

LOW TEMPERATURE AUTOMOTIVE EMISSIONS

VOLUME 2
APPENDIX

by

H. J. Coutts
Principal Investigator
Former Research Civil Engineer

U.S. Army Cold Regions Research
and Engineering Laboratory
72 Lyme Road
Hanover, NH 03755

Edited and Compiled by
Sierra Research
1009 14th Street
Sacramento, CA 95814

November 1983

Prepared for:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DIVISION OF PLANNING
RESEARCH SECTION
2301 Peger Road
Fairbanks, Alaska 99701-6394

The contents of this report reflect the views of the principal investigator and technical writers who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Alaska Department of Transportation and Public Facilities. This report does not constitute a standard, specification or regulation.

APPENDIX A

VEHICLE TEST RESULTS

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
 TEST TEMP: 0 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 820 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 306 PPM 10.7 %
 2500 RPM 38 PPM 0.89 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		354.00		2560.0
BAG 2		379.00		2260.0
BAG 3		188.00		2140.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	98.61	.00	10.2
BAG 2	.00	96.93	.00	
BAG 3	.00	52.37	.00	
FTP		85.12		11.9

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
 TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 710 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 69 PPM 1.59 %
 2500 RPM 17 PPM 0.10 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	64.70	394.00	31.40	2320.0
BAG 2	27.20	411.00	30.20	1790.0
BAG 3	17.10	204.00	35.40	1750.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	18.02	109.75	8.75	10.1
BAG 2	6.96	105.12	7.72	
BAG 3	4.76	56.82	9.86	
FTP	8.64	92.89	8.52	13.1

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
 TEST TEMP: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 820 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 398 PPM 10.7 %
 2500 RPM 99 PPM 0.57 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	24.20	313.00	30.00	1970.0
BAG 2	20.30	411.00	28.70	1750.0
BAG 3	13.00	166.00	38.40	1640.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.74	87.19	8.36	12.6
BAG 2	5.19	105.12	7.34	
BAG 3	3.62	46.24	10.70	
FTP	5.08	85.36	8.47	14.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
TEST TEMP: 73 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 256 PPM 9.06 %
2500 RPM 32 PPM 0.31 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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

	HC	CO	NOX	FE
BAG 1	.00	45.96	.00	16.7
BAG 2	.00	81.84	.00	
BAG 3	.00	33.70	.00	
FTP		61.32		17.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 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 PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.76	47.91	8.36	15.7
BAG 2	4.40	74.68	7.83	
BAG 3	3.29	32.59	9.97	
FTP	3.96	57.69	8.52	16.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 244 PPM 10.0 %
 2500 RPM 23 PPM 0.44 %

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

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	
FTP	3.96	56.16	7.99	17.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1450 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 114 PPM 5.55 %
2500 RPM 26 PPM 0.57 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	49.10	481.00	20.30	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 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	
BAG 3	4.21	63.51	7.02	
FTP	6.46	80.77	6.75	12.7

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 770 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 322 PPM 10.7 %
2500 RPM 47 PPM 0.68 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	12.30	109.60		180.36
BAG 1	21.40	257.50		1876.7
BAG 2	24.50	463.90		1913.1
BAG 3	13.40	207.10		1519.1

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	9.39	102.26	.00	11.6
BAG 2	6.27	118.64	.00	
BAG 3	3.73	57.69	.00	
FTP	6.22	98.64		13.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
TEST TEMP: 22 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 820 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 318 PPM 10.7 %
2500 RPM 22 PPM 0.32 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0		82.80		528.00
BAG 1		161.00		1090.0
BAG 2		465.00		2382.0
BAG 3		193.00		1740.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	67.91	.00	15.9
BAG 2	.00	118.93	.00	
BAG 3	.00	53.76	.00	
FTP		90.65		13.0

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL. AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
 TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 1480 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 149 PPM 6.90 %
 2500 RPM 29 PPM 0.12 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	61.90	582.00	14.30	2730.0
BAG 1				
BAG 2	20.50	408.00	36.50	1880.0
BAG 3	14.30	218.00	25.60	1840.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	17.24	162.12	3.98	8.3
BAG 2	5.24	104.35	9.34	
BAG 3	3.98	60.72	7.13	
FTP	7.37	104.34	7.63	12.1

