .4666
12.9/ 14/ .0434
4.5/ 1/ 1.2
.7/ 1/ .2
25.45
0.
0.
.4249
1.0
.05
.03
657.5
.18
599.
.961 (.941)
1.000 (.971)
84.5
.00
1.15

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1179-F
ODOMETER 29573. KM(18376. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.08

TEST NUMBER,		B2VJH-02
BAROMETER,	MM HG	738.1
HUMIDITY,	G/KG	13.0
TEMPERATURE,	DEG C	25.0
CARBON DIOXIDE,	G/MI	569.9
FUEL ECONOMY,	MPG	8.3
HYDROCARBONS, (THC)	G/MI	.04
CARBON MONOXIDE,	G/MI	.03
OXIDES OF NITROGEN,	G/MI	.15

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PROJECT 08-3734-001

TEST NO. B2VDC-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 7/23/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 29945. KM(18607. MILES)

BAROMETER 744.22 MM HG(29.30 IN HG)
RELATIVE HUMIDITY 65. PCT

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.1 GH/KG

NOX HUMIDITY CORRECTION FACTOR 1.01

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)	38.3 (101.0)	42.2 (108.0)	39.4 (103.0)
BLOWER REVOLUTIONS	40117.	68861.	40034.	68667.
TOT FLOW STD. CU. METRES(SCF)	71.5 (2523.)	123.4 (4359.)	71.2 (2515.)	122.8 (4336.)
THC SAMPLE METER/RANGE/PPM	31.2/ 2/ 31.	14.8/ 2/ 15.	16.8/ 2/ 17.	14.4/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	10.7/ 2/ 11.	15.1/ 2/ 15.	10.4/ 2/ 10.	10.6/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	80.5/ 13/ 196.	16.5/ 12/ 17.	31.8/ 12/ 32.	19.8/ 12/ 20.
CO BCKGRD METER/RANGE/PPM	.3/ 13/ 1.	1.0/ 12/ 1.	.9/ 12/ 1.	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	94.2/ 14/ .9753	78.6/ 14/ .6341	91.3/ 14/ .8990	78.0/ 14/ .6237
CO2 BCKGRD METER/RANGE/PCT	13.8/ 14/ .0470	13.9/ 14/ .0474	14.3/ 14/ .0490	14.3/ 14/ .0490
NOX SAMPLE METER/RANGE/PPM	11.5/ 1/ 3.0	.6/ 1/ .2	.5/ 1/ .1	.4/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1	.6/ 1/ .2	.4/ 1/ .1	.4/ 1/ .1
DILUTION FACTOR	11.95	18.69	13.18	18.99
THC CONCENTRATION PPM	21.	1.	7.	4.
CO CONCENTRATION PPM	186.	15.	29.	18.
CO2 CONCENTRATION PCT	.9323	.5892	.8537	.5773
NOX CONCENTRATION PPM	2.9	.0	.0	.0
THC MASS GRAMS	1.75	.07	.59	.61
CO MASS GRAMS	15.44	2.15	2.44	2.59
CO2 MASS GRAMS	1219.7	1331.7	1113.3	1297.9
NOX MASS GRAMS	.40	.00	.00	.00
THC GRAMS/MI	.49	.02	.16	.16
CO GRAMS/MI	4.31	.55	.68	.66
CO2 GRAMS/MI	340.8	343.5	309.9	331.7
NOX GRAMS/MI	.11	.00	.00	.00
FUEL ECONOMY IN MPG	13.65	13.73	13.81	15.28
RUN TIME SECONDS	505.	868.	505.	868.
MEASURED DISTANCE MI	3.58	7.46	3.88	7.51
SCF, DRY	.962	.966	.968	.966
DPC, WET (DRY)		.935(.916)		.939(.919)
TOT VOL (SCM) / SAM BLR (SCM)		194.9/ .00		194.0/ .00

COMPOSITE RESULTS

TEST NUMBER B2VDC-01
BAROMETER MM HG 744.2
HUMIDITY G/KG 11.1
TEMPERATURE DEG C 22.2

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	333.7	(330.3)
FUEL ECONOMY	MPG	14.15	(14.29)
HYDROCARBONS (THC)	G/MI	.16	(.20)
CARBON MONOXIDE	G/MI	1.36	(1.40)
OXIDES OF NITROGEN	G/MI	.02	(.02)

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HFET - VEHICLE EMISSIONS RESULTS -

PROJECT 08-3734-001

TEST NO. B2VDC-01 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 744.47 MM HG(29.31 IN HG)

RELATIVE HUMIDITY 57. PCT

BAG RESULTS

TEST CYCLE

VEHICLE NO.M100

DATE 7/23/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)

ABS. HUMIDITY 9.8 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1179-F

ODOMETER 29969. KM(18622. MILES)

C = .436 H = .128 O = .437

FUEL DENSITY = 6.57

NOX HUMIDITY CORRECTION FACTOR .97

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	60595.
TOT FLOW STD. CU. METRES(SCF)	107.5 (3797.)
THC SAMPLE METER/RANGE/PPM	18.8/ 2/ 19.
THC BCKGRD METER/RANGE/PPM	9.9/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	46.4/ 12/ 46.
CO BCKGRD METER/RANGE/PPM	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	68.0/ 1/1.2576
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473
NOX SAMPLE METER/RANGE/PPM	2.8/ 1/ .7
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	9.42
THC CONCENTRATION PPM	10.
CO CONCENTRATION PPM	43.
CO2 CONCENTRATION PCT	1.2153
NOX CONCENTRATION PPM	.6
THC MASS GRAMS	1.23
CO MASS GRAMS	5.36
CO2 MASS GRAMS	2392.4
NOX MASS GRAMS	.12
RUN TIME SECONDS	766.
DPC, WET (DRY)	.894 (.877)
SCF, WET (DRY)	1.000 (.960)
VOL (SCH)	107.5
SAM BLR (SCH)	.00
MI (MEASURED)	10.20

TEST NUMBER,	B2VDC-01
BAROMETER, MM HG	744.5
HUMIDITY, G/KG	9.8
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	234.6
FUEL ECONOMY, MPG	20.2
HYDROCARBONS, (THC) G/MI	.12
CARBON MONOXIDE, G/MI	.53
OXIDES OF NITROGEN, G/MI	.01

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PROJECT 08-3734-001

TEST NO. B2VDC-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 744.47 MM HG(29.31 IN HG)
RELATIVE HUMIDITY 60. PCT
BAG RESULTS

VEHICLE NO.M100

DATE 7/23/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)

ABS. HUMIDITY 10.0 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1179-F

ODOMETER 29987. KM(18633. MILES)

C = .436 H = .128 O = .437

FUEL DENSITY = 6.57

NOX HUMIDITY CORRECTION FACTOR .98

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47575.
TOT FLOW STD. CU. METRES(SCF)	84.5 (2984.)
THC SAMPLE METER/RANGE/PPM	9.8/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	9.6/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	4.8/ 12/ 5.
CO BCKGRD METER/RANGE/PPM	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	70.6/ 14/ .5080
CO2 BCKGRD METER/RANGE/PCT	14.4/ 14/ .0494
NOX SAMPLE METER/RANGE/PPM	1.3/ 1/ .3
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	23.38
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	4.
CO2 CONCENTRATION PCT	.4607
NOX CONCENTRATION PPM	.2
THC MASS GRAMS	.06
CO MASS GRAMS	.38
CO2 MASS GRAMS	712.7
NOX MASS GRAMS	.03
RUN TIME SECONDS	601.
DPC, WET (DRY)	.957 (.939)
SCF, WET (DRY)	1.000 (.972)
VOL (SCH)	84.5
SAM BLR (SCH)	.00
MI (MEASURED)	1.16

TEST NUMBER,	B2VDC-01
BAROMETER, MM HG	744.5
HUMIDITY, G/KG	10.0
TEMPERATURE, DEG C	21.7
CARBON DIOXIDE, G/MI	615.7
FUEL ECONOMY, MPG	7.7
HYDROCARBONS, (THC) G/MI	.05
CARBON MONOXIDE, G/MI	.33
OXIDES OF NITROGEN, G/MI	.03

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PROJECT 08-3734-001

TEST NO. B2VDC-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 7/24/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30000. KM(18641. MILES)

BAROMETER 742.19 MM HG(29.22 IN HG)
RELATIVE HUMIDITY 65. PCT

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.02

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)	1041.4 (41.0)	1054.1 (41.5)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)	36.7 (98.0)	41.7 (107.0)	39.4 (103.0)
BLOWER REVOLUTIONS	40210.	68977.	40061.	68827.
TOT FLOW STD. CU. METRES(SCF)	71.5 (2524.)	123.7 (4370.)	71.1 (2512.)	122.7 (4333.)
THC SAMPLE METER/RANGE/PPM	33.5/ 2/ 33.	15.1/ 2/ 15.	17.4/ 2/ 17.	14.1/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	11.1/ 2/ 11.	12.0/ 2/ 12.	10.7/ 2/ 11.	10.7/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	72.9/ 13/ 175.	19.6/ 12/ 20.	36.2/ 12/ 36.	17.8/ 12/ 18.
CO BCKGRD METER/RANGE/PPM	.1/ 13/ 0.	.5/ 12/ 1.	.5/ 12/ 1.	.7/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	94.3/ 14/ .9781	78.3/ 14/ .6289	91.2/ 14/ .8965	78.3/ 14/ .6289
CO2 BCKGRD METER/RANGE/PCT	13.8/ 14/ .0470	13.9/ 14/ .0474	14.1/ 14/ .0482	14.2/ 14/ .0486
NOX SAMPLE METER/RANGE/PPM	11.2/ 1/ 2.9	.8/ 1/ .2	1.4/ 1/ .4	.6/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2	.8/ 1/ .2	.6/ 1/ .2	.6/ 1/ .2
DILUTION FACTOR	11.93	18.84	13.21	18.85
THC CONCENTRATION PPM	23.	4.	8.	4.
CO CONCENTRATION PPM	167.	18.	34.	16.
CO2 CONCENTRATION PCT	.9350	.5840	.8520	.5829
NOX CONCENTRATION PPM	2.8	.0	.2	.0
THC MASS GRAMS	1.91	.53	.61	.56
CO MASS GRAMS	13.88	2.65	2.81	2.35
CO2 MASS GRAMS	1223.7	1323.1	1109.5	1309.5
NOX MASS GRAMS	.38	.00	.03	.00
THC GRAMS/MI	.54	.14	.17	.14
CO GRAMS/MI	3.90	.69	.79	.61
CO2 GRAMS/MI	343.7	343.3	311.1	338.6
NOX GRAMS/MI	.11	.00	.01	.00
FUEL ECONOMY IN MPG	13.56	13.68	15.21	14.55
RUN TIME SECONDS	505.	868.	505.	868.
MEASURED DISTANCE MI	3.56	7.41	3.57	7.43
SCF, DRY	.962	.966	.963	.968
DPC, WET (DRY)		.936(.916)		.939(.919)
TOT VOL (SCM) / SAM BLR (SCM)		195.2/ .00		193.8/ .00

COMPOSITE RESULTS

TEST NUMBER B2VDC-02
BAROMETER MM HG 742.2
HUMIDITY G/KG 11.2
TEMPERATURE DEG C 22.2

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	334.5	(333.2)
FUEL ECONOMY	MPG	14.11	(14.17)
HYDROCARBONS (THC)	G/MI	.23	(.23)
CARBON MONOXIDE	G/MI	1.38	(1.35)
OXIDES OF NITROGEN	G/MI	.02	(.02)

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 PROJECT 08-3734-001

TEST NO. B2VDC-02 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 742.19 MM HG(29.22 IN HG)
 RELATIVE HUMIDITY 54. PCT
 BAG RESULTS

VEHICLE NO. M100
 DATE 7/24/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
 ABS. HUMIDITY 9.6 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 METHANOL EM-1179-F
 ODOMETER 30024. KM(18656. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .96

TEST CYCLE

HPET

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1130.3 (44.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60901.
TOT FLOW STD. CU. METRES(SCF)	107.6 (3799.)
THC SAMPLE METER/RANGE/PPM	18.6/ 2/ 19.
THC BCKGRD METER/RANGE/PPM	10.4/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	43.3/ 12/ 43.
CO BCKGRD METER/RANGE/PPM	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	67.5/ 1/1.2484
CO2 BCKGRD METER/RANGE/PCT	2.6/ 1/ .0455
NOX SAMPLE METER/RANGE/PPM	3.0/ 1/ .8
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1
DILUTION FACTOR	9.50
THC CONCENTRATION PPM	9.
CO CONCENTRATION PPM	40.
CO2 CONCENTRATION PCT	1.2077
NOX CONCENTRATION PPM	.7
THC MASS GRAMS	1.15
CO MASS GRAMS	5.06
CO2 MASS GRAMS	2379.0
NOX MASS GRAMS	.13
RUN TIME SECONDS	769.
DPC, WET (DRY)	.895 (.879)
SCF, WET (DRY)	1.000 (.961)
VOL (SCH)	107.6
SAM BLR (SCH)	.00
MI (MEASURED)	10.16

TEST NUMBER,	B2VDC-02
BAROMETER, MM HG	742.2
HUMIDITY, G/KG	9.6
TEMPERATURE, DEG C	22.8
CARBON DIOXIDE, G/MI	234.2
FUEL ECONOMY, MPG	20.2

HYDROCARBONS, (THC) G/MI	.11
CARBON MONOXIDE, G/MI	.50
OXIDES OF NITROGEN, G/MI	.01

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TEST NO. B2VDC-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 742.19 MM HG(29.22 IN HG)
RELATIVE HUMIDITY 54. PCT
BAG RESULTS

VEHICLE NO.M100
DATE 7/24/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 9.6 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30040. KM(18666. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .96

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47181.
TOT FLOW STD. CU. METRES(SCF)	83.5 (2948.)
THC SAMPLE METER/RANGE/PPH	9.7/ 2/ 10.
THC BCKGRD METER/RANGE/PPH	9.7/ 2/ 10.
CO SAMPLE METER/RANGE/PPH	4.2/ 12/ 4.
CO BCKGRD METER/RANGE/PPH	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	70.9/ 14/ .5123
CO2 BCKGRD METER/RANGE/PCT	13.7/ 14/ .0466
NOX SAMPLE METER/RANGE/PPH	1.2/ 1/ .3
NOX BCKGRD METER/RANGE/PPH	.8/ 1/ .2
DILUTION FACTOR	23.19
THC CONCENTRATION PPM	0.
CO CONCENTRATION PPM	4.
CO2 CONCENTRATION PCT	.4677
NOX CONCENTRATION PPM	.1
THC MASS GRAMS	.04
CO MASS GRAMS	.35
CO2 MASS GRAMS	715.0
NOX MASS GRAMS	.02
RUN TIME	596.
SECONDS	
DFC, WET (DRY)	.957 (.940)
SCF, WET (DRY)	1.000 (.974)
VOL (SCN)	83.5
SAM BLR (SCN)	.00
MI (MEASURED)	1.17

TEST NUMBER,	B2VDC-02
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG
HYDROCARBONS, (THC)	G/MI
CARBON MONOXIDE,	G/MI
OXIDES OF NITROGEN,	G/MI

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FTP - VEHICLE EMISSIONS RESULTS -
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EST NO. B2VHC-01A RUN
EHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
RANSMISSION A3

VEHICLE NO. M100
DATE 9/30/91
BAG CART NO. 2 / CVS NO. 2
DYMO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30148. KM(18733. MILES)

BAROMETER 746.00 MM HG(29.37 IN HG)
RELATIVE HUMIDITY 54. PCT

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 9.5 GR/KG

NOX HUMIDITY CORRECTION FACTOR .96

AG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	40.0 (104.0)	42.8 (109.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40083.	68708.	39951.	68508.
TOT FLOW STD. CU. METRES(SCF)	71.4 (2523.)	123.1 (4346.)	71.2 (2514.)	122.5 (4324.)
THC SAMPLE METER/RANGE/PPM	12.6/ 2/ 13.	12.3/ 2/ 12.	13.7/ 2/ 14.	11.6/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	10.0/ 2/ 10.	11.1/ 2/ 11.	10.9/ 2/ 11.	9.9/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	23.5/ 12/ 23.	26.4/ 12/ 26.	46.4/ 12/ 46.	29.4/ 12/ 29.
CO BCKGRD METER/RANGE/PPM	.8/ 12/ 1.	.7/ 12/ 1.	1.2/ 12/ 1.	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	55.2/ 1/1.0230	79.3/ 14/ .6464	92.0/ 14/ .9168	78.6/ 14/ .6341
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	13.3/ 14/ .0450	13.6/ 14/ .0462	13.2/ 14/ .0446
NOX SAMPLE METER/RANGE/PPM	19.2/ 1/ 4.9	.4/ 1/ .1	3.7/ 1/ 1.0	.3/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1	.3/ 1/ .1	.4/ 1/ .1	.0/ 1/ .0
DILUTION FACTOR	11.60	18.32	12.91	18.67
THC CONCENTRATION PPM	3.	2.	4.	2.
CO CONCENTRATION PPM	22.	25.	43.	28.
CO2 CONCENTRATION PCT	.9831	.6038	.8742	.5919
NOX CONCENTRATION PPM	4.8	.0	.9	.1
THC MASS GRAMS	.28	.25	.30	.31
CO MASS GRAMS	1.80	3.54	3.57	3.98
CO2 MASS GRAMS	1285.9	1360.7	1139.5	1326.9
NOX MASS GRAMS	.63	.01	.11	.02
THC GRAMS/MI	.08	.07	.08	.08
CO GRAMS/MI	.50	.91	1.00	1.02
CO2 GRAMS/MI	358.9	349.8	318.6	341.7
NOX GRAMS/MI	.18	.00	.03	.00
FUEL ECONOMY IN MPG	13.22	13.38	13.53	14.84
RUN TIME SECONDS	505.	868.	505.	867.
MEASURED DISTANCE MI	3.58	7.47	3.89	7.46
SCF, DRY	.965	.969	.971	.970
DFC, WET (DRY)		.934(.918)		.938(.921)
TOT VOL (SCM) / SAM BLR (SCM)		194.5/ .00		193.6/ .00

COMPOSITE RESULTS

TEST NUMBER B2VHC-01A
BAROMETER MM HG 746.0
HUMIDITY G/KG 9.5
TEMPERATURE DEG C 22.8

	3-BAG	(4-BAG)
CARBON DIOXIDE G/MI	343.2	(340.8)
FUEL ECONOMY MPG	13.80	(13.89)
HYDROCARBONS (THC) G/MI	.07	(.08)
CARBON MONOXIDE G/MI	.85	(.88)
OXIDES OF NITROGEN G/MI	.05	(.05)

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HFET - VEHICLE EMISSIONS RESULTS -
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TEST NO. B2VHC-01A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 744.98 MM HG(29.33 IN HG)
RELATIVE HUMIDITY 51. PCT
GAS RESULTS

VEHICLE NO. M100
DATE 9/30/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 9.3 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30172. KM(18748. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .95

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPM
THC BCKGRD METER/RANGE/PPM
CO SAMPLE METER/RANGE/PPM
CO BCKGRD METER/RANGE/PPM
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPM
NOX BCKGRD METER/RANGE/PPM
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DFC, WET (DRY)
SCF, WET (DRY)
VOL (SCM)
SAM BLR (SCM)
MI (MEASURED)

1054.1 (41.5)
1117.6 (44.0)
44.4 (112.0)
60333.
107.0 (3779.)
14.5/ 2/ 14.
9.7/ 2/ 10.
87.1/ 12/ 87.
1.3/ 12/ 1.
70.6/ 1/1.3052
2.4/ 1/ .0420
4.1/ 1/ 1.1
.3/ 1/ .1
9.06
6.
82.
1.2679
1.0
.72
10.16
2484.2
.20
764.
.890 (.875)
1.000 (.961)
107.0
.00
10.21

TEST NUMBER,
BAROMETER, MM HG
HUMIDITY, G/KG
TEMPERATURE, DEG C
CARBON DIOXIDE, G/MI
FUEL ECONOMY, MPG

B2VHC-01A
745.0
9.3
23.3
243.3
19.4

HYDROCARBONS, (THC) G/MI
CARBON MONOXIDE, G/MI
OXIDES OF NITROGEN, G/MI

.07
.99
.02

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PTP - VEHICLE EMISSIONS RESULTS -
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TEST NO. B2VHC-02A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 10/ 1/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30195. KM(18762. MILES)

BAROMETER 743.20 MM HG(29.26 IN HG)
RELATIVE HUMIDITY 54. PCT

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 10.0 GM/KG

NOX HUMIDITY CORRECTION FACTOR .98

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1130.3 (44.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)	40.0 (104.0)	42.8 (109.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40049.	68704.	39916.	68447.
TOT FLOW STD. CU. METRES(SCF)	71.0 (2507.)	122.5 (4327.)	70.8 (2501.)	121.7 (4297.)
THC SAMPLE METER/RANGE/PPH	13.1/ 2/ 13.	11.7/ 2/ 12.	12.2/ 2/ 12.	10.8/ 2/ 11.
THC BCKGRD METER/RANGE/PPH	10.8/ 2/ 11.	10.8/ 2/ 11.	11.1/ 2/ 11.	10.8/ 2/ 11.
CO SAMPLE METER/RANGE/PPH	22.0/ 12/ 22.	25.9/ 12/ 26.	23.2/ 12/ 23.	12.2/ 12/ 12.
CO BCKGRD METER/RANGE/PPH	1.4/ 12/ 1.	1.2/ 12/ 1.	1.3/ 12/ 1.	1.4/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	54.6/ 1/1.0120	78.9/ 14/ .6393	91.8/ 14/ .9116	78.7/ 14/ .6358
CO2 BCKGRD METER/RANGE/PCT	2.9/ 1/ .0508	14.4/ 14/ .0494	14.5/ 14/ .0498	14.6/ 14/ .0502
NOX SAMPLE METER/RANGE/PPH	18.7/ 1/ 4.8	.7/ 1/ .2	1.9/ 1/ .5	.7/ 1/ .2
NOX BCKGRD METER/RANGE/PPH	.6/ 1/ .2	.6/ 1/ .2	.7/ 1/ .2	.7/ 1/ .2
DILUTION FACTOR	11.73	18.52	13.02	18.67
THC CONCENTRATION PPM	3.	1.	2.	1.
CO CONCENTRATION PPM	20.	24.	21.	11.
CO2 CONCENTRATION PCT	.9655	.5926	.8657	.5883
NOX CONCENTRATION PPM	4.6	.0	.3	.0
THC MASS GRAMS	.26	.21	.16	.08
CO MASS GRAMS	1.63	3.39	1.73	1.49
CO2 MASS GRAMS	1255.2	1329.5	1122.5	1310.8
NOX MASS GRAMS	.61	.01	.04	.00
THC GRAMS/MI	.07	.05	.04	.02
CO GRAMS/MI	.46	.88	.48	.38
CO2 GRAMS/MI	352.4	345.2	313.2	337.2
NOX GRAMS/MI	.17	.00	.01	.00
FUEL ECONOMY IN MPG	13.46	13.59	15.14	14.57
RUN TIME SECONDS	505.	868.	505.	867.
MEASURED DISTANCE MI	3.56	7.41	3.58	7.47
SCF, DRY	.965	.969	.966	.970
DPC, WET (DRY)		.935(.918)		.938(.921)
TOT VOL (SCM) / SAM BLR (SCM)		193.5/ .00		192.5/ .00

COMPOSITE RESULTS

TEST NUMBER B2VHC-02A
BAROMETER MM HG 743.2
HUMIDITY G/KG 10.0
TEMPERATURE DEG C 23.3

	3-BAG	(4-BAG)
CARBON DIOXIDE G/MI	337.9	(335.6)
FUEL ECONOMY MPG	14.02	(14.13)
HYDROCARBONS (THC) G/MI	.06	(.05)
CARBON MONOXIDE G/MI	.68	(.54)
OXIDES OF NITROGEN G/MI	.04	(.04)

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

ST NO. B2VHC-01A RUN
HICLE MODEL 89 VW JETTA
GINE 1.8 L(110. CID) L-4
ANSMISSION A3

ROMETER 744.73 MM HG(29.32 IN HG)
LATIVE HUMIDITY 51. PCT
G RESULTS
TEST CYCLE

VEHICLE NO.M100
DATE 9/30/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 9.3 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1179-F
ODOMETER 30190. KM(18759. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .95

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	44.4 (112.0)
BLOWER REVOLUTIONS	47021.
TOT FLOW STD. CU. METRES(SCF)	83.4 (2944.)
THC SAMPLE METER/RANGE/PPM	8.5/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	8.2/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	6.4/ 12/ 6.
CO BCKGRD METER/RANGE/PPM	.3/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	71.7/ 14/ .5239
CO2 BCKGRD METER/RANGE/PCT	12.6/ 14/ .0422
NOX SAMPLE METER/RANGE/PPM	.5/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.4/ 1/ .1
DILUTION FACTOR	22.67
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	6.
CO2 CONCENTRATION PCT	.4835
NOX CONCENTRATION PPM	.0
THC MASS GRAMS	.06
CO MASS GRAMS	.58
CO2 MASS GRAMS	738.1
NOX MASS GRAMS	.00
RUN TIME	595.
SECONDS	
DFC, WET (DRY)	.956 (.940)
SCF, WET (DRY)	1.000 (.974)
VOL (SCH)	83.4
SAM BLR (SCH)	.00
MI (MEASURED)	1.18

TEST NUMBER,	B2VHC-01A
BAROMETER,	744.7
HUMIDITY,	9.3
TEMPERATURE,	23.3
CARBON DIOXIDE,	627.2
FUEL ECONOMY,	7.6
HYDROCARBONS, (THC)	.05
CARBON MONOXIDE,	.49
OXIDES OF NITROGEN,	.00

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2346-001

TEST NO. B1VBL-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 12/18/90
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1162-F
ODOMETER 29342. KM(18232. MILES)

BAROMETER 738.89 MM HG(29.09 IN HG)
RELATIVE HUMIDITY 26. PCT

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 4.6 GM/KG

NOX HUMIDITY CORRECTION FACTOR .83

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	789.9 (31.1)	800.1 (31.5)	800.1 (31.5)	800.1 (31.5)
BLOWER INLET P MM. H2O(IN. H2O)	784.9 (30.9)	795.0 (31.3)	795.0 (31.3)	795.0 (31.3)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)	38.3 (101.0)	40.0 (104.0)	38.3 (101.0)
BLOWER REVOLUTIONS	40529.	69479.	40500.	69442.
TOT FLOW STD. CU. METRES(SCF)	75.0 (2647.)	129.3 (4564.)	75.1 (2652.)	129.2 (4562.)
THC SAMPLE METER/RANGE/PPM	52.6/ 2/ 53.	15.3/ 2/ 15.	20.4/ 2/ 20.	14.9/ 2/ 15.
THC BCKGRD METER/RANGE/PPM	7.9/ 2/ 8.	7.9/ 2/ 8.	7.9/ 2/ 8.	8.1/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	63.7/ 14/ 294.	29.3/ 12/ 29.	69.6/ 12/ 69.	26.9/ 12/ 27.
CO BCKGRD METER/RANGE/PPM	.4/ 14/ 2.	.9/ 12/ 1.	.9/ 12/ 1.	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	95.5/ 14/ 1.0120	78.3/ 14/ .6289	90.7/ 14/ .8841	76.8/ 14/ .603
CO2 BCKGRD METER/RANGE/PCT	12.5/ 14/ .0418	12.4/ 14/ .0415	12.3/ 14/ .0411	12.2/ 14/ .040
NOX SAMPLE METER/RANGE/PPM	30.5/ 1/ 7.7	1.4/ 1/ .4	4.6/ 1/ 1.2	1.2/ 1/ .3
NOX BCKGRD METER/RANGE/PPM	1.0/ 1/ .3	.9/ 1/ .2	.7/ 1/ .2	.6/ 1/ .2
DILUTION FACTOR	12.81	21.16	15.01	22.05
THC CONCENTRATION PPM	45.	8.	13.	7.
CO CONCENTRATION PPM	285.	28.	67.	26.
CO2 CONCENTRATION PCT	.9735	.5894	.8458	.5646
NOX CONCENTRATION PPM	7.5	.1	1.0	.2
THC MASS GRAMS	1.96	.58	.56	.53
CO MASS GRAMS	24.85	4.17	5.84	3.69
CO2 MASS GRAMS	1336.0	1394.9	1163.0	1335.5
NOX MASS GRAMS	.89	.03	.12	.03
THC GRAMS/MI	.54	.15	.16	.14
CO GRAMS/MI	6.89	1.07	1.64	1.01
CO2 GRAMS/MI	370.5	357.4	326.2	345.2
NOX GRAMS/MI	.25	.01	.03	.01
FUEL ECONOMY IN MPG	23.15	23.92	26.93	26.19
25.54				
RUN TIME SECONDS	505.	867.	506.	868.
MEASURED DISTANCE MI	3.61	7.51	3.56	7.43
3.87				
SCF, DRY	.982	.984	.983	.985
.986				
DFC, WET (DRY)	.941(.933)		.947(.939)	
TOT VOL (SCM) / SAM BLR (SCM)	204.2/ .00		204.3/ .00	

COMPOSITE RESULTS

TEST NUMBER B1VBL-01
BAROMETER MM HG 738.9
HUMIDITY G/KG 4.6
TEMPERATURE DEG C 22.8

CARBON DIOXIDE	G/MI	351.6	(34
FUEL ECONOMY	MPG	24.90	(25
HYDROCARBONS (THC)	G/MI	.23	(
CARBON MONOXIDE	G/MI	2.43	(2
OXIDES OF NITROGEN	G/MI	.26	(

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2346-001

TEST NO. B1VBL-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 22. PCT
BAG RESULTS

VEHICLE NO. M100
DATE 12/18/90
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)
ABS. HUMIDITY 4.2 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1162-F
ODOMETER 29366. KM(18247. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR .82

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	800.1 (31.5)
BLOWER INLET P MM. H2O(IN. H2O)	795.0 (31.3)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)
BLOWER REVOLUTIONS	61359.
TOT FLOW STD. CU. METRES(SCF)	113.4 (4004.)
THC SAMPLE METER/RANGE/PPM	29.8/ 2/ 30.
THC BCKGRD METER/RANGE/PPM	8.0/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	67.4/ 13/ 161.
CO BCKGRD METER/RANGE/PPM	.4/ 13/ 1.
CO2 SAMPLE METER/RANGE/PCT	68.5/ 1/1.2612
CO2 BCKGRD METER/RANGE/PCT	2.4/ 1/ .0423
NOX SAMPLE METER/RANGE/PPM	4.5/ 1/ 1.2
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1
DILUTION FACTOR	10.47
THC CONCENTRATION PPM	23.
CO CONCENTRATION PPM	155.
CO2 CONCENTRATION PCT	1.2229
NOX CONCENTRATION PPM	1.1
THC MASS GRAMS	1.47
CO MASS GRAMS	20.48
CO2 MASS GRAMS	2539.1
NOX MASS GRAMS	.19
RUN TIME	767.
DFC, WET (DRY)	.904 (.898)
SCF, WET (DRY)	1.000 (.981)
VOL (SCM)	113.4
SAM BLR (SCM)	.00
MI (MEASURED)	10.17

TEST NUMBER,	B1VBL-01
BAROMETER, MM HG	738.1
HUMIDITY, G/KG	4.2
TEMPERATURE, DEG C	23.9
CARBON DIOXIDE, G/MI	249.6
FUEL ECONOMY, MPG	35.0
HYDROCARBONS, (THC) G/MI	.14
CARBON MONOXIDE, G/MI	2.01
OXIDES OF NITROGEN, G/MI	.02

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 NYCC - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-2346-001

TEST NO. B1VBL-01 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

VEHICLE NO. M100

DATE 12/18/90

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)

ABS. HUMIDITY 4.4 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

GASOLINE EM-1152-F

ODOMETER 25383. KM(16258. MILES)

C = .255 H = .134 O = .000

FUEL DENSITY = 8.16

NOX HUMIDITY CORRECTION FACTOR .83

BAROMETER 737.87 MM HG(29.95 IN HG)
 RELATIVE HUMIDITY 24. PCT

BAG RESULTS

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)
 BLOWER INLET P MM. H2O(IN. H2O)
 BLOWER INLET TEMP. DEG. C(DEG. F)
 BLOWER REVOLUTIONS

795.0 (31.3)
 789.9 (31.1)
 41.1 (106.0)
 47684.

