LOW TEMPERATURE AUTOMOTIVE EMISSIONS

VOLUME 2 APPENDIX

bу

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APPENDIX A

VEHICLE TEST RESULTS

	1981/82 ME	FFAC PROGRAM		
******	*****	*******	*****	
	VEHICLE AND TE	ST PARAMETERS		
VEHICLE NO: 1	MODEL YEAR:	1976 MAKE/MODE	L: AMC	
		85300 TEST DAT		
		BEFORE/AFTER		
BAG 0 TIME: 0	MIN.	IDLE SPEED:	820 RPM	
*****	****	*******	*****	
	STEADY-STATE '	TEST RESULTS		
	HYDROCARBONS (CARBON MONOXIDE		
IDLE				
2500 RPM	I 38 PPM	0.89 %		
******	*****	*****	*****	
	CVS TEST F	RESULTS		
	RAW BAG DATA	A - GRAMS		
HC	со	NOX	CO2	
BAG 0			-	
BAG 1	354.00) ·	2560.0	
BAG 2	379.00)	2260.0	
BAG 3	188.00		2140.0	
GR	AMS PER MILE/MII	LES PER GALLON		
нС	CO	NOX	FE	
BAG 1 .	00 98.61		10.2	
BAG 2 .				
BAG 3 .	00 52.37			
FTP	85.12	v	11.9	

*****		OI/OZ MEITAC I	FNUGNM!! *************	
****				*****
		E AND TEST PAR		
VEHICLE NO:	1 MODE	L YEAR: 1976	MAKE/MODEL	: AMC
			OO TEST DATE	
			BEFORE/AFTER R	
********	****	*****	IDLE SPEED:	******
		Y-STATE TEST I		
•		ARBONS CARBON		
	= =	PPM 1.		
		PPM 0.		
*****	****	*****	******	*****
	C'	VS TEST RESULT	rs	
	RAW	BAG DATA - GR	RAMS	
	HC	CO	NOX	CO2
BAG 0				-
	64 70	304 00	31.40	2320 0
		411.00		1790.0
BAG 3	17.10	204.00	35.40	1750.0
•				
		MILE/MILES PI		
	HC	CO	NOX	FE
BAG 1	18.02	109.75	8.75	10.1
BAG 2		105.12	7.72	
BAG 3	4.76	56.82	9.86	
FTP	8.64	92.89	9.86 8.52	13.1

	19	981/82 METFAC	C PROGRAM	
*******	*****	*****	***********	*****
	VEHICI	LE AND TEST	PARAMETERS	
VEHICLE NO:	1 MODI	EL YEAR: 19	76 MAKE/MODEI	L: AMC
			5300 TEST DATE	
TEST TEMP: 2	23 DEG F SC	OAK TIME:	BEFORE/AFTER E	REPAIRS: B
BAG O TIME:	O MIN.	•	IDLE SPEED:	820 RPM
******	******	*****	IDLE SPEED:	*****
		Y-STATE TEST		
			BON MONOXIDE	
		PPM		
2500	RPM 90	PPM	0.57 %	
*****	*****	*********	0.57 %	*****
	ď	VS TEST RESU	ILTS	
		BAG DATA -		
	HC	CO	NOX	CO2
BAG 0	110	CO	11011	COZ
•	24.20	313.00	30.00	1970.0
			28.70	
BAG 3			38.40	
2110 3	13.00	100.00	20.40	1040.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	6.74	87.19	8.36	12.6
			7.34	
BAG 3				
FTP		85.36		14.3

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	****
	HICLE AND TEST PARAM	
	MODEL YEAR: 1976	
ENGINE CID: 232	ODOMETER: 85300	TEST DATE: 0282
TEST TEMP: 73 DEG F	SOAK TIME: BE	FORE/AFTER REPAIRS: B
******	- *******	IDLE SPEED: 920 RPM *********
Sr	TEADY-STATE TEST RES	ULTS
	DROCARBONS CARBON M	
	256 PPM 9.06	
	32 PPM 0.31	
2500 RPM	10.JL	****
	CVS TEST RESULTS	6
	RAW BAG DATA - GRAM	
HC	CO	NOX CO2
BAG 0		
BAG 1	165.00	1650.0
BAG 2	320.00	1560.0
BAG 3	121.00	1530.0
GRAMS	PER MILE/MILES PER	GALLON
НС	CO	NOX FE
BAG 1 .00		.00 16.7
	81.84	.00
	. 33.70	.00
FTP	61.32	17.2
F 1 F		

VEHICLE AND TEST PARAMETERS

MODEL YEAR: 1976 VEHICLE NO: MAKE/MODEL: 1 AMC TEST DATE: ENGINE CID: 232 ODOMETER: 85300 0282 TEST TEMP: 74 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 920 RPM ******************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 240 PPM 10.0 % 2500 RPM 20 PPM 0.15 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	13.50	172.00	30.00	1720.0
BAG 2	17.20	292.00	30.60	1690.0
BAG 3	11.80	117.00	35.80	1540.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG l	3.76	47.91	8.36	15.7
BAG 2	4.40	74.68	7.83	
BAG 3	3.29	32.59	9.97	
\mathtt{FTP}	3.96	57.69	8.52	16.3
*****	****	*****	*****	*****

************ VEHICLE AND TEST PARAMETERS VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282 TEST TEMP: 75 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B IDLE SPEED: 900 RPM BAG O TIME: O MIN. *********** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 244 PPM 10.0 % IDLE 2500 RPM 0.44 % 23 PPM *********** CVS TEST RESULTS

			RAW	BAG DATA -	GRAMS	
		HC		CO	NOX	CO2
BAG	0				•	
BAG	1	13.60		180.00	31.10	1730.0
BAG	2	16.70		268.00	28.00	1500.0
BAG	3	12.60		133.00	32.60	1490.0
		CD NAC	חפות	MITTE /MITTEC	DED CATION	
		GRAMS	PER	MILE/MILES	PER GALLON	
		HC		CO	NOX	FE
BAG	1	3.79		50.14	8.66	15.5
BAG	2	4.27		68.54	7.16	
BAG	3	3.51	•	37.05	9.08	
FT	'P	3.96		56.16	7.99	17.3
***	*****	*****	***	*****	*****	****

	1:	981/82 METFA	C PROGRAM	
*******	*****	*****	******	*****
	VEHIC:	LE AND TEST	PARAMETERS	
VEHICLE NO:	1 MOD	EL YEAR: 19	76 MAKE/MODE	L: AMC
			5300 TEST DAT	
			BEFORE/AFTER	
****	*****	*****	*******	******
	STEAL	Y-STATE TES	T RESULTS	
			BON MONOXIDE	
		4 PPM		
2500		5 PPM		-
			******	*****
	(CVS TEST RES	ULTS	
		V BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0	49.10	481.00		2494.0
BAG 1				
BAG 2	18.70	269.00	27.50	1980.0
BAG 3	15.10	228.00	25.20	1910.0
	GRAMS PER	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	13.68	133.98	5.65	9.4
BAG 2	4.78	68.80	7.03	
			7.02	
\mathtt{FTP}	6.46	80.77	6.75	12.7

1981/82 METFAC PROGRAM ************ VEHICLE AND TEST PARAMETERS MODEL YEAR: 1976 MAKE/MODEL: AMC ODOMETER: 85300 TEST DATE: 0382 VEHICLE NO: 1 ENGINE CID: 232 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B IDLE SPEED: 770 RPM BAG 0 TIME: 2 MIN. ************* STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 322 PPM 10.7 % 47 PPM 0.68 % 2500 RPM ********* CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO 2 BAG 0 12.30 109.60 180.36 1876.7 BAG 1 21.40 257.50 1913.1 BAG 2 24.50 463.90 207.10 1519.1 BAG 3 13.40 GRAMS PER MILE/MILES PER GALLON ` FE * NOX HC CO 11.6 .00 9.39 102.26 BAG 1 .00 BAG 2 118.64 6.27 BAG 3 .00 3.73 57.69

98.64

13.4

FTP

6.22

*****	1981/82 METFAC I	PROGRAM	
*****	*****	*****	****
VI	EHICLE AND TEST PAR	RAMETERS	
VEHICLE NO: 1	MODEL YEAR: 1976	MAKE/MODE:	L: AMC
ENGINE CID: 232	ODOMETER: 8530	OO TEST DAT	E: 0282
TEST TEMP: 22 DEG I	F SOAK TIME:	BEFORE/AFTER	REPAIRS: B
BAG 0 TIME: 2 MIN		IDLE SPEED:	
*********	· · · · · · · · · · · · · · · · · · ·	********	******
	STEADY-STATE TEST I		
	DROCARBONS CARBON		
IDLE	318 PPM 10).7 %	
2500 RPM	22 PPM 0.	.32 %	
*****	*****	******	*****
	CVS TEST RESULT	rs	
	RAW BAG DATA - GE		
нС	CO	NOX	CO2
BAG 0	82.80		528.00
BAG 1	161.00		1090.0
-	465.00		2382.0
BAG 2			
BAG 3	193.00		1740.0
CDAM	nen Mile/Milec ni	ED CALLON	
	S PER MILE/MILES PE		
HC	CO	NOX	\mathtt{FE}
BAG 1 .00	67.91	.00	15.9
BAG 2 .00	118.93	.00	
	. 53.76	.00	
FTP	90.65		13.0

	_	1981/82 METFAC	PROGRAM	
*****	*****	1981/82 METFAC	****	*****
		HICLE AND TEST F		
VEHICLE NO.		MODEL YEAR: 197		EL. NMC
		ODOMETER: 85		
		SOAK TIME:		
			IDLE SPEED:	
BAG U TIME:	6 MIN	******	IDLE SPEED	1480 RPM

		TEADY-STATE TEST		
		DROCARBONS CARE		
		149 PPM		
2500) RPM	29 PPM	0.12 %	
*****	*****	*****		*****
		CVS TEST RESU	JLTS	
		RAW BAG DATA -	GRAMS	
	HC		NOX	CO2
BAG 0	61.90	582.00	14.30	2730.0
BAG 1				
BAG 2	20.50	408.00	36.50	1880.0
		218.00	25.60	1840.0
2.1.C J	21130			
	GRAMS	PER MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1		162.12	3.98	8.3
BAG 2	5.24	104.35	9.34	
BAC 3	3 08	. 60.72	7.13	
FTP	7.37	104.34	7-63	12.1
4 4 4	/ • 5 /	T01.01		

	ALASKA VEHICLE TEST RESULTS				
		1981/82 METFA	C PROGRAM		
*****	*****	****	*****	*****	
	VEH	HICLE AND TEST	PARAMETERS		
VEHICLE N	10: 1 M	MODEL YEAR: 19	76 MAKE/MOD	EL: AMC	
ENGINE CI	D: 232	ODOMETER: 85	5300 TEST DA	TE: 0382	
TEST TEMP	: 16 DEG F	SOAK TIME:	BEFORE/AFTER	REPAIRS: B	
BAG 0 TIM	E: 6 MIN.		IDLE SPEED	: 750 RPM	
*****	******	****	*****	*****	
	SI	EADY-STATE TES!	r results		
	HYD	ROCARBONS CARI	BON MONOXIDE		
		301 PPM			
2		37 PPM			
			*****	*****	
		CVS TEST REST	ULTS		
		RAW BAG DATA -			
	HC	CO		CO2	
BAG 0		330.20		612.40	
BAG 1	11 10	160.90		1710.5	
		392.50		1806.0	
		179.90		1624.4	
DMG 3	12.70	179.90	·	1024.4	
	GRAMS	PER MILE/MILES	PER GALLON		
	HC	CO	NOX	FE	
BAG 1		136.80		10.0	
		100.38			
BAG 3	3.54	50.11	.00		
FTP	5.18	94.16	. • •	13.4	

	19	81/82 METFAC	PROGRAM	
*****	****	*****	- FROGRAM ****************	****
	VEHICI	E AND TEST	PARAMETERS	
VEHICLE NO:	1 MODE	L YEAR: 19	76 MAKE/MODE	L: AMC
			5300 TEST DAT	
			BEFORE/AFTER	
BAG O TIME.	6 MIN.		IDLE SPEED:	780 RPM
******	*****	****	IDLE SPEED:	*****
	STEAD	Y-STATE TEST	r RESULTS	
			BON MONOXIDE	
		PPM		
2500	RPM 32	PPM	0.60 %	
*****	*****	****	*****	*****
	C	VS TEST REST	ULTS	
		BAG DATA -		
	НС		NOX	CO 2
BAG 0	32.40	651.00	36.70	2520.0
BAG 1	J2.40	031.00	301,5	
BAG 2	20.50	452.00	29.50	1850.0
BAG 3	12.20	191.00		1690.0
DAG J	12.20	171.00		
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	. NOX	FE
BAG 1	9.03	181.34	NOX 10.22 7.54	8.7
BAG 2	5 24	115.60	7.54	
<u> ከአሮ ኃ</u>	3 40	53 20	<u>.</u> () ()	
FTP	5.52	112.11	*****	12.4
****	****	****	****	*****
•				

	AUA		DI KEDOHID	
	19	981/82 METFAC	PROGRAM *************	
******	******	******	**********	*****
	VEHIC	LE AND TEST PA	ARAMETERS	
VEHICLE NO:	: 1 MODI	EL YEAR: 1976	MAKE/MODE	L: AMC
			300 TEST DAT	
			BEFORE/AFTER I	
BAC O TIME	O MIN		IDLE SPEED:	MOD DAM
tttt:	. U Min.		IDLE SPEED:	O4U RPM
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				*****
		Y-STATE TEST		
		CARBONS CARBO	·	
	IDLE 65	S PPM 0).23	
		PPM 0		
*****	******	******	******	*****
	C	VS TEST RESUL	TS	
		BAG DATA - G		
	HC	CO	NOX	CO2
BAG 0	110	CO	11021	CO2
	20 00	100 00	23.40	1886.0
				·
BAG 2	8.50		26.00	
BAG 3	7.20	62.40	7.70	1837.0
	an			
	GRAMS PER	MILE/MILES P	ER GALLON	
	HC	CO	NOX	FE
BAG 1	8.08	55.15	6.52	13.9
		19.67		
·		17.38		
קיניק	3 34	26.35	5.30	15.6
****	******	********	5.39 *******	43.0

	198	1/82 METFAC PI	ROGRAM	
******	******	*****	************	*****
	VEHICLE	AND TEST PARA	AMETERS	
VEHICLE NO:	1 MODEL	YEAR: 1976	MAKE/MODEL:	AMC
ENGINE CID: 2	232 ODO.	METER: 85300	TEST DATE:	0382
			BEFORE/AFTER REP	
******	*****	*****	IDLE SPEED:	*****
		-STATE TEST RI		
		RBONS CARBON		
тг		PPM 0.		
		PPM 0.		
********	*****	*****	*****	****
	CV	S TEST RESULTS	5	
	•	BAG DATA - GRA	=	
	HC KAW	CO	NOX	CO 2
BAG 0	IIC .	CO	NOX	CO2
BAG 1	9 40	68.40		2172.8
		15.50		
				1892.0
BAG 3	4.90	14.30		1626.0
	CDAMC DED	MTIE/MTIEC DE	O CATTON	
		MILE/MILES PER		nn
	HC	CO		FE
BAG 1	2.34	19.05 3.96	.00	13.8
	1.36 .	3.98	.00	
FTP	1.57	7.08		17.2

	ALAST	A VEHICLE	TEST RESULTS	
	198	31/82 METFA	C PROGRAM	
*****			******	*****
			PARAMETERS	
			76 MAKE/MOD	
ENGINE CID:	232 ODC	METER: 8	5300 TEST DA	TE: 0382
TEST TEMP: 21	DEG F SOF	K TIME:	BEFORE/AFTER	REPAIRS: A
BAG 0 TIME: 2	MIN.		IDLE SPEED ********	: 860 RPM
*****				*****
		Y-STATE TES		
-			BON MONOXIDE	
	DLE 46 RPM 10			
			U.44 5	******
		S TEST RES		
		BAG DATA -		
	HC	CO	NOX	CO2
BAG 0				60.90
BAG 1	9.60	73.60	23.10	1722.0
			22.40	
BAG 3		24.30		
				•
	GRAMS PER	MILE/MILES	PER GALLON	
		CO	NOX	
BAG 1		26.49		16.2
BAG 2	1.66	7.75	5.73	
BAG 3	1.36	6.77	7.38	
FTP	1.88	11.34	6.33	17.7

	1981/5	32 METFAC PRO	GRAM	
****		/********	GKAM **********	*****
	VEHICLE AN	ND TEST PARAM	IETERS	
VEHICLE NO:			MAKE/MODEL:	AMC
			TEST DATE:	
			FORE/AFTER REP	
BAG O TIME: 6			IDLE SPEED:	

		TATE TEST RES		
		NS CARBON M		
TT	DLE 44 PPM			
	RPM 11 PPM			
*********	XEM	*******	*****	*****
		TEST RESULTS		
		DATA - GRAM	ıs	
	HC	CO		CO 2
BAG 0		99.20		400.10
	5.40		24.80	
BAG 2	3 90	30.50	22.40	1956.0
			25.80	1824.0
DAG 3	3.30	22.30	23.00	1024.0
	GRAMS PER MII	LE/MILES PER	GALLON	
	HC	CO	NOX	FE
BAC 1	HC 4.40	43.09	7.04	12.3
BAG 2	1.00	7.80	5.73	
			7.19	
FTP				15.9

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282 TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 1060 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 179 PPM 2.58 % 2500 RPM 96 PPM 0.18 %

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				•
BAG 1	156.30	288.10	18.70	2608.0
BAG 2	18.90	159.10	24.20	2135.0
BAG 3	23.20	75.20	26.70	2065.0
	GRAMS PI	ER MILE/MILES P	ER GALLON	
	HC	CO	· NOX	FE
BAG 1	43.54	80.25	5.21	9.0
BAG 2	4.83	40.69	6.19	
BAG 3	6.46	20.95	7.44	
\mathtt{FTP}	13.24	43.45	6.33	12.7

	ALASKA VEHICLE TES		
*****	1981/82 METFAC PI	ROGRAM	

VE	HICLE AND TEST PARA	AMETERS	
VEHICLE NO: 2	MODEL YEAR: 1976	MAKE/MODE	EL: CHRYSL
ENGINE CID: 225			
TEST TEMP: 22 DEG F	SOAK TIME:	BEFORE/AFTER	REPAIRS: B
BAG 0 TIME: 0 MIN			
******	*****	*****	*****
S	TEADY-STATE TEST R	ESULTS	
НХ	DROCARBONS CARBON	MONOXIDE	
	203 PPM 2.:		
2500 RPM	94 PPM 0.0	₽ 80	
*****	****	******	*****
	CVS TEST RESULT:		
	RAW BAG DATA - GRA		
HC	CO	NOX	CO 2
BAG 0			
BAG 1 42.50			
BAG 2 7.20	101.90	29.12	1982.0
BAG 3 5.20	54.20	37.50	1855.0
GRAMS	PER MILE/MILES PER	R GALLON	
HC	CO	NOX	FE
HC BAG 1 11.84 BAG 2 1.84	93.84	5.15	11.1
2110 2	20.00		
BAG 3 1.45	15.10	10.45	7 4 0
FTP 3.79	37.02		

	1981/82 METFAC	PROGRAM	
******	******	******	*****
VE	HICLE AND TEST PA	RAMETERS	
VEHICLE NO: 2	MODEL YEAR: 1976	MAKE/MODEL	: CHRYSL
ENGINE CID: 225			
TEST TEMP: 24 DEG H			
BAG 0 TIME: 0 MIN			
******	*****	*****	*****
5	TEADY-STATE TEST I	RESULTS	
Н	DROCARBONS CARBOI	N MONOXIDE	
	183 PPM 2		
	64 PPM 0		
*****	*****	*****	*****
	CVS TEST RESULT	TS	
	RAW BAG DATA - GI		
HC	CO	NOX	CO 2
BAG 0	33		-
BAG 1	184.70	23.00	2546.1
BAG 2	85.50		
BAG 3	48.10	30.60	1853.5
DAG 3	40.10	30.00	203313
GRAMS	PER MILE/MILES P	ER GALLON	
	CO	NOX	FE
	51.45		
BAG 2 .00	21.87	7.77	
BAG 3 .00	13.40	8.52	
FTP	25.65	7.70	14.9
	20-00		

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282 TEST TEMP: 66 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 1120 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 149 PPM 1.59 % 2500 RPM 78 PPM 0.13 %

CVS TEST RESULTS RAW BAG DATA - GRAMS CO HC NOX CO 2 BAG 0 122.40 BAG 1 21.80 1899.0 BAG 2 71.50 30.20 1839.0 BAG 3 40.30 36.00 1737.0 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE .00 6.07 15.2 BAG 1 34.09 .00 BAG 2 7.72 18.29 .00 11.23 10.03 BAG 3 8.01 FTP19.61 **********

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 1150 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 228 PPM 3.27 % 2500 RPM 66 PPM 0.71 %

CVS TEST RESULTS RAW BAG DATA - GRAMS

		., 2110 211211	<i></i>	
	HC	CO	NOX	CO 2
BAG 0				
BAG 1	28.40	82.40	28.60	2230.5
BAG 2	5.60	62.70	28.20	1722.8
BAG 3	5.70	45.50	31.90	1766.7
	GRAMS PE	R MILE/MILES I	PER GALLON	
	HC	CO	NOX	FE
BAG 1	7.91	22.95	7.97	13.0
BAG 2	1.43	16.04	7.21	
BAG 3	1.59	12.67	8.89	
FTP	2.81	16.54	7.82	16.9
*****	*****	*****	*****	*****

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282 TEST TEMP: 72 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 1150 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS