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
 TEST TEMP: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 750 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	301 PPM	9.54 %
2500 RPM	37 PPM	0.60 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	14.50	330.20		612.40
BAG 1	11.10	160.90		1710.5
BAG 2	20.60	392.50		1806.0
BAG 3	12.70	179.90		1624.4

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	7.13	136.80	.00	10.0
BAG 2	5.27	100.38	.00	
BAG 3	3.54	50.11	.00	
FTP	5.18	94.16		13.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0282
TEST TEMP: 18 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 780 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 324 PPM 10.7 %
2500 RPM 32 PPM 0.60 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	32.40	651.00	36.70	2520.0
BAG 1				
BAG 2	20.50	452.00	29.50	1850.0
BAG 3	12.20	191.00		1690.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	9.03	181.34	10.22	8.7
BAG 2	5.24	115.60	7.54	
BAG 3	3.40	53.20	.00	
FTP	5.52	112.11		12.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
 TEST TEMP: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 65 PPM 0.23 %
 2500 RPM 14 PPM 0.20 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	29.00	198.00	23.40	1886.0
BAG 2	8.50	76.90	26.00	2006.0
BAG 3	7.20	62.40	7.70	1837.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	8.08	55.15	6.52	13.9
BAG 2	2.17	19.67	6.65	
BAG 3	2.01	17.38	2.14	
FTP	3.34	26.35	5.39	15.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
 TEST TEMP: 72 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 820 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 128 PPM 0.12 %
 2500 RPM 18 PPM 0.11 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	8.40	68.40		2172.8
BAG 2	5.40	15.50		1892.0
BAG 3	4.90	14.30		1626.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	2.34	19.05	.00	13.8
BAG 2	1.38	3.96	.00	
BAG 3	1.36	3.98	.00	
FTP	1.57	7.08		17.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
 TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: 860 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 46 PPM 0.25 %
 2500 RPM 10 PPM 0.22 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	1.50	21.50		60.90
BAG 1	9.60	73.60	23.10	1722.0
BAG 2	6.50	30.30	22.40	1852.0
BAG 3	4.90	24.30	26.50	1707.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.09	26.49	6.43	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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 1 MODEL YEAR: 1976 MAKE/MODEL: AMC
 ENGINE CID: 232 ODOMETER: 85300 TEST DATE: 0382
 TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 6 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 44 PPM 0.06 %
 2500 RPM 11 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	10.40	99.20	0.48	400.10
BAG 1	5.40	55.50	24.80	1899.0
BAG 2	3.90	30.50	22.40	1956.0
BAG 3	3.30	22.50	25.80	1824.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.40	43.09	7.04	12.3
BAG 2	1.00	7.80	5.73	
BAG 3	.92	6.27	7.19	
FTP	1.68	14.65	6.4	15.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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 %

CVS TEST RESULTS

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 PER MILE/MILES PER 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	
FTP	13.24	43.45	6.33	12.7

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
 ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282
 TEST TEMP: 22 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 203 PPM 2.23 %
 2500 RPM 94 PPM 0.08 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	42.50	336.90	18.50	2201.0
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 GALLON

	HC	CO	NOX	FE
BAG 1	11.84	93.84	5.15	11.1
BAG 2	1.84	26.06	7.45	
BAG 3	1.45	15.10	10.45	
FTP	3.79	37.02	7.79	14.8

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
 ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282
 TEST TEMP: 24 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 1160 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 183 PPM 2.42 %
 2500 RPM 64 PPM 0.04 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		184.70	23.00	2546.1
BAG 2		85.50	30.40	2020.4
BAG 3		48.10	30.60	1853.5

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	51.45	6.41	11.2
BAG 2	.00	21.87	7.77	
BAG 3	.00	13.40	8.52	
FTP		25.65	7.70	14.9