TOT FLOW STD. CU. METRES(SCF)

88.2 (3113.)

THC SAMPLE METER/RANGE/PPM

11.8/ 2/ 12.

THC BCKGRD METER/RANGE/PPM

7.9/ 2/ 8.

CO SAMPLE METER/RANGE/PPM

10.3/ 12/ 10.

CO BCKGRD METER/RANGE/PPM

.4/ 12/ 0.

CO2 SAMPLE METER/RANGE/PCT

69.5/ 14/ .4925

CO2 BCKGRD METER/RANGE/PCT

12.1/ 14/ .3403

NOX SAMPLE METER/RANGE/PPM

.5/ 1/ .2

NOX BCKGRD METER/RANGE/PPM

.3/ 1/ .1

DILUTION FACTOR

27.09

THC CONCENTRATION PPM

4.

CO CONCENTRATION PPM

10.

CO2 CONCENTRATION PCT

.4537

NOX CONCENTRATION PPM

.1

THC MASS GRAMS

.21

CO MASS GRAMS

1.01

CO2 MASS GRAMS

732.3

NOX MASS GRAMS

.01

RUN TIME SECONDS

596.

DFC, WET (DRY)

.963 (.956)

SCF, WET (DRY)

1.000 (.988)

VOL (SCM)

33.2

SAM BLR (SCM)

.20

MI (MEASURED)

1.18

TEST NUMBER,

B1VBL-01

BAROMETER,

MM HG

737.9

HUMIDITY,

G/KG

4.4

TEMPERATURE,

DEG C

23.3

CARBON DIOXIDE,

G/MI

620.4

FUEL ECONOMY,

MPG

14.3

HYDROCARBONS, (THC)

G/MI

.18

CARBON MONOXIDE,

G/MI

.35

OXIDES OF NITROGEN,

G/MI

.01

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B1VJM-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 5/13/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1235-F
ODOMETER 29607. KM(18397. MILES)

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 68. PCT
BAG RESULTS

DRY BULB TEMP. 21.1 DEG C(70.0 DEG F)
ABS. HUMIDITY 11.0 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.01

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)	38.9 (102.0)	41.7 (107.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40133.	68920.	39993.	68807.
TOT FLOW STD. CU. METRES(SCF)	71.6 (2528.)	124.8 (4406.)	71.7 (2533.)	123.9 (4374.)
THC SAMPLE METER/RANGE/PPM	49.0/ 2/ 49.	13.5/ 2/ 13.	15.5/ 2/ 15.	13.7/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	12.6/ 2/ 13.	13.8/ 2/ 14.	14.5/ 2/ 14.	14.0/ 2/ 14.
CO SAMPLE METER/RANGE/PPM	56.4/ 14/ 255.	3.5/ 12/ 4.	15.0/ 12/ 15.	3.5/ 12/ 4.
CO BCKGRD METER/RANGE/PPM	.8/ 14/ 3.	3.4/ 12/ 3.	3.2/ 12/ 3.	3.5/ 12/ 4.
CO2 SAMPLE METER/RANGE/PCT	54.5/ 1/1.0102	78.5/ 14/ .6323	90.4/ 14/ .8768	77.2/ 14/ .6102
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	13.7/ 14/ .0466	13.7/ 14/ .0466	14.3/ 14/ .0490
NOX SAMPLE METER/RANGE/PPM	11.1/ 1/ 2.9	20.2/ 1/ 5.2	17.8/ 1/ 4.6	22.0/ 1/ 5.6
NOX BCKGRD METER/RANGE/PPM	1.5/ 1/ .4	1.7/ 1/ .4	1.7/ 1/ .4	2.4/ 1/ .6
DILUTION FACTOR	12.89	21.13	15.23	21.90
THC CONCENTRATION PPM	37.	0.	2.	0.
CO CONCENTRATION PPM	242.	0.	11.	0.
CO2 CONCENTRATION PCT	.9698	.5880	.8332	.5634
NOX CONCENTRATION PPM	2.5	4.7	4.1	5.0
THC MASS GRAMS	1.54	.03	.08	.02
CO MASS GRAMS	20.14	.03	.96	.02
CO2 MASS GRAMS	1271.2	1343.3	1094.3	1277.7
NOX MASS GRAMS	.35	1.14	.57	1.20
THC GRAMS/MI	.43	.01	.02	.01
CO GRAMS/MI	5.55	.01	.27	.00
CO2 GRAMS/MI	350.5	344.8	304.0	328.9
NOX GRAMS/MI	.10	.29	.16	.31
FUEL ECONOMY IN MPG	24.60	25.16	25.71	29.12
RUN TIME SECONDS	504.	868.	504.	868.
MEASURED DISTANCE MI	3.63	7.52	3.90	7.48
SCF, DRY	.969	.971	.972	.970
DPC, WET (DRY)		.942(.921)		.947(.926)
TOT VOL (SCM) / SAM BLR (SCM)		196.4/ .00		195.6/ .00

COMPOSITE RESULTS

TEST NUMBER B1VJM-01
BAROMETER MM HG 738.1
HUMIDITY G/KG 11.0
TEMPERATURE DEG C 21.1

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	334.8	(330.1)
FUEL ECONOMY	MPG	26.31	(26.68)
HYDROCARBONS (THC)	G/MI	.10	(.10)
CARBON MONOXIDE	G/MI	1.23	(1.23)
OXIDES OF NITROGEN	G/MI	.22	(.22)

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B1VJM-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 738.38 MM HG(29.07 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

VEHICLE NO. M100
DATE 5/13/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.2 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1235-F
ODOMETER 29633. KM(18413. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR 1.02

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	60776.
TOT FLOW STD. CU. METRES(SCF)	108.3 (3823.)
THC SAMPLE METER/RANGE/PPM	19.1/ 2/ 19.
THC BCKGRD METER/RANGE/PPM	13.0/ 2/ 13.
CO SAMPLE METER/RANGE/PPM	68.2/ 12/ 68.
CO BCKGRD METER/RANGE/PPM	3.0/ 12/ 3.
CO2 SAMPLE METER/RANGE/PCT	69.2/ 1/1.2796
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473
NOX SAMPLE METER/RANGE/PPM	14.0/ 1/ 3.6
NOX BCKGRD METER/RANGE/PPM	2.0/ 1/ .5
DILUTION FACTOR	10.40
THC CONCENTRATION PPM	7.
CO CONCENTRATION PPM	62.
CO2 CONCENTRATION PCT	1.2368
NOX CONCENTRATION PPM	3.1
THC MASS GRAMS	.46
CO MASS GRAMS	7.85
CO2 MASS GRAMS	2451.6
NOX MASS GRAMS	.66
RUN TIME	765.
SECONDS	
DPC, WET (DRY)	.904 (.885)
SCF, WET (DRY)	1.000 (.967)
VOL (SCH)	108.3
SAM BLR (SCH)	.00
MI (MEASURED)	10.26

TEST NUMBER,	B1VJM-01
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG
HYDROCARBONS, (THC)	G/MI
CARBON MONOXIDE,	G/MI
OXIDES OF NITROGEN,	G/MI

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 NYCC - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3381-001

TEST NO. B1VJM-01 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 738.38 MM HG(29.07 IN HG)
 RELATIVE HUMIDITY 65. PCT

SAG RESULTS

TEST CYCLE

VEHICLE NO. M100
 DATE 5/13/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
 ABS. HUMIDITY 11.2 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 GASOLINE EM-1235-F
 ODOMETER 29649. KM(18423. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR 1.02

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	47471.
TOT FLOW STD. CU. METRES(SCF)	85.0 (3002.)
THC SAMPLE METER/RANGE/PPM	13.4/ 2/ 13.
THC BCKGRD METER/RANGE/PPM	13.3/ 2/ 13.
CO SAMPLE METER/RANGE/PPM	5.7/ 12/ 6.
CO BCKGRD METER/RANGE/PPM	3.3/ 12/ 3.
CO2 SAMPLE METER/RANGE/PCT	68.9/ 14/ .4842
CO2 BCKGRD METER/RANGE/PCT	14.3/ 14/ .0490
NOX SAMPLE METER/RANGE/PPM	11.7/ 1/ 3.0
NOX BCKGRD METER/RANGE/PPM	2.0/ 1/ .5
DILUTION FACTOR	27.57
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	2.
CO2 CONCENTRATION PCT	.4370
NOX CONCENTRATION PPM	2.5
THC MASS GRAMS	.03
CO MASS GRAMS	.24
CO2 MASS GRAMS	680.1
NOX MASS GRAMS	.42
RUN TIME	599.
SECONDS	
DPC, WET (DRY)	.964 (.943)
SCF, WET (DRY)	1.000 (.975)
VOL (SCH)	85.0
SAM BLR (SCH)	.00
MI (MEASURED)	1.16

TEST NUMBER,	B1VJM-01
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG

HYDROCARBONS, (THC)	G/MI
CARBON MONOXIDE,	G/MI
OXIDES OF NITROGEN,	G/MI

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FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B1VJM-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 5/14/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1235-F
ODOMETER 29651. KM(18424. MILES)

BAROMETER 735.33 MM HG(28.95 IN HG)
RELATIVE HUMIDITY 69. PCT
BAG RESULTS

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 12.0 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.04

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.6 (105.0)	37.8 (100.0)	40.6 (105.0)	37.8 (100.0)
BLOWER REVOLUTIONS	40205.	68956.	39945.	68606.
TOT FLOW STD. CU. METRES(SCF)	72.1 (2545.)	124.8 (4406.)	71.6 (2528.)	124.1 (4382.)
THC SAMPLE METER/RANGE/PPM	42.5/ 2/ 42.	15.7/ 2/ 16.	16.5/ 2/ 16.	14.9/ 2/ 15.
THC BCKGRD METER/RANGE/PPM	14.8/ 2/ 15.	15.9/ 2/ 16.	15.3/ 2/ 15.	15.4/ 2/ 15.
CO SAMPLE METER/RANGE/PPM	92.8/ 13/ 229.	2.1/ 12/ 2.	14.2/ 12/ 14.	2.9/ 12/ 3.
CO BCKGRD METER/RANGE/PPM	.6/ 13/ 1.	2.1/ 12/ 2.	2.3/ 12/ 2.	2.8/ 12/ 3.
CO2 SAMPLE METER/RANGE/PCT	94.7/ 14/ .9892	77.7/ 14/ .6186	90.8/ 14/ .8866	77.7/ 14/ .6186
CO2 BCKGRD METER/RANGE/PCT	13.0/ 14/ .0438	13.6/ 14/ .0462	14.0/ 14/ .0478	14.2/ 14/ .0486
NOX SAMPLE METER/RANGE/PPM	17.4/ 1/ 4.5	17.0/ 1/ 4.4	16.0/ 1/ 4.1	12.0/ 1/ 3.1
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3	1.5/ 1/ .4	2.0/ 1/ .5	1.7/ 1/ .4
DILUTION FACTOR	13.20	21.60	15.06	21.60
THC CONCENTRATION PPM	29.	1.	2.	0.
CO CONCENTRATION PPM	218.	0.	12.	0.
CO2 CONCENTRATION PCT	.9488	.5746	.8420	.5723
NOX CONCENTRATION PPM	4.2	4.0	3.6	2.7
THC MASS GRAMS	1.20	.04	.09	.02
CO MASS GRAMS	18.30	.01	.96	.03
CO2 MASS GRAMS	1252.1	1312.5	1103.6	1300.1
NOX MASS GRAMS	.60	.99	.52	.66
THC GRAMS/MI	.33	.01	.03	.00
CO GRAMS/MI	5.10	.00	.27	.01
CO2 GRAMS/MI	349.0	338.8	308.7	338.3
NOX GRAMS/MI	.17	.26	.14	.17
FUEL ECONOMY IN MPG	24.77	25.48	26.17	28.68
RUN TIME SECONDS	505.	868.	504.	868.
MEASURED DISTANCE MI	3.59	7.46	3.57	7.42
SCF, DRY	.969	.971	.969	.971
DFC, WET (DRY)		.943(.922)		.946(.925)
TOT VOL (SCM) / SAM BLR (SCM)		196.9/ .00		195.7/ .00

COMPOSITE RESULTS

TEST NUMBER B1VJM-02
BAROMETER MM HG 735.3
HUMIDITY G/KG 12.0
TEMPERATURE DEG C 22.2

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	332.7	(332.5)
FUEL ECONOMY	MPG	26.49	(26.51)
HYDROCARBONS (THC)	G/MI	.08	(.08)
CARBON MONOXIDE	G/MI	1.13	(1.13)
OXIDES OF NITROGEN	G/MI	.21	(.18)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. B1VJM-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 735.58 MM HG(28.96 IN HG)
RELATIVE HUMIDITY 69. PCT

BAG RESULTS

TEST CYCLE

VEHICLE NO.M100

DATE 5/14/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)

ABS. HUMIDITY 12.5 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

GASOLINE EM-1235-F

ODOMETER 29676. KM(18440. MILES)

C = .866 H = .134 O = .000

FUEL DENSITY = 6.16

NOX HUMIDITY CORRECTION FACTOR 1.06

HFET

BLOWER DIF P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)

BLOWER REVOLUTIONS

TOT FLOW STD. CU. METRES(SCF)

THC SAMPLE METER/RANGE/PPM

THC BCKGRD METER/RANGE/PPM

CO SAMPLE METER/RANGE/PPM

CO BCKGRD METER/RANGE/PPM

CO2 SAMPLE METER/RANGE/PCT

CO2 BCKGRD METER/RANGE/PCT

NOX SAMPLE METER/RANGE/PPM

NOX BCKGRD METER/RANGE/PPM

DILUTION FACTOR

THC CONCENTRATION PPM

CO CONCENTRATION PPM

CO2 CONCENTRATION PCT

NOX CONCENTRATION PPM

THC MASS GRAMS

CO MASS GRAMS

CO2 MASS GRAMS

NOX MASS GRAMS

RUN TIME

SECONDS

DPC, WET (DRY)

SCF, WET (DRY)

VOL (SCH)

SAM BLR (SCH)

MI (MEASURED)

1066.8 (42.0)

1117.6 (44.0)

42.2 (108.0)

60564.

108.0 (3813.)

24.8/ 2/ 25.

17.1/ 2/ 17.

75.9/ 12/ 76.

2.4/ 12/ 2.

68.3/ 1/1.2631

2.9/ 1/ .0508

7.9/ 1/ 2.1

1.9/ 1/ .5

10.53

9.

70.

1.2171

1.6

.58

8.82

2406.0

.35

765.

.905 (.885)

1.000 (.966)

108.0

.00

10.18

B1VJM-02

TEST NUMBER,

BAROMETER,

MM HG

HUMIDITY,

G/KG

TEMPERATURE,

DEG C

CARBON DIOXIDE,

G/MI

FUEL ECONOMY,

MPG

735.6

12.5

22.8

236.5

37.3

HYDROCARBONS, (THC)

G/MI

.06

CARBON MONOXIDE,

G/MI

.87

OXIDES OF NITROGEN,

G/MI

.03

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PROJECT 08-3381-001

TEST NO. B1VJM-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 735.58 MM HG(28.96 IN HG)
RELATIVE HUMIDITY 69. PCT
BAG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPM
THC BCKGRD METER/RANGE/PPM
CO SAMPLE METER/RANGE/PPM
CO BCKGRD METER/RANGE/PPM
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPM
NOX BCKGRD METER/RANGE/PPM
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCM)
SAM BLR (SCM)
NI (MEASURED)

VEHICLE NO.M100
DATE 5/14/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 12.5 GM/KG

NYCC

1066.8 (42.0)
1117.6 (44.0)
42.8 (109.0)
47412.
84.4 (2979.)
15.9/ 2/ 16.
15.9/ 2/ 16.
6.3/ 12/ 6.
2.1/ 12/ 2.
69.9/ 14/ .4981
13.5/ 14/ .0458
6.4/ 1/ 1.7
1.2/ 1/ .3
26.79
1.
4.
.4540
1.4
.03
.41
701.3
.23
599.
.963 (.941)
1.000 (.973)
84.4
.00
1.15

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1235-F
ODOMETER 29692. KM(18450. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR 1.06

TEST NUMBER,
BAROMETER, MM HG
HUMIDITY, G/KG
TEMPERATURE, DEG C
CARBON DIOXIDE, G/MI
FUEL ECONOMY, MPG

B1VJM-02
735.6
12.5
22.8
607.8
14.6

HYDROCARBONS, (THC) G/MI
CARBON MONOXIDE, G/MI
OXIDES OF NITROGEN, G/MI

.03
.35
.20

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PROJECT 08-3734-001

TEST NO. B1VDC-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 7/22/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1273-F
ODOMETER 29887. KM(18571. MILES)

BAROMETER 743.97 MM HG(29.29 IN HG)
RELATIVE HUMIDITY 64. PCT
BAG RESULTS

DRY BULB TEMP. 21.1 DEG C(70.0 DEG F)
ABS. HUMIDITY 10.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR .98

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)	1041.4 (41.0)	1041.4 (41.0)	1041.4 (41.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)	40.6 (105.0)	42.8 (109.0)	40.0 (104.0)
BLOWER REVOLUTIONS	40160.	68905.	40041.	68715.
TOT FLOW STD. CU. METRES(SCF)	71.4 (2523.)	123.0 (4343.)	71.2 (2513.)	122.8 (4335.)
THC SAMPLE METER/RANGE/PPM	36.5/ 2/ 36.	20.4/ 2/ 20.	24.8/ 2/ 25.	20.0/ 2/ 20.
THC BCKGRD METER/RANGE/PPM	9.1/ 2/ 9.	10.3/ 2/ 10.	10.5/ 2/ 10.	10.8/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	58.9/ 13/ 139.	10.8/ 12/ 11.	28.0/ 12/ 28.	11.1/ 12/ 11.
CO BCKGRD METER/RANGE/PPM	.3/ 13/ 1.	.6/ 12/ 1.	.4/ 12/ 0.	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	57.9/ 1/1.0726	81.3/ 14/ .6828	93.9/ 14/ .9671	80.5/ 14/ .6680
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473	13.8/ 14/ .0470	14.0/ 14/ .0478	14.1/ 14/ .0482
NOX SAMPLE METER/RANGE/PPM	10.6/ 1/ 2.7	.2/ 1/ .1	.3/ 1/ .1	.3/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.1/ 1/ .0	.1/ 1/ .0	.0/ 1/ .0	.1/ 1/ .0
DILUTION FACTOR	12.30	19.54	13.78	19.97
THC CONCENTRATION PPM	28.	11.	15.	10.
CO CONCENTRATION PPM	133.	10.	26.	10.
CO2 CONCENTRATION PCT	1.0292	.6382	.9227	.6222
NOX CONCENTRATION PPM	2.7	.0	.1	.1
THC MASS GRAMS	1.16	.75	.62	.69
CO MASS GRAMS	11.05	1.42	2.19	1.49
CO2 MASS GRAMS	1346.3	1437.0	1202.4	1398.4
NOX MASS GRAMS	.37	.01	.01	.01
THC GRAMS/MI	.32	.19	.17	.18
CO GRAMS/MI	3.08	.36	.61	.39
CO2 GRAMS/MI	375.1	368.3	337.5	363.5
NOX GRAMS/MI	.10	.00	.00	.00
FUEL ECONOMY IN MPG	23.28	23.65	24.00	25.17
RUN TIME SECONDS	504.	867.	505.	867.
MEASURED DISTANCE MI	3.59	7.49	3.56	7.41
SCF, DRY	.969	.972	.970	.973
DPC, WET (DRY)		.938(.918)		.942(.922)
TOT VOL (SCM) / SAM BLR (SCM)		194.4/ .00		193.9/ .00

COMPOSITE RESULTS

TEST NUMBER B1VDC-03
BAROMETER MM HG 744.0
HUMIDITY G/KG 10.2
TEMPERATURE DEG C 21.1

CARBON DIOXIDE	G/MI	361.4	(359.9)
FUEL ECONOMY	MPG	24.39	(24.49)
HYDROCARBONS (THC)	G/MI	.21	(.21)
CARBON MONOXIDE	G/MI	.99	(1.00)
OXIDES OF NITROGEN	G/MI	.02	(.02)

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 PROJECT 08-3734-001

TEST NO. B1VDC-01 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 740.66 MM HG(29.16 IN HG)
 RELATIVE HUMIDITY 54. PCT
 BAG RESULTS

TEST CYCLE

BLOWER DIF P MM. H2O(IN. H2O)
 BLOWER INLET P MM. H2O(IN. H2O)
 BLOWER INLET TEMP. DEG. C(DEG. F)
 BLOWER REVOLUTIONS
 TOT FLOW STD. CU. METRES(SCF)
 THC SAMPLE METER/RANGE/PPM
 THC BCKGRD METER/RANGE/PPM
 CO SAMPLE METER/RANGE/PPM
 CO BCKGRD METER/RANGE/PPM
 CO2 SAMPLE METER/RANGE/PCT
 CO2 BCKGRD METER/RANGE/PCT
 NOX SAMPLE METER/RANGE/PPM
 NOX BCKGRD METER/RANGE/PPM
 DILUTION FACTOR
 THC CONCENTRATION PPM
 CO CONCENTRATION PPM
 CO2 CONCENTRATION PCT
 NOX CONCENTRATION PPM
 THC MASS GRAMS
 CO MASS GRAMS
 CO2 MASS GRAMS
 NOX MASS GRAMS
 RUN TIME SECONDS
 DPC, WET (DRY)
 SCF, WET (DRY)
 VOL (SCH)
 SAM BLR (SCH)
 MI (MEASURED)

VEHICLE NO.M100

DATE 7/18/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)

ABS. HUMIDITY 10.0 GM/KG

HFET

1066.8 (42.0)
 1130.3 (44.5)
 43.3 (110.0)
 60556.
 106.7 (3768.)
 25.0/ 2/ 25.
 13.1/ 2/ 13.
 76.0/ 12/ 76.
 .8/ 12/ 1.
 73.3/ 1/1.3549
 2.9/ 1/ .0508
 2.9/ 1/ .8
 .3/ 1/ .1
 9.82
 13.
 72.
 1.3092
 .7
 .81
 8.94
 2558.0
 .14
 766.
 .898 (.882)
 1.000 (.970)
 106.7
 .00
 10.12

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 GASOLINE EM-1273-F
 ODOMETER 29802. KM(18518. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR .98

TEST NUMBER,

BAROMETER, MM HG
 HUMIDITY, G/KG
 TEMPERATURE, DEG C
 CARBON DIOXIDE, G/MI
 FUEL ECONOMY, MPG

B1VDC-01

740.7
 10.0
 23.3
 252.8
 34.9

HYDROCARBONS, (THC) G/MI
 CARBON MONOXIDE, G/MI
 OXIDES OF NITROGEN, G/MI

.08
 .88
 .01

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NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B1VDC-01 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

BAROMETER 740.66 MM HG(29.16 IN HG)
RELATIVE HUMIDITY 54. PCT
BAG RESULTS

VEHICLE NO.M100
DATE 7/18/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 10.0 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1273-F
ODOMETER 29816. KM(18527. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR .98

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47519.
TOT FLOW STD. CU. METRES(SCF)	83.9 (2962.)
THC SAMPLE METER/RANGE/PPM	12.9/ 2/ 13.
THC BCKGRD METER/RANGE/PPM	12.4/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	5.2/ 12/ 5.
CO BCKGRD METER/RANGE/PPM	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	73.1/ 14/ .5448
CO2 BCKGRD METER/RANGE/PCT	15.5/ 14/ .0540
NOX SAMPLE METER/RANGE/PPM	1.5/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	.3/ 1/ .1
DILUTION FACTOR	24.52
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	4.
CO2 CONCENTRATION PCT	.4930
NOX CONCENTRATION PPM	.3
THC MASS GRAMS	.05
CO MASS GRAMS	.42
CO2 MASS GRAMS	757.3
NOX MASS GRAMS	.05
RUN TIME	601.
SECONDS	
DPC, WET (DRY)	.959 (.942)
SCF, WET (DRY)	1.000 (.977)
VOL (SCH)	83.9
SAM BLR (SCH)	.00
HI (MEASURED)	1.14

TEST NUMBER,	B1VDC-01
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG

HYDROCARBONS, (THC)	G/MI	.04
CARBON MONOXIDE,	G/MI	.37
OXIDES OF NITROGEN,	G/MI	.04

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B1VDC-02 RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO.M100
DATE 7/19/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
GASOLINE EM-1273-F
ODOMETER 29826. KM(18533. MILES)

BAROMETER 740.41 MM HG(29.15 IN HG)
RELATIVE HUMIDITY 60. PCT

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 10.1 GM/KG

NOX HUMIDITY CORRECTION FACTOR .98

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)	38.9 (102.0)	42.8 (109.0)	40.0 (104.0)
BLOWER REVOLUTIONS	40104.	68799.	40026.	68711.
TOT FLOW STD. CU. METRES(SCF)	71.1 (2510.)	122.5 (4324.)	70.7 (2497.)	122.0 (4309.)
THC SAMPLE METER/RANGE/PPM	43.7/ 2/ 44.	19.4/ 2/ 19.	23.7/ 2/ 24.	20.6/ 2/ 21.
THC BCKGRD METER/RANGE/PPM	8.7/ 2/ 9.	9.3/ 2/ 9.	9.9/ 2/ 10.	11.0/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	74.7/ 13/ 180.	9.2/ 12/ 9.	23.7/ 12/ 24.	10.3/ 12/ 10.
CO BCKGRD METER/RANGE/PPM	.4/ 13/ 1.	.9/ 12/ 1.	.8/ 12/ 1.	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	57.7/ 1/1.0690	81.4/ 14/ .6846	93.8/ 14/ .9643	80.5/ 14/ .6680
CO2 BCKGRD METER/RANGE/PCT	2.8/ 1/ .0490	14.5/ 14/ .0498	14.8/ 14/ .0510	15.1/ 14/ .0523
NOX SAMPLE METER/RANGE/PPM	12.2/ 1/ 3.2	.3/ 1/ .1	.4/ 1/ .1	.4/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.2/ 1/ .1	.2/ 1/ .1	.2/ 1/ .1	.3/ 1/ .1
DILUTION FACTOR	12.29	19.49	13.83	19.97
THC CONCENTRATION PPM	36.	11.	15.	10.
CO CONCENTRATION PPM	172.	8.	22.	9.
CO2 CONCENTRATION PCT	1.0239	.6374	.9170	.6183
NOX CONCENTRATION PPM	3.1	.0	.1	.0
THC MASS GRAMS	1.46	.75	.59	.71
CO MASS GRAMS	14.24	1.16	1.81	1.32
CO2 MASS GRAMS	1332.6	1428.9	1187.3	1381.3
NOX MASS GRAMS	.41	.01	.01	.01
THC GRAMS/MI	.41	.19	.17	.19
CO GRAMS/MI	3.96	.30	.51	.34
CO2 GRAMS/MI	370.4	366.7	333.6	359.6
NOX GRAMS/MI	.11	.00	.00	.00
FUEL ECONOMY IN MPG	23.47	23.80	24.12	25.46
RUN TIME SECONDS	505.	868.	505.	867.
MEASURED DISTANCE MI	3.60	7.50	3.90	7.40
SCF, DRY	.971	.973	.974	.974
DPC, WET (DRY)		.938(.919)		.942(.923)
TOT VOL (SCM) / SAM BLR (SCM)		193.5/ .00		192.7/ .00