	F	RAW BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0				
BAG 1	15.10	126.90	25.90	1996.0
BAG 2	6.10	87.60	31.50	2174.0
BAG 3	6.70	68.30	35.90	1869.0
	GRAMS F	PER MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	4.21	35.35	7.21	14.2
BAG 2	1.56	22.40	8.06	
BAG 3	1.87	19.03	10.00	
\mathtt{FTP}	2.19	24.15	8.41	15.0

	1.0	001 /00 MEMER	a process	
****		81/82 METFA	C PROGRAM *******	
*****				******
		LE AND TEST		
VEHICLE NO:	2 MODE	EL YEAR: 19	76 MAKE/MOI	EL: CHRYSL
ENGINE CID:	225 OF	OMETER: 5	0000 TEST DA	ATE: 0282
TEST TEMP: 7	5 DEG F SC	AK TIME:	BEFORE/AFTER	REPAIRS. B
BAG O TIME.	O MTN		IDLE SPEEL	1150 DDM
********	******	******	IDLE SPEED	**********
		Y-STATE TES		
			BON MONOXIDE	
		PPM		
2500	RPM 50	PPM	0.60 %	
******	*****	*****	*****	******
	C	VS TEST RES	ULTS	
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO 2
BAG 0			11021	002
	16 40	128 70	23.20	1870 0
			33.40	
BAG 3	5.70		9.50	
DAG 3	3. / 0	53.10	9.50	1758.0
	CDAMC DED	MTTE/MTTEC	PER GALLON	
		•	•	n m
D10 1	HC	CO	NOX	FE
			6.46	15.0
			8.54	
BAG 3		14.79		
FTP	2.28	22.13	6.51	16.4

	1981/82 METFAC PRO	OGRAM	
******	*****	*****	*****
VEHI	CLE AND TEST PARAL	METERS	
VEHICLE NO: 2 MO	DEL YEAR: 1976	MAKE/MODE	L: CHRYSL
ENGINE CID: 225			
TEST TEMP: 2 DEG F			
BAG O TIME: 2 MIN.		IDLE SPEED:	
*******	*******	********	*****
	ADY-STATE TEST RE		
	OCARBONS CARBON		
	88 PPM 4.9		
	28 PPM 0.18		
2500 RPM	20 PPM U.16	o	
r a	CVS TEST RESULTS	мс	
	AW BAG DATA - GRAI		20.0
HC	CO	NOX	CO 2
BAG 0	179.50		2964.0
BAG 1			
BAG 2	116.90		2310.0
BAG 3	76.60		2219.0
		227701	
	ER MILE/MILES PER		
HC	CO	NOX	FE
BAG 1 .00		.00	9.8
	29.90		
BAG 3 .00	21.34	.00	
FTP	31.70		12.7

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282 TEST TEMP: 17 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG O TIME: 2 MIN. IDLE SPEED: 1180 RPM ****************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 200 PPM 3.40 % 2500 RPM 25 PPM 0.04 %

CVS TEST RESULTS

			RAW	BAG DATA -	GRAMS		
		HC		CO	NO	ζ	CO 2
BAG	0			378.50	19.	.0	2592.0
BAG	1						
BAG	2			102.20	24.8	30	L835.0
BAG	3			66.50	30.5		1852.0
		GRAMS	PER	MILE/MILES	PER GALLON	1	
		HC		CO	· NOX		FE
BAG	1	.00		105.43	5.3	32	L0.0
BAG	2	.00		26.14	6.3	34	
BAG	3	.00	•	18.52	8.5	0	
FT	P			40.38	6.7	'2	14.9
***	*****	*****	***	*****	*****	******	****

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0382 TEST TEMP: 17 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 2 MIN. IDLE SPEED: 1150 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS RAW BAG DATA - GRAMS

7.13

FTP

	111	2110 211111	OIMAID	
	HC	CO	NOX	CO 2
BAG 0	94.20	315.80		2268.0
BAG 1				
BAG 2	9.50	127.20		2058.0
BAG 3	6.10	55.10		1774.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	26.24	87.97	.00	10.4
BAG 2	2.43	32.53	.00	
BAG 3	1.70	15.35	.00	
				3 4 0

39.25

1981/82 METFAC PROGRAM					
*****	*****	******			
VE	HICLE AND TEST PARAM	ETERS			
VEHICLE NO: 2	MODEL YEAR: 1976	MAKE/MODEL: CHRYSL			
	ODOMETER: 50000				
		FORE/AFTER REPAIRS: B			
BAG 0 TIME: 2 MIN	•	IDLE SPEED: 1170 RPM			
********	******	******			
S	TEADY-STATE TEST RES	ULTS			
	DROCARBONS CARBON M				
	240 PPM 3.31				
	34 PPM 0.05				

	CVS TEST RESULTS				
	RAW BAG DATA - GRAM	S			
НС	CO	NOX CO2			
BAG 0 5.90	42.30	137.10			
	211.36	2190.0			
	120.50	1940.3			
BAG 3 5.50	46.90	1749.0			
2.30	40.90	2,49.0			
GRAMS	PER MILE/MILES PER	GALLON			
HС	co	NOX FE			
BAG 1 28.66	70.66	.00 10.4			
	30.82	.00			
BAG 3 1.53	13.06	.00			
	13.00	• 00			
FTP 7.40	34.17	14.7			

ALASKA VEHICLE TEST RESULTS					
	1981/82 METFAC	PROGRAM			
*****	*******	******	*****		
V	EHICLE AND TEST PA	RAMETERS			
VEHICLE NO: 2	MODEL YEAR: 1976	MAKE/MODE	L: CHRYSL		
ENGINE CID: 225	ODOMETER: 500	00 TEST DATE	E: 0382		
TEST TEMP: 23 DEG	F SOAK TIME:	BEFORE/AFTER I	REPAIRS: B		
BAG 0 TIME: 6 MI	N.	IDLE SPEED:	1140 RPM		
*****	******	*****	******		
	STEADY-STATE TEST	RESULTS			
H	YDROCARBONS CARBO	N MONOXIDE			
IDLE	207 PPM 3	.82 %			
2500 RPM		.02 %			
*****	******	*****	*****		
CVS TEST RESULTS					
	RAW BAG DATA - G	RAMS			
HC	CO	NOX	CO 2		
BAG 0 50.30	265.70		804.00		
BAG 1 15.80	94.30		2451.0		
BAG 2 7.60	89.30		1966.0		
BAG 3 6.10	62.40		1790.0		
	S PER MILE/MILES P				
. HC	CO	NOX	FE		
BAG 1 18.41	•	.00	7.9		
BAG 2 1.94		.00			
BAG 3 1.70	17.38	.00			
			7 7 4		

13.4

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0382 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 0 MIN. IDLE SPEED: 1070 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 40 PPM 0.12 % 2500 RPM 30 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO 2
BAG 0				
BAG 1	15.60	70.24		1987.0
BAG 2	2.00	11.10		2079.0
BAG 3	3.50	13.30		1569.0
	GRAMS E	PER MILE/MILES P	ER GALLON	
	HC	CO	NOX	FE
BAG 1	4.35	19.57	.00	14.8
BAG 2	.51	2.84	.00	
BAG 3	.97	3.70	.00	
\mathtt{FTP}	1.43	6.52		16.9
******	*****	******	*****	*****

	•	HIGHT VEHICLE THE				
		1981/82 METFAC PR	OGRAM *********			
***	*********	*******	*******			
	VE.	HICLE AND TEST PARA	METERS			
VEH]	ICLE NO: 2	MODEL YEAR: 1976	MAKE/MODEL: CHRYSL			
ENGI	NE CID: 225	ODOMETER: 50000	TEST DATE: 0382			
TEST	TEMP: 31 DEG F	SOAK TIME: B	EFORE/AFTER REPAIRS: A			
BAG	O TIME 6 MIN	_	IDLE SPEED: 1000 RPM			
****	*****	- ********	IDLE SPEED: 1000 RPM			
		TEADY-STATE TEST RE				
		DROCARBONS CARBON				
		35 PPM 0.0				
	2500 RPM	22 PPM 0.3	()			
***	****		*******			
		CVS TEST RESULTS				
		RAW BAG DATA - GRA	MS			
	HC	CO	NOX CO2			
BAG	0 24.50	88.70	0.94 514.00			
BAG			6.93 1544.0			
BAG			9.08 2230.0			
BAG		19.96	13.70 1815.0			
	3,00	23130	23770			
GRAMS PER MILE/MILES PER GALLON						
	HC	CO	NOX FE			
BAG	1 16.74	41.25	2.19 12.8			
BAG		19.90				
BAG FT			3.82 2.70 14.8			

	ALAS	SKA VEHICLE T	EST RESULTS	
	19	981/82 METFAC	PROGRAM	
*****	******	******	PROGRAM ********	*****
	VEHIC	LE AND TEST P.	ARAMETERS	
VEHICLE NO:			6 MAKE/MODEI	TOYOTA
ENGINE CID:	78 OI	OOMETER: 70	000 TEST DATE	E: 0282
			BEFORE/AFTER F	
*****	******	*****	IDLE SPEED:	*****
	STEAL	Y-STATE TEST	RESULTS	
		CARBONS CARBO		
		PPM		
250	0 RPM 49	PPM (0.02 %	
*****	*****	. * * * * * * * * * * * * * * * * * *	******	*****
	(VS TEST RESU	LTS	
		N BAG DATA - 0		
	HC	CO	NOX	CO2
BAG 0	_			_
	80.10	283.00	6.30	1060.0
BAG 2	8.50	27.60	8.70	1470.0
BAG 3	9.10	47.40	9.60	1080.0
_	•			
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX 1.75	FE
BAG 1	22.31	78.83	1.75	18.1
BAG 2	2.17	7.06	2.23 2.67	
BAG 3	2.53	13.20	2.67	

	ALASKA VEHICLE TEST RESULTS					
	198	81/82 METFAC	PROGRAM			
****	****	******	: PROGRAM :******	*****		
•	VEHICL	E AND TEST F	ARAMETERS			
VEHICLE NO:	3 MODE:	L YEAR: 197	6 MAKE/MODE	L: TOYOTA		
ENGINE CID:	78 OD	OMETER: 70	0000 TEST DAT	E: 0282		
TEST TEMP: 20	DEG F SO	AK TIME:	BEFORE/AFTER	REPAIRS: B		
BAG O TIME: 0	MIN.		IDLE SPEED:	810 RPM		
*****	*****	******	*****	*****		
	STEAD	Y-STATE TEST	RESULTS			
	HYDROC	ARBONS CARE	ON MONOXIDE			
т.		PPM				
		PPM				
****	******	*****	*****	*****		
		VS TEST RESU				
	_	BAG DATA -				
		·		200		
	HC	CO	NOX	CO 2		
BAG 0				*150 0		
			11.90			
	17.90	66.30	25.50	1270.0		
BAG 3	14.80	77.50	25.20	1080.0		
			DDD GATTON			
	GRAMS PER	MILE/MILES				
	HC		NOX	FE		
BAG 1	15.46	142.34	3.31	15.0		
BAG 2	4.58	16.96	6.52			
		21.59				
FTP	6.69	44.03	6.00	16.7		
****	**********					

************* VEHICLE AND TEST PARAMETERS VEHICLE NO: 3 MODEL YEAR: ENGINE CID: 78 ODOMETER: MODEL YEAR: 1976 MAKE/MODEL: TOYOTA 70000 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: 24 BEFORE/AFTER REPAIRS: B IDLE SPEED: 700 RPM BAG 0 TIME: 0 MIN. ***************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 270 PPM 4.2 % 0.18 % 2500 RPM 84 PPM ************ CVS TEST RESULTS

			RAW	BAG DATA -	GRAMS		
		HC		CO	NO:	X	CO2
BAG ()						
BAG]				65.70	20.	40 1	160.0
BAG 2	2			39.00	22.	70 1	070.0
BAG 3	3			77.40	23.	20 9	80.00
		GRAMS	PER	MILE/MILES	PER GALLO	N	
		HC		CO	NO:	X	FE
BAG 1		.00		18.30	5.	68 2	5.2
BAG 2	?	.00		9.97	5.	81	
BAG 3	}	.00	•	21.56	6.	46	
FTF)			14.85	5.	96 2	8.9
****	*****	*****	****	*****	*****	*****	****

1981/82 METFAC PROGRAM					
*****	***********	*****	****		
VE	HICLE AND TEST PARA				
	MODEL YEAR: 1976		Ͳ ΩΥΩͲΔ		
	ODOMETER: 70000				
	SOAK TIME: B				
*********	. *******	******	700 RFM		
	TEADY-STATE TEST RE				
	DROCARBONS CARBON				
	375 PPM 2.4				
	122 PPM 0.1				
	*****		*****		
	CVS TEST RESULTS				
	RAW BAG DATA - GRA				
HC	CO		CO 2		
BAG 0 39.50		17.10	1290.0		
BAG 1	.10000		22,000		
BAG 2 9.40	34.30	21.30	1290.0		
BAG 3 9.50		20.70	1090.0		
2 3	3,,,,,				
GRAMS	PER MILE/MILES PER	GALLON			
HC		NOX	FE		
BAG 1 11.00	115.88	4.76	15.4		
	8.77				
BAG 3 2.65	18.66	5.77			
FTP 4.24	33.52		22.5		

	1987	L/82 METFAC	DRUCEVM	
*****	******	********	*********	****
		AND TEST P		
WEHTCIE NO.				ODEL: TOYOTA
				DATE: 0382
				ER REPAIRS: B
BAG 0 TIME: 2	MIN.		IDLE SPE	ED: 720 RPM
****				******
		-STATE TEST		
			ON MONOXIDE	
		PPM		
2500	RPM I	PPM	0.23 %	
*****	*****	****	*****	*****
	CVS	TEST RESU	LTS	
	RAW E	BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0		102.00		127.00
BAG 1	19.20	95.00		1130.0
BAG 2 1	24.00	201.00		1110.0
	10.80	50.70		960.00
-				
	GRAMS PER N	MILE/MILES	PER GALLON	
	HC	co	· NOX	FE
BAG 1	5.35		.00	19.6
BAG 2	31.71	51.41	.00	
	3.01	14.12		•
FTP	J. V.	41.95		21.3
-				

	1981/82 METFAC PR	OGRAM ********
*****	******	******
V	EHICLE AND TEST PARA	METERS
VEHICLE NO: 3	MODEL YEAR: 1976	MAKE/MODEL: TOYOTA
		TEST DATE: 0282
		EFORE/AFTER REPAIRS: B
		IDLE SPEED: 720 RPM
*****	*****	******
	STEADY-STATE TEST RE	SULTS
Н	YDROCARBONS CARBON	MONOXIDE
IDLE	348 PPM 3.9	8 %
2500 RPM	168 PPM 0.5	2
*****	*****	*****
	CVS TEST RESULTS	
	RAW BAG DATA - GRA	MS
HC	CO	NOX CO2
BAG 0 185.00	789.00	9.40 1350.0
BAG 1		
BAG 2 9.70	24.50	20.90 1250.0
BAG 3 8.80	54.60	22.70 1080.0
	S PER MILE/MILES PER	
HC	CO `	· NOX FE
BAG 1 51.53	219.78	2.62 10.0
BAG 2 2.48	6.27	5.35
BAG 3 2.45	15.21	6.32
FTP 12.57	52.66	5.05 19.8

ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 3 MODEL YEAR: 1976 MAKE/MODEL: TOYOTA ENGINE CID: 78 ODOMETER: 70000 TEST DATE: 0282 TEST TEMP: 10 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 6 MIN. IDLE SPEED: 710 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 269 PPM 2.79 % 2500 RPM 118 PPM 0.16 %

RAW BAG DATA - GRAMS CO NOX HC CO2 BAG 0 147.00 602.00 9.10 1360.0 BAG 1 BAG 2 7.40 28.70 22.30 1120.0 BAG 3 7.60 36.20 8.40 1000.0 GRAMS PER MILE/MILES PER GALLON HC CO · NOX FEBAG 1 40.95 167.69 2.53 11.6 BAG 2 1.89 5.70 7.34 BAG 3 2.12 10.08 2.34 9.65 FTP41.09 4.13 ************

		81 /82 METER	C DEUCEAM	
****		*****	************	*******
	VEHICI	E AND TEST		
VEHICLE NO:	3 MODE	L YEAR: 19	76 MAKE/MODI	EL: TOYOTA
ENGINE CID:	78 OD	OMETER: 7	0000 TEST DAT	TE: 0382
			BEFORE/AFTER	
*****	*****	*****	IDLE SPEED:	*****
	STEAD	Y-STATE TES	T RESULTS	
	HYDROC	ARBONS CAR	BON MONOXIDE	
I		PPM	8	
	RPM	PPM	8	
*******	*****	*****	*****	*****
	C	VS TEST RES	ULTS	
		BAG DATA -		
	HC	CO	NOX	CO2
BAG 0	74.00	22.10		370.00
BAG 1	11.20	86.00		990.00
BAG 2	8.70	30.60		1130.0
BAG 3	7.80	38.60		990.00
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	23.73	30.11	.00	17.7
BAG 2	2.23	7.83	.00	
BAG 3	2.17	10.75	.00	
FTP	6.64			25.7
The second secon	AND DESCRIPTION OF THE OWN AND THE OWN	and the second second second second		

ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 3 MODEL YEAR: 1976 MAKE/MODEL: TOYOTA ENGINE CID: 78 ODOMETER: 70000 TEST DATE: 0382 TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 0 MIN. IDLE SPEED: 970 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 256 PPM 2.68 % 2500 RPM 113 PPM 0.16 %

CVS TEST RESULTS RAW BAG DATA - GRAMS HC NOX CO CO2 BAG 0 BAG 1 137.00 23.90 9.00 1060.0 BAG 2 7.50 14.90 22.30 1740.0 BAG 3 7.30 44.00 21.20 1180.0 GRAMS PER MILE/MILES PER GALLON HC CO · NOX FE BAG 1 6.66 38.16 2.51 23.6 BAG 2 1.92 5.70 3.81 BAG 3 2.03 12.26 5.91 FTP 2.93 14.17 4.11 21.4 ***************

	ALL	MONA VEHICLE I	ESI KESULIS	
	•	1981/82 METFAC	PROGRAM	•
*****	****	*****	PROGRAM **********	*****
		CLE AND TEST P		
VEHICLE NO.			6 MAKE/MODEL	· movoma
			000 TEST DATE	
			BEFORE/AFTER R	
BAG O TIME:	O MIN.		IDLE SPEED:	1270 RPM
*****	*****	*****	*****	*****
	STE	ADY-STATE TEST	RESULTS	
		OCARBONS CARBO		
		71 PPM		
2500	RPM 2.	34 PPM	2.31 *	
*****	*****	*****	******	*****
		CVS TEST RESU	LTS	
	R	AW BAG DATA - (GRAMS	
	HC	CO	NOX	CO2
BAG 0				_
	13 10	78.10		970.00
BAG 2				1040.0
BAG 3	7.40	47.90		930.00
	GRAMS P	ER MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	3.65	21.75	.00	28.1
BAG 2	2.15	10.36	- 00	
BAG 3			.00	
	2.00	10.50	• 0 0	20 2

1	.981/82 METFAC PRO	OGRAM	
************	********	*****	****
VEHIC	LE AND TEST PARA	METERS	
VEHICLE NO: 3 MOD	EL YEAR: 1976	MAKE/MODEL:	ATOYOTA
ENGINE CID: 78 C			
TEST TEMP: 18 DEG F S			
BAG 0 TIME: 2 MIN.		IDLE SPEED: 1	090 RPM
*******	******	*****	*****
STEA	DY-STATE TEST RE	SULTS	
HYDRO	CARBONS CARBON	MONOXIDE	
IDLE 22	6 PPM 2.7	2 %	•
2500 RPM 16	7 PPM 0.9	1 %	
*****	****	*****	****
	CVS TEST RESULTS		
RA	W BAG DATA - GRA	MS	
HC	СО	NOX	CO2
BAG 0 24.00	102.00	0.00	60.00
BAG 1 43.30	266.00	13.00	1060.0
		17.70	1230.0
BAG 3 9.00	108.00	20.60	1100.0
GRAMS PE	R MILE/MILES PER	GALLON	
HC	CO	NOX	FE
BAG 1 18.75	102.51	3.62	16.7
BAG 2 2.63	10.59	4.53	
BAG 3 2.51	30.08	5.74	
FTP 5.92	34.83	4.67	
*****	*****	*****	****

		ASKA VEHICLE		
*****		L981/82 METFA	C PROGRAM *******	
*****	****	*****	******	*****
	VEHIC	CLE AND TEST	PARAMETERS	
VEHICLE NO:	3 MOI	DEL YEAR: 19	76 MAKE/MOD	EL: TOYOTA
ENGINE CID:	78 (DOMETER: 7	0000 TEST DA	TE: 0382
			BEFORE/AFTER	
*****	*****	*****	IDLE SPEED	*****
	STEA	ADY-STATE TES	T RESULTS	
		CARBONS CAR		
		PPM	%	
2500	_	PPM	9-	
2300	,		*********	*****
		CVS TEST RESI		
	D.7	W BAG DATA -		
				200
	HC		NOX	CO2
	13.20			
			16.10	
BAG 2	8.40	25.80	16.40	1310.0
BAG 3	6.10	18.10	20.90	1090.0
		•		
	GRAMS PE	ER MILE/MILES	PER GALLON	
	HC		· NOX	FE
BAG 1	9.25	31.09	4.52	14.6
BAG 2	2.15	6.60	4.19	
BAG 3	1.70	5.04		
FTP	3.49	11.21	4.71	22.5

ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 3 ENGINE CID: 78 MODEL YEAR: 1976 MAKE/MODEL: TOYOTA ODOMETER: 70000 TEST DATE: 0382 BEFORE/AFTER REPAIRS: A TEST TEMP: 17 DEG F SOAK TIME: BAG 0 TIME: 6 MIN. IDLE SPEED: 890 RPM **************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