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

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

	HC	CO	NOX	CO2
BAG 0				
BAG 1		122.40	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
BAG 1	.00	34.09	6.07	15.2
BAG 2	.00	18.29	7.72	
BAG 3	.00	11.23	10.03	
FTP		19.61	8.01	17.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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

	HC	CO	NOX	CO2
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 PER MILE/MILES 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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

IDLE 151 PPM 2.00 %
 2500 RPM 20 PPM 0.02 %

CVS TEST RESULTS

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 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	
FTP	2.19	24.15	8.41	15.0

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0282
TEST TEMP: 75 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 180 PPM 2.80 %
2500 RPM 50 PPM 0.60 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	16.40	128.70	23.20	1870.0
BAG 2	6.80	80.40	33.40	1927.0
BAG 3	5.70	53.10	9.50	1758.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.57	35.85	6.46	15.0
BAG 2	1.74	20.56	8.54	
BAG 3	1.59	14.79	2.65	
FTP	2.28	22.13	6.51	16.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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: 2 MIN. IDLE SPEED: 1150 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 488 PPM 4.96 %
2500 RPM 28 PPM 0.18 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0		179.50		2964.0
BAG 1				
BAG 2		116.90		2310.0
BAG 3		76.60		2219.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	50.00	.00	9.8
BAG 2	.00	29.90	.00	
BAG 3	.00	21.34	.00	
FTP		31.70		12.7

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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 0 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	NOX	CO2
BAG 0		378.50	19.10	2592.0
BAG 1				
BAG 2		102.20	24.80	1835.0
BAG 3		66.50	30.50	1852.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	105.43	5.32	10.0
BAG 2	.00	26.14	6.34	
BAG 3	.00	18.52	8.50	
FTP		40.38	6.72	14.9

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

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

IDLE 175 PPM 3.62 %
 2500 RPM 37 PPM 0.15 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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 PER 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	
FTP	7.13	39.25		14.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0382
TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1170 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	240 PPM	3.31 %
2500 RPM	34 PPM	0.05 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	5.90	42.30		137.10
BAG 1	97.00	211.36		2190.0
BAG 2	8.10	120.50		1940.3
BAG 3	5.50	46.90		1749.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	28.66	70.66	.00	10.4
BAG 2	2.07	30.82	.00	
BAG 3	1.53	13.06	.00	
FTP	7.40	34.17		14.7

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0382
TEST TEMP: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 1140 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 207 PPM 3.82 %
2500 RPM 18 PPM 0.02 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	18.41	100.28	.00	7.9
BAG 2	1.94	22.84	.00	
BAG 3	1.70	17.38	.00	
FTP	5.27	37.29		13.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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	CO2
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 PER MILE/MILES PER 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	
FTP	1.43	6.52		16.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 2 MODEL YEAR: 1976 MAKE/MODEL: CHRYSL
ENGINE CID: 225 ODOMETER: 50000 TEST DATE: 0382
TEST TEMP: 31 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 6 MIN. IDLE SPEED: 1000 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 35 PPM 0.04 %
2500 RPM 22 PPM 0.30 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	24.50	88.70	0.94	514.00
BAG 1	35.60	59.40	6.93	1544.0
BAG 2	7.00	77.80	9.08	2230.0
BAG 3	5.00	19.96	13.70	1815.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	16.74	41.25	2.19	12.8
BAG 2	1.79	19.90	2.32	
BAG 3	1.39	5.56	3.82	
FTP	4.76	20.38	2.70	14.8

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: 0 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 720 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 105 PPM 0.61 %
2500 RPM 49 PPM 0.02 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	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	FE
BAG 1	22.31	78.83	1.75	18.1
BAG 2	2.17	7.06	2.23	
BAG 3	2.53	13.20	2.67	
FTP	6.42	23.51	2.25	22.4

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: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 810 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 330 PPM 2.76 %
2500 RPM 169 PPM 0.64 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	55.50	511.00	11.90	1150.0
BAG 2	17.90	66.30	25.50	1270.0
BAG 3	14.80	77.50	25.20	1080.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	15.46	142.34	3.31	15.0
BAG 2	4.58	16.96	6.52	
BAG 3	4.12	21.59	7.02	
FTP	6.69	44.03	6.00	16.7