COMPOSITE RESULTS

TEST NUMBER B1VDC-02
BAROMETER MM HG 740.4
HUMIDITY G/KG 10.1
TEMPERATURE DEG C 21.7

CARBON DIOXIDE	G/MI	358.4	(356.3)
FUEL ECONOMY	MPG	24.57	(24.72)
HYDROCARBONS (THC)	G/MI	.23	(.23)
CARBON MONOXIDE	G/MI	1.11	(1.12)
OXIDES OF NITROGEN	G/MI	.03	(.03)

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 HPET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3734-001

TEST NO. B1VDC-02 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 740.16 MM HG(29.14 IN HG)
 RELATIVE HUMIDITY 58. PCT
 BAG RESULTS

TEST CYCLE

VEHICLE NO. M100

DATE 7/19/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)

ABS. HUMIDITY 10.3 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 GASOLINE EM-1273-F
 ODOMETER 29852. KM(18549. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR .99

HPET

BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60618.
TOT FLOW STD. CU. METRES(SCF)	106.9 (3776.)
THC SAMPLE METER/RANGE/PPM	29.9/ 2/ 30.
THC BCKGRD METER/RANGE/PPM	9.7/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	66.5/ 12/ 66.
CO BCKGRD METER/RANGE/PPM	.6/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	74.7/ 1/1.3807
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473
NOX SAMPLE METER/RANGE/PPM	2.9/ 1/ .8
NOX BCKGRD METER/RANGE/PPM	.0/ 1/ .0
DILUTION FACTOR	9.64
THC CONCENTRATION PPM	21.
CO CONCENTRATION PPM	63.
CO2 CONCENTRATION PCT	1.3383
NOX CONCENTRATION PPM	.8
THC MASS GRAMS	1.31
CO MASS GRAMS	7.82
CO2 MASS GRAMS	2620.5
NOX MASS GRAMS	.15
RUN TIME SECONDS	765.
DPC, WET (DRY)	.896 (.880)
SCF, WET (DRY)	1.000 (.969)
VOL (SCH)	106.9
SAM BLR (SCH)	.00
MI (MEASURED)	10.24

TEST NUMBER,	B1VDC-02
BAROMETER, MM HG	740.2
HUMIDITY, G/KG	10.3
TEMPERATURE, DEG C	22.8
CARBON DIOXIDE, G/MI	255.8
FUEL ECONOMY, MPG	34.4

HYDROCARBONS, (THC) G/MI	.13
CARBON MONOXIDE, G/MI	.76
OXIDES OF NITROGEN, G/MI	.02

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 PROJECT 08-3734-001

TEST NO. B1VDC-02 RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 740.16 MM HG(29.14 IN HG)
 RELATIVE HUMIDITY 59. PCT
 BAG RESULTS

TEST CYCLE

VEHICLE NO.M100
 DATE 7/19/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 24.4 DEG C(76.0 DEG F)
 ABS. HUMIDITY 11.7 GM/KG

NYCC

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 GASOLINE EM-1273-F
 ODOMETER 29868. KM(18559. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR 1.03

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47311.
TOT FLOW STD. CU. METRES(SCF)	83.5 (2947.)
THC SAMPLE METER/RANGE/PPM	9.2/ 2/ 9.
THC BCKGRD METER/RANGE/PPM	8.6/ 2/ 9.
CO SAMPLE METER/RANGE/PPM	6.5/ 12/ 7.
CO BCKGRD METER/RANGE/PPM	.7/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	73.4/ 14/ .5493
CO2 BCKGRD METER/RANGE/PCT	13.3/ 14/ .0450
NOX SAMPLE METER/RANGE/PPM	1.2/ 1/ .3
NOX BCKGRD METER/RANGE/PPM	.1/ 1/ .0
DILUTION FACTOR	24.32
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	6.
CO2 CONCENTRATION PCT	.5062
NOX CONCENTRATION PPM	.3
THC MASS GRAMS	.05
CO MASS GRAMS	.55
CO2 MASS GRAMS	773.5
NOX MASS GRAMS	.05
RUN TIME SECONDS	598.
DPC, WET (DRY)	.959 (.941)
SCF, WET (DRY)	1.000 (.976)
VOL (SCM)	83.5
SAM BLR (SCM)	.00
MI (MEASURED)	1.15

TEST NUMBER,	B1VDC-02
BAROMETER, MM HG	740.2
HUMIDITY, G/KG	11.7
TEMPERATURE, DEG C	24.4
CARBON DIOXIDE, G/MI	671.9
FUEL ECONOMY, MPG	13.2

HYDROCARBONS, (THC) G/MI	.04
CARBON MONOXIDE, G/MI	.48
OXIDES OF NITROGEN, G/MI	.04

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TEST NO. B1VHC-01A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 10/ 2/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1273-F
ODOMETER 30267. KM(18807. MILES)

BAROMETER 739.90 MM HG(29.13 IN HG)
RELATIVE HUMIDITY 57. PCT
BAG RESULTS

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 9.8 GM/KG

NOX HUMIDITY CORRECTION FACTOR .97

BAG NUMBER DESCRIPTION	1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1054.1 (41.5)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1130.3 (44.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)	40.6 (105.0)	44.4 (112.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40148.	68808.	40056.	68573.
TOT FLOW STD. CU. METRES(SCF)	70.8 (2498.)	122.0 (4307.)	70.5 (2490.)	121.2 (4279.)
THC SAMPLE METER/RANGE/PPM	20.8/ 2/ 21.	15.3/ 2/ 15.	17.4/ 2/ 17.	17.8/ 2/ 18.
THC BCKGRD METER/RANGE/PPM	13.8/ 2/ 14.	12.8/ 2/ 13.	12.6/ 2/ 13.	20.9/ 2/ 21.
CO SAMPLE METER/RANGE/PPM	50.6/ 12/ 50.	25.7/ 12/ 26.	32.8/ 12/ 33.	18.9/ 12/ 19.
CO BCKGRD METER/RANGE/PPM	.8/ 12/ 1.	.9/ 12/ 1.	.9/ 12/ 1.	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	60.5/ 1/1.1203	83.0/ 14/ .7153	93.8/ 14/ .9643	80.3/ 14/ .6643
CO2 BCKGRD METER/RANGE/PCT	2.9/ 1/ .0508	14.5/ 14/ .0498	14.6/ 14/ .0502	14.6/ 14/ .0502
NOX SAMPLE METER/RANGE/PPM	24.0/ 1/ 6.1	.8/ 1/ .2	2.0/ 1/ .5	.4/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.8/ 1/ .2	.7/ 1/ .2	.5/ 1/ .1	.4/ 1/ .1
DILUTION FACTOR	11.89	18.63	13.83	20.06
THC CONCENTRATION PPM	8.	3.	6.	0.
CO CONCENTRATION PPM	48.	24.	31.	18.
CO2 CONCENTRATION PCT	1.0738	.6681	.9177	.6166
NOX CONCENTRATION PPM	5.9	.0	.4	.0
THC MASS GRAMS	.33	.22	.23	.00
CO MASS GRAMS	3.92	3.40	2.51	2.48
CO2 MASS GRAMS	1390.9	1492.1	1184.6	1368.0
NOX MASS GRAMS	.78	.01	.05	.00
THC GRAMS/MI	.09	.06	.07	.00
CO GRAMS/MI	1.11	.88	.71	.64
CO2 GRAMS/MI	393.0	387.7	333.1	353.8
NOX GRAMS/MI	.22	.00	.01	.00
FUEL ECONOMY IN MPG	25.76	25.96	30.42	29.49
RUN TIME SECONDS	505.	867.	506.	868.
MEASURED DISTANCE MI	3.54	7.39	3.56	7.42
SCF, DRY	.971	.974	.973	.974
DFC, WET (DRY)		.935(.918)		.942(.925)
TOT VOL (SCM) / SAM BLR (SCM)		192.7/ .00		191.7/ .00

COMPOSITE RESULTS

TEST NUMBER B1VHC-01A
BAROMETER MM HG 739.9
HUMIDITY G/KG 9.8
TEMPERATURE DEG C 22.2

CARBON DIOXIDE	G/MI	373.8	(363.8)
FUEL ECONOMY	MPG	27.10	(27.86)
HYDROCARBONS (THC)	G/MI	.07	(.05)
CARBON MONOXIDE	G/MI	.88	(.81)
OXIDES OF NITROGEN	G/MI	.05	(.05)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B1VHC-01A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100

DATE 10/ 2/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)

ABS. HUMIDITY 9.6 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1273-F

ODOMETER 30291. KM(18822. MILES)

C = .866 H = .134 O = .000

FUEL DENSITY = 7.07

NOX HUMIDITY CORRECTION FACTOR .96

BAROMETER 739.39 MM HG(29.11 IN HG)

RELATIVE HUMIDITY 54. PCT

BAG RESULTS

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)

1066.8 (42.0)

BLOWER INLET P MM. H2O(IN. H2O)

1130.3 (44.5)

BLOWER INLET TEMP. DEG. C(DEG. F)

44.4 (112.0)

BLOWER REVOLUTIONS

60513.

TOT FLOW STD. CU. METRES(SCF)

106.2 (3750.)

THC SAMPLE METER/RANGE/PPH

26.4/ 2/ 26.

THC BCKGRD METER/RANGE/PPH

16.8/ 2/ 17.

CO SAMPLE METER/RANGE/PPH

95.2/ 12/ 95.

CO BCKGRD METER/RANGE/PPH

.7/ 12/ 1.

CO2 SAMPLE METER/RANGE/PCT

73.0/ 1/1.3493

CO2 BCKGRD METER/RANGE/PCT

2.8/ 1/ .0490

NOX SAMPLE METER/RANGE/PPH

7.5/ 1/ 2.0

NOX BCKGRD METER/RANGE/PPH

.2/ 1/ .1

DILUTION FACTOR

9.84

THC CONCENTRATION PPM

11.

CO CONCENTRATION PPM

91.

CO2 CONCENTRATION PCT

1.3053

NOX CONCENTRATION PPM

1.9

THC MASS GRAMS

.69

CO MASS GRAMS

11.21

CO2 MASS GRAMS

2538.1

NOX MASS GRAMS

.37

RUN TIME SECONDS

767.

DFC, WET (DRY)

.898 (.883)

SCF, WET (DRY)

1.000 (.970)

VOL (SCH)

106.2

SAM BLR (SCH)

.00

NI (MEASURED)

10.01

TEST NUMBER,

B1VHC-01A

BAROMETER, MM HG

739.4

HUMIDITY, G/KG

9.6

TEMPERATURE, DEG C

22.8

CARBON DIOXIDE, G/MI

253.5

FUEL ECONOMY, MPG

39.8

HYDROCARBONS, (THC) G/MI

.07

CARBON MONOXIDE, G/MI

1.12

OXIDES OF NITROGEN, G/MI

.04

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TEST NO. B1VHC-01A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100

DATE 10/ 2/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)

ABS. HUMIDITY 10.0 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1273-F

ODOMETER 30307. KM(18832. MILES)

C = .866 H = .134 O = .000

FUEL DENSITY = 7.07

NOX HUMIDITY CORRECTION FACTOR .98

BAROMETER 739.14 MM HG(29.10 IN HG)

RELATIVE HUMIDITY 54. PCT

BAG RESULTS

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)

1054.1 (41.5)

BLOWER INLET P MM. H2O(IN. H2O)

1117.6 (44.0)

BLOWER INLET TEMP. DEG. C(DEG. F)

44.4 (112.0)

BLOWER REVOLUTIONS

47069.

TOT FLOW STD. CU. METRES(SCF)

82.7 (2922.)

THC SAMPLE METER/RANGE/PPM

23.5/ 2/ 23.

THC BCKGRD METER/RANGE/PPM

20.9/ 2/ 21.

CO SAMPLE METER/RANGE/PPM

47.5/ 12/ 47.

CO BCKGRD METER/RANGE/PPM

.5/ 12/ 1.

CO2 SAMPLE METER/RANGE/PCT

73.9/ 14/ .5570

CO2 BCKGRD METER/RANGE/PCT

14.8/ 14/ .0510

NOX SAMPLE METER/RANGE/PPM

1.2/ 1/ .3

NOX BCKGRD METER/RANGE/PPM

.0/ 1/ .0

DILUTION FACTOR

23.76

THC CONCENTRATION PPM

3.

CO CONCENTRATION PPM

45.

CO2 CONCENTRATION PCT

.5081

NOX CONCENTRATION PPM

.3

THC MASS GRAMS

.17

CO MASS GRAMS

4.38

CO2 MASS GRAMS

769.7

NOX MASS GRAMS

.05

RUN TIME

SECONDS

595.

DPC, WET (DRY)

.958 (.941)

SCF, WET (DRY)

1.000 (.977)

VOL (SCM)

82.7

SAM BLR (SCM)

.00

MI (MEASURED)

1.17

TEST NUMBER,

B1VHC-01A

BAROMETER,

MM HG

739.1

HUMIDITY,

G/KG

10.0

TEMPERATURE,

DEG C

23.3

CARBON DIOXIDE,

G/MI

659.0

FUEL ECONOMY,

MPG

15.3

HYDROCARBONS, (THC)

G/MI

.14

CARBON MONOXIDE,

G/MI

3.75

OXIDES OF NITROGEN,

G/MI

.04

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PROJECT 08-3734-001

TEST NO. B1VHC-02A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100
DATE 10/ 3/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
METHANOL EM-1273-F
ODOMETER 30314. KM(18836. MILES)

BAROMETER 739.90 MM HG(29.13 IN HG)
RELATIVE HUMIDITY 58. PCT
BAG RESULTS

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 10.7 GM/KG

MOX HUMIDITY CORRECTION FACTOR 1.00

BAG NUMBER DESCRIPTION	1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)	1041.4 (41.0)	1054.1 (41.5)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	40.6 (105.0)	43.9 (111.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40089.	68734.	39975.	68574.
TOT FLOW STD. CU. METRES(SCF)	70.8 (2499.)	121.9 (4304.)	70.4 (2487.)	121.4 (4287.)
THC SAMPLE METER/RANGE/PPM	18.4/ 2/ 18.	13.8/ 2/ 14.	18.4/ 2/ 18.	16.4/ 2/ 16.
THC BCKGRD METER/RANGE/PPM	10.4/ 2/ 10.	10.7/ 2/ 11.	12.9/ 2/ 13.	14.3/ 2/ 14.
CO SAMPLE METER/RANGE/PPM	42.3/ 12/ 42.	20.4/ 12/ 20.	41.4/ 12/ 41.	22.3/ 12/ 22.
CO BCKGRD METER/RANGE/PPM	1.1/ 12/ 1.	1.0/ 12/ 1.	.8/ 12/ 1.	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	60.3/ 1/1.1166	82.1/ 14/ .6979	93.9/ 14/ .9671	80.2/ 14/ .6625
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	13.6/ 14/ .0462	13.6/ 14/ .0462	13.4/ 14/ .0454
NOX SAMPLE METER/RANGE/PPM	24.1/ 1/ 6.1	1.2/ 1/ .3	4.0/ 1/ 1.1	.6/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3	1.0/ 1/ .3	.7/ 1/ .2	.6/ 1/ .2
DILUTION FACTOR	11.94	19.11	13.77	20.11
THC CONCENTRATION PPM	9.	4.	6.	3.
CO CONCENTRATION PPM	39.	19.	39.	21.
CO2 CONCENTRATION PCT	1.0766	.6541	.9242	.6194
NOX CONCENTRATION PPM	5.8	.1	.9	.0
THC MASS GRAMS	.36	.26	.26	.20
CO MASS GRAMS	3.24	2.67	3.19	2.98
CO2 MASS GRAMS	1395.0	1459.6	1191.7	1376.7
NOX MASS GRAMS	.79	.02	.12	.00
THC GRAMS/MI	.10	.07	.07	.05
CO GRAMS/MI	.91	.69	.89	.77
CO2 GRAMS/MI	389.9	376.9	332.5	353.5
NOX GRAMS/MI	.22	.00	.03	.00
FUEL ECONOMY IN MPG	25.98	26.46	30.45	29.50
RUN TIME SECONDS	506.	868.	505.	868.
MEASURED DISTANCE MI	3.58	7.45	3.58	7.48
SCF, DRY	.971	.973	.972	.974
DPC, WET (DRY)		.936(.919)		.942(.924)
TOT VOL (SCM) / SAM BLR (SCM)		192.7/ .00		191.8/ .00

COMPOSITE RESULTS

TEST NUMBER B1VHC-02A
BAROMETER MM HG 739.9
HUMIDITY G/KG 10.7
TEMPERATURE DEG C 23.3

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	367.4	(360.5)
FUEL ECONOMY	MPG	27.59	(28.11)
HYDROCARBONS (THC)	G/MI	.08	(.07)
CARBON MONOXIDE	G/MI	.79	(.81)
OXIDES OF NITROGEN	G/MI	.06	(.06)

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 HFET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3734-001

TEST NO. B1VHC-02A RUN
 VEHICLE MODEL 89 VW JETTA
 ENGINE 1.8 L(110. CID) L-4
 TRANSMISSION A3

BAROMETER 739.39 MM HG(29.11 IN HG)
 RELATIVE HUMIDITY 54. PCT
 BAG RESULTS

VEHICLE NO.M100
 DATE 10/ 3/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
 ABS. HUMIDITY 10.0 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)
 ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
 METHANOL EM-1273-F
 ODOMETER 30338. KM(18851. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 7.07
 NOX HUMIDITY CORRECTION FACTOR .98

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	44.4 (112.0)
BLOWER REVOLUTIONS	60510.
TOT FLOW STD. CU. METRES(SCF)	106.4 (3757.)
THC SAMPLE METER/RANGE/PPM	26.7/ 2/ 27.
THC BCKGRD METER/RANGE/PPM	16.0/ 2/ 16.
CO SAMPLE METER/RANGE/PPM	42.7/ 13/ 99.
CO BCKGRD METER/RANGE/PPM	.0/ 13/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.0/ 1/1.3678
CO2 BCKGRD METER/RANGE/PCT	2.6/ 1/ .0455
NOX SAMPLE METER/RANGE/PPM	9.6/ 1/ 2.5
NOX BCKGRD METER/RANGE/PPM	.8/ 1/ .2
DILUTION FACTOR	9.71
THC CONCENTRATION PPM	12.
CO CONCENTRATION PPM	95.
CO2 CONCENTRATION PCT	1.3270
NOX CONCENTRATION PPM	2.3
THC MASS GRAMS	.76
CO MASS GRAMS	11.75
CO2 MASS GRAMS	2585.1
NOX MASS GRAMS	.46
RUN TIME SECONDS	766.
DPC, WET (DRY)	.897 (.881)
SCF, WET (DRY)	1.000 (.970)
VOL (SCM)	106.4
SAM BLR (SCM)	.00
MI (MEASURED)	10.26

TEST NUMBER,	B1VHC-02A
BAROMETER, MM HG	739.4
HUMIDITY, G/KG	10.0
TEMPERATURE, DEG C	23.3
CARBON DIOXIDE, G/MI	252.0
FUEL ECONOMY, MPG	40.1

HYDROCARBONS, (THC) G/MI	.07
CARBON MONOXIDE, G/MI	1.15
OXIDES OF NITROGEN, G/MI	.04

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NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. B1VHC-02A RUN
VEHICLE MODEL 89 VW JETTA
ENGINE 1.8 L(110. CID) L-4
TRANSMISSION A3

VEHICLE NO. M100

DATE 10/ 3/91

BAG CART NO. 2

DYNO NO. 3

CVS NO. 2

DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)

ABS. HUMIDITY 11.2 GM/KG

TEST WEIGHT 1247. KG(2750. LBS)

ACTUAL ROAD LOAD 5.2 KW(7.0 HP)

METHANOL EM-1273-F

ODOMETER 30355. KM(18862. MILES)

C = .866 H = .134 O = .000

FUEL DENSITY = 7.07

NOX HUMIDITY CORRECTION FACTOR 1.02

BAROMETER 739.14 MM HG(29.10 IN HG)

RELATIVE HUMIDITY 59. PCT

BAG RESULTS

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	1041.4 (41.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	44.4 (112.0)
BLOWER REVOLUTIONS	47046.
TOT FLOW STD. CU. METRES(SCF)	82.7 (2921.)
THC SAMPLE METER/RANGE/PPM	24.4/ 2/ 24.
THC BCKGRD METER/RANGE/PPM	20.6/ 2/ 21.
CO SAMPLE METER/RANGE/PPM	56.3/ 12/ 56.
CO BCKGRD METER/RANGE/PPM	.1/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	73.5/ 14/ .5509
CO2 BCKGRD METER/RANGE/PCT	12.5/ 14/ .0418
NOX SAMPLE METER/RANGE/PPM	1.9/ 1/ .5
NOX BCKGRD METER/RANGE/PPM	.0/ 1/ .0
DILUTION FACTOR	23.98
THC CONCENTRATION PPM	5.
CO CONCENTRATION PPM	54.
CO2 CONCENTRATION PCT	.5108
NOX CONCENTRATION PPM	.5
THC MASS GRAMS	.22
CO MASS GRAMS	5.23
CO2 MASS GRAMS	773.6
NOX MASS GRAMS	.08
RUN TIME	595.
SECONDS	
DPC, WET (DRY)	.958 (.940)
SCF, WET (DRY)	1.000 (.976)
VOL (SCM)	82.7
SAM BLR (SCM)	.00
MI (MEASURED)	1.16

TEST NUMBER,	B1VHC-02A
BAROMETER, MM HG	739.1
HUMIDITY, G/KG	11.2
TEMPERATURE, DEG C	23.9
CARBON DIOXIDE, G/MI	664.8
FUEL ECONOMY, MPG	15.1
HYDROCARBONS, (THC) G/MI	.19
CARBON MONOXIDE, G/MI	4.49
OXIDES OF NITROGEN, G/MI	.07

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PROJECT 08-5102-001

NO. J2HC/OEM-1 RUN
CLE MODEL 89 VW JETTA
NE 1.8 L(110. CID) L-4
SMISSION A3

VEHICLE NO. M100
DATE 11/ 3/92
BAG CART NO. 2 / CVS NO. 8
DYNO NO. 2

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
M85 EM-1179-F
ODOMETER 30956. KM(19235. MILES)

METER 734.82 MM HG(28.93 IN HG)
TIVE HUMIDITY 56. PCT

DRY BULB TEMP. 21.1 DEG C(70.0 DEG F)
ABS. HUMIDITY 9.1 GM/KG

NOX HUMIDITY CORRECTION FACTOR .95

RESULTS

AG NUMBER

DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
LOWER DIF P MM. H2O(IN. H2O)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)
LOWER INLET P MM. H2O(IN. H2O)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)
LOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)	41.1 (106.0)	41.1 (106.0)	38.9 (102.0)
LOWER REVOLUTIONS	19160.	32861.	19117.	32832.
OT FLOW STD. CU. METRES(SCF)	131.1 (4629.)	225.5 (7962.)	131.2 (4632.)	226.6 (8002.)
HC SAMPLE METER/RANGE/PPM	13.6/ 2/ 14.	11.6/ 2/ 12.	10.4/ 2/ 10.	11.1/ 2/ 11.
HC BCKGRD METER/RANGE/PPM	9.1/ 2/ 9.	11.5/ 2/ 11.	9.8/ 2/ 10.	10.9/ 2/ 11.
O SAMPLE METER/RANGE/PPM	39.0/ 12/ 38.	10.1/ 12/ 10.	16.0/ 12/ 15.	9.4/ 12/ 9.
O BCKGRD METER/RANGE/PPM	1.7/ 12/ 2.	1.4/ 12/ 1.	1.4/ 12/ 1.	1.7/ 12/ 2.
O2 SAMPLE METER/RANGE/PCT	76.8/ 14/ .6035	60.6/ 14/ .3804	72.1/ 14/ .5298	59.9/ 14/ .3725
O2 BCKGRD METER/RANGE/PCT	14.0/ 14/ .0478	14.1/ 14/ .0482	14.0/ 14/ .0478	14.1/ 14/ .0482
OX SAMPLE METER/RANGE/PPM	12.0/ 1/ 3.0	.4/ 1/ .1	4.7/ 1/ 1.2	.2/ 1/ .1
OX BCKGRD METER/RANGE/PPM	.5/ 1/ .1	.4/ 1/ .1	.3/ 1/ .1	.2/ 1/ .1
ILUTION FACTOR	19.57	31.13	22.37	31.79
HC CONCENTRATION PPM	5.	0.	1.	1.
O CONCENTRATION PPM	35.	8.	14.	7.
O2 CONCENTRATION PCT	.5581	.3338	.4841	.3259
OX CONCENTRATION PPM	2.9	.0	1.1	.0
HC MASS GRAMS	.746	.121	.156	.141
O MASS GRAMS	5.355	2.136	2.084	1.902
O2 MASS GRAMS	1339.7	1378.1	1162.6	1352.1
OX MASS GRAMS	.689	.001	.264	.001
HC GRAMS/MI	.207	.031	.043	.036
O GRAMS/MI	1.490	.553	.580	.492
O2 GRAMS/MI	372.8	356.9	323.5	349.9
OX GRAMS/MI	.192	.000	.073	.000
UEL ECONOMY IN MPG	12.665	12.980	14.654	14.063
UN TIME SECONDS	505.	867.	505.	868.
EASURED DISTANCE MI	3.59	7.46	3.59	7.46
CF, DRY	.971	.974	.973	.975
DPC, WET (DRY)		.961(.944)		.964(.946)
TOT VOL (SCM) / SAM BLR (SCM)		356.6/ .00		357.8/ .00

SITE RESULTS

EST NUMBER J2HC/OEM-1
AROMETER MM HG 734.8
UMIDITY G/KG 9.1
EMPERATURE DEG C 21.1

CARBON DIOXIDE	G/MI	3-BAG	(4-BAG)
FUEL ECONOMY	MPG	351.0	(349.0)
HYDROCARBONS (TEC)	G/MI	13.496	(13.58)
CARBON MONOXIDE	G/MI	.071	(.07)
OXIDES OF NITROGEN	G/MI	.755	(.74)
		.060	(.06)

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PROJECT 08-5102-001

NO. J2HC/OEM-2 RUN
CLE MODEL 89 VW JETTA
NE 1.3 L(110. CID) L-4
SMISSION A3

VEHICLE NO. M100
DATE 11/ 4/92
BAG CART NO. 2 / CVS NO. 8
DYNO NO. 2

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
M85 EM-1179-F
ODOMETER 30980. KM(19250. MILES)

METER 746.25 MM HG(29.38 IN HG)
TIVE HUMIDITY 32. PCT
RESULTS

DRY BULB TEMP. 20.6 DEG C(69.0 DEG F)
ABS. HUMIDITY 4.9 GM/KG

NOX HUMIDITY CORRECTION FACTOR .84

AG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
LOWER DIF P MM. H2O(IN. H2O)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)
LOWER INLET P MM. H2O(IN. H2O)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)
LOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)	40.0 (104.0)	38.9 (102.0)	38.9 (102.0)
LOWER REVOLUTIONS	19126.	32897.	19119.	32849.
OT FLOW STD. CC. METRES(SCF)	133.7 (4721.)	230.7 (8144.)	134.4 (4747.)	231.0 (8156.)
HC SAMPLE METER/RANGE/PPM	13.9/ 2/ 14.	8.4/ 2/ 8.	8.8/ 2/ 9.	9.1/ 2/ 9.
HC BCKGRD METER/RANGE/PPM	7.4/ 2/ 7.	8.2/ 2/ 8.	7.9/ 2/ 8.	8.6/ 2/ 9.
O SAMPLE METER/RANGE/PPM	37.6/ 12/ 37.	10.2/ 12/ 10.	18.1/ 12/ 17.	12.0/ 12/ 12.
O BCKGRD METER/RANGE/PPM	.4/ 12/ 0.	.3/ 12/ 0.	.4/ 12/ 0.	.3/ 12/ 0.
O2 SAMPLE METER/RANGE/PCT	75.9/ 14/ .5887	59.7/ 14/ .3703	71.3/ 14/ .5181	59.1/ 14/ .3637
O2 BCKGRD METER/RANGE/PCT	12.8/ 14/ .0430	12.9/ 14/ .0434	12.9/ 14/ .0434	12.9/ 14/ .0434
OX SAMPLE METER/RANGE/PPM	10.1/ 1/ 2.5	.1/ 1/ .0	4.8/ 1/ 1.2	.1/ 1/ .0
OX BCKGRD METER/RANGE/PPM	.3/ 1/ .1	.0/ 1/ .0	.2/ 1/ .1	.1/ 1/ .0
ILUTION FACTOR	20.06	32.00	22.87	32.56
HC CONCENTRATION PPM	7.	0.	1.	1.
O CONCENTRATION PPM	35.	9.	17.	11.
O2 CONCENTRATION PCT	.5478	.3283	.4765	.3216
OX CONCENTRATION PPM	2.5	.0	1.2	.0
HC MASS GRAMS	1.052	.121	.192	.202
O MASS GRAMS	5.479	2.497	2.606	2.959
O2 MASS GRAMS	1341.1	1386.2	1173.0	1360.0
OX MASS GRAMS	.530	.009	.250	.000
HC GRAMS/MI	.294	.031	.054	.053
O GRAMS/MI	1.533	.652	.728	.771
O2 GRAMS/MI	375.2	361.8	327.6	354.2
OX GRAMS/MI	.148	.002	.070	.000
FUEL ECONOMY IN MPG	12.578	12.843	14.460	13.877
RUN TIME SECONDS	504.	868.	505.	868.
MEASURED DISTANCE MI	3.57	7.41	3.58	7.42
CF, DRY	.979	.982	.980	.983
DFC, WET (DRY)		.962(.952)		.965(.954)
TOT VOL (SCH) / SAM BLR (SCH)		364.4/ .00		365.4/ .00