1.51 % IDLE 286 PPM 144 PPM 0.15 % 2500 RPM

1.78

6.27

BAG 3

FTP

CVS TEST RESULTS RAW BAG DATA - GRAMS

		НС	co	NOX	CO2
BAG	0	73.70	25.00		203.00
BAG	1	9.50	72.90	16.90	1040.0
BAG	2	7.60	72.20	10.90	1040.0
BAG		6.40	50.30	20.10	940.00
		CDAMS DED	MILE/MILES	PER GALLON	•
			•	· NOX	FE
		HC	CO	NOX	
BAG	1	23.18	27.27	4.71	19.2
BAG	2	1.94	18.47	2.79	

14.01

19.06

5.60

3.95

			DDI KEDODID	
*****		.981/82 METFAC	PROGRAM **********	
*****				****
		LE AND TEST P		
VEHICLE NO:	4 MOD	EL YEAR: 197	7 MAKE/MODEI	GM
ENGINE CID:	140 C	DOMETER: 44	000 TEST DATE	E: 0282
TEST TEMP:	O DEG F S	OAK TIME:	BEFORE/AFTER F	REPAIRS: B
BAG O TIME.	O MTN		Thir corpo.	Mag 010
*****	*****	*****	********	******
		DY-STATE TEST		
		CARBONS CARB		
		3 PPM		
2500		6 PPM		
200)	0 PPM	U。U4	
~~~~~~~				*****
		CVS TEST RESU		
		W BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0				
BAG 1			8.16	
BAG 2	4.40	94.00	24.00	1732.0
BAG 3	5.70	57.00	22.40	1520.0
			-	
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	9.42	94.71	2.27	13.9
BAG 2		24.04	6.14	
BAG 3		15.88	6.24	
FTP		36.36	5.37	17.5
r T L	200	20.20	2.27	11.5

	1	981/82 METFA	C PROGRAM	
*****	*****	*****	_ PRUGRAM **********	*****
	VEHIC	LE AND TEST	PARAMETERS	
VEHICLE NO:	4 MOD	EL YEAR: 19	77 MAKE/MODE	L: GM
			4000 TEST DAT	
TEST TEMP: 2	O DEG F S	OAK TIME:	BEFORE/AFTER	REPAIRS: B
BAG 0 TIME:	0 MIN.		IDLE SPEED:	840 RPM
*****	*****	****	******	****
	STEA	DY-STATE TEST	F RESULTS	
	HYDRO	CARBONS CAR	BON MONOXIDE	
	IDLE 10:	2 PPM	1.36 %	
2500	RPM 58	B PPM	0.0 %	
*****	*****	****	******	*****
	(	CVS TEST RESU	JLTS	
	RAI	V BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0				
BAG 1	20.70	234.00	16.39	1325.0
BAG 2	4.20	94.00	15.42	1546.0
BAG 3	4.00	38.00	21.98	1368.0
+				
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO		FE
BAG 1	5.77	65.18	4.57	18.1
BAG 2	1.07	24.04	3.94	
BAG 3	1.11	10.58	6.12	
7000		~~ ~ 1		20 2

10.58 28.84

6.12 4.67

2.05

 $\mathtt{FTP}$ 

	ALASI	KA VEHICLE TE	ST RESULTS	
	198	81/82 METFAC	PROGRAM	
****	****	****	PROGRAM ************	*****
		E AND TEST PA		
VEHICLE NO:	4 MODE	L YEAR: 1977	MAKE/MODEL	: GM
ENGINE CID:	140 OD0	OMETER: 440	00 TEST DATE	: 0282
TEST TEMP: 7	DEG F SO	AK TIME:	BEFORE/AFTER R	EPAIRS: B
BAC O TIME . (	n MTN		IDLE SPEED:	900 RPM
DAG O TIME: (	·	*****	IDLE SPEED:	*****
		Y-STATE TEST		
		ARBONS CARBO		
	niukuca 100	ACDUMA CAMBO	A1 9	
	TDTE T05	PPM - 4	• 41 · 5	
2500	RPM 20	PPM	∠。」 ⁵ ********	
*****				****
	<del>-</del>	VS TEST RESUL		
	RAW	BAG DATA - G	RAMS	
	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.10	137.00	20.84	1503.0
	4.30	98-00	24.26	1677.0
	3.60	37.00	22.69	1344.0
BAG 3	3.00	37.00	22.03	
	GRAMS PER	MILE/MILES P	ER GALLON	
	HC		NOX	FE
פאר ו	2 00	38 16	5.81	18.2
DAG 1	1 10	38.16 25.06	6 20	
BAG Z	1.10	20.00	6 32	
BAG 3	T.00	10.31	6.15	19 6
FTP	1.48	23.73	**********	19·0
****	*****	*****	****	

	1981/82 METFAC	PROGRAM	
*****	*****	*****	*****
	VEHICLE AND TEST PA	RAMETERS	
VEHICLE NO: 4	MODEL YEAR: 1977	MAKE/MODEL	: GM
	ODOMETER: 440	•	
	F SOAK TIME:		
******	IIN. :*********	******	*****
	STEADY-STATE TEST	RESULTS	
	HYDROCARBONS CARBO	N MONOXIDE	
IDLE	178 PPM 0	.39 %	
2500 RPM		0.8 %	
******	******	*****	*****
	CVS TEST RESUL	TS	
	RAW BAG DATA - G	RAMS	
HC HC	СО	NOX	CO 2
BAG 0 76.6	398.00	10.70	1736.0
BAG 1			
BAG 2 8.9	0 147.00	17.60	1568.0
BAG 3 9.1	.0 95.00	27.40	1661.0
GRA	MS PER MILE/MILES P	ER GALLON	
HC	CO	· NOX	FE
BAG 1 21.3	4 110.86	2.98	12.2
BAG 2 2.2	37.60	4.50	
BAG 3 2.5	3 26.46	7.63	
FTP 6.2		5.04	16.7
*****	*****	*****	*****

# ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM

		1/82 METFAC		
*****	******	******	*****	*****
	VEHICLE	AND TEST P	ARAMETERS	
VEHICLE NO:	4 MODEL	YEAR: 197	7 MAKE/MODEL:	GM
			000 TEST DATE:	
			BEFORE/AFTER RE	
BAG O TIME.	D MTN.	•	IDLE SPEED:	830 RPM
*****	****	*****	IDLE SPEED:	*****
•		-STATE TEST		
	•		ON MONOXIDE	
•	IDLE 188			
	RPM 25		U.U4 5	
*****				****
		S TEST RESU		
		BAG DATA -		
		CO		CO 2
BAG 0	18.50	116.00		128.66
BAG 1	10.30	170.00		1380.0
BAG 2	4.50	90.00		1619.0
BAG 3	4.20	41.00		1302.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	8.02	79.67	.00	15.5
	1.15			
	1.17		.00	
·		31.51		19.3

1981/82 METFAC PROGRAM	
*****************	***
VEHICLE AND TEST PARAMETERS	
VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM	
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 02	
TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIR	
BAG 0 TIME: 2 MIN. IDLE SPEED: 830	
***********	***
STEADY-STATE TEST RESULTS	
HYDROCARBONS CARBON MONOXIDE	
IDLE 75 PPM 2.11 %	
2500 RPM 0 PPM 0.02 %	
***********	***
CVS TEST RESULTS	
RAW BAG DATA - GRAMS	
HC CO NOX	CO 2
$\cdot$	94.0
BAG 1	
· ·	17.0
	69.0
GRAMS PER MILE/MILES PER GALLON	
HC CO NOX	FE
BAG 1 14.65 97.21 5.74 13	. 8
BAG 2 1.79 35.55 2.81	-
BAG 3 1.20 14.21 6.60	
FTP 4.28 42.42 4.45 17 ************************************	.1
***********	***

### ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM

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### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0182
TEST TEMP: 22 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG O TIME: 2 MIN. IDLE SPEED: 870 RPM

BAG 0 TIME: 2 MIN. IDLE SPEED: 870 RPM

### STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

# CVS TEST RESULTS RAW BAG DATA - GRAMS

	101	W DITO DITTI	01111110	
	HC	CO	NOX	CO2
BAG 0	53.50	296.00	21.05	1582.0
BAG 1				
BAG 2	4.30	83.00	18.18	1659.0
BAG 3	4.00	38.00	23.35	1360.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	14.90	82.45	5.86	14.4
BAG 2	1.10	21.23	4.65	
BAG 3	1.11	10.58	6.50	
FTP	3.94	30.93	5.41	18.6

		1981/82 METFAC	PROGRAM	
*****	*****	******	*****	*****
	VEE	HICLE AND TEST PA	ARAMETERS	
VEHICLE NO:	4 M	MODEL YEAR: 1977	<pre>7 MAKE/MODEL</pre>	: GM
		ODOMETER: 440		
		SOAK TIME:		
BAG 0 TIME:	6 MIN.		IDLE SPEED.	850 RPM
*****	*****	*****	*****	*****
	SI	EADY-STATE TEST	RESULTS	
		ROCARBONS CARBO		
		115 PPM		
		6 PPM (		
		*****		*****
		CVS TEST RESUI	T/PS	
		RAW BAG DATA - C		
		CO		CO 2
BAC O		143.00		132.70
		230.00		1548.0
		82.00		1604.0
BAG 3	12.30	107.00		1440.0
	CDAMC	DED MITE/MITEC	DED CATION	
		PER MILE/MILES I		77.77
		CO		FE
		103.90		13.1
BAG 2		20.97		
•		. 29.81	.00	
$\mathtt{FTP}$	4.69	40.45		17.8

#### ALASKA VEHICLE TEST RESULTS 1981/82 METFAC PROGRAM ***************** VEHICLE AND TEST PARAMETERS VEHICLE NO: MODEL YEAR: 1977 MAKE/MODEL: GM 4 ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282 TEST TEMP: 0 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 6 MIN. IDLE SPEED: 810 RPM ************* STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 140 PPM IDLE 3.02 % 48 PPM 0.12 % 2500 RPM **************** CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO 2 BAG 0 421.00 2223.0 BAG 1 BAG 2 198.00 1869.0 BAG 3 44.00 1639.0 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE BAG 1 .00 117.27 .00 11.0 BAG 2 .00 50.64 .00 .00 .00 BAG 3 12.26

53.88 **********

FTP

ALASKA VEHICLE TEST RESULTS				
	19	81/82 METFAC	PROGRAM	
******	*****	******	*****	*****
	VEHICI	LE AND TEST PA	RAMETERS	
			MAKE/MODE	
ENGINE CID:	140 OI	OMETER: 440	00 TEST DATE	E: 0282
			BEFORE/AFTER F	
BAG 0 TIME:	6 MIN.		IDLE SPEED:	850 RPM
*****	*****	*****	IDLE SPEED:	*****
		Y-STATE TEST		
		ARBONS CARBO		
		PPM		
2500	RPM 18		0.0 %	
			************	******
		VS TEST RESUL		
	=	7 BAG DATA - GI		
				20.0
D10 0	HC	CO	NOX	CO 2
BAG 0		566.30		1820.0
BAG 1				
BAG 2		168.00		1681.0
BAG 3		81.00	•	1508.0
		MILE/MILES P		
	HC	CO	· NOX	${ t FE}$
BAG 1	.00	157.74	.00	11.8
BAG 2	.00	42.97	.00	
BAG 3	.00	22.56	.00	
FTP	-	61.02		16.5
*****	*****	*****	*****	*****

	ALASKA VEHIC	LE TEST RESUL!	rs
	1981/82 ME	TFAC PROGRAM	,
******	******	*****	******
	VEHICLE AND TE	ST PARAMETERS	
VEHICLE NO: 4	MODEL YEAR:	1977 MAKI	E/MODEL: GM
ENGINE CID: 140	ODOMETER:	44000 TES	ST DATE: 0382
TEST TEMP: 17 DE	EG F SOAK TIME:	BEFORE/	AFTER REPAIRS: B
BAG 0 TIME: 6	MIN.	IDLE S	SPEED: 860 RPM
*****	*****	*****	******
	STEADY-STATE	TEST RESULTS	
	HYDROCARBONS	CARBON MONOXII	DE
IDLE	L 161 PPM	5.28 %	
<del>-</del> · · · ·	1 10 PPM		
******	*********	*****	******
	CVS TEST	RESULTS	
	RAW BAG DAT	A - GRAMS	
HC	CO	NO	CO 2
BAG 0 50.	20 310.0	0	474.00
BAG 1 10.	40 74.0	0	1352.0
BAG 2 5.	90 123.0	0	1557.0
BAG 3 6.	60 60.0	0	1297.0
GR	AMS PER MILE/MI	LES PER GALLON	1
HC	CO	NO	
BAG 1 16.	88 106.9		12.2
BAG 2 1.	51 31.4	6 .(	00
BAG 3 1.	84 16.7	1 .(	00
FTP 4.			18.0
*****	****	*****	******

2,02/02 122110 1100Min	
****************	**

### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0382
TEST TEMP: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 930 RPM

### STEADY-STATE TEST RESULTS

### HYDROCARBONS CARBON MONOXIDE

# CVS TEST RESULTS RAW BAG DATA - GRAMS

#### CO NOX CO2 HC BAG 0 9.34 BAG 1 22.50 278.00 1467.0 57.00 15.00 1639.0 BAG 2 2.30 16.90 1481.0 BAG 3 2.90 37.00 GRAMS PER MILE/MILES PER GALLON NOX FEHC CO 2.60 16.1 6.27 77.44 BAG 1 .59 14.58 3.84 BAG 2 BAG 3 .81 10.31 4.71 26.35 3.82 19.2 FTP 1.82 **************

## 1981/82 METFAC PROGRAM

### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0382
TEST TEMP: 73 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG O TIME: 0 MIN. IDLE SPEED: 970 RPM

BAG 0 TIME: 0 MIN. IDLE SPEED: 970 RPM

### STEADY-STATE TEST RESULTS

### HYDROCARBONS CARBON MONOXIDE

# CVS TEST RESULTS RAW BAG DATA - GRAMS

		НС	CO	NOX	CO 2
BAG	0				
BAG	1	17.70	150.00		1259.0
BAG	2	1.80	20.00		1672.0
BAG	3	2.10	23.00		1381.0
		GRAMS	PER MILE/MILES	PER GALLON	
		HC	CO	NOX	FE
BAG	1	4.93	41.78	.00	19.3
BAG	2	.46	5.12	.00	
BAG	3	.58	6.41	.00	
FT	P	1.41	13.01		20.6
			and the second s	Annual Annua	

	19	81/82 METFA	AC PROGRAM	
*****	*****	*****	*****	*****
	VEHICI	E AND TEST	PARAMETERS	
VEHICLE NO:	4 MODE	L YEAR: 19	77 MAKE/MOI	DEL: GM
			14000 TEST D	
			BEFORE/AFTE	- · · · · · · · · · · · · · · · · · · ·
*****	****	*****	IDLE SPEE	**********
		Y-STATE TES		
			RBON MONOXIDE	
<b>T</b> :				
		PPM		
2500	KEW II	PPM	U.UU 8 :*******	<b>.</b>
*****				*****
	_	VS TEST RES		
	RAW	BAG DATA -	- GRAMS	
	HC	CO .	NOX	CO 2
BAG 0	9.00	89.00	0.04	101.00
BAG 1	1.90	224.00	11.80	1438.0
			16.00	
			17.40	
2110 3	4.30	45.00	2,510	1317.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1		87.19	3.30	15.4
BAG 2	43	12.28	4.09	<del></del> -*
BAG 3	1 20 .	12 52	4.85	
	1.20		4.00	10.0

1.18

	19	81/82 METFA	C PROGRAM	
*****			****	*****
		LE AND TEST 1		
			77 MAKE/MODEI	
ENGINE CID:	140 OI	OMETER: 4	4000 TEST DATE	E: 0382
			BEFORE/AFTER F	
BAG 0 TIME:	6 MIN.		IDLE SPEED:	950 RPM
*****	*****	******	*****	*****
	STEAL	Y-STATE TEST	r results	
	HYDROC	CARBONS CAR	BON MONOXIDE	
		PPM	0 %	
		PPM		
*****			*****	*****
		VS TEST RES		
		BAG DATA -		
	HC	<del>-</del> -		CO 2
	32.80	238.00		357.00
	8.20	91.00		
BAG 2	1.60	43.00	14.20	
BAG 3	2.50	3.2.00	16.00	1406.0
		MILE/MILES		
	HC	CO	NOX	FE
BAG 1	11.42	91.64		12.7
BAG 2	.41	11.00		
BAG 3	.70	8.91		
FTP	2.75	27.03	. 4.00	18.3

	1981/82 METFAC	PROGRAM	
*****	*****	****	*****
VE	HICLE AND TEST PA	RAMETERS	
VEHICLE NO: 4	MODEL YEAR: 1977	MAKE/MODEL	: GM
ENGINE CID: 140			
TEST TEMP: 39 DEG F	SOAK TIME:	BEFORE/AFTER R	EPAIRS: A
BAG O TIME: 6 MIN			
*****	- ********	*****	*****
S	TEADY-STATE TEST	RESULTS	
	DROCARBONS CARBO		
	44 PPM 0		
	0 PPM 0		
*****	*****	*****	*****
	CVS TEST RESUL	TS	
	RAW BAG DATA - G		
HC	CO	NOX	CO2
BAG 0 13.20	114.00	0.36	398.00
	75.00	14.80	1379.0
BAG 2 1.60	32.00	12.60	1590.0
BAG 3 2.00	26.20	15.20	1325.0
- <del>-</del>			
GRAMS	PER MILE/MILES P.	ER GALLON	
HC	CO	· NOX	FE
BAG 1 9.11	52.65	4.22	14.6
	8.18		
BAG 3 .56	7.30	4.23	
FTP 2.24	17.09	3.70	19.8

	1981/82 METFA	C PROGRAM	
*****	******	*****	*****
V.	EHICLE AND TEST	PARAMETERS	
VEHICLE NO: 5	MODEL YEAR: 19	78 MAKE/MODE	L: FUJI
ENGINE CID: 97	ODOMETER: 2	6000 TEST DAT	E: 0482
TEST TEMP: 35 DEG			
BAG 0 TIME: 0 MI		•	
****	******	****	****
	STEADY-STATE TES	r RESULTS	
H	YDROCARBONS CAR	BON MONOXIDE	
	125 PPM		
	40 PPM		
****	*****	*****	*****
	CVS TEST RES	ULTS	
	RAW BAG DATA -		
нС	CO	NOX	CO 2
BAG 0		1.011	
BAG 1	267.30		979.40
BAG 2	69.10		1245.4
BAG 3	40.00		1097.1
DAG 3	40.00		100,01
GRAM	F PER MILE/MILES	PER GALLON	
HC .		NOX	FE
	74.46	.00	22.8
	17.67		
	11.14	.00	·
FTP	27.58		25.4

### 1981/82 METFAC PROGRAM

19	81/82 METFAC PROC	SRAM
**********	*****	*********
VEHICI	E AND TEST PARAM	ETERS
VEHICLE NO: 5 MODE	L YEAR: 1978	MAKE/MODEL: FUJI
ENGINE CID: 97 OD		
TEST TEMP: 75 DEG F SO		
BAG 0 TIME: 0 MIN.	*****	******
STEAD	Y-STATE TEST RESU	JLTS
	ARBONS CARBON MO	
	PPM 4.39	
	PPM 0.14	
*********	****	******
C	VS TEST RESULTS	
-	BAG DATA - GRAMS	
HC HC	CO CO	NOX CO2
		NOA CO2
BAG 0	FC 10	873.30
BAG 1	56.10	
BAG 2	50.10	1082.4
BAG 3	34.30	977.60
CPAMS PER	MILE/MILES PER (	ALLON
HC HC		· NOX FE
		.00 33.1
BAG 1 .00		
	12.81	.00
BAG 3 .00	9.55	.00
FTP	12.50	30.8

************

	ALAS	KA VEHICLE T	EST RESULTS		
	19	81/82 METFAC	PROGRAM		
******	*****	*****	PROGRAM *********	****	
	VEHICL	E AND TEST PA	ARAMETERS		
VEHICLE NO.			MAKE/MODEL:	FUJI	
			OOO TEST DATE:		
			BEFORE/AFTER REP		
BAG O TIME: 2	MTN		IDLE SPEED:	RDM	
DAG U 11ME: 2	*******	*****	******	*****	
		Y-STATE TEST			
		ARBONS CARBO			
7		PPM CARD			
		PPM			
2500	KPM 20	**********	*******	*****	
**************************************					
RAW BAG DATA - GRAMS					
				COS	
	HC	44.00	NOX 0.07	E0 20	
BAG U	9.30	44.80	4.40	752 70	
BAG I	14.50	83.20	4.40	753.70	
		48.10	4.50	803.60	
BAG 3	3.00	23.40	6.20	649.20	
		MILE/MILES	PER GALLON		
	HC	CO	NOX	FE	
BAG 1	`6.63	35.65	1.25	29.2	
BAG 2	.77	12.30	1.15		
BAG 3	.84	6.52	1.73		

38.0

	19	081/82 METFAC F	PROGRAM	
*****	*****	******	*****	*****
	VEHICI	E AND TEST PAR	RAMETERS	
VEHICLE NO:	5 MODE	L YEAR: 1978	MAKE/MODEI	: FUJI
ENGINE CID:	97 OD	OMETER: 2600	0 TEST DATE	: 0482
			BEFORE/AFTER F	
BAG O TIME.	O MTN.		IDLE SPEED:	RPM
*****	*****	*****	******	****
	STEAD	Y-STATE TEST F	RESULTS	
		ARBONS CARBON		
		PPM 0.		
		PPM 0.		
			*****	****
	C	VS TEST RESULT	'S	
		BAG DATA - GR		
	HC	CO	NOX	CO 2
BAG 0				
BAG 1	24.70	257.80	6.10	867.40
			8.70	
	2.60	23.60	8.90	927.00
2.10	2.00	23100		
	GRAMS PER	MILE/MILES PE	ER GALLON	
	HC			FE
BAG 1		71.81	1.70	23.6
BAG 2	. 46	7.85	2.23	
BAG 3	.72	6.57		
FTP			2.19	29.0

	ALASI	KA VEHICLE ?	TEST RESULTS		
	198	81/82 METFAC	PROGRAM		
*****	*****	*****	*****	****	
	VEHICL	E AND TEST I	PARAMETERS		
VEHICLE NO:			78 MAKE/MODEL:	FILTT	
ENGINE CID:	97 OD	OMETER: 26	0000 TEST DATE:	0482	
TEST TEMP: 71	DEG F SO	AK TIME.	BEFORE/AFTER RE	PATRS: A	
BAG O TIME. O	MTN		IDLE SPEED:	DDM	
******	****	*****	IDLE SPEED:		
		Y-STATE TEST			
			BON MONOXIDE		
Т		PPM			
		PPM			
			****	*****	
CVS TEST RESULTS					
RAW BAG DATA - GRAMS					
	HC	CO	NOX	CO2	
BAG 0	пс	CO	HOX	CO 2	
BAG 1	4 60	54.50	8.90	982 20	
		23.90			
_			9.30		
BAG 3	3.60	24.70	9.30	901.00	
GRAMS PER MILE/MILES PER GALLON					
				22	
מאר ז	1 20	15 10 *	NOX 2.48	20 4	
				47.4	
		6.11			
BAG 3	T.00	6.88	2.59		

	198	1/82 METFAC	PROGRAM	
*****	*****	*****	*********	*****
	VEHICLE	AND TEST P	ARAMETERS	
VEHICLE NO:	5 MODEL	YEAR: 197	8 MAKE/MODE	L: FUJI
			000 TEST DAT	
			BEFORE/AFTER	
******	*****	*****	IDLE SPEED:	****
	STEADY	-STATE TEST	RESULTS	
			ON MONOXIDE	
II		PPM	8	
2500 I	RPM	PPM	8	
*****	*****	*****	*****	*****
	CV	S TEST RESU	LTS	
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0	7.00	48.80	0.00	142.50
BAG 1	23.30	212.70	6.30	965.50
	1.80		5.40	1151.2
	2.40	17.50	8.30	921.10
_				
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	8.44	72.84	1.75	19.7
	. 46	5.65		
	•67 ·		2.31	
FTP	2.16	19.27	1.71	27.4

	ALASKA VEHICLE TEST	RESULTS	
	1981/82 METFAC PR	OGRAM	
******	*****	******	*****
VE	HICLE AND TEST PARA	METERS	
VEHICLE NO: 5	MODEL YEAR: 1978	MAKE/MODE	L: FUJI
ENGINE CID: 97	ODOMETER: 26000	TEST DATE	E: 0482
TEST TEMP: 38 DEG F			
BAG 0 TIME: 2 MIN	*****	*****	*****
S'	TEADY-STATE TEST RE	SULTS	
HY	DROCARBONS CARBON	MONOXIDE	
	23 PPM 0.6		
	19 PPM 0.1		
*****	*****	*****	*****
	CVS TEST RESULTS		
	RAW BAG DATA - GRAI	MS	
HC	co	NOX	CO 2
BAG 0 11.00		0.08	
	149.70	8.30	968.60
BAG 2 2.00			1111.7
BAG 3 2.90		10.00	921.10
GRAMS	PER MILE/MILES PER	GALLON	`
HC	Ć		FE
BAG 1 9.08	54.90	2.33	22.2
BAG 2 .51			
	5.01		
FTP 2.36		2.23	28.7

	1981/82 METFAC PRO	GRAM
******	******	******
VE	HICLE AND TEST PARAM	ETERS
VEHICLE NO: 6	MODEL YEAR: 1980	MAKE/MODEL: AUDI
		TEST DATE: 0482
TEST TEMP: 38 DEG F	SOAK TIME: BE	FORE/AFTER REPAIRS: B
******	*******	IDLE SPEED: RPM
S	TEADY-STATE TEST RES	ULTS
	DROCARBONS CARBON M	
	200 PPM 8.7	
**********	**********	8 ********
	CVS TEST RESULTS	
	RAW BAG DATA - GRAM	5
нс	CO	NOX CO2
BAG 0	60	11011 002
BAG 1	130.70	1098.6
	127.70	1274.3
BAG 2	<del>-</del>	1035.9
BAG 3	60.80	1033.9
GRAMS	PER MILE/MILES PER	GALLON
HC	•	
		.00 24.4
BAG 2 .00	36.41 32.66	.00
BAG 2 .00	16.94	.00
FTP	29.14	24.8
		27.U

	ALASKA VEHICLE TEST	
	1981/82 METFAC PRO	GRAM
*****	*******	*****
v	EHICLE AND TEST PARAM	ETERS
VEHICLE NO: 6	MODEL YEAR: 1980	MAKE/MODEL: AUDI
ENGINE CID: 97	ODOMETER: 22500	TEST DATE: 0482
TEST TEMP: 70 DEG	F SOAK TIME: BE	FORE/AFTER REPAIRS: B
		IDLE SPEED: RPM
BAG 0 TIME: 0 MI	*****	******
	STEADY-STATE TEST RES	ULTS
	YDROCARBONS CARBON MO	
	211 PPM 7.89	
	194 PPM 6.62	
	194 PPM 0.02	
*****		*****
	CVS TEST RESULTS	_
	RAW BAG DATA - GRAM	
HC	CO	NOX CO2
BAG 0		
BAG 1	69.30	652.38
BAG 2	139.23	1688.6
BAG 3	64.43	929.80
2	3.17.13	, <b>, , , , , , , , , , , , , , , , , , </b>
GRAM	S PER MILE/MILES PER	GALLON
нС	CO	NOX FE
BAG 1 .00		.00 41.9
BAG 2 .00		.00
		.00
	27.43	23.6
FTP	27 · 43	
_ <b>********</b>	#################	******

	7.0	Ol /OO MEMBAC	DDOCDAM			
******	17 11-11-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	OI/OZ MEILAC	PROGRAM			
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~						
		E AND TEST PA				
VEHICLE NO:	6 MODE	L YEAR: 1980	) MAKE/MODEI	.: AUDI		
ENGINE CID:	97 OD	OMETER: 225	OO TEST DATE	C: 0482		
TEST TEMP: 33	DEG F SO	AK TIME:	BEFORE/AFTER F	EPAIRS: B		
*****	*****	****	IDLE SPEED:	*****		
	STEAD	Y-STATE TEST	RESULTS			
		ARBONS CARBO				
+						
1	DLE 154	PPM 7	7.94 6			
2500	RPM 108	PPM 3	3.21 *			
*****	*****	*****	*****	*****		
	·	VS TEST RESUI				
	RAW	BAG DATA - G	GRAMS			
	HC	CO	NOX 1.50	CO 2		
BAG 0	1.16	41.32	1.50	76.61		
BAG 1	4.10	114.18	16.80	777-62		
			11.40			
BAG 3		87.45		688.70		
DAG 3	3.32	07.45	20.20	000.70		
	COAMC DED	MITE/MITEC I	DEED CATTON			
		•	PER GALLON	22		
	HC	CO	NOX	FE		
BAG 1	1.47	43.31	5.10 2.92	28.5		
BAG 2	1.54	48.90	2.92			
BAG 3	•98 ·	24.36	7.86			
FTP	1.40	41.05	4.71	31.2		
*****	BAG 3 .98 · 24.36 7.86 FTP 1.40 41.05 4.71 31.2 ************************************					

	19	81/82 METFAC	PROGRAM ********		
*****	******	*****	*****	****	
	VEHICL	E AND TEST P	ARAMETERS		
VEHICLE NO:	6 MODE	L YEAR: 198	<pre>0 MAKE/MODEL</pre>	: AUDI	
			500 TEST DATE		
			BEFORE/AFTER R		
BAG O TIME. 2	MTN_	•	IDLE SPEED:	RPM	
******	****	*****	IDLE SPEED: *********	****	
		Y-STATE TEST			
		ARBONS CARB			
т		PPM			
		PPM			
*********	*******	****	*****	*****	
		VS TEST RESU			
	_	BAG DATA -	<del>-</del> · · · ·		
		CO	NOX	CO2 ·	
DAC A	2.07	62.70	3.10		
BAG 0	2.07	160 00	2.50	805.80	
DAG I	22.00	170 70	11.40	861 30	
			25.50		
BAG 3	3.40	79.25	25.50	021.01	
GRAMS PER MILE/MILES PER GALLON					
	HC			FE	
BAG 1	6.87	64.84	1.56		
	1.53		2.92	·	
		. 22.08			
FTP		. 42.00	3.78	30.5	
rir	2.4/	. 44.01.0	J. 10		

I JOZ/ OZ IMITIO I ROGRIMA
*****************

#### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482 TEST TEMP: 32 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

#### STEADY-STATE TEST RESULTS

#### HYDROCARBONS CARBON MONOXIDE

### CVS TEST RESULTS

#### RAW BAG DATA - GRAMS

	HC	CO	NOX ·	CO2
BAG 0				
BAG 1	2.43	48.80	53.60	904.80
BAG 2	0.61	4.83	25.40	1135.8
BAG 3	0.65	3.68	58.70	882.60
	GRAMS PE	R MILE/MILES I	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	.68	13.59	14.93	32.2
BAG 2	.16	1.24	6.50	
BAG 3	.18	1.03	16.35	
FTP	0.27	3.72	10.92	32.0
*****	*****	****	*****	******

	19	81/82 METFAC E	PROGRAM	
*****	*****	*****	********	******
	VEHICL	E AND TEST PAR	RAMETERS	
VEHICLE NO:	6 MODE	L YEAR: 1980	MAKE/MODE	L: AUDI
ENGINE CID:	97 OD0	OMETER: 2250	0 TEST DAT	E: 0482
TEST TEMP: 71	DEG F SO	AK TIME:	BEFORE/AFTER	REPAIRS: A
		****		
*****	*****	*****	******	*****
	STEAD:	Y-STATE TEST R	RESULTS	
	HYDROCA	ARBONS CARBON	MONOXIDE	
I		PPM 0.		
		PPM 0.		
******	****	*****	******	*****
	C7	VS TEST RESULT	?S	
		BAG DATA - GR	· ·	
	HC	CO	NOX	CO 2
BAG 0				
	2.07	23.14	63.70	883.90
BAG 2		0.90		1140.9
	U * 37	0.70	32.00	<b>TTTO •</b> 7
BAG 3	•		83.60	
BAG 3	•	4.04		884.80
BAG 3	0.78		83.60	
BAG 3	0.78 GRAMS PER	4.04 MILE/MILES PE	83.60 ER GALLON NOX	884.80 FE
BAG 1	0.78 GRAMS PER HC .58	4.04 MILE/MILES PE CO 6.45	83.60 ER GALLON NOX 17.74	884.80
BAG 1	0.78 GRAMS PER HC .58	4.04 MILE/MILES PE	83.60 ER GALLON NOX 17.74	884.80 FE

****	198	1/82 METFAC	PROGRAM	
*****	*****	******	******	******
	VEHICLE	AND TEST E	PARAMETERS	
VEHICLE NO:	6 MODEI	YEAR: 198	30 MAKE/N	MODEL: AUDI
ENGINE CID:	97 ODC	METER: 22	500 TEST	DATE: 0482
TEST TEMP: 33				
BAG 0 TIME: 2				
*****	*****	******	*******	*******
	STEADY	-STATE TEST	RESULTS	
	HYDROCA	RBONS CARE	SON MONOXIDE	
ID	LE 73	PPM	0.78 %	
2500 RI	PM 37	PPM	0.20 %	
*****	*****	*****	*****	*****
	CV	S TEST RESU	LTS	
		BAG DATA -		
j	HC	CO	NOX	CO2
BAG 0	1.12	28.22	3.00	89.20
BAG 1	0.82	11.60	58.70	1044.6
BAG 2				
				949.50
(	GRAMS PER	MILE/MILES	PER GALLON	
]	HC	CO	· NOX	FE
BAG 1	.54	11.09	17.19	26.5
BAG 2	.08	.88	7.72	•
	.15	.76	18.44	
	0.20	2.95		29.4

************

			TEST RESULTS	
	19	81/82 METFA	C PROGRAM ********	
*****	******	*****	*****	*****
	VEHICI	LE AND TEST	PARAMETERS	
VEHICLE NO:	6 MODE	EL YEAR: 19	80 MAKE/MODE	L: AUDI
			2500 TEST DAT	
			BEFORE/AFTER	
******	****	******	IDLE SPEED:	******
		Y-STATE TES		
			BON MONOXIDE	
٣		PPM		
		PPM		
2000	RPM 3/	'	U.ZU T	****
*****				
		VS TEST RES		
		BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0	0.59	38.50		116.90
		9.29		988.50
BAG 2	0.36	3.71	28.80	1206.8
BAG. 3	0.37	1.52	68.70	938.60
	GRAMS PER	MILE/MILES	PER GALLON	
	HC		NOX	FE
BAG 1	.39	13.31	.00	26.9
	.09	.95	7.37	
	.10	. 42	19.14	
FTP	0.16	3.35		29.4
****	*****	*****	*****	******

### 

### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182 TEST TEMP: 20 DEG F SOAK TIME: 29 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 780 RPM

### ******************

#### STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON	MONOXIDE
IDLE	38 PPM	0.0	30 %

2500 RPM 36 PPM 0.00 %

### CVS TEST RESULTS RAW BAG DATA - GRAMS

#### HC CO NOX CO2 BAG 0 BAG 1 12.00 347.00 6.67 2672.0 7.20 BAG 2 1.73 2.70 2480.0 BAG 3 1.65 45.80 9.91 2200.0 GRAMS PER MILE/MILES PER GALLON CO HC NOX FEBAG 1 96.66 1.86 9.8 3.34 .69 BAG 2 . 44 1.84 BAG 3 .46 12.76 2.76 1.04 FTP 23.74 2.10 12.8 ****************

****************

#### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182 TEST TEMP: 21 DEG F SOAK TIME: 46 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 790 RPM

#### STEADY-STATE TEST RESULTS

### HYDROCARBONS CARBON MONOXIDE

IDLE 21 PPM 0.00 % 2500 RPM 20 PPM 0.00 %

### 

#### CVS TEST RESULTS RAW BAG DATA - GRAMS NOX CO 2 CO HC BAG 0 8.70 200.00 2540.0 BAG 1 11.00 1.29 57.00 10.00 2540.0 BAG 2 11.00 2250.0 27.00 1.49 BAG 3 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE11.0 55.71 2.42 BAG 1 3.06 14.58 2.56 BAG 2 .33 7.52 3.06 BAG 3 . 42 21.12 0.92 2.67 $\mathtt{FTP}$ *************

	1981/82 METFA	PROGRAM	
******	****	******	*****
VF	HICLE AND TEST	PARAMETERS	
VEHICLE NO: 7			. CHRYSI
ENGINE CID: 318			
TEST TEMP: 22 DEG F			
BAG 0 TIME: 0 MIN	•	IDDE SPEED:	800 RPM
			~~~~~
	TEADY-STATE TEST		
•	DROCARBONS CARI		
	35 PPM		
	30 PPM		
******	****	******	*****
	CVS TEST RESU		
·	RAW BAG DATA -	GRAMS	
HC	co	NOX	CO2
BAG 0			
BAG 1 27.40	454.00	10.20	2540.0
BAG 2 9.83		11.20	2850.0
BAG 3 14.60		15.90	2230.0
GRAMS	PER MILE/MILES	PER GALLON	`
HC	CO	NOX	FE
BAG 1 7.63	126.46	2.84	9.5
BAG 2 2.51	.31	2.86	
BAG 3 4.07			
FTP 3.99	26 88	3.29	11.8
	20.00	7 . 2 . 7	