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: 71 DEG F SOAK TIME: 24 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 700 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 270 PPM 4.2 %
2500 RPM 84 PPM 0.18 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		65.70	20.40	1160.0
BAG 2		39.00	22.70	1070.0
BAG 3		77.40	23.20	980.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	18.30	5.68	25.2
BAG 2	.00	9.97	5.81	
BAG 3	.00	21.56	6.46	
FTP		14.85	5.96	28.9

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: 1 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 700 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	375 PPM	2.42 %
2500 RPM	122 PPM	0.15 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	39.50	416.00	17.10	1290.0
BAG 1				
BAG 2	9.40	34.30	21.30	1290.0
BAG 3	9.50	67.00	20.70	1090.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	11.00	115.88	4.76	15.4
BAG 2	2.40	8.77	5.45	
BAG 3	2.65	18.66	5.77	
FTP	4.24	33.52	5.39	22.5

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: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 720 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE PPM 1.6 %
2500 RPM PPM 0.23 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0		102.00		127.00
BAG 1	19.20	95.00		1130.0
BAG 2	124.00	201.00		1110.0
BAG 3	10.80	50.70		960.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	5.35	54.87	.00	19.6
BAG 2	31.71	51.41	.00	
BAG 3	3.01	14.12	.00	
FTP		41.95		21.3

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: 3 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 720 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	348 PPM	3.98 %
2500 RPM	168 PPM	0.52 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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

GRAMS PER MILE/MILES PER GALLON

	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 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	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	FE
BAG 1	40.95	167.69	2.53	11.6
BAG 2	1.89	7.34	5.70	
BAG 3	2.12	10.08	2.34	
FTP	9.65	41.09	4.13	22.3

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: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

	IDLE	PPM	%
	2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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	13.21		25.7

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	CO	NOX	CO2
BAG 0				
BAG 1	23.90	137.00	9.00	1060.0
BAG 2	7.50	22.30	14.90	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

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: 72 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 1270 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 271 PPM 2.67 %
 2500 RPM 234 PPM 2.31 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	13.10	78.10		970.00
BAG 2	8.40	40.50		1040.0
BAG 3	7.40	47.90		930.00

GRAMS PER 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	2.06	13.34	.00	
FTP	2.43	13.52		30.2

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: 18 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: 1090 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 226 PPM 2.72 %
2500 RPM 167 PPM 0.91 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	24.00	102.00	0.00	60.00
BAG 1	43.30	266.00	13.00	1060.0
BAG 2	10.30	41.40	17.70	1230.0
BAG 3	9.00	108.00	20.60	1100.0

GRAMS PER 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	23.0

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: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	13.20	14.60	0.12	728.00
BAG 1	20.00	97.00	16.10	1170.0
BAG 2	8.40	25.80	16.40	1310.0
BAG 3	6.10	18.10	20.90	1090.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	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	5.82	
FTP	3.49	11.21	4.71	22.5

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: 17 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 6 MIN. IDLE SPEED: 890 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 286 PPM 1.51 %
 2500 RPM 144 PPM 0.15 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	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 3	6.40	50.30	20.10	940.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	23.18	27.27	4.71	19.2
BAG 2	1.94	18.47	2.79	
BAG 3	1.78	14.01	5.60	
FTP	6.27	19.06	3.95	26.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
 ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
 TEST TEMP: 0 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 810 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 113 PPM 2.78 %
 2500 RPM 6 PPM 0.04 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	33.80	340.00	8.16	1658.0
BAG 2	4.40	94.00	24.00	1732.0
BAG 3	5.70	57.00	22.40	1520.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	9.42	94.71	2.27	13.9
BAG 2	1.13	24.04	6.14	
BAG 3	1.59	15.88	6.24	
FTP	2.96	36.36	5.37	17.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
 ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 102 PPM 1.36 %
 2500 RPM 58 PPM 0.0 %

CVS TEST RESULTS

RAW 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 PER MILE/MILES PER GALLON