OSITE RESULTS

TEST NUMBER J2HC/OEM-2
BAROMETER MM HG 746.3
HUMIDITY G/KG 4.9
TEMPERATURE DEG C 20.6

CARBON DIOXIDE	G/MI	355.2	(352.9)
FUEL ECONOMY	MPG	13.331	(13.41)
HYDROCARBONS (THC)	G/MI	.092	(.10)
CARBON MONOXIDE	G/MI	.856	(.89)
OXIDES OF NITROGEN	G/MI	.051	(.05)

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PROJECT 08-5102-001

ST NO. J2HC/DC-1 RUN
HICLE MODEL 89 VW JETTA
GINE 1.8 L(110. CID) L-4
ANSMISSION A3

VEHICLE NO.M100
DATE 11/ 5/92
BAG CART NO. 2 / CYS NO. 8
DYNO NO. 2

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
M85 EM-1179-F
ODOMETER 31051. KM(19294. MILES)

BAROMETER 746.76 MM HG(29.40 IN HG)
RELATIVE HUMIDITY 20. PCT

DRY BULB TEMP. 22.3 DEG C(73.0 DEG F)
ABS. HUMIDITY 3.5 GM/KG

NOX HUMIDITY CORRECTION FACTOR .81

3 RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)
BLOWER INLET P MM. H2O(IN. H2O)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	41.7 (107.0)	40.0 (104.0)	38.9 (102.0)
BLOWER REVOLUTIONS	19142.	32878.	19129.	32844.
TOT FLOW STD. CU. METRES(SCF)	133.3 (4708.)	229.7 (8109.)	134.2 (4739.)	231.1 (8161.)
THC SAMPLE METER/RANGE/PPM	8.8/ 2/ 9.	8.2/ 2/ 8.	7.6/ 2/ 8.	8.0/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	8.3/ 2/ 8.	7.9/ 2/ 8.	7.2/ 2/ 7.	7.8/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	12.1/ 12/ 12.	6.0/ 12/ 6.	8.3/ 12/ 8.	6.9/ 12/ 7.
CO BCKGRD METER/RANGE/PPM	1.3/ 12/ 1.	1.3/ 12/ 1.	1.0/ 12/ 1.	1.3/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	76.2/ 14/ .5936	59.9/ 14/ .3725	71.7/ 14/ .5239	59.4/ 14/ .3670
CO2 BCKGRD METER/RANGE/PCT	14.1/ 14/ .0482	13.8/ 14/ .0470	13.5/ 14/ .0458	13.5/ 14/ .0458
NOX SAMPLE METER/RANGE/PPM	12.2/ 1/ 3.1	.8/ 1/ .2	5.5/ 1/ 1.4	.9/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	.9/ 1/ .2	.6/ 1/ .2	1.0/ 1/ .3	.9/ 1/ .2
DILUTION FACTOR	19.99	31.85	22.66	32.32
THC CONCENTRATION PPM	1.	1.	1.	0.
CO CONCENTRATION PPM	10.	4.	7.	5.
CO2 CONCENTRATION PCT	.5478	.3270	.4801	.3226
NOX CONCENTRATION PPM	2.8	.1	1.1	.0
THC MASS GRAMS	.140	.144	.110	.117
CO MASS GRAMS	1.580	1.188	1.074	1.425
CO2 MASS GRAMS	1337.2	1375.1	1179.8	1365.2
NOX MASS GRAMS	.587	.019	.237	.002
THC GRAMS/MI	.039	.037	.031	.030
CO GRAMS/MI	.441	.308	.298	.368
CO2 GRAMS/MI	373.3	356.4	327.1	352.5
NOX GRAMS/MI	.164	.005	.066	.001
FUEL ECONOMY IN MPG	12.711	13.021	14.515	13.952
RUN TIME SECONDS	505.	868.	505.	868.
MEASURED DISTANCE MI	3.58	7.44	3.61	7.48
SCF, DRY	.983	.986	.984	.986
DPC, WET (DRY)		.962(.956)		.964(.958)
TOT VOL (SCM) / SAM BLR (SCM)		363.0/ .00		365.4/ .00

OSITE RESULTS

TEST NUMBER J2HC/DC-1
BAROMETER MM HG 746.8
HUMIDITY G/KG 3.5
TEMPERATURE DEG C 22.8

CARBON DIOXIDE	G/MI	351.8	(350.7)
FUEL ECONOMY	MPG	13.493	(13.54)
HYDROCARBONS (THC)	G/MI	.036	(.03)
CARBON MONOXIDE	G/MI	.333	(.35)
OXIDES OF NITROGEN	G/MI	.055	(.05)

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PROJECT 08-5102-001

TEST NO. J2HC/DC-2 RUN
VEHICLE MODEL 39 VW JETTA
ENGINE 1.8 L(110. CID) L-4
EMISSION A3

VEHICLE NO. M100
DATE 11/ 6/92
BAG CART NO. 2 / CVS NO. 8
DYNO NO. 2

TEST WEIGHT 1247. KG(2750. LBS)
ACTUAL ROAD LOAD 5.2 KW(7.0 HP)
M85 EM-1179-F
ODOMETER 31075. KM(19309. MILES)

BAROMETER 748.54 MM HG(29.47 IN HG)
RELATIVE HUMIDITY 22. PCT

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 3.7 GM/KG

NOX HUMIDITY CORRECTION FACTOR .81

RESULTS	1	2	3	4
BAG NUMBER	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
DESCRIPTION				
BLOWER DIF P MM. H2O(IN. H2O)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)	1295.4 (51.0)
BLOWER INLET P MM. H2O(IN. H2O)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)	965.2 (38.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	41.7 (107.0)	42.2 (108.0)	38.9 (102.0)
BLOWER REVOLUTIONS	19155.	32871.	19124.	32835.
TOT FLOW STD. CU. METRES(SCF)	133.8 (4724.)	230.3 (8130.)	133.7 (4723.)	231.7 (8182.)
THC SAMPLE METER/RANGE/PPM	8.2/ 2/ 8.	7.2/ 2/ 7.	7.2/ 2/ 7.	8.1/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	6.8/ 2/ 7.	7.2/ 2/ 7.	6.9/ 2/ 7.	7.9/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	12.9/ 12/ 12.	6.7/ 12/ 6.	7.7/ 12/ 7.	6.8/ 12/ 6.
CO BCKGRD METER/RANGE/PPM	.4/ 12/ 0.	.4/ 12/ 0.	.6/ 12/ 1.	.6/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	76.1/ 14/ .5919	59.7/ 14/ .3703	71.8/ 14/ .5254	59.2/ 14/ .3648
CO2 BCKGRD METER/RANGE/PCT	13.3/ 14/ .0450	12.9/ 14/ .0434	12.7/ 14/ .0426	12.8/ 14/ .0430
NOX SAMPLE METER/RANGE/PPM	12.3/ 1/ 3.1	.5/ 1/ .1	4.8/ 1/ 1.2	.5/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2	.5/ 1/ .1	.4/ 1/ .1	.5/ 1/ .1
DILUTION FACTOR	20.05	32.04	22.60	32.52
THC CONCENTRATION PPM	2.	0.	1.	0.
CO CONCENTRATION PPM	12.	6.	7.	6.
CO2 CONCENTRATION PCT	.5492	.3283	.4846	.3231
NOX CONCENTRATION PPM	2.9	.0	1.1	.0
THC MASS GRAMS	.267	.059	.093	.118
CO MASS GRAMS	1.828	1.588	1.037	1.575
CO2 MASS GRAMS	1345.3	1383.8	1186.7	1370.5
NOX MASS GRAMS	.607	.001	.230	.001
THC GRAMS/MI	.075	.015	.026	.031
CO GRAMS/MI	.513	.414	.289	.409
CO2 GRAMS/MI	377.1	360.4	330.6	355.7
NOX GRAMS/MI	.170	.000	.064	.000
FUEL ECONOMY IN MPG	12.578	12.878	13.17	14.359
RUN TIME SECONDS	505.	868.	505.	868.
MEASURED DISTANCE MI	3.57	7.41	3.84	7.44
SCF, DRY	.983	.985	.986	.986
DFC, WET (DRY)		.962(.955)		.964(.958)
TOT VOL (SCM) / SAM BLR (SCM)		364.1/ .00		365.5/ .00

ON-SITE RESULTS

TEST NUMBER J2HC/DC-2
BAROMETER MM HG 748.5
HUMIDITY G/KG 3.7
TEMPERATURE DEG C 22.2

CARBON DIOXIDE	G/MI	355.7	(354.3)
FUEL ECONOMY	MPG	13.344	(13.39)
HYDROCARBONS (THC)	G/MI	.031	(.04)
CARBON MONOXIDE	G/MI	.400	(.40)
OXIDES OF NITROGEN	G/MI	.053	(.05)

APPENDIX 0
SUMMARIES OF TASK 3 ALDEHYDE/KETONE EMISSIONS

TABLE O-1. SUMMARY OF TOYOTA CAMRY TASK 3 ALDEHYDE/KETONE EMISSION TEST RESULTS

Date	Test No.	Fuel	Catalyst	Test Cycle	Form. (mg/ml)	Acet. (mg/ml)	Acrolein (mg/ml)	Acetone (mg/ml)	Propion. (mg/ml)	Croton. (mg/ml)	Isobuty. & Mek (mg/ml)	Benz. (mg/ml)	Hexan. (mg/ml)
5/01/91	TDC0K-01	M85	Degussa	FTP	7.7	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0
5/01/91	TDC0K-01	M85	Degussa	HFET	0.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0
5/01/91	TDC0K-01	M85	Degussa	NYCC	1.4	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0
5/02/91	TDC0K-02	M85	Degussa	FTP	5.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/02/91	TDC0K-02	M85	Degussa	HFET	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/02/91	TDC0K-02	M85	Degussa	NYCC	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/10/91	TDC2K-01	M85	Degussa	FTP	4.6	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0
5/10/91	TDC2K-01	M85	Degussa	HFET	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/10/91	TDC2K-01	M85	Degussa	NYCC	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/11/91	TDC2K-02	M85	Degussa	FTP	4.8	0.2	0.0	0.0	0.0	0.0	0.2	0.5	0.0
5/11/91	TDC2K-02	M85	Degussa	HFET	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/11/91	TDC2K-02	M85	Degussa	NYCC	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/20/91	TDC4K-01	M85	Degussa	FTP	4.6	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5/20/91	TDC4K-01	M85	Degussa	HFET	0.5	0.2	0.0	0.5	0.0	0.0	0.3	0.0	0.0
5/20/91	TDC4K-01	M85	Degussa	NYCC	2.7	0.1	0.0	2.1	0.0	0.0	1.4	0.0	0.0
5/21/91	TDC4K-02	M85	Degussa	FTP	5.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/21/91	TDC4K-02	M85	Degussa	HFET	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/21/91	TDC4K-02	M85	Degussa	NYCC	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/08/91	TDC4K-1R	M85	Degussa	FTP	5.8	0.3	0.0	0.5	0.0	0.0	0.0	0.2	0.0
10/08/91	TDC4K-1R	M85	Degussa	HFET	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
10/08/91	TDC4K-1R	M85	Degussa	NYCC	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
10/09/91	TDC4K-2R	M85	Degussa	FTP	5.4	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.0
10/09/91	TDC4K-2R	M85	Degussa	HFET	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
10/09/91	TDC4K-2R	M85	Degussa	NYCC	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

TABLE O-2. SUMMARY OF CHEVROLET CORSICA TASK 3 ALDEHYDE/KETONE EMISSION TEST RESULTS

Date	Test No.	Fuel	Catalyst	Test Cycle	Form. (mg/ml)	Acet. (mg/ml)	Acrolein (mg/ml)	Acetone (mg/ml)	Propion. (mg/ml)	Croton. (mg/ml)	Isobuty. & Mek (mg/ml)	Benz. (mg/ml)	Hexan. (mg/ml)
10/29/91	C1HC0K-01	Howell EEE	Camet	FTP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10/29/91	C1HC0K-01	Howell EEE	Camet	HFET	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
10/29/91	C1HC0K-01	Howell EEE	Camet	NYCC	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
11/08/91	C1HC0K-02	Howell EEE	Camet	FTP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/08/91	C1HC0K-02	Howell EEE	Camet	HFET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/08/91	C1HC0K-02	Howell EEE	Camet	NYCC	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
11/11/91	C2HC0K-02	M85	Camet	FTP	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
11/11/91	C2HC0K-02	M85	Camet	HFET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/11/91	C2HC0K-02	M85	Camet	NYCC	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0
11/12/91	C2HC0K-02	M85	Camet	FTP	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
11/12/91	C2HC0K-02	M85	Camet	HFET	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/12/91	C2HC0K-02	M85	Camet	NYCC	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0
01/09/92	C2HC2K-01	M85	Camet	FTP	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
01/09/92	C2HC2K-01	M85	Camet	HFET	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/09/92	C1HC2K-01	M85	Camet	NYCC	<0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/10/92	C1HC2K-02	M85	Camet	FTP	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/10/92	C2HC2K-02	M85	Camet	HFET	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
01/10/92	C2HC2K-02	M85	Camet	NYCC	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
02/25/92	C2HC4K-01	M85	Camet	FTP	1.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
02/25/92	C2HC4K-01	M85	Camet	HFET	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
02/25/92	C2HC4K-01	M85	Camet	NYCC	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0
02/26/92	C2HC4K-02	M85	Camet	FTP	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
02/26/92	C2HC4K-02	M85	Camet	HFET	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
02/26/92	C2HC4K-02	M85	Camet	NYCC	0.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0

TABLE O-3. SUMMARY OF CROWN VICTORIA #1 TASK 3 ALDEHYDE/KETONE EMISSION TEST RESULTS

Date	Test No.	Fuel	Catalyst	Test Cycle	Form. (mg/ml)	Acet. (mg/ml)	Acrolein (mg/ml)	Acetone (mg/ml)	Propion. (mg/ml)	Croton. (mg/ml)	Isobuty. & Mek (mg/ml)	Benz. (mg/ml)	Hexan. (mg/ml)
11/10/92	F2HC0K-01	M85	CAMET	FTP	8.1	0.5	0.0	2.3	0.0	0.0	0.6	0.0	0.0
11/10/92	F2HC0K-01	M85	CAMET	HFET	0.1	0.1	0.0	0.9	0.0	0.0	0.2	0.0	0.0
11/10/92	F2HC0K-01	M85	CAMET	NYCC	3.5	1.8	0.0	8.1	0.0	0.0	1.8	0.0	0.0
11/11/92	F2HC0K-02	M85	CAMET	FTP	6.2	0.0	0.0	1.4	0.0	0.0	0.2	0.0	0.0
11/11/92	FFHC0K-02	M85	CAMET	HFET	0.8	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.0
11/11/92	F2HC0K-02	M85	CAMET	NYCC	0.0	0.6	0.0	8.0	0.0	0.0	1.0	0.0	0.0
11/12/92	F1HC0K-01	HOWELL EEE	CAMET	FTP	0.8	0.2	0.0	0.5	0.0	0.0	0.1	0.2	0.1
11/12/92	F1HC0K-01	HOWELL EEE	CAMET	HFET	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
11/12/92	F1HC9K-01	HOWELL EEE	CAMET	NYCC	0.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
11/13/92	F1HC0K-02	HOWELL EEE	CAMET	FTP	0.5	0.2	0.0	1.3	0.0	0.0	0.1	0.1	0.0
11/13/92	F1HC0K-02	HOWELL EEE	CAMET	HFET	0.1	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0
11/13/92	F1HC0K-02	HOWELL EEE	CAMET	NYCC	0.0	0.0	0.0	5.0	0.0	0.0	0.3	0.0	0.0
2/9/93	F2HC2K-01	M85	CAMET	FTP	5.9	0.1	0.0	0.8	0.0	0.0	0.1	0.0	0.0
2/9/93	F2HC2K-01	M85	CAMET	HFET	0.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0
2/9/93	F2HC2K-01	M85	CAME	NYCC	1.8	0.0	0.0	2.0	0.0	0.0	0.4	0.0	0.0
2/10/93	F2HC2K-02	M85	CAMET	FTP	4.1	0.1	0.0	1.0	0.1	0.0	0.2	0.0	0.0
2/10/93	F2HC2K-02	M85	CAMET	HFET	0.4	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
2/19/93	F2HC2K-02	M85	CAMET	HYCC	1.4	0.3	0.0	4.0	0.0	0.0	1.0	0.0	0.0
5/07/93	F2HC4K-01	M85	CAMET	FTP	5.6	0.1	0.1	0.9	0.0	0.0	0.3	0.0	0.0
5/07/93	F2HC4K-01	M85	CAMET	HFET	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/07/93	F2HC4K-01	M85	CAMET	NYCC	2.1	0.1	0.0	0.4	0.0	0.0	0.3	0.0	0.0
5/11/93	F2HC3K-02	M85	CAMET	FTP	3.3	0.0	0.0	1.4	0.0	0.0	0.4	0.0	0.0
5/11/93	F2HC3K-02	M85	CAMET	HFET	0.4	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.0
5/11/93	F2HC3K-02	M85	CAMET	NYCC	2.9	0.3	0.0	7.1	0.0	0.0	2.3	0.0	0.0

TABLE O-4. SUMMARY OF FORD CROWN VICTORIA #2 TASK 3 ALDEHYDE/KETONE EMISSION TEST RESULTS

Date	Test No.	Fuel	Catalyst	Test Cycle	Form. (mg/ml)	Acet. (mg/ml)	Acrolein (mg/ml)	Acetone (mg/ml)	Propion. (mg/ml)	Croton. (mg/ml)	Isobuty. & Mek. (mg/ml)	Benz. (mg/ml)	Hexan. (mg/ml)
11/10/92	V2DC0K-01	M85	DEGUSSA	FTP	5.8	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
11/10/92	V2DC0K-01	M85	DEGUSSA	HFET	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
11/10/92	V2DC0K-01	M85	DEGUSSA	NYCC	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
11/11/92	V2DC0K-02	M85	DEGUSSA	FTP	3.9	0.1	0.0	1.3	0.0	0.0	0.2	0.1	0.2
11/11/92	V2DC0K-02	M85	DEGUSSA	HFET	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0
11/11/92	V2DC0K-02	M85	DEGUSSA	NYCC	0.0	0.3	0.0	4.8	0.0	0.0	0.5	0.0	0.0
11/12/92	V1DC0K-01	HOWELL EEE	DEGUSSA	FTP	0.3	0.3	0.1	1.0	0.0	0.0	0.2	0.1	0.0
11/12/92	V1DC0K-01	HOWELL EEE	DEGUSSA	HFET	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
11/12/92	V1DC0K-01	HOWELL EEE	DEGUSSA	NYCC	0.6	0.6	0.0	2.1	0.0	0.0	0.4	0.0	1.1
11/13/92	V2DC0K-02	HOWELL EEE	DEGUSSA	FTP	0.4	0.4	0.0	1.6	0.0	0.0	0.2	0.2	0.1
11/13/92	V1DC0K-02	HOWELL EEE	DEGUSSA	HFET	0.0	0.1	0.0	0.6	0.0	0.0	0.1	0.5	0.0
11/13/92	V1DC0K-02	HOWELL EEE	DEGUSSA	NYCC	0.0	0.2	0.0	6.5	0.0	0.0	2.9	0.0	0.0
2/09/92	V2DC2K-01	M85	DEGUSSA	FTP	5.8	0.1	0.0	0.7	0.0	0.0	0.0	0.1	0.0
2/09/92	V2DC2K-01	M85	DEGUSSA	HFET	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2/09/92	V2DC2K-01	M85	DEGUSSA	NYCC	0.3	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0
2/10/92	V2DC2K-02	M85	DEGUSSA	FTP	4.6	0.1	0.0	0.7	0.0	0.0	0.2	0.0	0.0
2/10/92	V2DC2K-02	M85	DEGUSSA	HFET	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0
2/10/92	V2DC2K-02	M85	DEGUSSA	NYCC	0.0	0.0	0.0	3.6	0.0	0.0	1.4	0.0	0.0
3/01/93	V2DC4K-01	M85	DEGUSSA	FTP	7.2	0.1	0.0	0.6	0.0	0.0	0.2	0.2	0.0
3/01/93	V2DC4K-01	M85	DEGUSSA	HFET	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
3/01/93	V2DC4K-01	M85	DEGUSSA	NYCC	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
3/02/93	V2DC4K-02	M85	DEGUSSA	FTP	7.8	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0
3/02/93	V2DC4K-02	M85	DEGUSSA	HFET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3/02/93	V2DC4K-02	M85	DEGUSSA	NYCC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE O-5. SUMMARY OF VW JETTA TASK 3 ALDEHYDE/KETONE EMISSION TEST RESULTS

Date	Test No.	Fuel	Catalyst	Test Cycle	Form. (mg/ml)	Acet. (mg/ml)	Acrolein (mg/ml)	Acetone (mg/ml)	Propion. (mg/ml)	Croton. (mg/ml)	Isobuty. & Mek (mg/ml)	Benz. (mg/ml)	Hexan. (mg/ml)
11/10/92	J2HC0K-01	M85	CAMET+DEG	FTP	0.0	0.2	0.0	2.5	0.0	0.0	0.2	0.0	0.0
11/10/92	J2HC0K-01	M85	CAMET+DEG	HFET	0.0	0.1	0.0	0.7	0.0	0.0	0.1	0.0	0.0
11/10/92	J2HC0K-01	M85	CAMET+DEG	NYCC	0.0	1.5	0.0	7.4	0.0	0.0	0.1	0.0	0.0
11/11/92	J2HC0K-02	M85	CAMET+DEG	FTP	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
11/11/92	J2HC0K-02	M85	CAMET+DEG	HFET	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
11/11/92	J2HC0K-02	M85	CAMET+DEG	NYCC	0.0	0.2	0.0	3.1	0.0	0.0	0.8	0.0	0.0
11/13/92	J1HC0K-02	HOWELL EEE	CAMET+DEG	FTP	0.0	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.0
11/13/92	J1HC0K-02	HOWELL EEE	CAMET+DEG	HFET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/13/92	J1HC0K-02	HOWELL EEE	CAMET+DEG	NYCC	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
11/17/92	J1HC0K-03	HOWELL EEE	CAMET+DEG	FTP	0.3	0.1	0.0	0.9	0.0	0.0	0.3	0.2	0.0
11/17/92	J1HC0K-03	HOWELL EEE	CAMET+DEG	HFET	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
11/17/92	J1HC0K-03	HOWELL EEE	CAMET+DEG	NYCC	0.0	0.2	0.0	3.3	0.0	0.0	0.1	0.0	0.0
4/16/93	J2HC2K-01	M85	CAMET+DEG	FTP	0.2	0.1	0.0	0.4	0.0	0.0	0.0	0.1	0.0
4/16/93	J2HC2K-01	M85	CAMET+DEG	HFET	0.1	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
4/16/93	H2HC2K-01	M85	CAMET+DEG	NYCC	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4/19/93	J2HC2K-02	M85	CAMET+DEG	FTP	0.2	0.1	0.0	0.8	0.0	0.0	0.1	0.0	0.0
4/19/93	J2HC2K-02	M85	CAMET+DEG	HFET	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
4/19/93	J2HC2K-02	M85	CAMET+DEG	NYCC	0.0	0.1	0.0	4.9	0.0	0.0	0.1	0.0	0.0
5/7/93	J2HC4K-01	M85	CAMET+DEG	FTP	0.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0
5/7/93	J2HC4K-01	M85	CAMET+DET	HFET	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0
5/7/93	J2HC4K-01	M85	CAMET+DEG	NYCC	0.0	0.0	0.0	2.6	0.0	0.0	0.5	0.0	0.0
5/10/93	J2HC4K-02	M85	CAMET+DEG	FTP	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/10/93	J2HC4K-02	M85	CAMET+DEG	HFET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5/10/93	J2HC4K-02	M85	CAMET+DEG	NYCC	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX P

COMPUTER PRINTOUTS OF TOYOTA CAMRY TASK 3 EMISSION TESTS

Page P-	Test No.	Durability Mileage, mi	Catalyst	Test Cycle
2	TDC0K-01	0	Degussa	FTP
3	TDC0K-01	0	Degussa	HFET
4	TDC0K-01	0	Degussa	NYCC
5	TDC0K-02	0	Degussa	FTP
6	TDC0K-02	0	Degussa	HFET
7	TDC0K-02	0	Degussa	NYCC
8	TDC2K-01	2000	Degussa	FTP
9	TDC2K-01	2000	Degussa	HFET
10	TDC2K-01	2000	Degussa	NYCC
11	TDC2K-02	2000	Degussa	FTP
12	TDC2K-02	2000	Degussa	HFET
13	TDC2K-02	2000	Degussa	NYCC
14	TDC4K-01	4000	Degussa	FTP
15	TDC4K-01	4000	Degussa	HFET
16	TDC4K-01	4000	Degussa	NYCC
17	TDC4K-02	4000	Degussa	FTP
18	TDC4K-02	4000	Degussa	HFET
19	TDC4K-02	4000	Degussa	NYCC
20	TDC4K-1R	4000	Degussa	FTP
21	TDC4K-1R	4000	Degussa	HFET
22	TDC4K-1R	4000	Degussa	NYCC
23	TDC4K-2R	4000	Degussa	FTP
24	TDC4K-2R	4000	Degussa	HFET
25	TDC4K-2R	4000	Degussa	NYCC

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TEST NO. TDCOK-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/ 1/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37298. KM(23176. MILES)

BAROMETER 739.39 MM HG(29.11 IN HG)
RELATIVE HUMIDITY 57. PCT
BAG RESULTS

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 9.4 GM/KG

NOX HUMIDITY CORRECTION FACTOR .96

BAG NUMBER
DESCRIPTION

1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.6 (105.0)	37.8 (100.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40065.	68726.	39898.
TOT FLOW STD. CU. METRES(SCF)	72.3 (2552.)	125.1 (4418.)	72.0 (2541.)
THC SAMPLE METER/RANGE/PPM	58.8/ 2/ 59.	11.6/ 2/ 12.	9.7/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	11.6/ 2/ 12.	12.1/ 2/ 12.	9.8/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	98.4/ 13/ 244.	1.0/ 12/ 1.	1.1/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.2/ 13/ 0.	.4/ 12/ 0.	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	89.5/ 14/ .8551	72.6/ 14/ .5372	84.8/ 14/ .7514
CO2 BCKGRD METER/RANGE/PCT	14.0/ 14/ .0478	14.2/ 14/ .0486	13.6/ 14/ .0462
NOX SAMPLE METER/RANGE/PPM	57.1/ 1/ 14.3	22.6/ 1/ 5.7	34.4/ 1/ 8.7
NOX BCKGRD METER/RANGE/PPM	1.3/ 1/ .3	1.9/ 1/ .5	1.1/ 1/ .3
DILUTION FACTOR	13.47	22.12	15.83
THC CONCENTRATION PPM	48.	0.	1.
CO CONCENTRATION PPM	233.	1.	1.
CO2 CONCENTRATION PCT	.8109	.4908	.7081
NOX CONCENTRATION PPM	14.0	5.3	8.4
THC MASS GRAMS	3.98	.01	.04
CO MASS GRAMS	19.63	.09	.05
CO2 MASS GRAMS	1073.1	1124.4	933.0
NOX MASS GRAMS	1.85	1.21	1.11
THC GRAMS/MI	1.10	.00	.01
CO GRAMS/MI	5.45	.02	.01
CO2 GRAMS/MI	298.0	290.7	259.0
NOX GRAMS/MI	.51	.31	.31
FUEL ECONOMY IN MPG	15.42	15.89	16.36
RUN TIME SECONDS	504.	868.	504.
MEASURED DISTANCE MI	3.60	7.47	3.87
SCF, DRY	.967	.970	.972
DPC, WET (DRY)		.944(.927)	.949(.931)
TOT VOL (SCH) / SAM BLR (SCH)		197.4/ .00	196.4/ .00

COMPOSITE RESULTS

TEST NUMBER TDCOK-01
BAROMETER MM HG 739.4
HUMIDITY G/KG 9.4
TEMPERATURE DEG C 21.7

CARBON DIOXIDE	G/MI	283.5	(281.9)
FUEL ECONOMY	MPG	16.65	(16.74)
HYDROCARBONS (THC)	G/MI	.23	(.24)
CARBON MONOXIDE	G/MI	1.15	(1.14)
OXIDES OF NITROGEN	G/MI	.35	(.35)

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TEST NO. IDCOK-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 739.90 MM HG(29.13 IN HG)
RELATIVE HUMIDITY 50. PCT
BAG RESULTS

TEST CYCLE

VEHICLE NO.311
DATE 5/ 1/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 8.5 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37322. KM(23191. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .93