1981/82 METFAC PROGRAM ************

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL ODOMETER: 13600 TEST DATE: 0182 ENGINE CID: 318 TEST TEMP: 68 DEG F SOAK TIME: 24 BEFORE/AFTER REPAIRS: B IDLE SPEED: RPM BAG 0 TIME: 0 MIN. ***********

STEADY-STATE TEST RESULTS

PPM

IDLE

0.96

. 44

BAG 3

FTP

HYDROCARBONS CARBON MONOXIDE

	2500	RPM	PPM	ક	
***	*****	****	*****	******	*****
			CVS TEST RESULT	rs	
			RAW BAG DATA - GF		
		HC	CO	NOX	CO 2
BAG	0				
BAG	-	12.00	288.00	2.50	2540.0
BAG		1.11	1.43	1.48	2870.0
BAG		1.57	5.76	2.00	2100.0
		GRAMS	PER MILE/MILES PI	ER GALLON	
		HC	CO	NOX	FE
BAG	1	3.34	80.22	.70	10.5
BAG		.28	.37	.38	

1.60

17.14

.56

		SKA VEHICLE TES		
	1:	981/82 METFAC I	PROGRAM *******	
*******	*****	*****	*****	****
	VEHIC	LE AND TEST PAR	RAMETERS	
VEHICLE NO:	7 MOD	EL YEAR: 1980	MAKE/MODEI	: CHRYSL
ENGINE CID:	318 O	DOMETER: 1360	O TEST DATE	: 0182
TEST TEMP: 6	9 DEG F S	DAK TIME: 22	BEFORE/AFTER R	EPAIRS: B
BAG O TIME:	0 MIN.		IDLE SPEED:	780 RPM
******	*****	******	IDLE SPEED:	*****
		Y-STATE TEST F		
	,	CARBONS CARBON		
		PPM 0.		
2500	אממ /	PPM 0.	00 8	
2300	, KPM ()	. UU	*****

		CVS TEST RESULT		
		W BAG DATA - GF		
	HC	CO	NOX	CO 2
BAG 0				
BAG 1	3.63		9.75	
BAG 2	11.20	9.70	7.30	2340.0
		27.20	16.50	2060.0
_				
	GRAMS PE	R MILE/MILES PE	ER GALLON	
	HC	CO	· NOX	\mathtt{FE}
BAG 1	1.01	16.02	2.72	14.0
BAG 2	2.86	2.48	2.72 1.87	
BAG 3	. 40	7.58	4.60	
ወው።	1 81	6.66	4.60 2.79 ******	14.6
	T • OT	·*********	~~ · · · · · · · · · · · · · · · · · ·	****

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182 TEST TEMP: 4 DEG F SOAK TIME: 113 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 2 MIN. IDLE SPEED: 760 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 22 PPM 0.05 % 2500 RPM 18 PPM 0.04 %

CVS TEST RESULTS RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				•
BAG 1	18.50	343.00	13.00	3440.0
BAG 2	1.16	3.60	9.89	2810.0
BAG 3	1.50	9.37	14.00	2200.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	5.15	95.54	3.62	7.9
BAG 2	.30	.92	2.53	
BAG 3	. 42	2.61	3.90	
FTP	1.33	20.86	3.13	11.4
المرامل المرامل المرامل المرامل المرامل المرامل	and an arrangement and are are also and are			

	1	981/82 METF	AC PROGRAM	
*******		*****	******	*****
	VEHIC:	LE AND TEST	PARAMETERS	
VEHICLE NO:	7 MOD	EL YEAR: 1	980 MAKE/M	ODEL: CHRYSL
ENGINE CID:	318 0	DOMETER:	13600 TEST	DATE: 0182
TEST TEMP: 2	2 DEG F S	DAK TIME:	6 BEFORE/AFT	ER REPAIRS: B
BAG O TIME:	2 MIN.		IDLE SPE	ED: 750 RPM
*****	****	*****	IDLE SPE	*****
	STEA	Y-STATE TE	ST RESULTS	
	HYDRO	CARBONS CA	RBON MONOXIDE	
	IDLE		8	
2500	RPM	PPM	8	
*****	****	*****	******	*****
	(CVS TEST RE	SULTS	
		W BAG DATA		
	HC	CO	NOX	CO 2
BAG 0	5.21	58.00	0.29	428.00
BAG 1	4.81	135.00	15.60	2720.0
BAG 2	8.85	1.47	10.40	2707.0
BAG 3	14.30	6.63	17.50	2260.0
	GRAMS PE		S PER GALLON	
	HC	CO	· NOX	FE
BAG 1	2.79	53.76	4.43 2.66	9.1
BAG 2	2.26	.38	2.66	
BAG 3	3.98	1.85	4.87	
FTP			3.63	12.0

1981/82 METFAC PROGRAM ************** VEHICLE AND TEST PARAMETERS MODEL YEAR: 1980 MAKE/MODEL: VEHICLE NO: 7 CHRYSL ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182 TEST TEMP: 14 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 6 MIN. IDLE SPEED: 840 RPM *********** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 8 PPM 0.00 % 2500 RPM 51 PPM 0.00 % *************** CVS TEST RESULTS RAW BAG DATA - GRAMS CO HC NOX CO2 BAG 0 104.00 15.50 1788.0 1.78 BAG 1 2.30 4.14 19.90 2550.0 10.30 BAG 2 0.65 0.43 2790.0 8.68 16.48 BAG 3 1.47 2210.0 GRAMS PER MILE/MILES PER GALLON CO NOX FE HC 30.12 9.86 7.0 1.14 BAG 1 BAG 2 .17 .11 2.63 .41 4.59 2.42 BAG 3

6.92

FTP

0.43

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182 TEST TEMP: 16 DEG F SOAK TIME: 22 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 860 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS RAW BAG DATA - GRAMS

HC CO NOX C₀2 BAG 0 BAG 1 15.60 140.00 11.50 1170.0 12.50 28.10 1120.0 BAG 2 1.86 15.50 990.00 BAG 3 2.19 10.30 GRAMS PER MILE/MILES PER GALLON CO · NO Y ਹਾਹ TIC

	пС	CO	NOA	111
BAG 1	4.35	39.00	3.20	22.1
BAG 2	.48	7 . 19 .	3.20	
BAG 3	.61	2.87	4.32	
\mathtt{FTP}	1.32	12.56	3.50	28.1
*****	****	*******	*****	*****

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: TEST DATE: 85 ODOMETER: 30700 TEST TEMP: 23 DEG F SOAK TIME: 14 BEFORE/AFTER REPAIRS: B IDLE SPEED: BAG 0 TIME: 0 MIN. 900 RPM *****************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 375 PPM 5.00 %
2500 RPM 60 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.00	170.00	9.25	1890.0
BAG 2	3.38	10.90	10.60	1230.0
BAG 3	2.54	12.40	12.40	1010.0
	GRAMS	PER MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	3.06	47.35	2.58	14.5
BAG 2	.86	2.79	2.71	
BAG 3	.71	3.45	3.45	
FTP	1.27	12.14	2.89	23.8
******	*****	******	*****	****

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182 TEST TEMP: 66 DEG F SOAK TIME: 24 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 315 PPM 3.20 % 2500 RPM 38 PPM 0.10 %

CVS TEST RESULTS RAW BAG DATA - GRAMS

		0	,	
	HC	CO	NOX	CO2
BAG 0				
BAG 1	0.89	31.60	15.10	1060.0
BAG 2	3.07	47.10	12.10	1070.0
BAG 3	2.34	26.40	16.80	933.00
	GRAMS PE	R MILE/MILES P	ER GALLON	
	HC	CO	· NOX	FE
BAG 1	. 25	8.80	4.21	28.6
BAG 2	.79	12.05	3.09	
BAG 3	.65	7.35	4.68	
FTP	0.64	10.10	3.76	30.4
****	*****	*****	*****	*****

1981/82 METFAC PROGRAM ***********************************
VEHICLE AND TEST PARAMETERS VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************
VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************
ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************
ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************
TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG O TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************
BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM ***********************************

STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 350 PPM 4.40 % 2500 RPM 60 PPM 0.00 % **********************************
HYDROCARBONS CARBON MONOXIDE IDLE 350 PPM 4.40 % 2500 RPM 60 PPM 0.00 % **********************************
IDLE 350 PPM 4.40 % 2500 RPM 60 PPM 0.00 % **********************************
IDLE 350 PPM 4.40 % 2500 RPM 60 PPM 0.00 % **********************************
2500 RPM 60 PPM 0.00 % **********************************
CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
HC CO NOX CO2 BAG 0 BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
BAG 0 BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
BAG 1 4.00 25.20 1050.0 BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
BAG 2 2.26 33.70 9.70 1200.0 BAG 3 2.60 21.20 12.70 930.00
BAG 3 2.60 21.20 12.70 930.00
GRAMS PER MILE/MILES PER GALLON
HC CO NOX FE
BAG 1 1.11 7.02 .00 28.9
BAG 1 1.11 7.02 .00 28.9 BAG 2 .58 8.62 2.48
BAG 2 .58 8.62 2.40 BAG 3 .72 5.91 3.54
FTP 0.73 7.55 29.1

ALASKA WENTETE TECT DUCHTES

ALASKA VEHICLE TEST RESULTS				
	19	81/82 METFA	C PROGRAM	
*****	*****	******	******	*****
		E AND TEST	· -	
VEHICLE NO:	8 MODE	EL YEAR: 19	80 make/modei	: NISSAN
ENGINE CID:	85 OD	OMETER: 3	0700 TEST DATE	E: 0182
TEST TEMP:	4 DEG F SC	AK TIME:	BEFORE/AFTER F	REPAIRS: B
BAG 0 TIME:	2 MIN.		IDLE SPEED:	840 RPM
******	*****	*****	******	******
	STEAD	Y-STATE TEST	r results	
	HYDROC	ARBONS CARI	BON MONOXIDE	
	IDLE 351	PPM	4.90 %	
2500	RPM 58	PPM	0.00 %	
********	*****	*****	*****	*****
	С	VS TEST RESU	JLTS	
	RAW	BAG DATA -	GRAMS	
	HC		NOX	CO 2
BAG 0				1630.0
BAG 1			-	
	3.68	27.80	13.50	980.00
BAG 3	2.68			
•				
	GRAMS PER	MILE/MILES		
	HC	CO	· NOX	FE
BAG 1	3.68	32.03	NOX 3.93	17.2
BAG 2	.94		3.45	
BAG 3		5.91		
FTP	1.45	11.91	3.78	27.0

	1981/	82 METFA	C PROGRAM		
*****	*****	*****	*****	*****	*****
	VEHICLE A	ND TEST	PARAMETER	S	
VEHICLE NO:					NTSSAN
ENGINE CID:					
TEST TEMP: 17					
BAG 0 TIME: 2	MIN.			SPEED:	890 RPM
					~ ~ ~ ~ ~ ~ ~ ~
			T RESULTS		
	HYDROCARE			IDE	
	LE 375 PF				
	PM 66 PF				
*****				*****	*****
		TEST RES			
·	RAW BA	G DATA -			
	HC	CO			CO2
BAG 0 1	5.10	84.60	13	.50	1380.0
BAG 1					
BAG 2	2.59	28.80	13	.10	1170.0
BAG 3	2.35	17.30	16	.50	1060.0
1	GRAMS PER MI	LE/MILES	PER GALL	ON	
	HC	CO	· N	OX	FE
BAG 1	4.21	23.57	3	.76	20.4
	.66				
		4.82			
		10.01	3		26.4

ALASKA VEHICLE TEST RESULTS				
	19	81/82 METFA	C PROGRAM	
*****	*****	******	*****	*****
	VEHICI	LE AND TEST	PARAMETERS	
VEHICLE NO:	8 MODE	EL YEAR: 19	80 MAKE/MO	DEL: NISSAN
ENGINE CID:	85 OD	OMETER: 3	0700 TEST D	ATE: 0182
TEST TEMP: 20	DEG F SC	AK TIME: 2	3 BEFORE/AFTE	R REPAIRS: B
BAG 0 TIME: 2	MIN.		IDLE SPEE	D: 840 RPM
*****	*****	*****	*****	*******
	STEAD	Y-STATE TES	T RESULTS	
	HYDROC	ARBONS CAR	BON MONOXIDE	
I	DLE	PPM	4.50 %	
2500	RPM	PPM	0.10 %	
*****	*****	*****	******	*****
	C	VS TEST RES	ULTS	
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0	8.01	47.00	0.35	1090.0
BAG 1	4.40	42.00	16.90	1410.0
			14.80	
BAG 3	2.16	14.90	17.60	1050.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	3.46		4.81	11.9
BAG 2	.74	7.44	3.79	
BAG 3	•60 ·	4.15	4.90	
FTP	1.26	10.12	4.30	21.6
and the same of th	and an incidence of the control of t	and the second of the second of the second of	and the same and the same and the same and the same	and the same of th

FTP 1.26 10.12 4.30 21.6

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182 TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 6 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 340 PPM 5.10 %
2500 RPM 61 PPM 0.00 %

CVS TEST RESULTS

			RAW	BAG DATA -	GRAMS	
		HC		CO	NOX	CO 2
BAG	0	20.30		103.00	15.40	1460.0
BAG	1					
BAG	2	3.28		39.80	12.30	1080.0
BAG	3	2.39		19.00	14.80	1020.0
		GRAMS	PER	MILE/MILES	PER GALLON	
		HC		CO	NOX	FE
BAG	1	5.65		28.69	4.29	18.9
BAG	2	-84		10.18	3.15	
BAG	3	.67	-	5.29	4.12	
FT	'P	1.78		12.66	3.65	26.8
***	****	*****	***	*****	*****	****

ALASKA VEHICLE TEST RESULTS				
	19	81/82 METFA	C PROGRAM	
*****	*****	*****	******	******
	VEHICL	E AND TEST	PARAMETERS	
VEHICLE NO:	8 MODE	L YEAR: 19	80 MAKE/MOD	EL: NISSAN
ENGINE CID:	85 OD	OMETER: 3	0700 TEST DA	ATE: 0182
TEST TEMP: 20	DEG F SO	AK TIME:	BEFORE/AFTER	R REPAIRS: B
BAG 0 TIME: 6	MIN.			RPM
******	*****	*****	*****	******
	STEAD	Y-STATE TES	T RESULTS	
	HYDROC.	ARBONS CAR	BON MONOXIDE	
I	DLE	PPM	8	
2500	RPM	PPM	8	
*****	*****	******	*****	*****
	C,	VS TEST RES	ULTS	
		BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0	2.80	152.00	1.01	550.00
BAG 1	2.19	16.50	16.70	1220.0
BAG 2	2.95	33.10	13.80	1170.0
BAG 3	2.18	14.70		1050.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	1.39	46.94	4.93	15.5
BAG 2	.75	8.47	3.53	
		4.09		
FTP			4.18	24.4

ALASKA VEHICLE TEST PESHITE

ALASKA VEHICLE TEST RESULTS				
	198	1/82 METFAC	PROGRAM	
*****	******	*****	******	*****
	VEHICLE	AND TEST PA	RAMETERS	
VEHICLE NO:	8 MODEL	YEAR: 1980	MAKE/MODEL	: NISSAN
ENGINE CID:	85 ODO:	METER: 3070	00 TEST DATE	: 0182
TEST TEMP: 22	DEG F SOA	K TIME:	BEFORE/AFTER R	EPAIRS: B
			IDLE SPEED:	
******	****	*****	******	*****
	STEADY	-STATE TEST I	RESULTS	
	HYDROCAL	RBONS CARBO	N MONOXIDE	
I		PPM 5		
2500	RPM 62	PPM 0.	-00 %	
*****	*****	*****	*****	*****
	CV	S TEST RESULT	rs	
		BAG DATA - GI		
	HC	CO	NOX	CO2
BAG 0	0.82	81.90	0.78	400.00
		23.50	17.20	1140.0
			14.10	
BAG 3	2.01	12.60	17.30	1030.0
· -				
	GRAMS PER	MILE/MILES PI		
	BC	CO		FE
BAG 1	.84	29.36 -	5.01	18.6
BAG 2	.66	7.03	3.61	
BAG 3	.56	3.51	4.82	
FTP	0.67		4.23	
and the second of the second o	والمقد مقد بقد بقد بقد بقد بقد بقد بقد بقد			*****

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 0 MIN. IDLE SPEED: 650 RPM ******************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS RAW BAG DATA - GRAMS

HC CO NOX CO2 BAG 0 BAG 1 22.60 92.20 4.20 580.00 BAG 2 2.04 13.70 13.90 1160.0 BAG 3 1.72 14.40 10.80 930.00 GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.30	25.68	1.17	40.0
BAG 2	•52	3.50	3.55	
BAG 3	. 4 8	4.01	3.01	
FTP	1.70	8.21	2.91	32.1
*****	******	*****	*****	*****

	ALASKA VEHICLE	TEST RESULTS	
	1981/82 METF	AC PROGRAM	
*****		*******	*****
7	VEHICLE AND TEST	PARAMETERS	
VEHICLE NO: 8	MODEL YEAR: 1	980 MAKE/MO	DEL: NISSAN
ENGINE CID: 85	ODOMETER:	30700 TEST D	ATE: 0282
TEST TEMP: 19 DEG	F SOAK TIME:	BEFORE/AFTE	R REPAIRS: A
BAG 0 TIME: 0 M	IN.	IDLE SPEE	D: 760 RPM
*****			*****
	STEADY-STATE TE	ST RESULTS	
	HYDROCARBONS CA		
	300 PPM		
2500 RPM	75 PPM		
******			****
	CVS TEST RE		•
***	RAW BAG DATA		20.0
HC	CO	NOX	CO 2
BAG 0	117 00	9.40	940.00
BAG 1 8.38			920.00
BAG 2 1.82 BAG 3 1.63		12.30 16.00	1050.0
BAG 3 1.67	7 14.80	10.00	1030.0
GRAM	MS PER MILE/MILE	S PER GALLON	
НС	co	NOX	FE
BAG 1 2.33	32.59	2.62	÷27.7
BAG 2 .47			
BAG 3 .47	7 4.12	4.46	
FTP 0.85		3.33	32.5
*****	*****	****	****

	ALA	SKA VEHICLE !	rest results	
	19	981/82 METFAC	PROGRAM	
******	*****	*****	*************	*****
	VEHIC:	LE AND TEST I	PARAMETERS	
VEHICLE NO:	8 MOD	EL YEAR: 198	MAKE/MODE	L: NISSAN
ENGINE CID:	85 OI	DOMETER: 30	700 TEST DAT	E: 0282
TEST TEMP: 23	DEG F SO	DAK TIME:	BEFORE/AFTER	REPAIRS: A
			IDLE SPEED:	
*****	****	*****	*****	*****
	STEAL	DY-STATE TEST	r RESULTS	
	HYDRO	CARBONS CARE	BON MONOXIDE	
I	DLE 8	3 PPM	0.01 %	
2500	RPM 3	PPM 9	0.00 %	
******	****	*****	*****	*****
	(CVS TEST RESU	JLTS	
•	RA	N BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0				
BAG 1		131.00		1140.0
BAG 2		10.10		1100.0
BAG 3		5.78		1000.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	.00	36.49	.00	23.7
BAG 2	.00	2.58 1.61	.00	
BAG 3	.00	1.61	.00	
FTP		9.30		29.3

ALASKA VEHICLE TEST RESULTS					
	19	981/82 METFAC	PROGRAM		
*****	*****	*******	PROGRAM *********	****	
	VEHICI	LE AND TEST PA	RAMETERS		
VEHICLE NO:	8 MODI	EL YEAR: 1980	MAKE/MODE:	L: NISSAN	
			00 TEST DATE		
TEST TEMP: 51	DEG F SO	OAK TIME:	BEFORE/AFTER I	REPAIRS. A	
BAG O TIME · O	MTN_		IDLE SPEED:	AIU SEM	
*****	*****	******	******	******	
		Y-STATE TEST			
		CARBONS CARBO			
7) PPM 0			
) PPM 0			
******	*******		*********		
		VS TEST RESUL			
		V BAG DATA - G			
	HC	CO	NOX	CO 2	
BAG 0					
			12.30		
BAG 2	3.04	23.80	8.57	1570.0	
BAG 3	1.55	4.07	12.50	950.00	
	GRAMS PER	MILE/MILES P	ER GALLON		
	HC	CO	NOX	FE	
BAG 1	.57	5.38 6.09	3.43	29.0	
BAG 2	- 78	6.09	2.19		
		1.13	3.48		
FTP	0.64	4.60	2.80	25.2	
*****	*****	*****	*****	****	

	2.5		DDOGDAY	
	19	81/82 METFAC	: PROGRAM :**********	
*****				*****
		LE AND TEST P	· - · · · · · · · · · · · · · · · · · ·	
VEHICLE NO:	8 MODE	EL YEAR: 198	0 MAKE/MODEI	L: NISSAN
ENGINE CID:	85 OI	OMETER: 30	700 TEST DATE	E: 0282
TEST TEMP: 70	DEG F SC	AK TIME:	BEFORE/AFTER H	REPAIRS. A
*********	. * * * * * * * * * * *	******	IDLE SPEED:	70U RPM
		Y-STATE TEST		
		ARBONS CARB		
		PPM		
		PPM		
******	*****	*****	******	*****
	C	VS TEST RESU	LTS	
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0	110	CO	NOX	CO2
	4 47	20.00	12.10	000 00
BAG 2	1.32	9.56	10.30	1590.0
BAG 3	1.82	9.53	13.90	950.00
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	${ t FE}$
BAG 1	1.23	8.05 2.45	3.37	30.4
BAG 2	34	2 45	2.63	J
BAG 3	.34	2 65	3 87	
משם המיזת	0 E7	2.03	3.87 3.12 ******	25 5
F.L.P. - A.L.A.L.A.L.A.L.A.L.A.L.A.L.A.L.A.L.A.L	U.5/	3.00	3.14	40.0
****	****	*****	*************	******

1981/82 METFAC PROGRAM *********** VEHICLE AND TEST PARAMETERS VEHICLE NO: MODEL YEAR: 1980 MAKE/MODEL: NISSAN 8 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 77 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A IDLE SPEED: 770 RPM BAG 0 TIME: 0 MIN. ************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 110 PPM 0.15 % 29 PPM 0.00 % 2500 RPM ********** CVS TEST RESULTS RAW BAG DATA - GRAMS CO NOX CO2 HC BAG 0 BAG 1 3.64 24.00 11.80 1060.0 8.92 BAG 2 1.21 8.35 1230.0 13.10 940.00 BAG 3 1.38 7.48 GRAMS PER MILE/MILES PER GALLON · NOX FEHC CO 28.7 3.29° BAG 1 1.01 6.69 .31 BAG 2 2.14 2.28 BAG 3 2.08 3.65 .38

3.06 **********

0.47

ADADAA VEHICIE TEST RESULTS							
1981/82 METFAC PROGRAM ************************************							

	VEHICLE AND TEST PARAMETERS						
VEHICLE NO:	8 MODI	EL YEAR: 19	80 MAKE/MODE	L: NISSAN			
			0700 TEST DAT				
			BEFORE/AFTER				
BAC O TIME.	2 MTN		IDLE SPEED:	760 DDM			
********	Z MIN.	*********	IDLE SPEED:	700 KFM			
		Y-STATE TES					
			BON MONOXIDE				
) PPM					
2500	RPM () PPM	0.01 %				
*****	******	*****	******	*****			
	(CVS TEST RES	ULTS				
	RAV	N BAG DATA -	GRAMS				
	HC	CO	NOX	CO 2			
BAG 0	17.30		11.50	1300.0			
BAG 1							
BAG 2	1.84	13.20	12.00	1150.0			
BAG 3	2.50	38.00					
בי ביות	2.50	30.00	11.00	10/0.0			
	GRAMS PER	MILE/MILES	PER GALLON				
	HC	co	· NOX	FE			
BAG 1	4.82	30.92	3,20	20.8			
BAG 2	. 47	3.38	3.07 3.29 3.16				
BAG 3	70	10.58	3.29				
מתק	1.43	11 01	3.16	26.8			
			O + + + + + + + + + + + + + + + + + + +				

1981/82 METFAC PROGRAM					
******	********	*******	******		
VE	HICLE AND TEST P				
VEHICLE NO: 8 M			FT. NTCCAN		
ENGINE CID: 85					
TEST TEMP: 19 DEG F					
BAG 0 TIME: 2 MIN.		IDLE SPEED	RPM		

	TEADY-STATE TEST				
	ROCARBONS CARB				
IDLE	PPM PPM	8			
2500 RPM	PPM	*			
******			*****		
	CVS TEST RESU				
	RAW BAG DATA -	· ·			
НС		NOX	CO 2		
BAG 0 13.40	89.70	11.90	1280.0		
BAG 1					
BAG 2 1.44					
BAG 3 1.44	8.21	14.60	1040.0		
GRAMS	PER MILE/MILES	PER GALLON	`		
HC	CO	NOX	FE		
	24.99		21.8		
BAG 2 .37	2.86	2.84			
BAG 3 .40	2.29	4.07			
FTP 1.07	7.26	3.27	27.2		

	ADADKA VEHICLE IESI	
*****	1981/82 METFAC PRO	GRAM *********
VE	HICLE AND TEST PARAM	ETERS
VEHICLE NO: 8	MODEL YEAR: 1980	MAKE/MODEL: NISSAN
	ODOMETER: 30700	
TEST TEMP: 2 DEG F	SOAK TIME: BE	FORE/AFTER REPAIRS: A
BAG O TIME 6 MIN	· ·	IDLE SPEED: 830 RPM
*****	· ******	IDLE SPEED: 830 RPM
	TEADY-STATE TEST RES	
	DROCARBONS CARBON M	
	153 PPM 0.88	
	41 PPM 0.00	********
*****		******
	CVS TEST RESULTS	
	RAW BAG DATA - GRAM	S
HC	CO	NOX CO2
BAG 0	104.00	1570.0
BAG 1		
BAG 2	8.70	1370.0
BAG 3	19.50	1130.0
GRAMS	PER MILE/MILES PER	GALLON
HC	co	· NOX FE
BAG 1 .00	28.97	.00 18.4
BAG 2 .00		
BAG 3 .00	5.43	.00
FTP	8.60	23.9
	<u>.</u> '	******

**************** VEHICLE AND TEST PARAMETERS MODEL YEAR: 1980 MAKE/MODEL: VEHICLE NO: 8 NISSAN ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0282 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 6 MIN. IDLE SPEED: **************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 83 PPM 8 00.0 37 PPM 0.00 % 2500 RPM ********************* CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 1.66 39.90 6.30 620.00 BAG 1 9.42 53.70 4.57 780.00 BAG 2 1.17 11.70 12.00 1110.0 BAG 3 1.40 7.58 14.60 990.00

GRAMS PER MILE/MILES PER GALLON

26.07

3.07

2.11

7.54

· NOX

3.03

2.99

4.07

3.29

FE

20.1

CO

HC

0.90

3.09

.30

.39

BAG 1

BAG 2

BAG 3

FTP

	AL	ASKA VEHIC	LE TEST R	ESULTS	
		1981/82 ME	TFAC PROG	RAM	
*****	*****	*****	*****	*****	******
	VEHI	CLE AND TH	ST PARAME	TERS	
VEHICLE NO:	10 MO	DEL YEAR:	1981	MAKE/MODE	L: FORD
ENGINE CID:					
TEST TEMP: 38					
BAG 0 TIME: 0	*****	****	_ ******	******	*******
		ADY-STATE			
		OCARBONS			
TI		85 PPM			
		10 PPM			
*****	*****	****	*****	*****	*****
		CVS TEST			
	R	AW BAG DAT			
	HC	CO		NOX	CO2
BAG 0	iic	CO		11011	002
BAG 1		176.4	ın		1051.2
BAG 2		39.7			1434.5
BAG 3		20.3			778.90
טאט כ		20.	, 0		770.50
•	GRAMS P.	ER MILE/MI	LES PER G	ALLON	
		có			FE
BAG 1				.00	
BAG 2					
BAG 3		5.6		.00	
~~.~ J	• • •	J• (_		