HFET

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60598.
TOT FLOW STD. CU. METRES(SCF)	108.4 (3827.)
THC SAMPLE METER/RANGE/PPM	10.0/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	9.4/ 2/ 9.
CO SAMPLE METER/RANGE/PPM	.6/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	94.3/ 14/ .9781
CO2 BCKGRD METER/RANGE/PCT	13.4/ 14/ .0454
NOX SAMPLE METER/RANGE/PPM	22.8/ 1/ 5.8
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1
DILUTION FACTOR	12.16
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	0.
CO2 CONCENTRATION PCT	.9364
NOX CONCENTRATION PPM	5.7
THC MASS GRAMS	.17
CO MASS GRAMS	.03
CO2 MASS GRAMS	1858.0
NOX MASS GRAMS	1.10
RUN TIME SECONDS	765.
DFC, WET (DRY)	.918 (.903)
SCF, WET (DRY)	1.000 (.967)
VOL (SCN)	108.4
SAM BLR (SCN)	.00
MI (MEASURED)	10.19

TEST NUMBER,	IDCOK-01
BAROMETER, MM HG	739.9
HUMIDITY, G/KG	8.5
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	182.2
FUEL ECONOMY, MPG	26.1

HYDROCARBONS, (THC) G/MI	.02
CARBON MONOXIDE, G/MI	.00
OXIDES OF NITROGEN, G/MI	.11

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EST NO. TDCOK-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/ 1/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 8.5 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37338. KM(23201. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .93

BAROMETER 739.65 MM HG(29.12 IN HG)
RELATIVE HUMIDITY 50. PCT

RAW RESULTS

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	38.9 (102.0)
BLOWER REVOLUTIONS	47486.
TOT FLOW STD. CU. METRES(SCF)	86.2 (3043.)
THC SAMPLE METER/RANGE/PPM	10.0/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	10.0/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	.5/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	62.8/ 14/ .4061
CO2 BCKGRD METER/RANGE/PCT	13.1/ 14/ .0442
NOX SAMPLE METER/RANGE/PPM	16.3/ 1/ 4.2
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1
DILUTION FACTOR	29.26
THC CONCENTRATION PPM	0.
CO CONCENTRATION PPM	0.
CO2 CONCENTRATION PCT	.3634
NOX CONCENTRATION PPM	4.1
THC MASS GRAMS	.03
CO MASS GRAMS	.01
CO2 MASS GRAMS	573.3
NOX MASS GRAMS	.62
RUN TIME SECONDS	599.
DFC, WET (DRY)	.966 (.950)
SCF, WET (DRY)	1.000 (.977)
VOL (SCH)	86.2
SAM BLR (SCH)	.00
MI (MEASURED)	1.13

TEST NUMBER,	TDCOK-01
BAROMETER, MM HG	739.6
HUMIDITY, G/KG	8.5
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	505.9
FUEL ECONOMY, MPG	9.4

HYDROCARBONS, (THC) G/MI	.03
CARBON MONOXIDE, G/MI	.01
OXIDES OF NITROGEN, G/MI	.55

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TEST NO. TDCOK-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/ 2/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37356. KM(23212. MILES)

BAROMETER 737.36 MM HG(29.03 IN HG)
RELATIVE HUMIDITY 69. PCT
BAG RESULTS

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 12.5 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.06

BAG NUMBER
DESCRIPTION

1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
40.6 (105.0)	38.3 (101.0)	40.6 (105.0)	39.4 (103.0)
40194.	68890.	40036.	68780.
72.3 (2553.)	124.8 (4407.)	72.0 (2542.)	124.1 (4383.)
50.8/ 2/ 51.	12.0/ 2/ 12.	12.1/ 2/ 12.	11.8/ 2/ 12.
12.6/ 2/ 13.	12.7/ 2/ 13.	12.6/ 2/ 13.	12.1/ 2/ 12.
56.4/ 14/ 255.	.5/ 12/ 1.	1.2/ 12/ 1.	.8/ 12/ 1.
.5/ 14/ 2.	.5/ 12/ 1.	.9/ 12/ 1.	.8/ 12/ 1.
88.5/ 14/ .8318	72.2/ 14/ .5313	84.2/ 14/ .7391	71.7/ 14/ .5239
12.9/ 14/ .0434	12.9/ 14/ .0434	13.6/ 14/ .0462	13.9/ 14/ .0474
48.6/ 1/ 12.2	21.5/ 1/ 5.5	22.3/ 1/ 5.7	19.1/ 1/ 4.9
1.2/ 1/ .3	1.9/ 1/ .5	.8/ 1/ .2	.4/ 1/ .1
13.83	22.37	16.09	22.68
39.	0.	0.	0.
242.	0.	0.	0.
.7916	.4898	.6958	.4786
11.9	5.0	5.5	4.8
3.24	.00	.02	.03
20.35	.00	.03	.00
1047.7	1119.2	917.1	1087.7
1.74	1.27	.80	1.20
.90	.00	.01	.01
5.63	.00	.01	.00
290.1	288.9	254.4	280.3
.48	.33	.22	.31
15.83	16.15	18.69	17.75
505.	868.	505.	867.
3.61	7.49	3.61	7.49
.963	.966	.965	.967
	.945(.924)		.949(.928)
	197.1/ .00		196.1/ .00

THC GRAMS/MI
CO GRAMS/MI
CO2 GRAMS/MI
NOX GRAMS/MI
FUEL ECONOMY IN MPG
RUN TIME SECONDS
MEASURED DISTANCE MI
SCF, DRY
DPC, WET (DRY)
TOT VOL (SCH) / SAM BLR (SCH)

COMPOSITE RESULTS

TEST NUMBER TDCOK-02
BAROMETER MM HG 737.4
HUMIDITY G/KG 12.5
TEMPERATURE DEG C 22.8

3-BAG (4-BAG)
CARBON DIOXIDE G/MI 279.7 (277.1)
FUEL ECONOMY MPG 16.87 (17.03)
HYDROCARBONS (THC) G/MI .19 (.19)
CARBON MONOXIDE G/MI 1.17 (1.17)
OXIDES OF NITROGEN G/MI .33 (.33)

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TEST NO. TDCOK-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 737.87 MM HG(29.05 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/ 2/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.3 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37380. KM(23227. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
MOX HUMIDITY CORRECTION FACTOR 1.02

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	60614.
TOT FLOW STD. CU. METRES(SCF)	108.1 (3816.)
THC SAMPLE METER/RANGE/PPM	11.9/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	11.5/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	2.3/ 12/ 2.
CO BCKGRD METER/RANGE/PPM	.6/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	95.1/ 14/1.0006
CO2 BCKGRD METER/RANGE/PCT	13.9/ 14/ .0474
NOX SAMPLE METER/RANGE/PPM	12.5/ 1/ 3.2
NOX BCKGRD METER/RANGE/PPM	.3/ 1/ .1
DILUTION FACTOR	11.89
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	2.
CO2 CONCENTRATION PCT	.9572
NOX CONCENTRATION PPM	3.2
THC MASS GRAMS	.17
CO MASS GRAMS	.21
CO2 MASS GRAMS	1893.6
NOX MASS GRAMS	.66
RUN TIME SECONDS	765.
DPC, WET (DRY)	.916 (.897)
SCF, WET (DRY)	1.000 (.961)
VOL (SCH)	108.1
SAM BLR (SCH)	.00
MI (MEASURED)	10.23

TEST NUMBER,	TDCOK-02
BAROMETER, MM HG	737.9
HUMIDITY, G/KG	11.3
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	185.1
FUEL ECONOMY, MPG	25.7

HYDROCARBONS, (THC) G/MI	.02
CARBON MONOXIDE, G/MI	.02
OXIDES OF NITROGEN, G/MI	.06

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TEST NO. TDCOK-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/ 2/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.2 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 37396. KM(23237. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.02

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)
BLOWER REVOLUTIONS	47508.
TOT FLOW STD. CU. METRES(SCF)	85.4 (3014.)
THC SAMPLE METER/RANGE/PPH	11.4/ 2/ 11.
THC BCKGRD METER/RANGE/PPH	11.5/ 2/ 11.
CO SAMPLE METER/RANGE/PPH	1.1/ 12/ 1.
CO BCKGRD METER/RANGE/PPH	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	63.0/ 14/ .4085
CO2 BCKGRD METER/RANGE/PCT	14.0/ 14/ .0478
NOX SAMPLE METER/RANGE/PPH	10.4/ 1/ 2.7
NOX BCKGRD METER/RANGE/PPH	.4/ 1/ .1
DILUTION FACTOR	29.07
THC CONCENTRATION PPM	0.
CO CONCENTRATION PPM	0.
CO2 CONCENTRATION PCT	.3623
NOX CONCENTRATION PPM	2.6
THC MASS GRAMS	.03
CO MASS GRAMS	.02
CO2 MASS GRAMS	566.3
NOX MASS GRAMS	.43
RUN TIME SECONDS	600.
DPC, WET (DRY)	.966 (.945)
SCF, WET (DRY)	1.000 (.972)
VOL (SCH)	85.4
SAM BLR (SCH)	.00
MI (MEASURED)	1.16

TEST NUMBER,	TDCOK-02
BAROMETER, MM HG	738.1
HUMIDITY, G/KG	11.2
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	489.9
FUEL ECONOMY, MPG	9.7

HYDROCARBONS, (THC) G/MI	.03
CARBON MONOXIDE, G/MI	.02
OXIDES OF NITROGEN, G/MI	.37

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TEST NO. TDC2K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/10/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40650. KM(25259. MILES)

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.7 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.03

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.6 (105.0)	38.3 (101.0)	40.6 (105.0)	38.9 (102.0)
BLOWER REVOLUTIONS	40096.	68907.	40036.	68731.
TOT FLOW STD. CU. METRES(SCF)	72.2 (2549.)	125.0 (4414.)	72.1 (2545.)	124.4 (4393.)
THC SAMPLE METER/RANGE/PPM	63.0/ 2/ 63.	15.1/ 2/ 15.	13.7/ 2/ 14.	16.9/ 2/ 17.
THC BCKGRD METER/RANGE/PPM	20.0/ 2/ 20.	15.5/ 2/ 15.	12.5/ 2/ 12.	15.8/ 2/ 16.
CO SAMPLE METER/RANGE/PPM	63.6/ 14/ 294.	8.8/ 12/ 9.	6.7/ 12/ 7.	10.4/ 12/ 10.
CO BCKGRD METER/RANGE/PPM	.3/ 14/ 1.	.6/ 12/ 1.	.6/ 12/ 1.	.6/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	90.9/ 14/ .8890	73.9/ 14/ .5570	84.1/ 14/ .7371	73.1/ 14/ .5448
CO2 BCKGRD METER/RANGE/PCT	13.4/ 14/ .0454	13.4/ 14/ .0454	13.5/ 14/ .0458	13.4/ 14/ .0454
NOX SAMPLE METER/RANGE/PPM	25.2/ 1/ 6.4	1.1/ 1/ .3	1.6/ 1/ .4	.5/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	.9/ 1/ .2	1.1/ 1/ .3	.3/ 1/ .1	.4/ 1/ .1
DILUTION FACTOR	12.90	21.29	16.11	21.76
THC CONCENTRATION PPM	45.	0.	2.	2.
CO CONCENTRATION PPM	279.	8.	6.	10.
CO2 CONCENTRATION PCT	.8472	.5138	.6942	.5015
NOX CONCENTRATION PPM	6.2	.0	.3	.0
THC MASS GRAMS	3.68	.05	.16	.26
CO MASS GRAMS	23.48	1.16	.50	1.38
CO2 MASS GRAMS	1119.8	1175.7	916.0	1142.3
NOX MASS GRAMS	.88	.00	.05	.01
THC GRAMS/MI	1.01	.01	.05	.07
CO GRAMS/MI	6.45	.30	.14	.36
CO2 GRAMS/MI	307.7	300.6	254.6	295.0
NOX GRAMS/MI	.24	.00	.01	.00
FUEL ECONOMY IN MPG	14.88	15.34	15.79	18.65
RUN TIME SECONDS	504.	868.	505.	868.
MEASURED DISTANCE MI	3.64	7.55	3.91	3.60
SCF, DRY	.963	.967	.969	.966
DPC, WET (DRY)		.942(.922)		.948(.928)
TOT VOL (SCH) / SAM BLR (SCH)		197.2/ .00		196.5/ .00

COMPOSITE RESULTS

TEST NUMBER TDC2K-01
BAROMETER MM HG 738.1
HUMIDITY G/KG 11.7
TEMPERATURE DEG C 22.8

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	289.5	(287.8)
FUEL ECONOMY	MPG	16.27	(16.36)
HYDROCARBONS (THC)	G/MI	.23	(.24)
CARBON MONOXIDE	G/MI	1.53	(1.55)
OXIDES OF NITROGEN	G/MI	.05	(.05)

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PROJECT 08-3381-001

TEST NO. TDC2K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 65. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/10/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.7 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40675. KM(25274. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
MOX HUMIDITY CORRECTION FACTOR 1.03

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	60602.
TOT FLOW STD. CU. METRES(SCF)	108.5 (3831.)
THC SAMPLE METER/RANGE/PPM	18.0/ 2/ 18.
THC BCKGRD METER/RANGE/PPM	14.0/ 2/ 14.
CO SAMPLE METER/RANGE/PPM	15.2/ 12/ 15.
CO BCKGRD METER/RANGE/PPM	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	55.6/ 1/1.0304
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473
NOX SAMPLE METER/RANGE/PPM	4.8/ 1/ 1.3
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	11.52
THC CONCENTRATION PPM	5.
CO CONCENTRATION PPM	14.
CO2 CONCENTRATION PCT	.9872
NOX CONCENTRATION PPM	1.1
THC MASS GRAMS	.65
CO MASS GRAMS	1.78
CO2 MASS GRAMS	1960.8
NOX MASS GRAMS	.24
RUN TIME SECONDS	765.
DFC, WET (DRY)	.913 (.894)
SCF, WET (DRY)	1.000 (.961)
VOL (SCH)	108.5
SAM BLR (SCH)	.00
MI (MEASURED)	10.21

TEST NUMBER,	TDC2K-01
BAROMETER, MM HG	738.1
HUMIDITY, G/KG	11.7
TEMPERATURE, DEG C	22.8
CARBON DIOXIDE, G/MI	192.1
FUEL ECONOMY, MPG	24.7

HYDROCARBONS, (THC) G/MI	.06
CARBON MONOXIDE, G/MI	.17
OXIDES OF NITROGEN, G/MI	.02

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TEST NO. TDC2K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 61. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/10/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.0 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40691. KM(25284. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.01

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47566.
TOT FLOW STD. CU. METRES(SCF)	84.8 (2995.)
THC SAMPLE METER/RANGE/PPM	13.4/ 2/ 13.
THC BCKGRD METER/RANGE/PPM	12.5/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	8.3/ 12/ 8.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	63.5/ 14/ .4145
CO2 BCKGRD METER/RANGE/PCT	13.6/ 14/ .0462
NOX SAMPLE METER/RANGE/PPM	1.4/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	1.0/ 1/ .3
DILUTION FACTOR	28.59
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	8.
CO2 CONCENTRATION PCT	.3699
NOX CONCENTRATION PPM	.1
THC MASS GRAMS	.13
CO MASS GRAMS	.80
CO2 MASS GRAMS	574.6
NOX MASS GRAMS	.02
RUN TIME	601.
SECONDS	
DPC, WET (DRY)	.965 (.946)
SCF, WET (DRY)	1.000 (.973)
VOL (SCH)	84.8
SAM BLR (SCH)	.00
NI (MEASURED)	1.14

TEST NUMBER,	TDC2K-01
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/NI
FUEL ECONOMY,	MPG
HYDROCARBONS, (THC)	G/NI
CARBON MONOXIDE,	G/NI
OXIDES OF NITROGEN,	G/NI

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TEST NO. TDC2K-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/11/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40692. KM(25285. MILES)

BAROMETER 740.16 MM HG(29.14 IN HG)
RELATIVE HUMIDITY 74. PCT
BAG RESULTS

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 13.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.09

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)	39.4 (103.0)	41.7 (107.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40140.	68972.	40064.	68687.
TOT FLOW STD. CU. METRES(SCF)	72.4 (2556.)	125.1 (4416.)	72.1 (2546.)	123.8 (4372.)
THC SAMPLE METER/RANGE/PPM	77.0/ 2/ 77.	15.3/ 2/ 15.	15.0/ 2/ 15.	13.6/ 2/ 14.
THC BCKGRD METER/RANGE/PPM	18.1/ 2/ 18.	15.8/ 2/ 16.	13.1/ 2/ 13.	12.4/ 2/ 12.
CO SAMPLE METER/RANGE/PPM	76.1/ 14/ 364.	3.6/ 12/ 4.	30.4/ 12/ 30.	7.6/ 12/ 8.
CO BCKGRD METER/RANGE/PPM	.0/ 14/ 0.	.0/ 12/ 0.	.0/ 12/ 0.	.1/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	89.4/ 14/ .8528	73.0/ 14/ .5432	83.0/ 14/ .7153	71.9/ 14/ .5268
CO2 BCKGRD METER/RANGE/PCT	12.2/ 14/ .0407	12.3/ 14/ .0411	12.5/ 14/ .0418	12.4/ 14/ .0415
NOX SAMPLE METER/RANGE/PPM	26.7/ 1/ 6.8	.5/ 1/ .1	2.2/ 1/ .6	.0/ 1/ .0
NOX BCKGRD METER/RANGE/PPM	1.0/ 1/ .3	.5/ 1/ .1	.1/ 1/ .0	.0/ 1/ .0
DILUTION FACTOR	13.31	21.85	16.55	22.52
THC CONCENTRATION PPM	60.	0.	3.	2.
CO CONCENTRATION PPM	347.	4.	29.	7.
CO2 CONCENTRATION PCT	.8152	.5041	.6759	.4872
NOX CONCENTRATION PPM	6.5	.0	.6	.0
THC MASS GRAMS	5.00	.03	.22	.25
CO MASS GRAMS	29.24	.51	2.43	1.05
CO2 MASS GRAMS	1080.2	1154.1	892.2	1104.4
NOX MASS GRAMS	.98	.00	.08	.00
THC GRAMS/MI	1.40	.01	.06	.06
CO GRAMS/MI	8.19	.13	.67	.27
CO2 GRAMS/MI	302.6	299.8	247.5	285.0
NOX GRAMS/MI	.27	.00	.02	.00
FUEL ECONOMY IN MPG	14.97	15.41	19.12	17.76
RUN TIME SECONDS	504.	867.	505.	867.
MEASURED DISTANCE MI	3.57	7.42	3.60	7.48
SCF, DRY	.961	.965	.964	.966
DFC, WET (DRY)		.943(.921)		.950(.927)
TOT VOL (SCM) / SAM BLR (SCM)		197.4/ .00		195.9/ .00

COMPOSITE RESULTS

TEST NUMBER TDC2K-02
BAROMETER MM HG 740.2
HUMIDITY G/KG 13.2
TEMPERATURE DEG C 22.8

CARBON DIOXIDE	G/MI	3-BAG	(4-BAG)
		286.0	(281.6)
FUEL ECONOMY	MPG	16.42	(16.67)
HYDROCARBONS (THC)	G/MI	.31	(.33)
CARBON MONOXIDE	G/MI	1.95	(1.99)
OXIDES OF NITROGEN	G/MI	.06	(.06)

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TEST NO. TDC2K-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 740.41 MM HG(29.15 IN HG)
RELATIVE HUMIDITY 69. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/11/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.9 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40716. KM(25300. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.04

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.0 (104.0)
BLOWER REVOLUTIONS	61460.
TOT FLOW STD. CU. METRES(SCF)	111.3 (3932.)
THC SAMPLE METER/RANGE/PPM	17.8/ 2/ 18.
THC BCKGRD METER/RANGE/PPM	14.4/ 2/ 14.
CO SAMPLE METER/RANGE/PPM	9.8/ 12/ 10.
CO BCKGRD METER/RANGE/PPM	.3/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	94.0/ 14/ .9698
CO2 BCKGRD METER/RANGE/PCT	12.4/ 14/ .0415
NOX SAMPLE METER/RANGE/PPM	4.3/ 1/ 1.1
NOX BCKGRD METER/RANGE/PPM	.1/ 1/ .0
DILUTION FACTOR	12.25
THC CONCENTRATION PPM	5.
CO CONCENTRATION PPM	9.
CO2 CONCENTRATION PCT	.9317
NOX CONCENTRATION PPM	1.1
THC MASS GRAMS	.58
CO MASS GRAMS	1.18
CO2 MASS GRAMS	1899.4
NOX MASS GRAMS	.24
RUN TIME SECONDS	765.
DPC, WET (DRY)	.918 (.898)
SCF, WET (DRY)	1.000 (.961)
VOL (SCM)	111.3
SAM BLR (SCM)	.00
MI (MEASURED)	10.16

TEST NUMBER,	TDC2K-02
BAROMETER, MM HG	740.4
HUMIDITY, G/KG	11.9
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	186.9
FUEL ECONOMY, MPG	25.4
HYDROCARBONS, (THC) G/MI	.06
CARBON MONOXIDE, G/MI	.12
OXIDES OF NITROGEN, G/MI	.02

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NO. TDC2K-02 RUN
CLE MODEL 86 TOYOTA CAMRY
NE 2.0 L(122. CID) L-4
EMISSION A3

METER 740.16 MM HG(29.14 IN HG)
IVE HUMIDITY 69. PCT
RESULTS
ST CYCLE

VEHICLE NO.311
DATE 5/11/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 11.9 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
M85 EM-1179-F
ODOMETER 40732. KM(25310. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.04

NYCC

OWER DIF P MM. H2O(IN. H2O)
OWER INLET P MM. H2O(IN. H2O)
OWER INLET TEMP. DEG. C(DEG. F)
OWER REVOLUTIONS

1066.8 (42.0)
1117.6 (44.0)
40.6 (105.0)
47497.
85.8 (3029.)
16.9/ 2/ 17.
16.3/ 2/ 16.
6.9/ 12/ 7.
.0/ 12/ 0.
63.6/ 14/ .4157
12.4/ 14/ .0415
.9/ 1/ .2
.3/ 1/ .1

FLOW STD. CU. METRES(SCF)

SAMPLE METER/RANGE/PPH

BCKGRD METER/RANGE/PPH

SAMPLE METER/RANGE/PPH

BCKGRD METER/RANGE/PPH

SAMPLE METER/RANGE/PCT

BCKGRD METER/RANGE/PCT

SAMPLE METER/RANGE/PPH

BCKGRD METER/RANGE/PPH

TION FACTOR

CONCENTRATION PPM

CONCENTRATION PPM

CONCENTRATION PCT

CONCENTRATION PPM

ASS GRAMS

ASS GRAMS

ASS GRAMS

ASS GRAMS

IME SECONDS

DPC, WET (DRY)

SCF, WET (DRY)

OL (SCH)

AM BLR (SCH)

I (MEASURED)

28.49
1.
7.
.3757
.2
.12
.67
590.1
.03
599.
.965 (.943)
1.000 (.970)
85.8
.00
1.15

UMBER,

PER, MM HG

TY, G/KG

ATURE, DEG C

DIOXIDE, G/MI

OMONY, MPG

TDC2K-02

740.2

11.9

22.2

511.0

9.3

EBONS, (THC) G/MI

NOBOXIDE, G/MI

OF NITROGEN, G/MI

.10

.58

.02

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TEST NO. TDC4K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/20/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL M85
ODOMETER 43983. KM(27330. MILES)

BAROMETER 738.38 MM HG(29.07 IN HG)
RELATIVE HUMIDITY 73. PCT
BAG RESULTS

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 12.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.05

BAG NUMBER
DESCRIPTION

1	2	3	4
COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	38.9 (102.0)	40.6 (105.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40153.	68896.	39977.
TOT FLOW STD. CU. METRES(SCF)	72.7 (2568.)	124.1 (4382.)	71.9 (2538.)
THC SAMPLE METER/RANGE/PPM	95.0/ 2/ 95.	11.0/ 2/ 11.	11.9/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	13.5/ 2/ 13.	13.5/ 2/ 13.	10.1/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	93.3/ 14/ 465.	3.7/ 12/ 4.	13.9/ 12/ 14.
CO BCKGRD METER/RANGE/PPM	.0/ 14/ 0.	.0/ 12/ 0.	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	88.4/ 14/ .8295	72.3/ 14/ .5328	84.0/ 14/ .7351
CO2 BCKGRD METER/RANGE/PCT	12.8/ 14/ .0430	12.7/ 14/ .0426	12.8/ 14/ .0430
NOX SAMPLE METER/RANGE/PPM	36.9/ 1/ 9.3	.5/ 1/ .1	3.4/ 1/ .9
NOX BCKGRD METER/RANGE/PPM	1.5/ 1/ .4	.5/ 1/ .1	.6/ 1/ .2
DILUTION FACTOR	13.48	22.30	16.15
THC CONCENTRATION PPM	82.	0.	2.
CO CONCENTRATION PPM	443.	4.	13.
CO2 CONCENTRATION PCT	.7897	.4920	.6948
NOX CONCENTRATION PPM	8.9	.0	.7
THC MASS GRAMS	6.87	.00	.20
CO MASS GRAMS	37.52	.52	1.08
CO2 MASS GRAMS	1051.7	1117.8	914.1
NOX MASS GRAMS	1.30	.00	.11
THC GRAMS/MI	1.93	.00	.06
CO GRAMS/MI	10.51	.14	.30
CO2 GRAMS/MI	294.6	292.1	256.3
NOX GRAMS/MI	.37	.00	.03
FUEL ECONOMY IN MPG	15.13	15.70	16.26
RUN TIME SECONDS	505.	868.	504.
MEASURED DISTANCE MI	3.57	7.40	3.83
SCF, DRY	.962	.965	.967
DFC, WET (DRY)		.944(.922)	.949(.927)
TOT VOL (SCM) / SAM BLR (SCM)		196.8/ .00	195.7/ .00

COMPOSITE RESULTS

TEST NUMBER TDC4K-01
BAROMETER MM HG 738.4
HUMIDITY G/KG 12.2
TEMPERATURE DEG C 21.7

CARBON DIOXIDE	G/MI	3-BAG	(4-BAG)
FUEL ECONOMY	MPG	282.8	(280.6)
HYDROCARBONS (THC)	G/MI	16.56	(16.68)
CARBON MONOXIDE	G/MI	.42	(.43)
OXIDES OF NITROGEN	G/MI	2.34	(2.38)
		.08	(.09)

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TEST NO. TDC4K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 737.87 MM HG(29.05 IN HG)
RELATIVE HUMIDITY 65. PCT

BAG RESULTS

TEST CYCLE

VEHICLE NO.311
DATE 5/20/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.7 G/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL M85
ODOMETER 44006. KM(27344. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.03

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.6 (105.0)
BLOWER REVOLUTIONS	60587.
TOT FLOW STD. CU. METRES(SCF)	109.0 (3849.)
THC SAMPLE METER/RANGE/PPM	15.8/ 2/ 16.
THC BCKGRD METER/RANGE/PPM	11.0/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	20.2/ 12/ 20.
CO BCKGRD METER/RANGE/PPM	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	95.3/ 14/1.0063
CO2 BCKGRD METER/RANGE/PCT	13.2/ 14/ .0446
NOX SAMPLE METER/RANGE/PPM	3.6/ 1/ .9
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	11.80
THC CONCENTRATION PPM	6.
CO CONCENTRATION PPM	19.
CO2 CONCENTRATION PCT	.9655
NOX CONCENTRATION PPM	.8
THC MASS GRAMS	.72
CO MASS GRAMS	2.38
CO2 MASS GRAMS	1927.0
NOX MASS GRAMS	.17
RUN TIME	765.
DFC, WET (DRY)	.915 (.896)
SCF, WET (DRY)	1.000 (.961)
VOL (SCH)	109.0
SAM BLR (SCH)	.00
MI (MEASURED)	10.10

TEST NUMBER,	TDC4K-01
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG

HYDROCARBONS, (THC)	G/MI	.07
CARBON MONOXIDE,	G/MI	.24
OXIDES OF NITROGEN,	G/MI	.02

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TEST NO. TDC4K-01 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 738.63 MM HG(29.08 IN HG)
RELATIVE HUMIDITY 62. PCT
BAG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)
BLOWER REVOLUTIONS	47467.
TOT FLOW STD. CU. METRES(SCF)	85.4 (3014.)
THC SAMPLE METER/RANGE/PPM	11.9/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	11.0/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	7.3/ 12/ 7.
CO BCKGRD METER/RANGE/PPM	.5/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	62.8/ 14/ .4061
CO2 BCKGRD METER/RANGE/PCT	13.1/ 14/ .0442
NOX SAMPLE METER/RANGE/PPM	1.8/ 1/ .5
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2
DILUTION FACTOR	29.19
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	7.
CO2 CONCENTRATION PCT	.3634
NOX CONCENTRATION PPM	.3
THC MASS GRAMS	.12
CO MASS GRAMS	.66
CO2 MASS GRAMS	567.9
NOX MASS GRAMS	.05
RUN TIME SECONDS	599.
DPC, WET (DRY)	.966 (.946)
SCF, WET (DRY)	1.000 (.973)
VOL (SCM)	85.4
SAM BLR (SCM)	.00
MI (MEASURED)	1.15

TEST NUMBER,	TDC4K-01
BAROMETER, MM HG	738.6
HUMIDITY, G/KG	11.5
TEMPERATURE, DEG C	23.3
CARBON DIOXIDE, G/MI	493.8
FUEL ECONOMY, MPG	9.6
HYDROCARBONS, (THC) G/MI	.11
CARBON MONOXIDE, G/MI	.58
OXIDES OF NITROGEN, G/MI	.04

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL M85
ODOMETER 44024. KM(27355. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.03

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PTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08- -001

TEST NO. TDC4K-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/21/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL M85
ODOMETER 44027. KM(27357. MILES)

BAROMETER 738.12 MM HG(29.06 IN HG)
RELATIVE HUMIDITY 66. PCT

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 12.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.05

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.0 (104.0)	37.8 (100.0)	40.6 (105.0)	37.8 (100.0)
BLOWER REVOLUTIONS	40304.	68998.	40051.	68741.
TOT FLOW STD. CU. METRES(SCF)	72.7 (2568.)	125.4 (4428.)	72.1 (2546.)	124.9 (4411.)
THC SAMPLE METER/RANGE/PPM	19.0/ 3/ 189.	13.7/ 2/ 14.	13.9/ 2/ 14.	12.8/ 2/ 13.
THC BCKGRD METER/RANGE/PPM	1.6/ 3/ 16.	13.9/ 2/ 14.	12.0/ 2/ 12.	11.5/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	72.6/ 14/ 344.	6.5/ 12/ 7.	8.8/ 12/ 9.	9.6/ 12/ 10.
CO BCKGRD METER/RANGE/PPM	.1/ 14/ 0.	.5/ 12/ 1.	.9/ 12/ 1.	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	89.2/ 14/ .8481	72.5/ 14/ .5357	84.0/ 14/ .7351	72.0/ 14/ .5283
CO2 BCKGRD METER/RANGE/PCT	13.5/ 14/ .0458	14.1/ 14/ .0482	15.0/ 14/ .0519	15.6/ 14/ .0544
NOX SAMPLE METER/RANGE/PPM	34.3/ 1/ 8.6	1.5/ 1/ .4	3.8/ 1/ 1.0	1.7/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	1.8/ 1/ .5	1.5/ 1/ .4	1.5/ 1/ .4	1.7/ 1/ .4
DILUTION FACTOR	13.24	22.15	16.15	22.45
THC CONCENTRATION PPM	175.	0.	3.	2.
CO CONCENTRATION PPM	328.	6.	8.	8.
CO2 CONCENTRATION PCT	.8058	.4897	.6864	.4764
NOX CONCENTRATION PPM	8.2	.0	.6	.0
THC MASS GRAMS	14.56	.06	.22	.26
CO MASS GRAMS	27.81	.85	.64	1.23
CO2 MASS GRAMS	1072.8	1124.3	906.2	1089.4
NOX MASS GRAMS	1.20	.00	.09	.01
THC GRAMS/MI	4.07	.02	.06	.07
CO GRAMS/MI	7.78	.22	.18	.32
CO2 GRAMS/MI	300.0	292.0	254.8	283.7
NOX GRAMS/MI	.34	.00	.03	.00
FUEL ECONOMY IN MPG	14.92	15.59	16.26	16.72
RUN TIME SECONDS	505.	869.	505.	867.
MEASURED DISTANCE MI	3.58	7.43	3.56	7.40
SCF, DRY	.964	.967	.966	.969
DPC, WET (DRY)		.944(.924)		.949(.929)
TOT VOL (SCH) / SAM BLR (SCH)		198.1/ .00		197.0/ .00

COMPOSITE RESULTS

TEST NUMBER TDC4K-02
BAROMETER MM HG 738.1
HUMIDITY G/KG 12.2
TEMPERATURE DEG C 23.3

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	283.5	(281.0)
FUEL ECONOMY	MPG	16.53	(16.67)
HYDROCARBONS (THC)	G/MI	.87	(.88)
CARBON MONOXIDE	G/MI	1.77	(1.80)
OXIDES OF NITROGEN	G/MI	.08	(.08)

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TEST NO. TDC4K-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 738.38 MM HG(29.07 IN HG)
RELATIVE HUMIDITY 61. PCT
BAG RESULTS

VEHICLE NO.311
DATE 5/21/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 11.0 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL N85
ODOMETER 44051. KM(27372. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.01

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)
BLOWER REVOLUTIONS	60635.
TOT FLOW STD. CU. METRES(SCF)	109.0 (3849.)
THC SAMPLE METER/RANGE/PPM	15.7/ 2/ 16.
THC BCKGRD METER/RANGE/PPM	10.7/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	20.5/ 12/ 20.
CO BCKGRD METER/RANGE/PPM	.2/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	95.1/ 14/1.0006
CO2 BCKGRD METER/RANGE/PCT	14.6/ 14/ .0502
NOX SAMPLE METER/RANGE/PPM	6.6/ 1/ 1.7
NOX BCKGRD METER/RANGE/PPM	1.3/ 1/ .3
DILUTION FACTOR	11.86
THC CONCENTRATION PPM	6.
CO CONCENTRATION PPM	19.
CO2 CONCENTRATION PCT	.9546
NOX CONCENTRATION PPM	1.4
THC MASS GRAMS	.74
CO MASS GRAMS	2.45
CO2 MASS GRAMS	1904.9
NOX MASS GRAMS	.30
RUN TIME SECONDS	765.
DPC, WET (DRY)	.916 (.898)
SCF, WET (DRY)	1.000 (.963)
VOL (SCH)	109.0
SAM BLR (SCH)	.00
HI (MEASURED)	10.09

TEST NUMBER,	TDC4K-02
BAROMETER, MM HG	738.4
HUMIDITY, G/KG	11.0
TEMPERATURE, DEG C	22.8
CARBON DIOXIDE, G/MI	188.8
FUEL ECONOMY, MPG	25.1

HYDROCARBONS, (THC) G/MI	.07
CARBON MONOXIDE, G/MI	.24
OXIDES OF NITROGEN, G/MI	.03

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PROJECT 08- 001

TEST NO. TDC4K-02 RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 5/21/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL M85
ODOMETER 44067. KM(27382. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR 1.00

BAROMETER 738.63 MM HG(29.08 IN HG)
RELATIVE HUMIDITY 58. PCT

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 10.8 GM/KG

BAG RESULTS

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.0 (104.0)
BLOWER REVOLUTIONS	47432.
TOT FLOW STD. CU. METRES(SCF)	85.6 (3023.)
THC SAMPLE METER/RANGE/PPM	12.1/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	10.8/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	12.3/ 12/ 12.
CO BCKGRD METER/RANGE/PPM	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	62.1/ 14/ .3978
CO2 BCKGRD METER/RANGE/PCT	14.5/ 14/ .0498
NOX SAMPLE METER/RANGE/PPM	2.9/ 1/ .8
NOX BCKGRD METER/RANGE/PPM	1.4/ 1/ .4
DILUTION FACTOR	29.76
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	11.
CO2 CONCENTRATION PCT	.3496
NOX CONCENTRATION PPM	.4
THC MASS GRAMS	.16
CO MASS GRAMS	1.11
CO2 MASS GRAMS	548.0
NOX MASS GRAMS	.07
RUN TIME SECONDS	599.
DFC, WET (DRY)	.966 (.948)
SCF, WET (DRY)	1.000 (.974)
VOL (SCM)	85.6
SAM BLR (SCM)	.00
MI (MEASURED)	1.12

TEST NUMBER,	TDC4K-02
BAROMETER, MM HG	738.6
HUMIDITY, G/KG	10.8
TEMPERATURE, DEG C	23.3
CARBON DIOXIDE, G/MI	491.0
FUEL ECONOMY, MPG	9.6

HYDROCARBONS, (THC) G/MI	.15
CARBON MONOXIDE, G/MI	.99
OXIDES OF NITROGEN, G/MI	.06

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FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3381-001

TEST NO. TDC4K-1R RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 10/ 8/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL EM-1179-F
ODOMETER 44130. KM(27421. MILES)

BAROMETER 746.25 MM HG(29.38 IN HG)
RELATIVE HUMIDITY 44. PCT
BAG RESULTS

DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)
ABS. HUMIDITY 8.3 GM/KG

MOX HUMIDITY CORRECTION FACTOR .93

BAG NUMBER
DESCRIPTION

1	2	3	4
COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	1054.1 (41.5)	1054.1 (41.5)	1041.4 (41.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1104.9 (43.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)	39.4 (103.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40170.	68763.	40001.
TOT FLOW STD. CU. METRES(SCF)	71.6 (2527.)	123.4 (4357.)	71.7 (2531.)
THC SAMPLE METER/RANGE/PPM	62.5/ 2/ 62.	17.4/ 2/ 17.	19.2/ 2/ 19.
THC BCKGRD METER/RANGE/PPM	15.2/ 2/ 15.	16.3/ 2/ 16.	16.5/ 2/ 16.
CO SAMPLE METER/RANGE/PPM	63.0/ 14/ 291.	20.0/ 12/ 20.	28.0/ 12/ 28.
CO BCKGRD METER/RANGE/PPM	.6/ 14/ 2.	1.8/ 12/ 2.	1.6/ 12/ 2.
CO2 SAMPLE METER/RANGE/PCT	89.6/ 14/ .8575	73.3/ 14/ .5478	85.0/ 14/ .7555
CO2 BCKGRD METER/RANGE/PCT	15.0/ 14/ .0519	14.7/ 14/ .0506	14.9/ 14/ .0515
NOX SAMPLE METER/RANGE/PPM	60.9/ 1/ 15.3	1.1/ 1/ .3	4.5/ 1/ 1.2
NOX BCKGRD METER/RANGE/PPM	.8/ 1/ .2	.9/ 1/ .2	.6/ 1/ .2
DILUTION FACTOR	13.36	21.60	15.67
THC CONCENTRATION PPM	48.	2.	4.
CO CONCENTRATION PPM	277.	18.	25.
CO2 CONCENTRATION PCT	.8095	.4995	.7073
NOX CONCENTRATION PPM	15.1	.1	1.0
THC MASS GRAMS	3.97	.26	.31
CO MASS GRAMS	23.11	2.54	2.12
CO2 MASS GRAMS	1060.7	1128.3	928.1
NOX MASS GRAMS	1.91	.01	.13
THC GRAMS/MI	1.11	.07	.09
CO GRAMS/MI	6.46	.66	.59
CO2 GRAMS/MI	296.3	290.9	257.5
NOX GRAMS/MI	.53	.00	.04
FUEL ECONOMY IN MPG	15.42	15.86	16.28
RUN TIME SECONDS	505.	867.	505.
MEASURED DISTANCE MI	3.58	7.46	3.88
SCF, DRY	.971	.974	.976
DFC, WET (DRY)		.943(.930)	.947(.934)
TOT VOL (SCM) / SAM BLR (SCM)		195.0/ .00	194.8/ .00

COMPOSITE RESULTS

TEST NUMBER TDC4K-1R
BAROMETER MM HG 746.3
HUMIDITY G/KG 8.3
TEMPERATURE DEG C 23.9

CARBON DIOXIDE	G/MI	282.8	(281.9)
FUEL ECONOMY	MPG	16.61	(16.66)
HYDROCARBONS (THC)	G/MI	.29	(.29)
CARBON MONOXIDE	G/MI	1.83	(1.89)
OXIDES OF NITROGEN	G/MI	.12	(.12)

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TEST NO. TDC4K-1R RUN
 VEHICLE MODEL 86 TOYOTA CAMRY
 ENGINE 2.0 L(122. CID) L-4
 TRANSMISSION A3

BAROMETER 746.76 MM HG(29.40 IN HG)
 RELATIVE HUMIDITY 49. PCT
 BAG RESULTS

VEHICLE NO.311
 DATE 10/ 8/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
 ABS. HUMIDITY 8.4 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
 ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
 METHANOL EM-1179-F
 ODOMETER 44154. KM(27436. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 MOX HUMIDITY CORRECTION FACTOR .93

TEST CYCLE

HFET

BLOWER DIP P MM. H2O(IN. H2O)	1041.4 (41.0)
BLOWER INLET P MM. H2O(IN. H2O)	1104.9 (43.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)
BLOWER REVOLUTIONS	60543.
TOT FLOW STD. CU. METRES(SCF)	108.2 (3821.)
THC SAMPLE METER/RANGE/PPM	15.2/ 2/ 15.
THC BCKGRD METER/RANGE/PPM	10.8/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	18.3/ 12/ 18.
CO BCKGRD METER/RANGE/PPM	.7/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	95.0/ 14/ .9977
CO2 BCKGRD METER/RANGE/PCT	12.7/ 14/ .0426
NOX SAMPLE METER/RANGE/PPM	4.4/ 1/ 1.2
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	11.90
THC CONCENTRATION PPM	5.
CO CONCENTRATION PPM	17.
CO2 CONCENTRATION PCT	.9587
NOX CONCENTRATION PPM	1.0
THC MASS GRAMS	.66
CO MASS GRAMS	2.13
CO2 MASS GRAMS	1899.4
NOX MASS GRAMS	.19
RUN TIME SECONDS	765.
DFC, WET (DRY)	.916 (.901)
SCF, WET (DRY)	1.000 (.967)
VOL (SCM)	108.2
SAM BLR (SCM)	.00
MI (MEASURED)	10.20

TEST NUMBER,	TDC4K-1R
BAROMETER, MM HG	746.8
HUMIDITY, G/KG	8.4
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	186.1
FUEL ECONOMY, MPG	25.5
HYDROCARBONS, (THC) G/MI	.06
CARBON MONOXIDE, G/MI	.21
OXIDES OF NITROGEN, G/MI	.02

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PROJECT 08-3381-001

TEST NO. TDC4K-1R RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 746.76 MM HG(29.40 IN HG)
RELATIVE HUMIDITY 49. PCT

BAG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPH
THC BCKGRD METER/RANGE/PPH
CO SAMPLE METER/RANGE/PPH
CO BCKGRD METER/RANGE/PPH
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPH
NOX BCKGRD METER/RANGE/PPH
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCM)
SAM BLR (SCM)
MI (MEASURED)

VEHICLE NO.311
DATE 10/ 8/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 8.4 GM/KG

NYCC

1041.4 (41.0)
1104.9 (43.5)
42.2 (108.0)
47125.
84.3 (2977.)
10.4/ 2/ 10.
8.8/ 2/ 9.
20.8/ 12/ 21.
.5/ 12/ 1.
63.3/ 14/ .4121
12.4/ 14/ .0415
.9/ 1/ .2
.5/ 1/ .1
28.69
2.
20.
.3721
.1
.18
1.94
574.4
.02
595.
.965 (.950)
1.000 (.977)
84.3
.00
1.18

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL EM-1179-F
ODOMETER 44170. KM(27446. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .93

TEST NUMBER,		TDC4K-1R
BAROMETER,	MM HG	746.8
HUMIDITY,	G/KG	8.4
TEMPERATURE,	DEG C	22.2
CARBON DIOXIDE,	G/MI	487.9
FUEL ECONOMY,	MPG	9.7
HYDROCARBONS, (THC)	G/MI	.16
CARBON MONOXIDE,	G/MI	1.65
OXIDES OF NITROGEN,	G/MI	.01

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TEST NO. TDC4K-2R RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

VEHICLE NO.311
DATE 10/ 9/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL EM-1179-F
ODOMETER 44181. KM(27453. MILES)

BAROMETER 746.51 MM HG(29.39 IN HG)
RELATIVE HUMIDITY 52. PCT
BAG RESULTS

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 8.6 GM/KG

NOX HUMIDITY CORRECTION FACTOR .94

BAG NUMBER DESCRIPTION	1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	1041.4 (41.0)	1041.4 (41.0)	1066.8 (42.0)	1066.8 (42.0)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)	1117.6 (44.0)	1130.3 (44.5)	1130.3 (44.5)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)	39.4 (103.0)	42.8 (109.0)	40.0 (104.0)
BLOWER REVOLUTIONS	40095.	68748.	39976.	68613.
TOT FLOW STD. CU. METRES(SCF)	71.7 (2532.)	123.4 (4359.)	71.2 (2513.)	122.8 (4335.)
THC SAMPLE METER/RANGE/PPM	59.6/ 2/ 60.	11.9/ 2/ 12.	14.6/ 2/ 15.	10.1/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	11.3/ 2/ 11.	10.5/ 2/ 10.	8.7/ 2/ 9.	7.9/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	63.3/ 14/ 292.	24.8/ 12/ 25.	40.4/ 12/ 40.	34.1/ 12/ 34.
CO BCKGRD METER/RANGE/PPM	.3/ 14/ 1.	1.0/ 12/ 1.	.6/ 12/ 1.	.6/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	88.9/ 14/ .8411	72.7/ 14/ .5387	84.4/ 14/ .7432	72.5/ 14/ .5357
CO2 BCKGRD METER/RANGE/PCT	13.1/ 14/ .0442	13.0/ 14/ .0438	12.7/ 14/ .0426	12.7/ 14/ .0426
NOX SAMPLE METER/RANGE/PPM	41.7/ 1/ 10.5	.9/ 1/ .2	6.5/ 1/ 1.7	.4/ 1/ .1
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3	.9/ 1/ .2	.4/ 1/ .1	.4/ 1/ .1
DILUTION FACTOR	13.61	21.96	15.91	22.06
THC CONCENTRATION PPM	49.	2.	6.	3.
CO CONCENTRATION PPM	279.	23.	38.	32.
CO2 CONCENTRATION PCT	.8001	.4969	.7033	.4950
NOX CONCENTRATION PPM	10.2	.0	1.6	.0
THC MASS GRAMS	4.04	.27	.53	.36
CO MASS GRAMS	23.32	3.31	3.16	4.61
CO2 MASS GRAMS	1050.4	1123.1	916.4	1112.8
NOX MASS GRAMS	1.31	.00	.20	.00
THC GRAMS/MI	1.13	.07	.15	.09
CO GRAMS/MI	6.52	.85	.88	1.18
CO2 GRAMS/MI	293.8	289.3	256.2	285.3
NOX GRAMS/MI	.37	.00	.06	.00
FUEL ECONOMY IN MPG	15.55	15.96	16.35	17.40
RUN TIME SECONDS	505.	868.	504.	868.
MEASURED DISTANCE MI	3.58	7.46	3.58	7.48
SCF, DRY	.968	.972	.970	.972
DPC, WET (DRY)		.944(.928)		.948(.932)
TOT VOL (SCM) / SAM BLR (SCM)		195.1/ .00		194.0/ .00

COMPOSITE RESULTS

TEST NUMBER TDC4K-2R
BAROMETER MM HG 746.5
HUMIDITY G/KG 8.6
TEMPERATURE DEG C 21.7

CARBON DIOXIDE	G/MI	281.2	(280.0)
FUEL ECONOMY	MPG	16.69	(16.75)
HYDROCARBONS (THC)	G/MI	.31	(.32)
CARBON MONOXIDE	G/MI	2.03	(2.13)
OXIDES OF NITROGEN	G/MI	.09	(.09)

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TEST NO. TDC4K-2R RUN
 VEHICLE MODEL 86 TOYOTA CAMRY
 ENGINE 2.0 L(122. CID) L-4
 TRANSMISSION A3

BAROMETER 746.51 MM HG(29.39 IN HG)
 RELATIVE HUMIDITY 56. PCT
 BAG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
 BLOWER INLET P MM. H2O(IN. H2O)
 BLOWER INLET TEMP. DEG. C(DEG. F)
 BLOWER REVOLUTIONS
 TOT FLOW STD. CU. METRES(SCF)
 THC SAMPLE METER/RANGE/PPM
 THC BCKGRD METER/RANGE/PPM
 CO SAMPLE METER/RANGE/PPM
 CO BCKGRD METER/RANGE/PPM
 CO2 SAMPLE METER/RANGE/PCT
 CO2 BCKGRD METER/RANGE/PCT
 NOX SAMPLE METER/RANGE/PPM
 NOX BCKGRD METER/RANGE/PPM
 DILUTION FACTOR
 THC CONCENTRATION PPM
 CO CONCENTRATION PPM
 CO2 CONCENTRATION PCT
 NOX CONCENTRATION PPM
 THC MASS GRAMS
 CO MASS GRAMS
 CO2 MASS GRAMS
 NOX MASS GRAMS
 RUN TIME SECONDS
 DFC, WET (DRY)
 SCF, WET (DRY)
 VOL (SCM)
 SAM BLR (SCM)
 MI (MEASURED)

VEHICLE NO.311
 DATE 10/ 9/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
 ABS. HUMIDITY 9.3 GM/KG

HPET

1066.8 (42.0)
 1130.3 (44.5)
 43.3 (110.0)
 60543.
 107.7 (3802.)
 12.3/ 2/ 12.
 7.9/ 2/ 8.
 23.3/ 12/ 23.
 .5/ 12/ 1.
 94.4/ 14/ .9809
 12.6/ 14/ .0422
 6.0/ 1/ 1.6
 .3/ 1/ .1
 12.10
 5.
 22.
 .9421
 1.5
 .62
 2.73
 1857.2
 .29
 765.
 .917 (.901)
 1.000 (.965)
 107.7
 .00
 10.08

TEST WEIGHT 1361. KG(3000. LBS)
 ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
 METHANOL EM-1179-F
 ODOMETER 44205. KM(27468. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .96

TEST NUMBER,
 BAROMETER, MM HG
 HUMIDITY, G/KG
 TEMPERATURE, DEG C
 CARBON DIOXIDE, G/MI
 FUEL ECONOMY, MPG

TDC4K-2R
 746.5
 9.3
 21.7
 184.2
 25.7

HYDROCARBONS, (THC) G/MI
 CARBON MONOXIDE, G/MI
 OXIDES OF NITROGEN, G/MI

.06
 .27
 .03

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TEST NO. TDC4K-2R RUN
VEHICLE MODEL 86 TOYOTA CAMRY
ENGINE 2.0 L(122. CID) L-4
TRANSMISSION A3

BAROMETER 746.25 MM HG(29.38 IN HG)
RELATIVE HUMIDITY 53. PCT
BAG RESULTS

VEHICLE NO.311
DATE 10/ 9/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 9.1 GM/KG

TEST WEIGHT 1361. KG(3000. LBS)
ACTUAL ROAD LOAD 5.5 KW(7.4 HP)
METHANOL EM-1179-F
ODOMETER 44222. KM(27478. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
MOX HUMIDITY CORRECTION FACTOR .95

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	1054.1 (41.5)
BLOWER INLET P MM. H2O(IN. H2O)	1117.6 (44.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47056.
TOT FLOW STD. CU. METRES(SCF)	83.8 (2959.)
THC SAMPLE METER/RANGE/PPM	10.1/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	7.7/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	30.2/ 12/ 30.
CO BCKGRD METER/RANGE/PPM	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	63.2/ 14/ .4109
CO2 BCKGRD METER/RANGE/PCT	13.0/ 14/ .0438
NOX SAMPLE METER/RANGE/PPM	.7/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	.4/ 1/ .1
DILUTION FACTOR	28.71
THC CONCENTRATION PPM	3.
CO CONCENTRATION PPM	28.
CO2 CONCENTRATION PCT	.3686
NOX CONCENTRATION PPM	.1
THC MASS GRAMS	.26
CO MASS GRAMS	2.78
CO2 MASS GRAMS	565.6
NOX MASS GRAMS	.01
RUN TIME SECONDS	595.
DPC, WET (DRY)	.965 (.949)
SCF, WET (DRY)	1.000 (.976)
VOL (SCM)	83.8
SAM BLR (SCM)	.00
MI (MEASURED)	1.17

TEST NUMBER,	TDC4K-2R
BAROMETER, MM HG	746.3
HUMIDITY, G/KG	9.1
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	482.3
FUEL ECONOMY, MPG	9.8
HYDROCARBONS, (THC) G/MI	.22
CARBON MONOXIDE, G/MI	2.37
OXIDES OF NITROGEN, G/MI	.01

APPENDIX Q

COMPUTER PRINTOUTS OF CHEVROLET CORSICA TASK 3 EMISSION TEST RESULTS

Page Q-	Test No.	Fuel	Catalyst	Test Cycle
2	C1HC0K-01	Howell EEE	Camet	FTP
3	C1HC0K-01	Howell EEE	Camet	HFET
4	C1HC0K-01	Howell EEE	Camet	NYCC
5	C1HC0K-02	Howell EEE	Camet	FTP
6	C1HC0K-02	Howell EEE	Camet	HFET
7	C1HC0K-02	Howell EEE	Camet	NYCC
8	C2HC0K-01	M85	Camet	FTP
9	C2HC0K-01	M85	Camet	HFET
10	C2HC0K-01	M85	Camet	NYCC
11	C2HC0K-02	M85	Camet	FTP
12	C2HC0K-02	M85	Camet	HFET
13	C2HC0K-02	M85	Camet	NYCC
14	C2HC2K-01	M85	Camet	FTP
15	C2HC2K-01	M85	Camet	HFET
16	C2HC2K-01	M85	Camet	NYCC
17	C2HC2K-02	M85	Camet	FTP
18	C2HC2K-02	M85	Camet	HFET
19	C2HC2K-02	M85	Camet	NYCC
20	C2HC4K-01	M85	Camet	FTP
21	C2HC4K-01	M85	Camet	HFET
22	C2HC4K-01	M85	Camet	NYCC
23	C2HC4K-02	M85	Camet	FTP
24	C2HC4K-02	M85	Camet	HFET
25	C2HC4K-02	M85	Camet	NYCC

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PROJECT 08-3734-001

TEST NO. C1HCOK-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 10/29/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1344-F
ODOMETER 5029. KM(3125. MILES)

BAROMETER 738.63 MM HG(29.08 IN HG)
RELATIVE HUMIDITY 59. PCT

DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)
ABS. HUMIDITY 11.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR 1.02

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.1 (106.0)	41.1 (106.0)	45.0 (113.0)	42.8 (109.0)
BLOWER REVOLUTIONS	40467.	69391.	40414.	69390.
TOT FLOW STD. CU. METRES(SCF)	75.4 (2661.)	129.2 (4563.)	74.9 (2644.)	128.8 (4549.)
THC SAMPLE METER/RANGE/PPM	16.5/ 2/ 16.	12.1/ 2/ 12.	19.8/ 2/ 20.	12.5/ 2/ 12.
THC BCKGRD METER/RANGE/PPM	12.3/ 2/ 12.	12.1/ 2/ 12.	11.8/ 2/ 12.	11.3/ 2/ 11.
CO SAMPLE METER/RANGE/PPM	1.0/ 12/ 1.	7.9/ 12/ 8.	31.9/ 12/ 32.	23.7/ 12/ 24.
CO BCKGRD METER/RANGE/PPM	.4/ 12/ 0.	.5/ 12/ 1.	.8/ 12/ 1.	1.1/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	70.7/ 1/1.3071	87.8/ 14/ .8159	98.1/ 14/1.0908	87.4/ 14/ .8070
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473	13.5/ 14/ .0458	14.7/ 14/ .0506	14.9/ 14/ .0515
NOX SAMPLE METER/RANGE/PPM	36.1/ 1/ 9.1	2.0/ 1/ .5	11.8/ 1/ 3.0	1.4/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2	.8/ 1/ .2	1.2/ 1/ .3	1.4/ 1/ .4
DILUTION FACTOR	10.24	16.38	12.23	16.53
THC CONCENTRATION PPM	5.	1.	9.	2.
CO CONCENTRATION PPM	1.	7.	30.	22.
CO2 CONCENTRATION PCT	1.2644	.7729	1.0443	.7586
NOX CONCENTRATION PPM	8.9	.3	2.8	.0
THC MASS GRAMS	.23	.06	.39	.14
CO MASS GRAMS	.05	1.09	2.59	3.27
CO2 MASS GRAMS	1744.7	1828.7	1431.5	1789.4
NOX MASS GRAMS	1.31	.08	.40	.01
THC GRAMS/MI	.07	.01	.11	.04
CO GRAMS/MI	.02	.28	.73	.85
CO2 GRAMS/MI	493.1	477.9	402.1	464.5
NOX GRAMS/MI	.37	.02	.11	.00
FUEL ECONOMY IN MPG	17.97	18.26	18.54	21.97
RUN TIME SECONDS	506.	868.	505.	867.
MEASURED DISTANCE MI	3.54	7.36	3.56	7.41
SCF, DRY	.969	.972	.971	.973
DPC, WET (DRY)		.925(.908)		.932(.914)
TOT VOL (SCH) / SAM BLR (SCH)		204.6/ .00		203.7/ .00

COMPOSITE RESULTS

TEST NUMBER C1HCOK-01
BAROMETER MM HG 738.6
HUMIDITY G/KG 11.2
TEMPERATURE DEG C 23.9

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	460.2	(456.3)
FUEL ECONOMY	MPG	19.24	(19.39)
HYDROCARBONS (THC)	G/MI	.05	(.06)
CARBON MONOXIDE	G/MI	.35	(.52)
OXIDES OF NITROGEN	G/MI	.12	(.11)

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TEST NO. C18COK-01 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

BAROMETER 737.87 MM HG(29.05 IN HG)
 RELATIVE HUMIDITY 49. PCT
 BAG RESULTS

TEST CYCLE

BLOWER DIF P MM. H2O(IN. H2O)
 BLOWER INLET P MM. H2O(IN. H2O)
 BLOWER INLET TEMP. DEG. C(DEG. F)
 BLOWER REVOLUTIONS
 TOT FLOW STD. CU. METRES(SCF)
 THC SAMPLE METER/RANGE/PPM
 THC BCKGRD METER/RANGE/PPM
 CO SAMPLE METER/RANGE/PPM
 CO BCKGRD METER/RANGE/PPM
 CO2 SAMPLE METER/RANGE/PCT
 CO2 BCKGRD METER/RANGE/PCT
 NOX SAMPLE METER/RANGE/PPM
 NOX BCKGRD METER/RANGE/PPM
 DILUTION FACTOR
 THC CONCENTRATION PPM
 CO CONCENTRATION PPM
 CO2 CONCENTRATION PCT
 NOX CONCENTRATION PPM
 THC MASS GRAMS
 CO MASS GRAMS
 CO2 MASS GRAMS
 NOX MASS GRAMS
 RUN TIME SECONDS
 DFC, WET (DRY)
 SCF, WET (DRY)
 VOL (SCH)
 SAM BLR (SCH)
 MI (MEASURED)