			— — -	
	19	81/82 METFA	C PROGRAM	
*****	*****	*****	.C PROGRAM ***********	*****
	VEHICI	E AND TEST	PARAMETERS	
VEHICLE NO:	10 MODE	L YEAR: 19	81 MAKE/MODE	L: FORD
			2000 TEST DAT	
			BEFORE/AFTER	
******	******	*****	IDLE SPEED: ********	******
	STEAD	Y-STATE TES	T RESULTS	
•			BON MONOXIDE	
I		PPM		
		PPM		
*****	******	*****	****	******
	C	VS TEST RES	ULTS	
		BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0		•		30 2
BAG 1		35.10		910.20
BAG 2		31.80		1299.8
BAG 3		7.10		1000.9
D110 3		7 • 1.0		. 1000.5
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	có		FE
BAG 1	.00	9.78		33.0
	.00		.00	
BAG 3	.00	1.98	.00	
פיזים		6 79	- 	28.4

		./82 METFA			
*****	*******	*****	*****	***	*****
		AND TEST			
VEHICLE NO:					L: FORD
ENGINE CID:					
TEST TEMP: 36					
BAG 0 TIME: 2					
*****	*****	******	*****	*****	*****
	STEADY-	STATE TES	T RESULT	rs.	
		BONS CAR		XIDE	
	DLE 76 F				
2500 *******	RPM 53 F	PM	0.28 %		
****				****	*****
		TEST RES			
		BAG DATA -		NOV	200
710 0	HC	CO		NOX	CO2
	4.30	45.50			86.00
BAG 1					
BAG 2					
BAG 3	2.50	16.10		2.50	721.10
GRAMS PER MILE/MILES PER GALLON					
	HC	CO		NOX	FE
BAG 1	HC 3.09 .92	37.72		.90	27.1
BAG 2	.92	16.14		.43	
BAG 3	.70	4.48		· • 70	
FTP	1.31	17.40		0.60	33.9

ALABAA VEHICLE TEST RESULTS					
	198	1/82 METFA	AC PROGE	RAM	*****
*****	*****	*****	*****	*****	*****
	VEHICLE	AND TEST	PARAMET	TERS	
VEHICLE NO:	10 MODEL	YEAR: 19	981	MAKE/MODE	EL: FORD
ENGINE CID:	98 ODO	METER • 1	32000	TEST DAT	TE • 0/82
TEST TEMP: 36	DEG F SOA	K TIME.	BEFC	RE/AFTER	REPATRS. A
BAG O TIME. O	MTN /		Tr	TE SPEED.	RPM
BAG 0 TIME: 0	****	*****	 *****	********	KEM
		-STATE TES			
		RBONS CAR			
т					
	DLE 80				
2000 *****	RPM 130				
*****				******	*******
		S TEST RES			
		BAG DATA -	- GRAMS		
	HC	CO		NOX	CO 2
BAG 0					
BAG 1	11.60	145.60		4.20	948.50
BAG 2	4.40	63.90		3.90	1063.4
		33.50		4.90	
				1000	,0001
	GRAMS PER	MILE/MILES	S PER GA	LLON	
	HC	•			FE
BAG 1	3.23			1.17	26.2
	1.13				20.2
BAG 3	.89	9.33			
FTP	1.49			1.36	20 6
	1.49	19.41		1.13	29.6

ALASKA VEHICLE TEST RESULTS					
1981/82 METFAC PROGRAM					
*****	*****	*****	*****	******	
	VEHIC:	LE AND TES	T PARAMETERS		
VEHICLE NO:	10 MOD	EL YEAR:	1981 MAKI	E/MODEL: FORD	
				ST DATE: 0482	
				AFTER REPAIRS: A	
BAG 0 TIME:	2 MIN.		IDLE S	SPEED: RPM	
*****				*******	
			EST RESULTS		
			ARBON MONOXII	ÞΕ	
		PPM	8		
		PPM			
*****				********	
		CVS TEST R			
		W BAG DATA			
D14 A	HC	CO	NOX		
BAG 0		34.50			
				1012.2	
	1.90	45.60			
BAG 3	1.80	20.20	5.1	970.40	
	CDAMC DE	. MTT D /MTT	הכ ההה כאננט	!	
		· · · · · · · · · · · · · · · · · · ·	ES PER GALLON		
מאר ז		CO			
BAG 1		37.77			
	.49				
	.50	5.63			
\mathtt{FTP}	0.76	15.39	0.9	27.6	

***************** VEHICLE AND TEST PARAMETERS VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482 TEST TEMP: 80 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 0 MIN. IDLE SPEED: ***************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 27 PPM IDLE 0.00 % 35 PPM 0.00 % 2500 RPM *************** CVS TEST RESULTS RAW BAG DATA - GRAMS CO HC NOX CO 2 BAG 0 0 2

BAG 1	2.20	34.80	4.90	988.20
BAG 2	2.00	42.50	2.00	1131.2
BAG 3	2.70	44.60	3.30	879.10
	GRAMS PE	R MILE/MILES PE	ER GALLON	
	HC	CO	· NOX	FE
BAG 1	.61	9.69	1.36	30.3
BAG 2	.51	10.87	.51	
BAG 3	.75	12.42	•92	
\mathtt{FTP}	0.60	11.05	0.80	30.2

1981/82 METFAC PROGRAM						
T901/02 MEITAC PROGRAM ***********************************						
VEHIC	VEHICLE AND TEST PARAMETERS					
VEHICLE NO: 9 MOD.	EL YEAR: 1981	MAKE/MODEL:	CHRYSL			
ENGINE CID: 135 OF						
TEST TEMP: 34 DEG F S	OAK TIME: E	BEFORE/AFTER RE	PAIRS: B			
BAG O TIME: O MIN.	-	IDLE SPEED:	RPM			
BAG 0 TIME: 0 MIN.	*****	******	*****			
STEA	DY-STATE TEST RE	ESULTS				
	CARBONS CARBON					
	PPM	8				
**	PPM	*				
*******	*****	******	*****			
	CVS TEST RESULTS	3				
	W BAG DATA - GRA					
нс	CO	NOX	CO 2			
BAG 0						
BAG 1 51.15	374.80	1.19	570.54			
BAG 2 5.86	79.48	0.79	954.72			
	30.95	0.93				
			,			
GRAMS PE	R MILE/MILES PER	R GALLON				
HC	co	· NOX	FE			
BAG 1 14.25	104.40	•33	24.1			
BAG 2 1.50	20.33	.20				
	8.62	. 26				
FTP 3.94	34.44		31.5			

1981/82 METFAC PROGRAM					

VEHICLE AND TEST PARAMETERS					
		MAKE/MODEL: CHRYSL			
ENGINE CID: 135					
TEST TEMP: 73 DEG F	SOAK TIME . B	EFORE/AFTER REPAIRS: B			
BAG O TIME O MIN		IDLE SPEED: 1130 RPM			
************	******	IDLE SPEED: 1130 RPM			
	EADY-STATE TEST RE				
	ROCARBONS CARBON				
	131 PPM 4.1				
	23 PPM 1.5	5			
*****		* * * * * * * * * * * * * * * * * * *			
_	CVS TEST RESULTS				
	R AW BAG DATA - GRAI				
HC	CO	NOX CO2			
BAG 0					
BAG 1	124.20	951.10			
BAG 2	115.90	1115.4			
BAG 3	81.98	1027.6			
GRAMS F	PER MILE/MILES PER	GALLON			
НС	co	•			
BAG 1 .00		.00 27.8			
	29.64				
BAG 3 .00	22.84	.00			
FTP	28.80	27.2			

	1981/82 METFAC PROGRAM					
*****	******	*****	****	******	*****	
	VEHICLE	AND TEST	PARAMET:	ERS		
VEHICLE NO:	9 MODEL	YEAR: 19	81	MAKE/MODEL:	CHRYSL	
ENGINE CID:						
TEST TEMP: 51						
BAG 0 TIME: 0	*****	*****	****	******	*****	
	STEADY-	STATE TES	T RESUL	rs.		
	HYDROCAR	BONS CAR	BON MON	OXIDE		
II	OLE 6 P					
2500 8	RPM 0 P	PM	0.01 %			
*****	*****	****	****	*****	*****	
	cvs	TEST RES	ULTS			
•	RAW B	AG DATA -	GRAMS			
	HC	CO		NOX	CO2	
BAG 0				•		
BAG 1	5.26	46.15		3.41	827.50	
		3.95		3.00		
-		3.93		5.10		
D110 J	0.57	3.73		• • • • • • • • • • • • • • • • • • • •		
	GRAMS PER M	ILE/MILES	PER GA	LLON		
	HC	co			FE	
BAG 1	1.47	12.86		.95	34.8	
BAG 2 BAG 3	-12	1.01	\	.77		
BAG 3	.16	1.09		1.42		
FTP	0.41	3.47		0.98	26.5	

	ALAS	SKA VEHICLE	TEST RESULTS			
	1981/82 METFAC PROGRAM					
*****	******	*****	*******	*****		
	VEHICI	LE AND TEST	PARAMETERS			
VEHICLE NO:	9 MODI	EL YEAR: 19	81 MAKE/MODEI	CHRYSL		
ENGINE CID:	135 OI	OOMETER:	7500 TEST DATE	E: 0482		
TEST TEMP: 7	7 DEG F SC	DAK TIME:	BEFORE/AFTER F	REPAIRS: A		
BAG O TIME:	0 MIN.		IDLE SPEED:	1100 RPM		
******	*****	*****	*****	*****		
	STEAL	Y-STATE TEST	r results			
	HYDROC	CARBONS CAR	BON MONOXIDE			
		PPM				
2500	RPM 10) PPM	0.00 %			
*****	*****	:*****	*****	*****		
	C	CVS TEST RESU	ULTS			
		N BAG DATA -				
	HC	CO	NOX	CO 2		
BAG 0						
BAG 1	5.59	35.17	3.48	1163.0		
BAG 2						
BAG 3	0.74	7.07	2.40	1089.6		
	GRAMS PER	R MILE/MILES	PER GALLON			
	HC	CO	· NOX	FE		
BAG 1 BAG 2	1.56	9.80	.97	25.8		
BAG 2	.10	1.01	.39			
	.21	1.97	.67			
FTP	0.43	3.08	0.59	23.1		

		SKA VEHICLE IE	·	
	1	981/82 METFAC	PROGRAM *********	
*****	*******	*****	*****	*****
	VEHIC	LE AND TEST PA	RAMETERS	
VEHICLE NO:	9 MOD	EL YEAR: 1981	MAKE/MODEI	: CHRYSL
ENGINE CID:	135 O	DOMETER: 75	00 TEST DATE	E: 0582
TEST TEMP: 5	O DEG F S	OAK TIME:	BEFORE/AFTER F	EPATRS. A
BAG O TIME.	2 MIN		IDLE SPEED:	אמס מומו
*********	*****	******	IDLE SPEED:	1010 RFM
		DY-STATE TEST		
	·=			
		CARBONS CARBO		
		4 PPM 0		
2500	RPM	0 PPM 0	.01 %	
******			*****	****
		CVS TEST RESUL		
	RA	W BAG DATA - GI	RAMS	
	HC	CO	NOX	CO2
BAG 0	10.83	74.34	5.38	1529.0
BAG 1				
BAG 2	0.48	3.93	2.51	1371.0
BAG 3	0.57			1138.0
20	0.3,	3.07	1.03	1150.0
	GRAMS PE	R MILE/MILES P	ER GALLON	
	HC		· NOX	FE
BAG 1	3.02			19.0
BAG 2		1.01		23.0
BAG 3	.16	1.01	1.35	
FTP	0 72	5.06		24.2
	U./3	J.U0		24.2
^^^^	****			

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182
TEST TEMP: 13 DEG F SOAK TIME: 17 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 700 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS

RAW BAG DATA - GRAMS CO HC NOX CO 2 BAG 0 BAG 1 1.10 230.00 3.86 2310.0 1.51 3.65 BAG 2 15.10 2340.0 BAG 3 1.98 6.22 4.42 1960.0 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE BAG 1 .31 64.07 1.08 11.9 .39 .93 3.86 BAG 2 BAG 3 1.23 . 1.73 ۰55 FTP 15.54 1.18 0.41 14.3

	4	HUMSKY AFUICTE I		
		1981/82 METFAC	PROGRAM	
*****	******	******	******	*****
	VE	HICLE AND TEST P	ARAMETERS	
VEHICLE NO): 11 l	MODEL YEAR: 198	1 MAKE/MOD	EL: GM
		ODOMETER: 7		
		SOAK TIME: 80		
		, *******		
******	******	*****	******	*****
	S	TEADY-STATE TEST	RESULTS	
	HYI	ROCARBONS CARB	ON MONOXIDE	
	IDLE	PPM	8	
25		PPM	8	
		*****	*****	******
		CVS TEST RESU	LTS	
	•	RAW BAG DATA -		
	HC	CO	NOX	CO 2
BAG 0				002
	68.00	711.00	3.72	1720.0
		1.38	5.18	
BAG 3	1.18		4.85	
0 5	1.10	20120	1.03	1020.0
	GRAMS	PER MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	18.94	198.05	1.04	10.4
BAG 2	. 14	. 35		
BAG 3	• 33	.35 2.84	1.35	
FTP	4.06	41.72	1.27	14.7

*****	******	******			
VEHICLE AND TEST PARAMETERS					
VEHICLE NO: 11	MODEL YEAR: 198	1 MAKE/MODEL: GM			
ENGINE CID: 229	ODOMETER: 7	500 TEST DATE: 0182			
TEST TEMP: 20 DEG	F SOAK TIME: 26	BEFORE/AFTER REPAIRS: B			
BAG O TIME: 0 M	IN.	IDLE SPEED: 700 RPM			
*****	******	*******			
	STEADY-STATE TEST	RESULTS			
·	HYDROCARBONS CARB	ON MONOXIDE			
IDLE	60 PPM	0.00 %			
2500 RPM	32 PPM	0.00 %			
*****	*****	********			
	CVS TEST RESU	LTS			
	RAW BAG DATA - GRAMS				
HC	CO	NOX CO2			
BAG 0					
BAG 1 30.30	433.00	3.53 2080.0			
BAG 2 0.10	1.16	2.32 2060.0			

				~~~
BAG 0				
BAG 1	30.30	433.00	3.53	2080.0
BAG 2	0.10	1.16	2.32	2060.0
BAG 3	1.04	6.38	4.55	1620.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	8.44	120.61	.98	11.3
BAG 2	.03	.30	.59	
BAG 3	. 29	1.78	1.27	
FTP	1.83	25.46	0.86	15.8
	للقراعة الفراعة الفراعة الفراعة الفراعة الفراعة الفراعة الفراعة الفرا			

1981/82 METFAC PROGRAM **************** VEHICLE AND TEST PARAMETERS MODEL YEAR: 1981 MAKE/MODEL: GM VEHICLE NO: 11 TEST DATE: 0282 ODOMETER: 7500 ENGINE CID: 229 23 BEFORE/AFTER REPAIRS: B SOAK TIME: TEST TEMP: 70 DEG F IDLE SPEED: 730 RPM BAG 0 TIME: 0 MIN. ************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 18 PPM ∞ 0.00 % IDLE 0.00 % 10 PPM 2500 RPM ****************** CVS TEST RESULTS RAW BAG DATA - GRAMS CO NOX CO2 HC BAG 0 6.55 1810.0 3.18 13.40 BAG 1 2.33 1870.0 0.92 0.86 BAG 2 4.29 1620.0 0.98 1.97 BAG 3 GRAMS PER MILE/MILES PER GALLON FE· NOX HC CO 17.3 3.73 1.82 BAG 1 .89 .22 .60 .24 BAG 2

.55

1.03

******************

. 27

0.38

BAG 3

FTP

1.19

1.01

	111111		EST KESOLIS	
	1	981/82 METFAC	PROGRAM	
*****	*****	******	*********	******
	VEHIC	LE AND TEST P	ARAMETERS	
VEHICLE NO:	11 MOD	EL YEAR: 198	l MAKE/MODE	EL: GM
ENGINE CID:	229 0	DOMETER: 7	500 TEST DAT	E: 0282
TEST TEMP: 72	DEG F S	OAK TIME: 80	BEFORE/AFTER	REPAIRS: B
BAG O TIME: (			IDLE SPEED:	
******	*****	*****	******	****
		DY-STATE TEST		
		CARBONS CARBO		
7		PPM	%	
			<b></b>	
	RPM	PPM ******	*******************************	
*****				******
		CVS TEST RESU		
	RA	W BAG DATA - (	=	
	HC	CO	NOX	CO 2
BAG 0				
BAG 1	3.86	22.70	6.44	1760.0
BAG 2	0.82	0.59	2.72	1780.0
BAG 3	1.35	8.78	3.70	1620.0
•	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	1.08	6.32	1.79	17.6
BAG 2	. 21	.15	. 7.0	
	.38	2.45	1.03	
FTP		2.05	1.01	19.0
4 4 5	0 - 4:3	2.05	T. O.T.	. 10.0

#### 1981/82 METFAC PROGRAM ***************** VEHICLE AND TEST PARAMETERS MODEL YEAR: 1981 VEHICLE NO: 11 MAKE/MODEL: GM ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182 TEST TEMP: 3 DEG F SOAK TIME: 89 BEFORE/AFTER REPAIRS: B BAG 0 TIME: 2 MIN. IDLE SPEED: 710 RPM **************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 43 PPM 0.00 % 55 PPM 2500 RPM 0.00 % ***************** CVS TEST RESULTS

#### RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 30.80 344.00 7.04 2250.0 BAG 1 BAG 2 3.64 1.30 4.24 2240.0 BAG 3 4.27 7.18 2.24 1900.0 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE 1.96 BAG 1 8.58 95.82 11.0 BAG 2 1.08 .93 .33 BAG 3 .62 1.19 2.00 FTP2.11 20.61 1.43

***************

#### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182
TEST TEMP: 16 DEG F SOAK TIME: 21 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN.

IDLE SPEED: 710 RPM

# STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

HC

### CVS TEST RESULTS

NOX

CO 2

# RAW BAG DATA - GRAMS CO

BAG 0	1.29	20.60	1.04	571.00
BAG 1	5.36	1.65	4.57	2400.0
BAG 2	0.99	1.23	3.69	4100.0
BAG 3	1.39	13.20	5.55	1630.0
	GRAMS PE	R MILE/MILES PE	R GALLON	
	HC	CO	NOX	FE
BAG 1	1.85	6.20	1.56	10.5
BAG 2	. 25	.31	. 94	
BAG 3	. 39	3.68	1.55	
FTP	0.62	2.44	1.24	15.3
*****	*****	******	*******	*****

**************

#### VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182
TEST TEMP: 17 DEG F SOAK TIME: 27 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 710 RPM

#### STEADY-STATE TEST RESULTS

#### HYDROCARBONS CARBON MONOXIDE

# CVS TEST RESULTS

#### RAW BAG DATA - GRAMS NOX CO2 CO HC BAG 0 201.00 20.30 2590.0 BAG 1 14.60 2.83 1930.0 1.68 BAG 2 1.09 4.03 4.90 1630.0 BAG 3 1.09 GRAMS PER MILE/MILES PER GALLON · NOX CO FEHC 5.65 11.1 55.99 BAG 1 4.07 .72 . 43 BAG 2 . 28 BAG 3 1.12 1.36 .30 12.05 1.91 FTP1:07

************

	10	81/82 METF	AC PROGRA	M	
*****	******	*****	******	. * * * * * * * * * * * * * * *	*****
	VEHICI	E AND TEST	рараметн	Par	
VEHICLE NO:					CM
				•	
ENGINE CID:					
TEST TEMP: 2					
BAG 0 TIME:	6 MIN.		IDI	E SPEED:	760 RPM
. *********	****	*****	*****	******	*****
	STEAD	Y-STATE TES	T RESULI	'S	
	HYDROC	ARBONS CAR	RBON MONO	XIDE	
	IDLE 40	PPM	0.01 %		
	RPM 25				
******				*****	****
	C	VS TEST RES	SULTS		
	_	BAG DATA -			
	HC ·	CO	,	NOX	CO 2
BAG 0	НС 11.50	107 20		0.79	
BAG 1	1 15	75 50		6.71	
				3.10	
BAG 3	1.67	12.40		5.66	1800.0
	anaka nen	MTT E /MTT E /	T DED CAT	T ON	
		MILE/MILES			
	HC	CO			FE
BAG l	3.52	50.89		2.09	9.8
BAG 2	.28	.20		.79	
BAG 3	. 47	3.45		1.58	
FTP	1.00	11.52		1.27	14.4
*****	*****	*****	*****	*****	****

	ALAS.	KY AFHICTE ,	TEST RESULTS	
	19	81/82 METFA	C PROGRAM	
****	****	*****	******	*****
	VEHICL	E AND TEST	PARAMETERS	
VEHICLE NO:	12 MODE	L YEAR: 198	81 MAKE/MODEI	: FORD
			3300 TEST DATE	
TEST TEMP: 3	DEG F SO.	AK TIME:	BEFORE/AFTER F	REPAIRS: B
******	*****	*****	IDLE SPEED:	*****
	STEAD	Y-STATE TEST	r results	
			BON MONOXIDE	
TI		PPM		
<del>-</del> -		PPM		
******	*****	****	******	*****
	ر.	VS TEST REST	TITES	
		BAG DATA -		
	НС	CO	NOX	CO2
BAG 0	пс	00	11011	002
BAG 1		431.00		1950.0
BAG 2		155.00		1960.0
BAG 3		440.00		1870.0
DAG 3		440.00		10/0.0
	GRAMS PER	MILE/MILES	PER GALLON	
		•	NOX	FE
BAG 1		120.06		12.1
			.00	
BAG 3		122.56	.00	
			• • •	

### 

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0282 TEST TEMP: 14 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 1070 RPM

# STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

#### CVS TEST RESULTS RAW BAG DATA - GRAMS

# HC CO NOX CO2 BAG 0 BAG 1 365.00 1850.0 BAG 2 220.00 2130.0 BAG 3 4.80 2100.0

	GRAMS P	PER MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	.00	101.67	.00	13.1
BAG 2	.00	56.27	.00	
BAG 3	.00	1.34	,.00	
$\mathtt{FTP}$		50.62		14.1

			C C		
*****		81/82 METF	AC PROGRA	M	
*****					*****
	VEHICL	E AND TEST	PARAMETE	RS	
VEHICLE NO:	12 MODE	L YEAR: 19	981 M	AKE/MODEL:	FORD
ENGINE CID:					
TEST TEMP: 72	DEG F SO	AK TIME.	BEFOR	E/AFTER RED	ATRS. R
BAG 0 TIME: 0		*****		r orren: I	UDU KPM
					~~~~~
		Y-STATE TES			
		ARBONS CAP		XIDE	
		PPM			
		PPM			
*****	*****	******	*****	*****	*****
	С	VS TEST RES	SULTS		
		BAG DATA -			
	HC	СО		NOX	CO2
BAG 0	пс	CO		11021	CO2
	3 43	4 00			1000 0
	1.41				1880.0
		20.40			1670.0
BAG 3	0.50	2.92			1510.0
	GRAMS PER	MILE/MILES	PER GAL	LON	
	HC	CO	•	NOX	$\mathbf{F}\mathbf{E}$
BAG 1	.39	1.34		.00	16.8
BAG 2	. 65	5.22		.00	
BAG 3	.14	. 81		.00	
BAG 1 BAG 2 BAG 3 FTP	0.46	3.22		• • •	19.6
****	0.40				*****

1981/82 METFAC PROGRAM **************** VEHICLE AND TEST PARAMETERS VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0282 TEST TEMP: -1 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 2 MIN. IDLE SPEED: 1080 RPM **************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE IDLE 329 PPM 5.58 % 198 PPM 1.49 % 2500 RPM ****************** CVS TEST RESULTS RAW BAG DATA - GRAMS HC CO NOX CO 2 BAG 0 629.00 2400.0 BAG 1 BAG 2 463.00 1770.0 BAG 3 292.00 .1670.0 GRAMS PER MILE/MILES PER GALLON HC CO NOX FE BAG 1 175.21 .00 .00 9.4 .00 BAG 2 118.41 .00 BAG 3 81.34 .00 .00 FTP 119.99

		IDANII VEIIZOEE .	·= - -	
	-	L981/82 METFAC	C PROGRAM ********	
*****	*******	*****	******	*****
	VEHIC	CLE AND TEST I	PARAMETERS	
VEHICLE NO	: 12 MOI	EL YEAR: 198	MAKE/MODE	L: FORD
			3300 TEST DAT	
			BEFORE/AFTER	
******	****	*****	IDLE SPEED:	******
		ADY-STATE TEST		
		CARBONS CARE		
		6 PPM		
25				
25	UU RPM	9 PPM	U.UU 5 :*******	
******				*****
		CVS TEST RESU		
		W BAG DATA -		
		CO .	NOX	CO2
BAG 0	21.30	147.00 1950.0		1800.0
				1580.0
BAG 2	6.42	94.10		1760.0
BAG 3	0.68	1.67		1660.0
	GRAMS PI	ER MILE/MILES	PER GALLON	
	` HC	co	· NOX	FE
BAG 1	8.36	584.12	.00	4.7
BAG 2	1.64	24.07	.00	
BAG 3	.19	24.07 .47	•00	
FTP	2.63	132.90		11.4

	1981/8:	2 METFAC PR	ROGRAM	
******	*******	*****	*********	*****
	VEHICLE AND	TEST PARA	METERS	
VEHICLE NO: 12	MODEL YEA	AR: 1981	MAKE/MODEL.	FORD
ENGINE CID. 200) ODOMETI	ED. 3300	יידכיי האייד.	0202
TEST TEMP: 23 DE	G F SOAK T	IME: B	BEFORE/AFTER RE	PATRS. B
BAG 0 TIME: 2	MTN.	•	TDLE SPEED.	INSA DOM
BAG 0 TIME: 2	****	*****	******	*******
		ATE TEST RE		
	HYDROCARBON			
TDIE	9 PPM			
	1 19 PPM			

		EST RESULTS		*****
***		DATA - GRA		
HC		CO	NOX	CO2
BAG 0	34	13.00		1850.0
BAG 1				
BAG 2	13	31.00		1980.0
BAG 3		3.20		1860.0
	4			
	AMS PER MILE	E/MILES PER	GALLON	
HC		0	NOX	FE
BAG 1 .	00 9	95.54	.00	13.3
BAG 2	00 3	33.50	.00	
BAG 3 .	00	.89	.00	
FTP	. 3	37.38		15.6

			LEST RESULTS	
		81/82 METFAC	: PROGRAM **********	
*****				*****
		E AND TEST I		
			31 MAKE/MODEI	
ENGINE CID:	200 OD	OMETER:	3300 TEST DATE	E: 0382
TEST TEMP: 24	DEG F SO	AK TIME:	BEFORE/AFTER F	REPAIRS: B
BAG 0 TIME: 2	MIN.		IDLE SPEED:	1060 RPM
*****				******
		Y-STATE TEST		
	HYDROC	ARBONS CARE	BON MONOXIDE	
		PPM		
2500	RPM 16	PPM	0.00 %	
*****			******	******
		VS TEST RESU		
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO2
BAG 0	8.57	230.00	1.29	1950.0
BAG 1				
BAG 2	2.80	32.30	3.83	1920.0
BAG 3	0.45	4.18	4.35	1650.0
		MILE/MILES		
	HC		· NOX	FE
BAG 1	2.39	64.07	• 36	13.6
BAG 2 BAG 3	.72	8.26	.98	
BAG 3		1.16	1.21	
FTP			0.92	16.9
*****	*****	*****	*****	****

1001/00 NEWERO DROCKEN	
1981/82 METFAC PROGRAM ************************************	
	X X
VEHICLE AND TEST PARAMETERS	
VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD	
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0282	
TEST TEMP: -1 DEG F SOAK TIME: BEFORE/AFTER REPAIRS:	В
BAG O TIME: 6 MIN. IDLE SPEED: 1050 R	PM
****************	**
STEADY-STATE TEST RESULTS	
HYDROCARBONS CARBON MONOXIDE	
IDLE 320 PPM 3.98 %	
2500 RPM 14 PPM 0.00 %	
*****************	**
CVS TEST RESULTS	
RAW BAG DATA - GRAMS	
·	
HC CO NOX CO	
BAG 0 293.00 2470	• 0
BAG 1	
BAG 2 242.00 1800	
BAG 3 13.90 1850	• 0
GRAMS PER MILE/MILES PER GALLON	
HC CO NOX FE	
BAG 1 .00 81.62 .00 10.9	ļ
BAG 2 .00 61.89 .00	
BAG 3 .00 3.87 .00	
FTP 50.12 14.8	

1981/82 METFAC PROGRAM ********************** VEHICLE AND TEST PARAMETERS MODEL YEAR: 1981 MAKE/MODEL: VEHICLE NO: 12 ODOMETER: 3300 TEST DATE: 0382 ENGINE CID: 200 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B IDLE SPEED: 1020 RPM BAG 0 TIME: 6 MIN. ************** STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 1 PPM 0.00 % IDLE 1 PPM 0.00 % 2500 RPM *********** CVS TEST RESULTS RAW BAG DATA - GRAMS NOX CO₂ CO HC 245.00 710.00 BAG 0 13.50 BAG 1 6.97 138.00 1610.0 1990.0 45.20 BAG 2 3.17 1760.0 BAG 3 0.79 2.94 GRAMS PER MILE/MILES PER GALLON HC CO · NOX FE10.7 BAG 1 5.70 106.69 .00 .81 .00 11.56 BAG 2

.82

28.21

15.3

BAG 3

FTP

.22

1.66

********	1981/82 METFAC	PROGRAM	

	CLE AND TEST PA		
VEHICLE NO: 12 MOI			
ENGINE CID: 200			
TEST TEMP: 21 DEG F			
BAG 0 TIME: 0 MIN.		IDLE SPEED:	930 RPM
*******	*********	*******	*****
STEA	ADY-STATE TEST	RESULTS	
	CARBONS CARBO	N MONOXIDE	
		.00 %	
	5 PPM 0		
******	******	******	*****
	CVS TEST RESUL		
	W BAG DATA - G	RAMS	
HC	CO	NOX	CO2
BAG 0			
BAG 1 31.50		0.52	1630.0
	188.00		1840.0
BAG 3 0.54	0.22	1.02	1940.0
anava ar	n urin witha	DD - 0117-017	
	R MILE/MILES P		
HC_	CO	NOX	FE
BAG 1 8.77		.14	13.5
BAG 2 2.36	48.08		٠
BAG 3 .15	.06	.28	3 5 5
	_		15.5
*****	*****	*****	******

	19	81/82 METFA	AC PROGRA	M	
*****	******	*****	*****	*****	****
	VEHICL	E AND TEST	PARAMETE	RS	
VEHICLE NO:	12 MODE	L YEAR: 19	981 M	AKE/MODEL:	FORD
ENGINE CID:	200 OD	OMETER:	3300	TEST DATE:	0382
TEST TEMP: 79					
BAG 0 TIME: (
*****	*****	*****	****	*****	****
	STEAD	Y-STATE TES	T RESULT	S	
	HYDROC	ARBONS CAF	RBON MONO	XIDE	
]		PPM			
	RPM 2		0.00 %		
******			*****	*****	*****
	C.	VS TEST RES	SULTS		
		BAG DATA -			
	НС	CO		NOX	CO 2
BAG 0		•			002
_ _	0.74	1.98			1820.0
BAG 2	0.79	1.72		·	1930.0
BAG 3	0.51	0.20			1710.0
ביים ל	0.31	0.20	•		1,10.0
	GRAMS PER	MILE/MILES	PER GAL	LON	•
	HC	co		NOX	FE
BAG 1	. 21	• 55		.00	17.5
BAG 2	. 20	. 44		.00	
BAG 3	.14	.06		.00	
FTP	0.19	0.36		-	18.0
*****		****	*****	*****	*****

***************** VEHICLE AND TEST PARAMETERS VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382 TEST TEMP: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A

BAG 0 TIME: 2 MIN. IDLE SPEED: 900 RPM ************

STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE

5 PPM 0.00 % IDLE 3 PPM 0.00 % 2500 RPM

HC

CVS TEST RESULTS RAW BAG DATA - GRAMS CO

NOX

CO 2

BAG 0	6.49	54.80	0.04	195.00
BAG 1	7.32	237.00	0.36	1910.0
BAG 2	1.49	23.60	1.16	2260.0
BAG 3	0.46	1.14	1.08	1970.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	3.85	81.28	.11	12.2
BAG 2	.38	6.04	.30	
BAG 3.	.13	.32	.30	
\mathtt{FTP}	1.03	19.96	0.26	14.6

	ALAS	KA VEHICLE T	EST RESULTS	
	19	81/82 METFAC	PROGRAM	
*****	*****	******	****	*****
	VEHICL	E AND TEST P	ARAMETERS	
VEHICLE NO:	12 MODE	L YEAR: 198	1 MAKE/MODEL	: FORD
ENGINE CID:	200 OD	OMETER: 3	300 TEST DATE	: 0382
			BEFORE/AFTER R	
BAG O TIME.	MTN		IDLE SPEED:	920 RPM
********	*****	*****	IDLE SPEED:	*****
		Y-STATE TEST		
	-	ARBONS CARB		
,		PPM CARD		
		PPM		
2500	KPM 14		****	
*****		•		
	-	VS TEST RESU		
		BAG DATA -		
	HC	CO	NOX	
BAG 0	5.46	60.80	0.12	
BAG 1	8.14	244.00	1.06	1840.0
	1.14	41.70		2270.0
BAG 3	0.49	5.00	3.02	2080.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	co `	· NOX	FE
BAG 1	3.79		. 33	12.4
BAG 2	. 29	10.66	1.11	
BAG 2 BAG 3	14	1.39	.84	
FTP	0.97	23.42	0.88	14.4
*****	·***	****	*****	

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

MODEL YEAR: 1981 MAKE/MODEL: FORD ODOMETER: 3300 TEST DATE: 0382 VEHICLE NO: 12 ENGINE CID: 200 TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A BAG 0 TIME: 6 MIN. IDLE SPEED: 920 RPM ************

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 16 PPM 0.00 % 2500 RPM 14 PPM 0.00 % **********

CVS TEST RESULTS

RAW BAG DATA - GRAMS CO

		HC		CO		NOX		CO2
BAG	0	17.00		95.90		0.12		524.00
BAG .	1	6.53		174.00		0.35		1750.0
BAG	2	2.98		56.30		1.16		2090.0
BAG	3	6.82		173.00		0.18		1700.0
		GRAMS	PER	MILE/MILES	PER	GALLON		
		HC		CO		· NOX		FE
BAG .	1	6.55		75.18		.13		11.5
BAG	2	.76		14.40		.30		
BAG	3	1.90		48.19		.05		
FT	P	2.26		36.13	•	0.20	•	14.7
***	*********							

1981/82 METFAC PROGRAM					
*****	*****	****	*****	*****	
	VEHICLE .	AND TEST PARAMI	ETERS		
VEHICLE NO:	13 MODEL	YEAR: 1981	MAKE/MODEL:	TOYOTA	
ENGINE CID:	ODOM	ETER: 3600	TEST DATE:	0182	
		TIME: BEI			
*****	*****	*****	******	*****	
	STEADY-	STATE TEST RESU	JLTS		
	HYDROCARI	BONS CARBON MO	NOXIDE		
II	DLE P	PM	8		
2500 I		PM	8		
*****	****	*****	*****	*****	
	cvs	TEST RESULTS			
	RAW B	AG DATA - GRAMS	5		
	HC	CO	NOX	CO 2	
BAG 0					
BAG 1	19.30	197.00		1260.0	
BAG 2	0.30	0.20	-	1610.0	
BAG 3	0.30	3.50	3.10	1480.0	
		ILE/MILES PER (77	
	HC	CO		FE	
BAG 1	5.38	54.87	.61	19.5	
BAG 2	.08	.05	.77		
BAG 3	.08	•97	.86		
\mathtt{FTP}	1.17	11.59	0.76	21.1	

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 13 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA ENGINE CID: ODOMETER: 3600 TEST DATE: 0182 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 970 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 7 PPM 0.00 %
2500 RPM 11 PPM 0.00 %

CVS TEST RESULTS RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	16.70	147.00	5.80	1470.0
BAG 2	0.30	0.60	5.60	1530.0
BAG 3	0.50	5.00	1.70	1400.0
	GRAMS PE	R MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1	4.65	40.95	1.62	18.2
BAG 2	.08	.15	1.43	•
BAG 3	.14	1.39	. 47	
FTP	1.04	8.89	1.21	21.5
*****	*******	*****	*****	****

	ALASK	A VEHICLE	TEST R	ESULTS	
	198	1/82 METFA	C PROG	RAM	
*****	*****	*****	****	*****	*****
	VEHICLE	AND TEST	PARAME	TERS	
VEHICLE NO:	13 MODEL	YEAR: 19	81	MAKE/MOD	EL: TOYOTA
ENGINE CID:		METER:			
TEST TEMP: 69					
BAG 0 TIME: (*****	*****	*****	*****	*****
	STEADY	-STATE TES	T RESU	LTS	
	HYDROCA	RBONS CAR	BON MO	NOXIDE	
]	DLE 0				
	RPM 0		0.00		
*****					*****
	CV	S TEST RES	ULTS		
		BAG DATA -			
	HC	CO		NOX	CO2
BAG 0					
-	1.50	32.60		5.90	1600.0
BAG 2	0.20	0.30		2.60	
BAG 3	0.20	3.70		1.90	
5	0.20				
	GRAMS PER	MILE/MILES	PER G	ALLON	
	HC		-		FE
BAG 1	.42	9.08		1.64	19.2
BAG 2	.42 .05	.08		.66	-
BAG 3	.06	1.03		•53	
FTP		2.19		0.83	22.5
*****					*****
			•		

	1	.981/82 METF	AC PROGRAM		
1981/82 METFAC PROGRAM ************************************					
	VEHIC	LE AND TEST	PARAMETERS		
VEHICLE NO:	13 MOD	EL YEAR: 1	981 MAK	E/MODEL: TOYOTA	
ENGINE CID:	C	DOMETER:	3600 TE	ST DATE: 0182	
TEST TEMP:	DEG F S	OAK TIME:	BEFORE/	AFTER REPAIRS: B	
BAG 0 TIME: 2	MIN.		IDLE	SPEED: 960 RPM	
*****	*****	*****	*****	******	
	STEA	DY-STATE TE	ST RESULTS		
			RBON MONOXII	DE ·	
		3 PPM			
2500	RPM 2	0 PPM	0.08 %		
*****	*****	*****	*****	*****	
		CVS TEST RE	SULTS		
		W BAG DATA	- GRAMS		
	HC	CO	NO	X CO2	
	39.50	392.00	3.1	10 1780.0	
BAG l					
		0.60		90 1640.0	
BAG 3	0.70	3.60	0.9	90 1370.0	
		•	S PER GALLO		
	HC	CO			
	11.00	109.19			
BAG 2	.05	.15	• 4		
		1.00	• 1	25	
		22.83	0.5	19.0	
*****	*****	*****	****	*****	

1981/82 METFAC PROGRAM ************** VEHICLE AND TEST PARAMETERS VEHICLE NO: MODEL YEAR: 1981 MAKE/MODEL: TOYOTA 13 TEST DATE: 0182 ENGINE CID: ODOMETER: 3600 TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B IDLE SPEED: BAG 0 TIME: 2 MIN. ************* STEADY-STATE TEST RESULTS HYDROCARBONS CARBON MONOXIDE 용 PPMIDLE 8 2500 RPM PPM************ CVS TEST RESULTS RAW BAG DATA - GRAMS NOX CO2 CO HC 0.20 120.00 6.30 107.00 BAG 0 BAG 1 10.30 110.00 5.30 1350.0 3.30 1330.0 0.20 1.30 BAG 2 2.30 1490.0 3.10 BAG 3 0.04 GRAMS PER MILE/MILES PER GALLON FE CO NOX HC 1.53 17.1 BAG 1 60.45 4.62 .33 .84 BAG 2 .05 .64 BAG 3 .86 .01 0.93 22.3 FTP 0.98 12.85

WINDWA AUTICID IDDI VIDOLID					
	19	81/82 METFA	AC PROGRAM		
*****	*****	*****	AC PROGRAM *************	*****	
			PARAMETERS		
VEHICLE NO:	13 MODE	L YEAR: 19	981 MAKE/MODE	L: TOYOTA	
ENGINE CID:	OD	OMETER:	3600 TEST DATE	E: 0182	
TEST TEMP: 23	DEG F SO	AK TIME:	BEFORE/AFTER I	REPAIRS: B	
BAG 0 TIME: 2	MIN.		IDLE SPEED:	930 RPM	
*****	*****	*****	IDLE SPEED:	*****	
		Y-STATE TES			
			RBON MONOXIDE		
τ		PPM	& STITACHOM MORE		
			.		
	RPM		5 *********		
*****				****	
		VS TEST RES			
	RAW	BAG DATA -	- GRAMS		
	HC	CO	NOX	CO2	
BAG 0	3.00	124.00	0.09	89.00	
BAG 1	11.40	114.00	6.10	1690.0	
BAG 2	0.20	5.10	3.70	1590.0	
	0.50	2.80	2.40	· ·	
	GRAMS PER	MILE/MILES	S PER GALLON		
	HC	CO	· NOX	FE	
BAG 1	4.01	66.30	1.72	14.5	
BAG 2	.05	1.30	.95		
BAG 3	.14	.78	.67		

	ALASKA VEHICLE 1ES1 KESULIS				
	19	981/82 METFAC	PROGRAM ********		
*****	*****	****	******	*****	
	VEHIC	LE AND TEST P	ARAMETERS		
			1 MAKE/MODEL		
ENGINE CID:	OI	OOMETER: 3	600 TEST DATE	: 0182	
TEST TEMP:]	9 DEG F SO	OAK TIME:	BEFORE/AFTER R	EPAIRS: B	
BAG 0 TIME:	6 MIN.		IDLE SPEED:	970 RPM	
*****	******	*****	******	*****	
	STEAL	Y-STATE TEST	RESULTS		
		CARBONS CARBO			
		3 PPM			
2500	RPM 1	PPM	0.00 %		
*******	****	· * * * * * * * * * * * * * * * * * * *	*****	*****	
		CVS TEST RESU			
		V BAG DATA -			
	HC HC	CO	NOX.	CO2	
BAG 0	17 30		0.50		
BAG 1	3 20	35.00	3.40	1430.0	
BAG 2		0.60		1410.0	
BAG 2 BAG 3	0.40	2.30	1.70	1340.0	
ב מאמ	0.40	2.50	21,0		
	GRAMS PER	R MILE/MILES	PER GALLON		
	HC		· NOX	FE	
BAG 1	5.71	69.36	1.09	14.4	
BAC 2	0.7.	15	1.09 .79	•-	
BAG 2 BAG 3	.11	6.4	. 47		
FTP	1.25	14.53	.47 0.77	21.3	
**********		***********	*****	****	