VEHICLE NO.934
 DATE 10/29/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
 ABS. HUMIDITY 10.0 GM/KG

HPET

711.2 (28.0)
 762.0 (30.0)
 45.6 (114.0)
 61936.
 114.7 (4051.)
 16.5/ 2/ 16.
 11.1/ 2/ 11.
 14.2/ 12/ 14.
 1.2/ 12/ 1.
 78.2/ 1/1.4456
 3.1/ 1/ .0543
 15.5/ 1/ 4.0
 1.5/ 1/ .4
 9.25
 7.
 13.
 1.3971
 3.6
 .44
 1.68
 2934.4
 .78
 774.
 .892 (.878)
 1.000 (.971)
 114.7
 .00
 10.07

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 GASOLINE EM-1344-F
 ODOMETER 5053. KM(3140. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR .98

TEST NUMBER,		C18COK-01
BAROMETER,	MM HG	737.9
HUMIDITY,	G/KG	10.0
TEMPERATURE,	DEG C	25.0
CARBON DIOXIDE,	G/MI	291.4
FUEL ECONOMY,	MPG	30.4
HYDROCARBONS, (THC)	G/MI	.04
CARBON MONOXIDE,	G/MI	.17
OXIDES OF NITROGEN,	G/MI	.08

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

EST NO. C1HCOK-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 751.08 MM HG(29.57 IN HG)
RELATIVE HUMIDITY 24. PCT
AG RESULTS

TEST CYCLE

VEHICLE NO.934
DATE 11/ 8/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 3.9 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1373-F
ODOMETER 5172. KM(3214. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR .82

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)
BLOWER REVOLUTIONS	47724.
TOT FLOW STD. CU. METRES(SCF)	90.5 (3194.)
THC SAMPLE METER/RANGE/PPH	7.6/ 2/ 8.
THC BCKGRD METER/RANGE/PPH	6.6/ 2/ 7.
CO SAMPLE METER/RANGE/PPH	7.7/ 12/ 8.
CO BCKGRD METER/RANGE/PPH	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	78.5/ 14/ .6323
CO2 BCKGRD METER/RANGE/PCT	13.5/ 14/ .0458
NOX SAMPLE METER/RANGE/PPH	3.7/ 1/ 1.0
NOX BCKGRD METER/RANGE/PPH	.9/ 1/ .2
DILUTION FACTOR	21.14
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	8.
CO2 CONCENTRATION PCT	.5887
NOX CONCENTRATION PPM	.7
THC MASS GRAMS	.07
CO MASS GRAMS	.80
CO2 MASS GRAMS	975.0
NOX MASS GRAMS	.11
RUN TIME SECONDS	596.
DFC, WET (DRY)	.953 (.945)
SCF, WET (DRY)	1.000 (.986)
VOL (SCH)	90.5
SAM BLR (SCH)	.00
MI (MEASURED)	1.13

TEST NUMBER,	C1HCOK-01
BAROMETER, MM HG	751.1
HUMIDITY, G/KG	3.9
TEMPERATURE, DEG C	21.7
CARBON DIOXIDE, G/MI	859.6
FUEL ECONOMY, MPG	10.3
HYDROCARBONS, (THC) G/MI	.06
CARBON MONOXIDE, G/MI	.71
OXIDES OF NITROGEN, G/MI	.09

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PROJECT 08-3734-001

TEST NO. C1H00K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 11/ 8/91
BAG CART NO. 2 / CVS NO. 2
DYMO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1373-F
ODOMETER 5114. KM(3178. MILES)

BAROMETER 754.63 MM HG(29.71 IN HG)
RELATIVE HUMIDITY 22. PCT
BAG RESULTS

DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 3.6 GM/KG

NOX HUMIDITY CORRECTION FACTOR .81

BAG NUMBER DESCRIPTION	1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	40.0 (104.0)	38.9 (102.0)	41.7 (107.0)	40.0 (104.0)
BLOWER REVOLUTIONS	40457.	69457.	40433.	69428.
TOT FLOW STD. CU. METRES(SCF)	77.3 (2730.)	133.0 (4698.)	77.0 (2720.)	132.7 (4685.)
THC SAMPLE METER/RANGE/PPM	14.4/ 2/ 14.	8.3/ 2/ 8.	9.1/ 2/ 9.	9.1/ 2/ 9.
THC BCKGRD METER/RANGE/PPM	6.8/ 2/ 7.	8.1/ 2/ 8.	7.9/ 2/ 8.	8.9/ 2/ 9.
CO SAMPLE METER/RANGE/PPM	8.7/ 12/ 9.	.9/ 12/ 1.	3.8/ 12/ 4.	4.3/ 12/ 4.
CO BCKGRD METER/RANGE/PPM	.5/ 12/ 1.	.5/ 12/ 1.	.6/ 12/ 1.	.4/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	67.6/ 1/1.2502	86.9/ 14/ .7960	56.7/ 1/1.0506	86.6/ 14/ .7894
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	13.1/ 14/ .0442	2.5/ 1/ .0437	13.0/ 14/ .0438
NOX SAMPLE METER/RANGE/PPM	54.9/ 1/ 13.8	4.8/ 1/ 1.3	23.5/ 1/ 6.0	1.4/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	.4/ 1/ .1	.6/ 1/ .2	.5/ 1/ .1	.7/ 1/ .2
DILUTION FACTOR	10.70	16.82	12.74	16.95
THC CONCENTRATION PPM	8.	1.	2.	1.
CO CONCENTRATION PPM	8.	0.	3.	4.
CO2 CONCENTRATION PCT	1.2106	.7544	1.0103	.7482
NOX CONCENTRATION PPM	13.7	1.1	5.9	.2
THC MASS GRAMS	.37	.05	.08	.06
CO MASS GRAMS	.72	.06	.29	.60
CO2 MASS GRAMS	1713.9	1837.5	1425.0	1817.7
NOX MASS GRAMS	1.64	.23	.70	.04
THC GRAMS/MI	.10	.01	.02	.01
CO GRAMS/MI	.20	.02	.08	.15
CO2 GRAMS/MI	484.1	476.5	400.3	467.7
NOX GRAMS/MI	.46	.06	.20	.01
FUEL ECONOMY IN MPG	18.29	18.46	18.61	22.14
RUN TIME SECONDS	505.	867.	505.	867.
MEASURED DISTANCE MI	3.54	7.40	3.56	7.45
SCF, DRY	.981	.984	.986	.985
DPC, WET (DRY)		.928(.922)		.934(.927)
TOT VOL (SCH) / SAM BLR (SCH)		210.4/ .00		209.7/ .00

COMPOSITE RESULTS

TEST NUMBER C1H00K-02
BAROMETER MM HG 754.6
HUMIDITY G/KG 3.6
TEMPERATURE DEG C 22.2

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	457.2	(454.7)
FUEL ECONOMY	MPG	19.39	(19.49)
HYDROCARBONS (THC)	G/MI	.03	(.03)
CARBON MONOXIDE	G/MI	.07	(.11)
OXIDES OF NITROGEN	G/MI	.18	(.17)

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
 HPET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3734-001

TEST NO. C1HCOK-02 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

BAROMETER 753.62 MM HG(29.67 IN HG)
 RELATIVE HUMIDITY 22. PCT
 BAG RESULTS

VEHICLE NO.934
 DATE 11/ 8/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
 ABS. HUMIDITY 3.6 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 GASOLINE EM-1373-F
 ODOMETER 5139. KM(3193. MILES)
 C = .866 H = .134 O = .000
 FUEL DENSITY = 6.16
 NOX HUMIDITY CORRECTION FACTOR .81

TEST CYCLE

HPET

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	61248.
TOT FLOW STD. CU. METRES(SCF)	116.4 (4110.)
THC SAMPLE METER/RANGE/PPM	10.8/ 2/ 11.
THC BCKGRD METER/RANGE/PPM	9.2/ 2/ 9.
CO SAMPLE METER/RANGE/PPM	4.5/ 12/ 5.
CO BCKGRD METER/RANGE/PPM	.3/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.9/ 1/1.3844
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437
NOX SAMPLE METER/RANGE/PPM	17.1/ 1/ 4.4
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3
DILUTION FACTOR	9.67
THC CONCENTRATION PPM	3.
CO CONCENTRATION PPM	4.
CO2 CONCENTRATION PCT	1.3452
NOX CONCENTRATION PPM	4.1
THC MASS GRAMS	.17
CO MASS GRAMS	.56
CO2 MASS GRAMS	2866.7
NOX MASS GRAMS	.74
RUN TIME	765.
DPC, WET (DRY)	.897 (.890)
SCF, WET (DRY)	1.000 (.980)
VOL (SCH)	116.4
SAM BLR (SCH)	.00
NI (MEASURED)	9.92

TEST NUMBER,		C1HCOK-02
BAROMETER,	MM HG	753.6
HUMIDITY,	G/KG	3.6
TEMPERATURE,	DEG C	22.2
CARBON DIOXIDE,	G/MI	288.9
FUEL ECONOMY,	MPG	30.7

HYDROCARBONS, (THC)	G/MI	.02
CARBON MONOXIDE,	G/MI	.06
OXIDES OF NITROGEN,	G/MI	.07

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NYOC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

EST NO. C1800K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 753.36 MM HG(29.66 IN HG)
RELATIVE HUMIDITY 22. PCT
AG RESULTS

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPH
THC BCKGRD METER/RANGE/PPH
CO SAMPLE METER/RANGE/PPH
CO BCKGRD METER/RANGE/PPH
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPH
NOX BCKGRD METER/RANGE/PPH
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCM)
SAM BLR (SCM)
MI (MEASURED)

VEHICLE NO.934
DATE 11/ 8/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 3.6 GM/KG

NYOC

711.2 (28.0)
762.0 (30.0)
42.2 (108.0)
47740.
90.7 (3202.)
11.3/ 2/ 11.
9.2/ 2/ 9.
24.6/ 12/ 25.
.4/ 12/ 0.
78.3/ 14/ .6289
12.7/ 14/ .0426
2.8/ 1/ .7
.5/ 1/ .1
21.19
3.
24.
.5883
.6
.13
2.50
976.8
.09
596.
.953 (.946)
1.000 (.987)
90.7
.00
1.20

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1373-F
ODOMETER 5155. KM(3203. MILES)
C = .866 H = .134 O = .000
FUEL DENSITY = 6.16
NOX HUMIDITY CORRECTION FACTOR .81

TEST NUMBER,		C1800K-02
BAROMETER,	MM HG	753.4
HUMIDITY,	G/KG	3.6
TEMPERATURE,	DEG C	22.2
CARBON DIOXIDE,	G/MI	817.2
FUEL ECONOMY,	MPG	10.8
HYDROCARBONS, (THC)	G/MI	.11
CARBON MONOXIDE,	G/MI	2.09
OXIDES OF NITROGEN,	G/MI	.07

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. C2HCOK-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 11/11/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1179-F
ODOMETER 5200. KM(3231. MILES)

BAROMETER 746.25 MM HG(29.38 IN HG)
RELATIVE HUMIDITY 46. PCT
BAG RESULTS

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 8.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR .92

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	41.7 (107.0)	42.2 (108.0)	41.1 (106.0)
BLOWER REVOLUTIONS	40450.	69483.	40446.	69493.
TOT FLOW STD. CU. METRES(SCF)	76.0 (2682.)	130.8 (4617.)	76.0 (2685.)	130.9 (4623.)
THC SAMPLE METER/RANGE/PPM	9.5/ 2/ 9.	7.3/ 2/ 7.	9.3/ 2/ 9.	8.1/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	7.0/ 2/ 7.	7.3/ 2/ 7.	8.0/ 2/ 8.	8.1/ 2/ 8.
CO SAMPLE METER/RANGE/PPM	26.8/ 12/ 27.	1.6/ 12/ 2.	57.3/ 12/ 57.	3.1/ 12/ 3.
CO BCKGRD METER/RANGE/PPM	.5/ 12/ 1.	.5/ 12/ 1.	.6/ 12/ 1.	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	61.8/ 1/1.1441	82.6/ 14/ .7075	94.0/ 14/ .9698	82.1/ 14/ .6979
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473	14.3/ 14/ .0490	14.4/ 14/ .0494	14.4/ 14/ .0494
NOX SAMPLE METER/RANGE/PPM	27.7/ 1/ 7.0	2.2/ 1/ .6	13.7/ 1/ 3.5	1.8/ 1/ .5
NOX BCKGRD METER/RANGE/PPM	.8/ 1/ .2	.5/ 1/ .1	.4/ 1/ .1	.5/ 1/ .1
DILUTION FACTOR	10.38	16.81	12.20	17.04
THC CONCENTRATION PPM	3.	0.	2.	0.
CO CONCENTRATION PPM	25.	1.	54.	2.
CO2 CONCENTRATION PCT	1.1014	.6614	.9244	.6514
NOX CONCENTRATION PPM	6.8	.5	3.4	.4
THC MASS GRAMS	.28	.07	.17	.07
CO MASS GRAMS	2.21	.17	4.79	.35
CO2 MASS GRAMS	1531.9	1583.3	1286.9	1561.1
NOX MASS GRAMS	.91	.11	.46	.08
THC GRAMS/MI	.08	.02	.05	.02
CO GRAMS/MI	.62	.04	1.34	.09
CO2 GRAMS/MI	431.3	411.4	361.0	403.5
NOX GRAMS/MI	.26	.03	.13	.02
FUEL ECONOMY IN MPG	11.00	11.28	13.09	12.37
RUN TIME SECONDS	505.	867.	505.	868.
MEASURED DISTANCE MI	3.55	7.40	3.56	7.43
SCF, DRY	.965	.970	.968	.971
DPC, WET (DRY)		.927(.913)		.933(.919)
TOT VOL (SCM) / SAM BLR (SCM)		206.7/ .00		206.9/ .00

COMPOSITE RESULTS

TEST NUMBER C2HCOK-01
BAROMETER MM HG 746.3
HUMIDITY G/KG 8.2
TEMPERATURE DEG C 22.8

CARBON DIOXIDE	G/MI	3-BAG	(4-BAG)
		401.7	(399.4)
FUEL ECONOMY	MPG	11.81	(11.88)
HYDROCARBONS (THC)	G/MI	.04	(.04)
CARBON MONOXIDE	G/MI	.52	(.53)
OXIDES OF NITROGEN	G/MI	.10	(.10)

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 HFET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3734-001

EST NO. CZHCOK-01 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

VEHICLE NO.934
 DATE 11/11/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 GASOLINE EM-1179-F
 ODOMETER 5222. KM(3245. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .92

BAROMETER 745.74 MM HG(29.36 IN HG)
 RELATIVE HUMIDITY 49. PCT

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
 ABS. HUMIDITY 8.0 GM/KG

AG RESULTS

HFET

TEST CYCLE

BLOWER DIP P MM. H2O(IN. H2O)
 BLOWER INLET P MM. H2O(IN. H2O)
 BLOWER INLET TEMP. DEG. C(DEG. F)
 BLOWER REVOLUTIONS

711.2 (28.0)
 762.0 (30.0)
 42.2 (108.0)
 61305.

TOT FLOW STD. CU. METRES(SCF)

115.2 (4066.)

THC SAMPLE METER/RANGE/PPM

9.6/ 2/ 10.

THC BCKGRD METER/RANGE/PPM

8.5/ 2/ 8.

CO SAMPLE METER/RANGE/PPM

26.8/ 12/ 27.

CO BCKGRD METER/RANGE/PPM

.5/ 12/ 1.

CO2 SAMPLE METER/RANGE/PCT

72.1/ 1/1.3328

CO2 BCKGRD METER/RANGE/PCT

2.8/ 1/ .0490

NOX SAMPLE METER/RANGE/PPM

7.0/ 1/ 1.8

NOX BCKGRD METER/RANGE/PPM

.4/ 1/ .1

DILUTION FACTOR

8.91

THC CONCENTRATION PPM

2.

CO CONCENTRATION PPM

25.

CO2 CONCENTRATION PCT

1.2893

NOX CONCENTRATION PPM

1.7

THC MASS GRAMS

.27

CO MASS GRAMS

3.33

CO2 MASS GRAMS

2718.3

NOX MASS GRAMS

.35

RUN TIME SECONDS

766.

DPC, WET (DRY)

.888 (.874)

SCF, WET (DRY)

1.000 (.961)

VOL (SCH)

115.2

SAM BLR (SCH)

.00

MI (MEASURED)

10.19

TEST NUMBER,

CZHCOK-01

BAROMETER, MM HG

745.7

HUMIDITY, G/KG

8.0

TEMPERATURE, DEG C

21.7

CARBON DIOXIDE, G/MI

266.7

FUEL ECONOMY, MPG

17.8

HYDROCARBONS, (THC) G/MI

.03

CARBON MONOXIDE, G/MI

.33

OXIDES OF NITROGEN, G/MI

.03

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NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

EST NO. C2HCOK-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 745.24 MM HG(29.34 IN HG)
RELATIVE HUMIDITY 46. PCT
WAG RESULTS

VEHICLE NO.934
DATE 11/11/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 7.8 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1179-F
ODOMETER 5240. KM(3256. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .91

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	47827.
TOT FLOW STD. CU. METRES(SCF)	89.8 (3171.)
THC SAMPLE METER/RANGE/PPH	9.2/ 2/ 9.
THC BCKGRD METER/RANGE/PPH	8.9/ 2/ 9.
CO SAMPLE METER/RANGE/PPH	9.4/ 12/ 9.
CO BCKGRD METER/RANGE/PPH	.3/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	75.3/ 14/ .5790
CO2 BCKGRD METER/RANGE/PCT	14.4/ 14/ .0494
NOX SAMPLE METER/RANGE/PPH	.4/ 1/ .1
NOX BCKGRD METER/RANGE/PPH	.3/ 1/ .1
DILUTION FACTOR	20.51
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	9.
CO2 CONCENTRATION PCT	.5320
NOX CONCENTRATION PPM	.0
THC MASS GRAMS	.08
CO MASS GRAMS	.93
CO2 MASS GRAMS	874.9
NOX MASS GRAMS	.00
RUN TIME SECONDS	592.
DPC, WET (DRY)	.951 (.937)
SCF, WET (DRY)	1.000 (.975)
VOL (SCM)	89.8
SAM BLR (SCM)	.00
MI (MEASURED)	1.19

TEST NUMBER,	C2HCOK-01
BAROMETER, MM HG	745.2
HUMIDITY, G/KG	7.8
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	736.7
FUEL ECONOMY, MPG	6.4
HYDROCARBONS, (THC) G/MI	.06
CARBON MONOXIDE, G/MI	.78
OXIDES OF NITROGEN, G/MI	.00

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-3734-001

TEST NO. C2HCOK-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 11/12/91
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1179-F
ODOMETER 5245. KM(3259. MILES)

BAROMETER 749.05 MM HG(29.49 IN HG)
RELATIVE HUMIDITY 43. PCT

DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 7.5 GM/KG

NOX HUMIDITY CORRECTION FACTOR .90

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIP P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEC. F)	42.2 (108.0)	40.0 (104.0)	42.2 (108.0)	40.6 (105.0)
BLOWER REVOLUTIONS	40540.	69382.	40466.	69445.
TOT FLOW STD. CU. METRES(SCF)	76.5 (2702.)	131.5 (4644.)	76.4 (2697.)	131.5 (4643.)
THC SAMPLE METER/RANGE/PPM	10.7/ 2/ 11.	8.3/ 2/ 8.	9.4/ 2/ 9.	9.0/ 2/ 9.
THC BCKGRD METER/RANGE/PPM	8.3/ 2/ 8.	8.7/ 2/ 9.	8.7/ 2/ 9.	9.4/ 2/ 9.
CO SAMPLE METER/RANGE/PPM	32.3/ 12/ 32.	1.3/ 12/ 1.	31.6/ 12/ 31.	4.8/ 12/ 5.
CO BCKGRD METER/RANGE/PPM	.9/ 12/ 1.	.9/ 12/ 1.	.6/ 12/ 1.	1.0/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	60.9/ 1/1.1276	81.6/ 14/ .6884	93.5/ 14/ .9562	81.4/ 14/ .6846
CO2 BCKGRD METER/RANGE/PCT	2.7/ 1/ .0473	13.3/ 14/ .0450	13.5/ 14/ .0458	13.8/ 14/ .0470
NOX SAMPLE METER/RANGE/PPM	26.3/ 1/ 6.7	2.7/ 1/ .7	20.0/ 1/ 5.1	.7/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	1.2/ 1/ .3	.7/ 1/ .2	.7/ 1/ .2	.4/ 1/ .1
DILUTION FACTOR	10.52	17.28	12.41	17.36
THC CONCENTRATION PPM	3.	0.	1.	0.
CO CONCENTRATION PPM	30.	0.	30.	4.
CO2 CONCENTRATION PCT	1.0848	.6460	.9141	.6403
NOX CONCENTRATION PPM	6.4	.5	4.9	.1
THC MASS GRAMS	.28	.02	.12	.02
CO MASS GRAMS	2.66	.07	2.64	.57
CO2 MASS GRAMS	1520.1	1555.4	1278.5	1541.7
NOX MASS GRAMS	.84	.12	.65	.02
THC GRAMS/MI	.08	.00	.03	.01
CO GRAMS/MI	.75	.02	.74	.15
CO2 GRAMS/MI	428.6	406.5	358.2	399.6
NOX GRAMS/MI	.24	.03	.18	.01
FUEL ECONOMY IN MPG	11.06	11.38	13.23	12.50
RUN TIME SECONDS	506.	867.	505.	867.
MEASURED DISTANCE MI	3.55	7.37	3.57	7.43
SCF, DRY	.966	.971	.969	.972
DPC, WET (DRY)		.928(.916)		.934(.921)
TOT VOL (SCN) / SAN BLR (SCN)		208.0/ .00		207.9/ .00

COMPOSITE RESULTS

TEST NUMBER C2HCOK-02
BAROMETER MM HG 749.0
HUMIDITY G/KG 7.5
TEMPERATURE DEG C 22.8

CARBON DIOXIDE	G/MI	397.8	(395.8)
FUEL ECONOMY	MPG	11.93	(11.99)
HYDROCARBONS (THC)	G/MI	.03	(.03)
CARBON MONOXIDE	G/MI	.37	(.41)
OXIDES OF NITROGEN	G/MI	.12	(.11)

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
 HFET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-3734-001

TEST NO. C2HCOK-02 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

BAROMETER 748.28 MM HG(29.46 IN HG)
 RELATIVE HUMIDITY 40. PCT
 BAG RESULTS

VEHICLE NO.934
 DATE 11/12/91
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
 ABS. HUMIDITY 7.3 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 GASOLINE EM-1179-F
 ODOMETER 5269. KM(3274. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .90

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	61299.
TOT FLOW STD. CU. METRES(SCF)	115.6 (4081.)
THC SAMPLE METER/RANGE/PPM	10.4/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	9.7/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	28.0/ 12/ 28.
CO BCKGRD METER/RANGE/PPM	.9/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	71.8/ 1/1.3273
CO2 BCKGRD METER/RANGE/PCT	2.8/ 1/ .0490
NOX SAMPLE METER/RANGE/PPM	6.8/ 1/ 1.8
NOX BCKGRD METER/RANGE/PPM	.4/ 1/ .1
DILUTION FACTOR	8.95
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	26.
CO2 CONCENTRATION PCT	1.2837
NOX CONCENTRATION PPM	1.7
THC MASS GRAMS	.24
CO MASS GRAMS	3.46
CO2 MASS GRAMS	2716.6
NOX MASS GRAMS	.33
RUN TIME	766.
SECONDS	
DPC, WET (DRY)	.888 (.877)
SCF, WET (DRY)	1.000 (.964)
VOL (SCH)	115.6
SAM BLR (SCH)	.00
MI (MEASURED)	10.20

TEST NUMBER,	C2HCOK-02
BAROMETER, MM HG	748.3
HUMIDITY, G/KG	7.3
TEMPERATURE, DEG C	23.3
CARBON DIOXIDE, G/MI	266.4
FUEL ECONOMY, MPG	17.8
HYDROCARBONS, (THC) G/MI	.02
CARBON MONOXIDE, G/MI	.34
OXIDES OF NITROGEN, G/MI	.03

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TEST NO. C3HCOK-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 748.03 MM HG(29.45 IN HG)
RELATIVE HUMIDITY 41. PCT

G RESULTS
TEST CYCLE

VEHICLE NO.934
DATE 11/12/91
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 6.8 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
GASOLINE EM-1179-F
ODOMETER 5285. KM(3284. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .88

BLOWER DIP P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)
BLOWER REVOLUTIONS	47732.
TOT FLOW STD. CU. METRES(SCF)	90.0 (3177.)
THC SAMPLE METER/RANGE/PPM	10.3/ 2/ 10.
THC BCKGRD METER/RANGE/PPM	9.9/ 2/ 10.
CO SAMPLE METER/RANGE/PPM	15.6/ 12/ 16.
CO BCKGRD METER/RANGE/PPM	.8/ 12/ 1.
CO2 SAMPLE METER/RANGE/PCT	73.8/ 14/ .5555
CO2 BCKGRD METER/RANGE/PCT	14.1/ 14/ .0482
NOX SAMPLE METER/RANGE/PPM	.7/ 1/ .2
NOX BCKGRD METER/RANGE/PPM	.0/ 1/ .0
DILUTION FACTOR	21.35
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	14.
CO2 CONCENTRATION PCT	.5095
NOX CONCENTRATION PPM	.2
THC MASS GRAMS	.09
CO MASS GRAMS	1.51
CO2 MASS GRAMS	839.3
NOX MASS GRAMS	.03
RUN TIME SECONDS	596.
DPC, WET (DRY)	.953 (.940)
SCF, WET (DRY)	1.000 (.977)
VOL (SCM)	90.0
SAM BLR (SCM)	.00
HI (MEASURED)	1.15

TEST NUMBER,	C3HCOK-02
BAROMETER, MM HG	748.0
HUMIDITY, G/KG	6.8
TEMPERATURE, DEG C	21.7
CARBON DIOXIDE, G/HI	728.8
FUEL ECONOMY, MPG	6.5
HYDROCARBONS, (THC) G/HI	.08
CARBON MONOXIDE, G/HI	1.31
OXIDES OF NITROGEN, G/HI	.02

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FTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2953-500

TEST NO. C2HC2K-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 1/ 9/92
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 8557. KM(5317. MILES)

BAROMETER 745.24 MM HG(29.34 IN HG)
RELATIVE HUMIDITY 24. PCT
BAG RESULTS

DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 3.9 GM/KG

NOX HUMIDITY CORRECTION FACTOR .82

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	736.6 (29.0)	736.6 (29.0)	736.6 (29.0)	744.2 (29.3)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	764.5 (30.1)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)	39.4 (103.0)	41.1 (106.0)	39.4 (103.0)
BLOWER REVOLUTIONS	40495.	69521.	40482.	69487.
TOT FLOW STD. CU. METRES(SCF)	75.9 (2679.)	131.1 (4628.)	76.1 (2686.)	130.9 (4623.)
THC SAMPLE METER/RANGE/PPM	10.8/ 2/ 11.	6.3/ 2/ 6.	7.2/ 2/ 7.	6.0/ 2/ 6.
THC BCKGRD METER/RANGE/PPM	5.7/ 2/ 6.	6.1/ 2/ 6.	5.7/ 2/ 6.	5.8/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	37.3/ 12/ 37.	5.6/ 12/ 6.	54.8/ 12/ 55.	7.4/ 12/ 7.
CO BCKGRD METER/RANGE/PPM	.1/ 12/ 0.	.2/ 12/ 0.	.0/ 12/ 0.	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	61.5/ 1/1.1386	81.8/ 14/ .6922	93.5/ 14/ .9562	81.9/ 14/ .6941
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	12.4/ 14/ .0415	12.3/ 14/ .0411	12.4/ 14/ .0415
NOX SAMPLE METER/RANGE/PPM	43.3/ 1/ 10.8	2.3/ 1/ .6	23.4/ 1/ 5.9	2.3/ 1/ .6
NOX BCKGRD METER/RANGE/PPM	.4/ 1/ .1	.5/ 1/ .1	.3/ 1/ .1	.5/ 1/ .1
DILUTION FACTOR	10.42	17.18	12.38	17.13
THC CONCENTRATION PPM	6.	1.	2.	1.
CO CONCENTRATION PPM	36.	5.	53.	7.
CO2 CONCENTRATION PCT	1.0991	.6531	.9185	.6550
NOX CONCENTRATION PPM	10.7	.5	5.8	.5
THC MASS GRAMS	.49	.08	.17	.08
CO MASS GRAMS	3.14	.81	4.67	1.11
CO2 MASS GRAMS	1526.7	1567.3	1279.3	1570.2
NOX MASS GRAMS	1.27	.09	.69	.09
THC GRAMS/MI	.14	.02	.05	.02
CO GRAMS/MI	.88	.21	1.30	.28
CO2 GRAMS/MI	425.6	405.1	357.7	403.3
NOX GRAMS/MI	.35	.02	.19	.02
FUEL ECONOMY IN MPG	11.13	11.43	11.73	13.21
RUN TIME SECONDS	505.	867.	505.	867.
MEASURED DISTANCE MI	3.59	7.46	3.87	7.47
SCF, DRY	.972	.977	.980	.978
DPC, WET (DRY)		.928(.921)		.933(.926)
TOT VOL (SCH) / SAM BLR (SCH)		206.9/ .00		207.0/ .00