	1981/82 METFAC PF	ROGRAM	
******	1901/02 MEIFAC Pr	*****	*****
V	EHICLE AND TEST PARA	AMETERS	
VEHICLE NO: 13	MODEL YEAR: 1981	MAKE/MODEL:	TOYOTA
ENGINE CID:	ODOMETER: 3600) TEST DATE:	0182
TEST TEMP: 25 DEG 1	F SOAK TIME:	BEFORE/AFTER RE	PAIRS: B
BAG 0 TIME: 6 MI	V _	IDLE SPEED:	960 RPM
*****	N	*****	****
5	STEADY-STATE TEST RE	SULTS	
	DROCARBONS CARBON		
	0 PPM 0.0		
	0 PPM 0.0		
	*****		*****
	CVS TEST RESULTS	3	
	RAW BAG DATA - GRA		
HC	CO		CO 2
		0.70	
	4.40		
BAG 2 0.20		2.60	
BAG 2 0.20 BAG 3 0.50		2.30	
DAG 3 0.30	3.00	2.30	1300.0
GRAMS	F PER MILE/MILES PER	RGALLON	
HC		· NOX	FE
BAG 1 6.52	66.69	2.06	13.2
BAG 2 .05	- 03		
BAG 3 .14		.64	
FTP 1.41	14.03	0.95	20.8

								REDUBID		
				19	81/82 N	IETFA	C PR	OGRAM		
***	* * * *	***	*****	***	*****	****	***	*****	****	*****
			V	EHICL	E AND I	TEST	PARA	METERS		
VEH:	ICLE	NO:						MAKE/	MODEL.	ም ር ⊻ርሞ አ
ENG	INE	CTD .	7 4 4	מט	OMETER	. 1	6 8 U U	TEST	בשמטבוב.	10101A
TEST	ጉ ጥድ	MD.	U DEC	F SO	AR TIME		9000	EFORE/AF	MED DED	UZ0Z
DAC.	`	TMD.	O DEG	n bo	WK TIM	4 2		TO TO THE	IER KEP	AIKS: B
+++4		TATE:		.1.1.				IDLE SP	EED:	RPM
		~ ~ ~ ~ .							*****	*****
					Y-STATE					
							BON	MONOXIDE		
			\mathtt{IDLE}		PPM			€		
		2500) RPM		PPM			8		
***	***	****	*****	****	*****	****	***	*****	*****	*****
				C7	S TEST	RES	JLTS			
				RAW	BAG DA	TA -	GRA	MS		
			HC		CO			NOX		CO2
BAG	0									002
BAG	1				315.	00				1390.0
BAG					110.					1460.0
BAG	_				51.					1420.0
2110	3				21.	90				1420.0
			GRAM	S PER	MILE/M	ILES	PER	GALLON		
			HC		co			· NOX		FE
BAG	1		.00			74		.00		16.9
BAG	2		.00			13		.00		
BAG	_		.00		14.			.00		
FT	_		• 00		36.			• 00		20.2
		****	****	****				******		

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0182 TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 890 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS RAW BAG DATA - GRAMS

	K	AN DAG DAIA - GI	MAID	
	HC	CO	NOX	CO 2
BAG 0				
BAG 1	30.50	310.00	12.10	1410.0
BAG 2	12.80	85.30	6.20	1340.0
BAG 3	8.60	43.10	10.50	1270.0
	GRAMS PI	ER MILE/MILES PI	ER GALLON	
	HC	CO	· NOX	FE
BAG 1	8.50	86.35	3.37	16.0
BAG 2	3.27	21.82	1.59	
BAG 3	2.40	12.01	2.92	
FTP	4.11	32.42	2.32	21.1

	VEH	ICLE AND	TEST PARA	METERS	
VEHICLE NO:	14 M	ODEL YEAR	1981	MAKE/MODE	L: TOYOTA
ENGINE CID:	144	ODOMETER	16800	TEST DAT	E: 0282
TEST TEMP: 37	7 DEG F	SOAK TIM	iE: B	EFORE/AFTER	REPAIRS: B
BAG 0 TIME: () MIN.			IDLE SPEED:	900 RPM
********	******	*****	*****	*****	*****

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE
E 345 PPM 2.23 %

IDLE 345 PPM 2.23 % 2500 RPM 135 PPM 0.25 %

RAW BAG DATA - GRAMS HC CO NOX CO2 BAG 0 BAG 1 144.00 7.10 1350.0 BAG 2 5.50 59.20 1500.0 BAG 3 25.20 6.40 1490.0 GRAMS PER MILE/MILES PER GALLON FE HC CO · NOX 40.11 BAG 1 .00 1.98 20.2 .00 15.14 1.41 BAG 2 .00 BAG 3 7.02 1.78 FTP18.06 1.63 21.2 ****************

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282 TEST TEMP: 68 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 910 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CVS TEST RESULTS RAW BAG DATA - GRAMS

HC CO NOX CO 2 BAG 0 BAG 1 11.00 67.20 9.80 1190.0 BAG 2 9.30 5.20 62.50 1250.0 BAG 3 5.60 23.50 10.60 1200.0 GRAMS PER MILE/MILES PER GALLON HC CO · NOX FE 18.72 BAG 1 3.06 2.73 23.9 BAG 2 2.38 15.98 1.33 BAG 3 1.56 6.55 2.95 13.97 2.30 2.06

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282 TEST TEMP: 70 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B IDLE SPEED: 930 RPM BAG O TIME: O MIN. ***********

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

CO2

0.80 % IDLE 333 PPM 78 PPM 0.09 % 2500 RPM

*********** CVS TEST RESULTS

RAW BAG DATA - GRAMS CO NOX HC BAG 0 95.40 12.70 1750.0 BAG 1 10.30 5.80 1320.0 BAG 2 75.70 10.20 34.70 10.40 1260.0 BAG 3 6.80

		GRAMS	PER MILE/MILES	PER GAL	LON	
		HC	CO	. أ	NOX	FE
BAG	1	2.87	26.57		3.54	16.5
BAG	2	2.61	19.36		1.48	
BAG	3	1.89	9.67		2.90	
FT	P	2.47	18.20		2.29	21.7
****	******	*****	****	*****	*****	******

		1981/82 METFA	C PROGRAM	
***	*****	*****	******	*****
	VI	EHICLE AND TEST	PARAMETERS	
VEH		MODEL YEAR: 19		ነ መለህለመክ
FNC	INE CID: 144	ODOMEMED 1	COOO MECH DAM	L TOIOTA
		ODOMETER: 1		
IES.	r remp: /I DEG I	F SOAK TIME:	BEFORE/AFTER	REPAIRS: B
BAG	O TIME: O MIN	7. *******	IDLE SPEED:	910 RPM
***				****
	S	STEADY-STATE TES	T RESULTS	
	НУ	DROCARBONS CAR	BON MONOXIDE	
	IDLE	305 PPM	1.00 %	
	2500 RPM	252 PPM	1.06 %	
***		*****		*****
		CVS TEST RES	ILTS	
		RAW BAG DATA -		
	НС	CO	NOX	CO2
BAG		CO	NOX	CO2
		13.2 00	30 50	1000
BAG		111.00		
BAG		51.00		1050.0
BAG	3 7.40	36.40	10.00	1200.0
	•	•		
	GRAMS	F PER MILE/MILES	PER GALLON	
	HC	co	· NOX	FE `
BAG	1 3.70	30.92	2.92	21.1
BAG		13.04		·
BAG		10.14	2.79	
F		15.93	1.99	26.2
	- 2 2 2 1	23473	1077	·

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282 TEST TEMP: 74 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B BAG 0 TIME: 0 MIN. IDLE SPEED: 900 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 330 PPM 0.80 % 2500 RPM 30 PPM 0.05 %

CVS TEST RESULTS RAW BAG DATA - GRAMS NOX CO2 HC CO BAG 0 68.40 11.30 1150.0 11.30 BAG 1 81.80 6.50 1320.0 12.40 BAG 2 11.90 1170.0 33.50 7.50 BAG 3 GRAMS PER MILE/MILES PER GALLON FEHC CO · NOX 24.6 BAG 1 19.05 3.15 3.15 20.92 1.66 BAG 2 3.17 9.33 3.31 BAG 3 2.09 17.37 2.42 FTP 2.87 *************

	1.	981/82 METFAC	PROGRAM	
*****	*****	*****	*****	*****
	VEHIC	LE AND TEST P	ARAMETERS	
VEHICLE NO.			1 MAKE/MODE	TA THOUGHT
ENGINE CID:	144 U	ONETER: 16	800 TEST DATI	2: 0187
			BEFORE/AFTER I	
BAG 0 TIME:	2 MIN.		IDLE SPEED:	880 RPM
*****				*****
		DY-STATE TEST		
	HYDRO	CARBONS CARBO	ON MONOXIDE	
		L PPM		
250	0 RPM 126	5 PPM	0.49 %	
******	*****	*****	******	*****
	(CVS TEST RESU	LTS	
	RAV	N BAG DATA -	GRAMS	
	HC	CO		CO 2
BAG 0	44 80	383.00	27 30	1690.0
BAG 1	44.00	303.00	27.50	1070.0
	13.40	117 00	12 20	1460 0
			12.20	
BAG 3	9.70	57.40	14.00	1380.0
	00.140 DD		DDD GREEGN	
		R MILE/MILES		
	HC	CO	· NOX	FE
BAG 1	12.48	106.69	7.60	13.1
BAG 2	3.43	29.92 15.99	3.12	
BAG 3	2.70	15.99	3.90	
FTP	5.09	41.92	4.26	18.5
*****	*****	*****	*****	*****

1981/82 METFAC PROGRAM

		VEHICLE	AND TE	ST PARAM	ETERS	
VEHICLE NO:	14	MODEL	YEAR:	1981	MAKE/MODEL:	TOYOTA
ENGINE CID:	144	ODON	METER:	16800	TEST DATE:	0182
TEST TEMP:	L8 DEG	F SOAF	TIME:	BE:	FORE/AFTER REF	AIRS: B

BAG 0 TIME: 2 MIN. IDLE SPEED: 880 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 334 PPM 3.24 % 2500 RPM 129 PPM 0.63 %

RAW BAG DATA - GRAMS HC CO NOX CO2 345.00 16.00 1700.0 BAG 0 35.90 BAG 1 8.90 1580.0 BAG 2 119.00 13.60 BAG 3 69.40 12.40 1440.0 11.00 GRAMS PER MILE/MILES PER GALLON · NOX FECO HC 13.5 4.46 BAG 1 96.10 10.00

ALASKA VEHICLE TEST RESULTS				
19	981/82 METFAC P	ROGRAM		
	******	******	*****	
VEHICI	LE AND TEST PAR.	AMETERS		
VEHICLE NO: 14 MODE	EL YEAR: 1981	MAKE/MODEL:	TOYOTA	
ENGINE CID: 144 OF	DOMETER: 1680	O TEST DATE:	0282	
TEST TEMP: 20 DEG F SO	OAK TIME:	BEFORE/AFTER REI	PAIRS: B	
BAG 0 TIME: 4 MIN.		IDLE SPEED:	880 RPM	
******	*****	****	*****	
STEAD	Y-STATE TEST R	ESULTS		
HYDROC	CARBONS CARBON	MONOXIDE		
IDLE 290) PPM 2.0	60 %		
2500 RPM 76				
******	******	*****	*****	
C	VS TEST RESULT:	S		
RAW	N BAG DATA - GR	AMS		
HC	CO	NOX	CO2	
BAG 0 28.20	269.00	8.10	1690.0	
BAG 1				
BAG 2 9.20	52.60	4.10	1360.0	
BAG 3 6.50	32.60	6.50	1250.0	
		•		
GRAMS PER	R MILE/MILES PER	R GALLON		
HC	CO	· NOX	FE	
BAG 1 7.86	74.93	, -	14.5	
BAG 2 2.35	13.45			
BAG 3 1.81	9.08			
FTP 3.34	24.91	1.51	21.0	
******	*****	*****	*****	

	1981/82 METFAC PR	OGRAM ********
*****	*****	******
VEH	ICLE AND TEST PARA	METERS
		MAKE/MODEL: TOYOTA
		TEST DATE: 0182
TEST TEMP: 20 DEG F	SOAK TIME: B	EFORE/AFTER REPAIRS: B
BAG O TIME: 6 MIN.		IDLE SPEED: 910 RPM
******	*****	IDLE SPEED: 910 RPM **********
	EADY-STATE TEST RE	
	ROCARBONS CARBON	
	309 PPM 3.0	
2500 RPM	113 PPM 0.4	3 % 3 %
2500 RFM	*********	*****
, , , , , , , , , , , , , , , , , , , 	CVS TEST RESULTS	
	RAW BAG DATA - GRA	
HC	CO	NOX CO2
BAG 0 30.30	2/0.00	1.00 465.00
BAG 1 12.50	95.60	13.30 1310.0
		7.30 1290.0
BAG 3 9.10	49.80	11.00 1200.0
	PER MILE/MILES PER	
HC	CO	· NOX FE
HC BAG 1 11.92	101.84	3.98 12.8
BAG 2 3.71	31.97	1.87
BAG 3 2.53	13.87	3.06
FTP 5.08	13.87 41.41	2.63 19.9
*****	*****	*****

1981/	82 METFAC PROGR	AM .	
/±901 ***********	*****	*****	****
VEHICLE A	ND TEST PARAMET	ERS	
VEHICLE NO: 14 MODEL Y	EAR: 1981	MAKE/MODEL:	TOYOTA
ENGINE CID: 144 ODOME			
TEST TEMP: 19 DEG F SOAK			
BAG 0 TIME: 0 MIN.	*****	*****	*****
STEADY-S	TATE TEST RESUL	TS	
	ONS CARBON MON		
	M 0.02 %		
2500 RPM 32 PP			
*********			*****
CVS	TEST RESULTS		
<u> </u>	G DATA - GRAMS		
HC HC	CO	NOX	CO2
BAG 0	60	11011	COZ
BAG 1	62.30		1310.0
BAG · 2	58.80		1560.0
BAG 3	21.30		1320.0
BAG 3	21.30		1320.0
GRAMS PER MI	LE/MILES PER GA	LLON	
HC	CO	· NOX	FE
BAG 1 .00		.00	22.6
	15.04		
	5.93	.00	
FTP	13.03		22.0

•	19	81/82 METFA	C PROGRAM	
******	******	******	****	*****
	VEHICL	E AND TEST	PARAMETERS	
VEHICLE NO:				MODEL: TOYOTA
				DATE: 0382
THEIRE CID:	7 7 7 7 F CO	AR WIME.	יקע/ קק∩קקק	TER REPAIRS: A
BAG O TIME: 0	MIN.		TDTE SE	EED: 940 RPM
*****				*****
		Y-STATE TES		
			BON MONOXIDE	
I	IDLE 35	PPM	0.00 %	
2500	RPM 20	PPM	0.04 %	
*****	*****	*****	*****	****
	ر.	VS TEST RES	ULTS	• •
		BAG DATA -		
		CO	NOX	CO2
530 A	HC	CO	NOA	C02
BAG 0		72 22		1020 0
BAG 1	9.00	/3.30		1020.0
BAG 2				1210.0
BAG 3	7.60	49.40		1110.0
			PER GALLON	
	HC	CO	· NOX	FE
BAG 1 BAG 2	2.51	20.42	.00	27.4
BAC 2	2 71	21.64	.00	
BAG 3	2.12	12 76	.00	
		10.74		25 0

13.76 19.24

FTP

2.51

25.9

	ALASKA VE	HICLE TEST I	RESULTS		
	1981/82	METFAC PROC	GRAM		
*****	*****	*****	*****	*****	
	VEHICLE AND	TEST PARAME	ETERS		
VEHICLE NO: 1					
ENGINE CID: 1	44 ODOMETE	R: 16800	TEST DATE:	0282	
TEST TEMP: 3 I	DEG F SOAK TI	ME: BEI	ORE/AFTER REP	AIRS: A	
BAG 0 TIME: 2	MTN	٦	DIE SPEED.	ARU BEM	
*******	*****	- ********	****	*****	
	STEADY-STA	TE TEST RESU	JLTS		
	HYDROCARBON	S CARBON MO	NOXIDE		
ID		0.28			
	PM 108 PPM				
*****	*****			*****	
	CVS TE	ST RESULTS			
		DATA - GRAMS	2		
7	HC			COR	
				CO2	
_	9.40 31	9.00	19.10	1770.0	
BAG 1					
			8.80	1430.0	
BAG 3	3.60 4	2.70	11.90	1300.0	
GRAMS PER MILE/MILES PER GALLON					
	HC C			FE	
			5.32	13.3	
		8.86		13.3	
	3.25				
		1.89	3.31		
			0 - 2 -	19.2	

		KH AFUICIE I		
	19	81/82 METFAC	PROGRAM	
*****	*****	*****	: PROGRAM *********	*****
	VEHICL	E AND TEST P	PARAMETERS	
VEHICLE NO:	14 MODE	L YEAR: 198	1 MAKE/MODEL:	ATOYOT
ENGINE CID:	144 OD	OMETER: 16	800 TEST DATE:	0382
TEST TEMP: 12	DEG F SO	AK TIME:	BEFORE/AFTER RE	EPAIRS: A
BAG O TIME: 2	MIN.		IDLE SPEED:	950 RPM
*****	*****	******	*****	*****
	STEAD	Y-STATE TEST	RESULTS	
		ARBONS CARB		
т.		PPM		
2500	DDM EV	PPM	0.07 0	
2500	RPM 30		*****	*****

	_	VS TEST RESU		
		BAG DATA -		
	HC	CO	NOX	CO2
BAG 0	6.80	54.30		267.00
BAG 1	7.10	204.00		1080.0
		58.30		1390.0
		33.40		1220.0
DAG J	0.00	33.40		
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	· NOX	FE
BAG 1		71.95	.00	17.7
BAG 2				
BAG 3	1.84	9.30	.00	
FTP	2.54	25.12	.00	22.0
			*****	****

	ALAS	VW ARHICTE	TEST RESULT	:5
	19	81/82 METFA	C PROGRAM	
*****				*****
	VEHICL	E AND TEST	PARAMETERS	
VEHICLE NO:	14 MODE	L YEAR: 19	81 MAKE	MODEL: TOYOTA
ENGINE CID:	144 OD	OMETER: 1	6800 TES	T DATE: 0282
TEST TEMP: 19	DEG F SO.	AK TIME:	BEFORE/A	FTER REPAIRS: A
BAG 0 TIME: 2	MIN.		IDLE S	PEED: 910 RPM
*****	******	*****	****	*****
	STEAD	Y-STATE TES	T RESULTS	
	HYDROC.	ARBONS CAR	BON MONOXID	E
I	DLE 56	PPM	0.00 %	
		PPM		
*****	*****	*****	*****	*****
	C'	VS TEST RES	ULTS	
	RAW	BAG DATA -	GRAMS	
	HC	CO	NOX	CO 2
BAG 0		282.00		1440.0
BAG 1				
BAG 2		51.70		1470.0
BAG 3		25.90		1230.0
	GRAMS PER	MILE/MILES	PER GALLON	
	HC	CO	NOX	FE
BAG 1	.00	78.55	.0	0 16.9
BAG 2		13.22		0
BAG 3	.00	7.21	.0	
ਰਾਜ		25.03		21.6

		WW ARRITORD INC			
	198	81/82 METFAC F	PROGRAM		
*****	*****	*********	*****	*****	
	VEHICL	E AND TEST PAR	RAMETERS		
VEHICLE NO:	14 MODE	L YEAR: 1981	MAKE/MODEL:	TOYOTA	
ENGINE CID:	144 OD	OMETER: 1680	00 TEST DATE	0282	
TEST TEMP.	2 DEG F SO	AK TIME:	BEFORE/AFTER RI	EPAIRS: A	
DAC O MIMP.	C MIN	.2	IDLE SPEED:	930 RPM	
DAG U IIME:	7		IDLE SPEED:	t*****	

		Y-STATE TEST I			
		ARBONS CARBON			
	IDLE 129	PPM 0.	.03 %		
2500	RPM 68	PPM 0.	.05 %		
	*******	*****	*****	*****	
		VS TEST RESULT			
	_				
	RAW	BAG DATA - GI	KAMS		
	HC	CO	NOX	CO 2	
BAG 0	41.80	337.00	NOX 7.30	2020.0	
BAG 1	_				
DAC 2	14 10	121.00	8.60	1500.0	
DAG Z	10 00 T4.T0	EC 70	12.60	1330.0	
BAG 3	10.00	20.70	12.00	1330.0	
GRAMS PER MILE/MILES PER GALLON					
	GRAMS FER	MIDE/MIDES I	• NOX 2 • 03	ਸ਼ਤ	
	HC	CO	NOA	77.0	
BAG 1	11.64	93.87	2.03	11.9	
BAG 2	3.61	30.95	2.20		
BAG 3	2.79	15.79	3.51		
Eud Gud	5.04	39.76	2.52	17.9	
	*****	*****		*****	
BAG 2 3.61 30.93 2.20 BAG 3 2.79 15.79 3.51 FTP 5.04 39.76 2.52 17.9					

1981/82 METFAC PROGRAM

	VEHICLE	AND TEST	PARAMETERS		
VEHICLE NO: 14	MODEL	YEAR: 1	981 MAKE	/MODEL:	TOYOTA
ENGINE CID: 144			16800 TES	T DATE:	0382
TEST TEMP: 16 DE	G F SOA	K TIME:	BEFORE/A	FTER REF	PAIRS: A
DAG A MTND C	1 / T > 7		#R.T.D. @		

BAG O TIME: 6 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	225 PPM	0.04 %

2500 RPM 74 PPM 0.19 %

CVS TEST RESULTS RAW BAG DATA - GRAMS

		HС	CO	NOX	CO2
BAG	0	18.10	229.00		411.00
BAG	1	6.60	34.10		1220.0
BAG	2	9.10	61.90		1330.0
BAG	3	6.00	25.90		1190.0
		GRAMS PER	MILE/MILES	PER GALLON	
		HC	CO	NOX	FE
BAG	1	6.88	73.29	.00	15.0
BAG	2	2.33	15.83	.00	
BAG	3	1.67 -	7.21	.00	
FI	ľΡ	3.09	25.31		21.6