COMPOSITE RESULTS

TEST NUMBER C2HC2K-01
BAROMETER MM HG 745.2
HUMIDITY G/KG 3.9
TEMPERATURE DEG C 21.7

CARBON DIOXIDE	G/MI	396.4	(395.9)
FUEL ECONOMY	MPG	11.96	(11.98)
HYDROCARBONS (THC)	G/MI	.05	(.05)
CARBON MONOXIDE	G/MI	.65	(.67)
OXIDES OF NITROGEN	G/MI	.14	(.14)

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HFET - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2953-500

TEST NO. C2HC2K-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 745.74 MM HG(29.36 IN HG)
RELATIVE HUMIDITY 23. PCT
BAG RESULTS

TEST CYCLE

BLOWER DIF P MM. H2O(IN. H2O)
BLOWER INLET P MM. H2O(IN. H2O)
BLOWER INLET TEMP. DEG. C(DEG. F)
BLOWER REVOLUTIONS
TOT FLOW STD. CU. METRES(SCF)
THC SAMPLE METER/RANGE/PPM
THC BCKGRD METER/RANGE/PPM
CO SAMPLE METER/RANGE/PPM
CO BCKGRD METER/RANGE/PPM
CO2 SAMPLE METER/RANGE/PCT
CO2 BCKGRD METER/RANGE/PCT
NOX SAMPLE METER/RANGE/PPM
NOX BCKGRD METER/RANGE/PPM
DILUTION FACTOR
THC CONCENTRATION PPM
CO CONCENTRATION PPM
CO2 CONCENTRATION PCT
NOX CONCENTRATION PPM
THC MASS GRAMS
CO MASS GRAMS
CO2 MASS GRAMS
NOX MASS GRAMS
RUN TIME SECONDS
DPC, WET (DRY)
SCF, WET (DRY)
VOL (SCH)
SAM BLR (SCH)
MI (MEASURED)

VEHICLE NO.934
DATE 1/ 9/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.8 DEG C(73.0 DEG F)
ABS. HUMIDITY 4.0 GM/KG

HFET

741.7 (29.2)
764.5 (30.1)
43.3 (110.0)
61300.
114.8 (4053.)
6.9/ 2/ 7.
5.7/ 2/ 6.
38.0/ 12/ 38.
.0/ 12/ 0.
71.1/ 1/1.3144
2.4/ 1/ .0420
19.3/ 1/ 4.8
.5/ 1/ .1
9.03
2.
36.
1.2771
4.7
.24
4.83
2683.5
.85
765.
.889 (.883)
1.000 (.970)
114.8
.00
10.17

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 8581. KM(5332. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .82

TEST NUMBER,
BAROMETER, MM HG
HUMIDITY, G/KG
TEMPERATURE, DEG C
CARBON DIOXIDE, G/MI
FUEL ECONOMY, MPG

C2HC2K-01
745.7
4.0
22.8
263.9
18.0

HYDROCARBONS, (THC) G/MI
CARBON MONOXIDE, G/MI
OXIDES OF NITROGEN, G/MI

.02
.48
.08

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PROJECT 08-2953-500

TEST NO. C2HC2K-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 745.74 MM HG(29.36 IN HG)
RELATIVE HUMIDITY 25. PCT
BAG RESULTS

TEST CYCLE

VEHICLE NO.934
DATE 1/ 9/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 22.2 DEG C(72.0 DEG F)
ABS. HUMIDITY 4.2 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 8597. KM(5342. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .82

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	764.5 (30.1)
BLOWER INLET P MM. H2O(IN. H2O)	744.2 (29.3)
BLOWER INLET TEMP. DEG. C(DEG. F)	41.7 (107.0)
BLOWER REVOLUTIONS	47756.
TOT FLOW STD. CU. METRES(SCF)	89.8 (3171.)
THC SAMPLE METER/RANGE/PPM	6.6/ 2/ 7.
THC BCKGRD METER/RANGE/PPM	5.6/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	26.6/ 12/ 27.
CO BCKGRD METER/RANGE/PPM	.2/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.4/ 14/ .5648
CO2 BCKGRD METER/RANGE/PCT	12.4/ 14/ .0415
NOX SAMPLE METER/RANGE/PPM	1.4/ 1/ .4
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2
DILUTION FACTOR	20.97
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	26.
CO2 CONCENTRATION PCT	.5253
NOX CONCENTRATION PPM	.2
THC MASS GRAMS	.13
CO MASS GRAMS	2.69
CO2 MASS GRAMS	863.7
NOX MASS GRAMS	.03
RUN TIME SECONDS	596.
DPC, WET (DRY)	.952 (.945)
SCF, WET (DRY)	1.000 (.982)
VOL (SCM)	89.8
SAM BLR (SCM)	.00
MI (MEASURED)	1.14

TEST NUMBER,	C2HC2K-01
BAROMETER, MM HG	745.7
HUMIDITY, G/KG	4.2
TEMPERATURE, DEG C	22.2
CARBON DIOXIDE, G/MI	759.3
FUEL ECONOMY, MPG	6.2
HYDROCARBONS, (THC) G/MI	.11
CARBON MONOXIDE, G/MI	2.36
OXIDES OF NITROGEN, G/MI	.02

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PTP - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2953-500

TEST NO. C2HC2K-02 RUN
VEHICLE MODEL 39 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 1/10/92
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-P
ODOMETER 8604. KM(5346. MILES)

BAROMETER 749.81 MM HG(29.52 IN HG)
RELATIVE HUMIDITY 26. PCT
BAG RESULTS

DRY BULB TEMP. 21.1 DEG C(70.0 DEG F)
ABS. HUMIDITY 4.1 GM/KG

NOX HUMIDITY CORRECTION FACTOR .82

BAG NUMBER
DESCRIPTION

1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
749.3 (29.5)	749.3 (29.5)	749.3 (29.5)	749.3 (29.5)
764.5 (30.1)	764.5 (30.1)	767.1 (30.2)	767.1 (30.2)
43.3 (110.0)	40.0 (104.0)	41.7 (107.0)	38.9 (102.0)
40501.	69505.	40473.	69463.
76.3 (2693.)	131.7 (4650.)	76.4 (2698.)	131.9 (4656.)
11.4/ 2/ 11.	6.9/ 2/ 7.	7.3/ 2/ 7.	6.6/ 2/ 7.
6.6/ 2/ 7.	6.9/ 2/ 7.	6.0/ 2/ 6.	6.5/ 2/ 6.
33.5/ 12/ 33.	4.8/ 12/ 5.	52.8/ 12/ 53.	7.3/ 12/ 7.
1.8/ 12/ 2.	1.7/ 12/ 2.	1.2/ 12/ 1.	2.3/ 12/ 2.
62.1/ 1/1.1496	82.0/ 14/ .6960	93.5/ 14/ .9562	81.8/ 14/ .6922
2.4/ 1/ .0420	12.9/ 14/ .0434	12.6/ 14/ .0422	12.7/ 14/ .0426
46.0/ 1/ 11.5	3.8/ 1/ 1.0	26.9/ 1/ 6.7	2.2/ 1/ .6
.7/ 1/ .2	.8/ 1/ .2	.7/ 1/ .2	.8/ 1/ .2
10.32	17.09	12.38	17.17
5.	0.	2.	0.
30.	3.	50.	5.
1.1117	.6551	.9174	.6520
11.3	.8	6.6	.4
.48	.06	.16	.07
2.70	.48	4.41	.77
1552.4	1579.5	1283.6	1574.0
1.36	.16	.79	.08
.13	.02	.04	.02
.75	.12	1.23	.20
432.4	408.4	357.3	403.5
.38	.04	.22	.02
10.96	11.30	13.23	12.43
11.64			11.77
505.	867.	505.	867.
3.59	7.46	3.59	7.49
3.87			3.90
.971	.976	.975	.978
.979			.979
.927(.920)		.934(.926)	
208.0/ .00		208.3/ .00	

THC GRAMS/MI
CO GRAMS/MI
CO2 GRAMS/MI
NOX GRAMS/MI
FUEL ECONOMY IN MPG
RUN TIME SECONDS
MEASURED DISTANCE MI
SCF, DRY
DPC, WET (DRY)
TOT VOL (SCH) / SAM BLR (SCH)

COMPOSITE RESULTS

TEST NUMBER C2HC2K-02
BAROMETER MM HG 749.8
HUMIDITY G/KG 4.1
TEMPERATURE DEG C 21.1

CARBON DIOXIDE	G/MI	399.3	(398.0)
FUEL ECONOMY	MPG	11.88	(11.92)
HYDROCARBONS (THC)	G/MI	.05	(.05)
CARBON MONOXIDE	G/MI	.56	(.58)
OXIDES OF NITROGEN	G/MI	.16	(.15)

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 HPET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-2953-500

TEST NO. C2HC2K-02 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

VEHICLE NO.934
 DATE 1/10/92
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 21.1 DEG C(70.0 DEG F)
 ABS. HUMIDITY 4.1 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 M85 EM-1179-F
 ODOMETER 8628. KM(5361. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .82

BAROMETER 750.06 MM HG(29.53 IN HG)
 RELATIVE HUMIDITY 26. PCT
 BAG RESULTS

TEST CYCLE

HPET

BLOWER DIP P MM. H2O(IN. H2O)	749.3 (29.5)
BLOWER INLET P MM. H2O(IN. H2O)	767.1 (30.2)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.8 (109.0)
BLOWER REVOLUTIONS	61323.
TOT FLOW STD. CU. METRES(SCF)	115.6 (4082.)
THC SAMPLE METER/RANGE/PPM	6.2/ 2/ 6.
THC BCKGRD METER/RANGE/PPM	5.6/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	1.2/ 12/ 1.
CO BCKGRD METER/RANGE/PPM	.3/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	70.3/ 1/1.2997
CO2 BCKGRD METER/RANGE/PCT	2.3/ 1/ .0402
NOX SAMPLE METER/RANGE/PPM	46.2/ 1/ 11.5
NOX BCKGRD METER/RANGE/PPM	.5/ 1/ .1
DILUTION FACTOR	9.16
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	1.
CO2 CONCENTRATION PCT	1.2639
NOX CONCENTRATION PPM	11.4
THC MASS GRAMS	.16
CO MASS GRAMS	.12
CO2 MASS GRAMS	2675.0
NOX MASS GRAMS	2.07
RUN TIME	765.
SECONDS	
DPC, WET (DRY)	.891 (.883)
SCF, WET (DRY)	1.000 (.969)
VOL (SCH)	115.6
SAH BLR (SCH)	.00
MI (MEASURED)	10.15

TEST NUMBER,	C2HC2K-02
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG
	18.0
HYDROCARBONS, (THC)	G/MI
CARBON MONOXIDE,	G/MI
OXIDES OF NITROGEN,	G/MI
	.02
	.01
	.20

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PROJECT 08-2953-500

TEST NO. C2HC2K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 750.06 MM HG(29.53 IN HG)
RELATIVE HUMIDITY 24. PCT
BAG RESULTS

VEHICLE NO.934
DATE 1/10/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 21.7 DEG C(71.0 DEG F)
ABS. HUMIDITY 3.9 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 8644. KM(5371. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .82

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	749.3 (29.5)
BLOWER INLET P MM. H2O(IN. H2O)	767.1 (30.2)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)
BLOWER REVOLUTIONS	47836.
TOT FLOW STD. CU. METRES(SCF)	90.1 (3181.)
THC SAMPLE METER/RANGE/PPM	7.5/ 2/ 7.
THC BCKGRD METER/RANGE/PPM	6.6/ 2/ 7.
CO SAMPLE METER/RANGE/PPM	22.9/ 12/ 23.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.4/ 14/ .5648
CO2 BCKGRD METER/RANGE/PCT	12.2/ 14/ .0407
NOX SAMPLE METER/RANGE/PPM	1.8/ 1/ .5
NOX BCKGRD METER/RANGE/PPM	.7/ 1/ .2
DILUTION FACTOR	20.98
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	22.
CO2 CONCENTRATION PCT	.5260
NOX CONCENTRATION PPM	.3
THC MASS GRAMS	.13
CO MASS GRAMS	2.34
CO2 MASS GRAMS	867.6
NOX MASS GRAMS	.04
RUN TIME	597.
SECONDS	
DPC, WET (DRY)	.952 (.945)
SCF, WET (DRY)	1.000 (.982)
VOL (SCH)	90.1
SAM BLR (SCH)	.00
MI (MEASURED)	1.15

TEST NUMBER,	C2HC2K-02
BAROMETER,	MM HG
HUMIDITY,	G/KG
TEMPERATURE,	DEG C
CARBON DIOXIDE,	G/MI
FUEL ECONOMY,	MPG
HYDROCARBONS, (THC)	G/MI
CARBON MONOXIDE,	G/MI
OXIDES OF NITROGEN,	G/MI

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TEST NO. C2HC4K-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 2/25/92
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 12070. KM(7500. MILES)

BAROMETER 741.93 MM HG(29.21 IN HG)
RELATIVE HUMIDITY 30. PCT

DRY BULB TEMP. 23.3 DEG C(74.0 DEG F)
ABS. HUMIDITY 5.5 GM/KG

NOX HUMIDITY CORRECTION FACTOR .85

BAG RESULTS

BAG NUMBER
DESCRIPTION

	1	2	3	4
	COLD TRANSIENT	STABILIZED	HOT TRANSIENT	STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	42.2 (108.0)	39.4 (103.0)	42.2 (108.0)	40.0 (104.0)
BLOWER REVOLUTIONS	40518.	69572.	40456.	69494.
TOT FLOW STD. CU. METRES(SCF)	75.7 (2673.)	130.6 (4613.)	75.6 (2668.)	130.3 (4603.)
THC SAMPLE METER/RANGE/PPM	12.8/ 2/ 13.	5.7/ 2/ 6.	7.0/ 2/ 7.	6.6/ 2/ 7.
THC BCKGRD METER/RANGE/PPM	5.4/ 2/ 5.	5.4/ 2/ 5.	5.0/ 2/ 5.	6.3/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	48.2/ 12/ 48.	5.5/ 12/ 6.	47.7/ 12/ 47.	8.0/ 12/ 8.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.	.0/ 12/ 0.	.0/ 12/ 0.	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	60.1/ 1/1.1130	81.1/ 14/ .6790	93.5/ 14/ .9562	81.7/ 14/ .6903
CO2 BCKGRD METER/RANGE/PCT	2.4/ 1/ .0420	12.3/ 14/ .0411	12.3/ 14/ .0411	12.3/ 14/ .0411
NOX SAMPLE METER/RANGE/PPM	40.3/ 1/ 10.1	1.7/ 1/ .4	25.5/ 1/ 6.4	2.6/ 1/ .7
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2	.6/ 1/ .2	.6/ 1/ .2	.7/ 1/ .2
DILUTION FACTOR	10.65	17.51	12.39	17.22
THC CONCENTRATION PPM	8.	1.	2.	1.
CO CONCENTRATION PPM	46.	5.	46.	8.
CO2 CONCENTRATION PCT	1.0749	.6403	.9185	.6516
NOX CONCENTRATION PPM	9.9	.3	6.3	.5
THC MASS GRAMS	.69	.09	.21	.10
CO MASS GRAMS	4.05	.82	4.02	1.19
CO2 MASS GRAMS	1489.6	1531.5	1270.7	1555.0
NOX MASS GRAMS	1.23	.06	.77	.10
THC GRAMS/MI	.19	.02	.06	.03
CO GRAMS/MI	1.14	.21	1.14	.31
CO2 GRAMS/MI	419.5	399.8	359.8	406.8
NOX GRAMS/MI	.35	.02	.22	.03
FUEL ECONOMY IN MPG	11.28	11.58	13.15	12.34
RUN TIME SECONDS	505.	867.	505.	868.
MEASURED DISTANCE MI	3.55	7.38	3.53	7.35
SCF, DRY	.971	.976	.973	.976
DFC, WET (DRY)		.929(.920)		.934(.924)
TOT VOL (SCH) / SAM BLR (SCH)		206.3/ .00		205.9/ .00

COMPOSITE RESULTS

TEST NUMBER C2HC4K-01
BAROMETER MM HG 741.9
HUMIDITY G/KG 5.5
TEMPERATURE DEG C 23.3

		3-BAG	(4-BAG)
CARBON DIOXIDE	G/MI	392.9	(395.0)
FUEL ECONOMY	MPG	12.07	(12.00)
HYDROCARBONS (THC)	G/MI	.07	(.07)
CARBON MONOXIDE	G/MI	.66	(.69)
OXIDES OF NITROGEN	G/MI	.14	(.14)

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 HFET - VEHICLE EMISSIONS RESULTS -
 PROJECT 08-2953-500

TEST NO. C2HC4K-01 RUN
 VEHICLE MODEL 89 CORSICA
 ENGINE 2.8 L(171. CID) V-6
 TRANSMISSION A3

BAROMETER 742.70 MM HG(29.24 IN HG)
 RELATIVE HUMIDITY 27. PCT
 BAG RESULTS

VEHICLE NO.934
 DATE 2/25/92
 BAG CART NO. 2
 DYNO NO. 3
 CVS NO. 2
 DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
 ABS. HUMIDITY 5.4 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
 ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
 M85 EM-1179-F
 ODOMETER 12093. KM(7514. MILES)
 C = .436 H = .128 O = .437
 FUEL DENSITY = 6.57
 NOX HUMIDITY CORRECTION FACTOR .85

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	61220.
TOT FLOW STD. CU. METRES(SCF)	114.1 (4030.)
THC SAMPLE METER/RANGE/PPM	7.1/ 2/ 7.
THC BCKGRD METER/RANGE/PPM	6.3/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	8.9/ 12/ 9.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	71.9/ 1/1.3291
CO2 BCKGRD METER/RANGE/PCT	2.4/ 1/ .0420
NOX SAMPLE METER/RANGE/PPM	23.2/ 1/ 5.8
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	8.95
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	9.
CO2 CONCENTRATION PCT	1.2918
NOX CONCENTRATION PPM	5.7
THC MASS GRAMS	.20
CO MASS GRAMS	1.14
CO2 MASS GRAMS	2699.6
NOX MASS GRAMS	1.06
RUN TIME SECONDS	765.
DFC, WET (DRY)	.888 (.881)
SCF, WET (DRY)	1.000 (.968)
VOL (SCH)	114.1
SAM BLR (SCH)	.00
MI (MEASURED)	10.11

TEST NUMBER,	C2HC4K-01
BAROMETER, MM HG	742.7
HUMIDITY, G/KG	5.4
TEMPERATURE, DEG C	25.0
CARBON DIOXIDE, G/MI	267.1
FUEL ECONOMY, MPG	17.8
HYDROCARBONS, (THC) G/MI	.02
CARBON MONOXIDE, G/MI	.11
-OXIDES OF NITROGEN, G/MI	.10

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PROJECT 08-2953-500

TEST NO. C2HC4K-01 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 742.95 MM HG(29.25 IN HG)
RELATIVE HUMIDITY 28. PCT
BAG RESULTS

VEHICLE NO.934
DATE 2/25/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 25.6 DEG C(78.0 DEG F)
ABS. HUMIDITY 5.8 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 12109. KM(7524. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .86

TEST CYCLE

NYCC

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	47865.
TOT FLOW STD. CU. METRES(SCF)	89.3 (3152.)
THC SAMPLE METER/RANGE/PPM	7.6/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	6.8/ 2/ 7.
CO SAMPLE METER/RANGE/PPM	29.4/ 12/ 29.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.6/ 14/ .5679
CO2 BCKGRD METER/RANGE/PCT	12.5/ 14/ .0418
NOX SAMPLE METER/RANGE/PPM	4.2/ 1/ 1.1
NOX BCKGRD METER/RANGE/PPM	.6/ 1/ .2
DILUTION FACTOR	20.84
THC CONCENTRATION PPM	1.
CO CONCENTRATION PPM	29.
CO2 CONCENTRATION PCT	.5281
NOX CONCENTRATION PPM	.9
THC MASS GRAMS	.12
CO MASS GRAMS	2.97
CO2 MASS GRAMS	863.2
NOX MASS GRAMS	.13
RUN TIME SECONDS	598.
DPC, WET (DRY)	.952 (.943)
SCF, WET (DRY)	1.000 (.981)
VOL (SCM)	89.3
SAM BLR (SCM)	.00
MI (MEASURED)	1.17

TEST NUMBER,	C2HC4K-01
BAROMETER, MM HG	743.0
HUMIDITY, G/KG	5.8
TEMPERATURE, DEG C	25.6
CARBON DIOXIDE, G/MI	740.7
FUEL ECONOMY, MPG	6.4
HYDROCARBONS, (THC) G/MI	.10
CARBON MONOXIDE, G/MI	2.55
OXIDES OF NITROGEN, G/MI	.11

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TEST NO. C2HC4K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

VEHICLE NO.934
DATE 2/26/92
BAG CART NO. 2 / CVS NO. 2
DYNO NO. 3

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 12123. KM(7533. MILES)

BAROMETER 748.54 MM HG(29.47 IN HG)
RELATIVE HUMIDITY 21. PCT
BAG RESULTS

DRY BULB TEMP. 25.0 DEG C(77.0 DEG F)
ABS. HUMIDITY 4.2 GM/KG

NOX HUMIDITY CORRECTION FACTOR .82

BAG NUMBER
DESCRIPTION

1 COLD TRANSIENT	2 STABILIZED	3 HOT TRANSIENT	4 STABILIZED
BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)	711.2 (28.0)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)	762.0 (30.0)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.3 (110.0)	39.4 (103.0)	43.3 (110.0)
BLOWER REVOLUTIONS	40569.	69582.	40522.
TOT FLOW STD. CU. METRES(SCF)	76.4 (2697.)	132.0 (4659.)	76.3 (2694.)
THC SAMPLE METER/RANGE/PPM	12.2/ 2/ 12.	6.5/ 2/ 6.	8.2/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	5.8/ 2/ 6.	6.3/ 2/ 6.	6.1/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	39.8/ 12/ 40.	4.3/ 12/ 4.	56.0/ 12/ 56.
CO BCKGRD METER/RANGE/PPM	.2/ 12/ 0.	.7/ 12/ 1.	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	60.5/ 1/1.1203	82.3/ 14/ .7017	94.5/ 14/ .9836
CO2 BCKGRD METER/RANGE/PCT	2.5/ 1/ .0437	13.2/ 14/ .0446	13.3/ 14/ .0450
NOX SAMPLE METER/RANGE/PPM	46.8/ 1/ 11.7	4.0/ 1/ 1.0	33.8/ 1/ 8.5
NOX BCKGRD METER/RANGE/PPM	1.8/ 1/ .5	1.7/ 1/ .4	1.2/ 1/ .3
DILUTION FACTOR	10.58	16.95	12.03
THC CONCENTRATION PPM	7.	1.	3.
CO CONCENTRATION PPM	38.	4.	54.
CO2 CONCENTRATION PCT	1.0807	.6597	.9424
NOX CONCENTRATION PPM	11.3	.6	8.2
THC MASS GRAMS	.61	.09	.23
CO MASS GRAMS	3.37	.55	4.78
CO2 MASS GRAMS	1511.3	1593.8	1316.3
NOX MASS GRAMS	1.35	.13	.98
THC GRAMS/MI	.17	.02	.06
CO GRAMS/MI	.94	.14	1.34
CO2 GRAMS/MI	423.4	413.0	369.8
NOX GRAMS/MI	.38	.03	.28
FUEL ECONOMY IN MPG	11.18	11.35	11.51
RUN TIME SECONDS	505.	867.	505.
MEASURED DISTANCE MI	3.57	7.43	3.86
SCF, DRY	.974	.978	.981
DFC, WET (DRY)		.928(.922)	.932(.926)
TOT VOL (SCM) / SAM BLR (SCM)		208.3/ .00	207.7/ .00

COMPOSITE RESULTS

TEST NUMBER C2HC4K-02
BAROMETER MM HG 748.5
HUMIDITY G/KG 4.2
TEMPERATURE DEG C 25.0

CARBON DIOXIDE	G/MI	403.3	(402.7)
FUEL ECONOMY	MPG	11.76	(11.77)
HYDROCARBONS (THC)	G/MI	.06	(.07)
CARBON MONOXIDE	G/MI	.64	(.71)
OXIDES OF NITROGEN	G/MI	.17	(.17)

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TEST NO. C2HC4K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 748.79 MM HG(29.48 IN HG)
RELATIVE HUMIDITY 22. PCT
BAG RESULTS

VEHICLE NO.934
DATE 2/26/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)
ABS. HUMIDITY 4.1 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-F
ODOMETER 12146. KM(7547. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .82

TEST CYCLE

HFET

BLOWER DIF P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	61262.
TOT FLOW STD. CU. METRES(SCF)	115.3 (4070.)
THC SAMPLE METER/RANGE/PPM	7.3/ 2/ 7.
THC BCKGRD METER/RANGE/PPM	6.4/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	18.4/ 12/ 18.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	70.5/ 1/1.3034
CO2 BCKGRD METER/RANGE/PCT	2.6/ 1/ .0455
NOX SAMPLE METER/RANGE/PPM	16.4/ 1/ 4.1
NOX BCKGRD METER/RANGE/PPM	1.0/ 1/ .3
DILUTION FACTOR	9.12
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	18.
CO2 CONCENTRATION PCT	1.2629
NOX CONCENTRATION PPM	3.9
THC MASS GRAMS	.21
CO MASS GRAMS	2.36
CO2 MASS GRAMS	2665.1
NOX MASS GRAMS	.70
RUN TIME	765.
SECONDS	
DPC, WET (DRY)	.890 (.884)
SCF, WET (DRY)	1.000 (.970)
VOL (SCH)	115.3
SAM BLR (SCH)	.00
HI (MEASURED)	10.13

TEST NUMBER,	C2HC4K-02
BAROMETER,	MM HG
	748.8
HUMIDITY,	G/KG
	4.1
TEMPERATURE,	DEG C
	23.9
CARBON DIOXIDE,	G/MI
	263.0
FUEL ECONOMY,	MPG
	18.1
HYDROCARBONS, (THC)	G/MI
	.02
CARBON MONOXIDE,	G/MI
	.23
OXIDES OF NITROGEN,	G/MI
	.07

SOUTHWEST RESEARCH INSTITUTE - DEPARTMENT OF EMISSIONS RESEARCH
NYCC - VEHICLE EMISSIONS RESULTS -
PROJECT 08-2953-500

TEST NO. C2HC4K-02 RUN
VEHICLE MODEL 89 CORSICA
ENGINE 2.8 L(171. CID) V-6
TRANSMISSION A3

BAROMETER 749.05 MM HG(29.49 IN HG)
RELATIVE HUMIDITY 22. PCT
BAG RESULTS

VEHICLE NO.934
DATE 2/26/92
BAG CART NO. 2
DYNO NO. 3
CVS NO. 2
DRY BULB TEMP. 23.9 DEG C(75.0 DEG F)
ABS. HUMIDITY 4.1 GM/KG

TEST WEIGHT 1417. KG(3125. LBS)
ACTUAL ROAD LOAD 4.4 KW(5.9 HP)
M85 EM-1179-P
ODOMETER 12162. KM(7557. MILES)
C = .436 H = .128 O = .437
FUEL DENSITY = 6.57
NOX HUMIDITY CORRECTION FACTOR .82

TEST CYCLE

NYCC

BLOWER DIP P MM. H2O(IN. H2O)	711.2 (28.0)
BLOWER INLET P MM. H2O(IN. H2O)	762.0 (30.0)
BLOWER INLET TEMP. DEG. C(DEG. F)	43.9 (111.0)
BLOWER REVOLUTIONS	47923.
TOT FLOW STD. CU. METRES(SCF)	90.2 (3185.)
THC SAMPLE METER/RANGE/PPM	7.8/ 2/ 8.
THC BCKGRD METER/RANGE/PPM	6.5/ 2/ 6.
CO SAMPLE METER/RANGE/PPM	28.8/ 12/ 29.
CO BCKGRD METER/RANGE/PPM	.0/ 12/ 0.
CO2 SAMPLE METER/RANGE/PCT	74.1/ 14/ .5601
CO2 BCKGRD METER/RANGE/PCT	13.2/ 14/ .0446
NOX SAMPLE METER/RANGE/PPM	4.8/ 1/ 1.2
NOX BCKGRD METER/RANGE/PPM	1.4/ 1/ .4
DILUTION FACTOR	21.13
THC CONCENTRATION PPM	2.
CO CONCENTRATION PPM	28.
CO2 CONCENTRATION PCT	.5176
NOX CONCENTRATION PPM	.9
THC MASS GRAMS	.17
CO MASS GRAMS	2.95
CO2 MASS GRAMS	854.8
NOX MASS GRAMS	.12
RUN TIME SECONDS	598.
DFC, WET (DRY)	.953 (.946)
SCF, WET (DRY)	1.000 (.983)
VOL (SCH)	90.2
SAM BLR (SCH)	.00
MI (MEASURED)	1.17

TEST NUMBER,	C2HC4K-02
BAROMETER, MM HG	749.0
HUMIDITY, G/KG	4.1
TEMPERATURE, DEG C	23.9
CARBON DIOXIDE, G/MI	731.7
FUEL ECONOMY, MPG	6.5

HYDROCARBONS, (THC) G/MI	.14
CARBON MONOXIDE, G/MI	2.52
OXIDES OF NITROGEN, G/MI	.11