	HC	CO	NOX	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	
FTP	2.05	28.84	4.67	20.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
 ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
 TEST TEMP: 71 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	102 PPM	4.41 %
2500 RPM	20 PPM	2.3 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.10	137.00	20.84	1503.0
BAG 2	4.30	98.00	24.26	1677.0
BAG 3	3.60	37.00	22.69	1344.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.09	38.16	5.81	18.2
BAG 2	1.10	25.06	6.20	
BAG 3	1.00	10.31	6.32	
FTP	1.48	23.73	6.15	19.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
TEST TEMP: 3 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 178 PPM 0.39 %
2500 RPM 6 PPM 0.8 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	76.60	398.00	10.70	1736.0
BAG 1				
BAG 2	8.90	147.00	17.60	1568.0
BAG 3	9.10	95.00	27.40	1661.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	21.34	110.86	2.98	12.2
BAG 2	2.28	37.60	4.50	
BAG 3	2.53	26.46	7.63	
FTP	6.21	49.64	5.04	16.7

ALASKA VEHICLE TEST RESULTS
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: 15 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 830 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 188 PPM 5.31 %
2500 RPM 25 PPM 0.04 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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
BAG 2	1.15	23.02	.00	
BAG 3	1.17	11.42	.00	
FTP	2.57	31.51		19.3

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 830 RPM

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	CO2
BAG 0	52.60	349.00	20.60	1594.0
BAG 1				
BAG 2	7.00	139.00	11.00	1817.0
BAG 3	4.30	51.00	23.70	1369.0

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

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 0 TIME: 2 MIN. IDLE SPEED: 870 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 47 PPM 2.19 %
 2500 RPM 4 PPM 0.1 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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 PER 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

ALASKA VEHICLE TEST RESULTS
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: 0 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 850 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 115 PPM 3.90 %
2500 RPM 6 PPM 0.02 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	28.50	143.00		132.70
BAG 1	24.90	230.00		1548.0
BAG 2	5.20	82.00		1604.0
BAG 3	12.30	107.00		1440.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	14.87	103.90	.00	13.1
BAG 2	1.33	20.97	.00	
BAG 3	3.43	29.81	.00	
FTP	4.69	40.45		17.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
 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

IDLE 140 PPM 3.02 %
 2500 RPM 48 PPM 0.12 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	
BAG 3	.00	12.26	.00	
FTP		53.88		15.1

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 4 MODEL YEAR: 1977 MAKE/MODEL: GM
 ENGINE CID: 140 ODOMETER: 44000 TEST DATE: 0282
 TEST TEMP: 5 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 850 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 200 PPM 5.8 %
 2500 RPM 18 PPM 0.0 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

BAG	HC	CO	NOX	CO2
BAG 0		566.30		1820.0
BAG 1				
BAG 2		168.00		1681.0
BAG 3		81.00		1508.0

GRAMS PER MILE/MILES PER GALLON

BAG	HC	CO	NOX	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 VEHICLE TEST RESULTS
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: 17 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 860 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 161 PPM 5.28 %
2500 RPM 10 PPM 0.07 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	50.20	310.00		474.00
BAG 1	10.40	74.00		1352.0
BAG 2	5.90	123.00		1557.0
BAG 3	6.60	60.00		1297.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	16.88	106.96	.00	12.2
BAG 2	1.51	31.46	.00	
BAG 3	1.84	16.71	.00	
FTP	4.76	42.98		18.0

ALASKA VEHICLE TEST RESULTS
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: 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

IDLE 11 PPM 0.00 %
2500 RPM 10 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	22.50	278.00	9.34	1467.0
BAG 2	2.30	57.00	15.00	1639.0
BAG 3	2.90	37.00	16.90	1481.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.27	77.44	2.60	16.1
BAG 2	.59	14.58	3.84	
BAG 3	.81	10.31	4.71	
FTP	1.82	26.35	3.82	19.2

ALASKA VEHICLE TEST RESULTS

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 0 TIME: 0 MIN. IDLE SPEED: 970 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 23 PPM 0.08 %
 2500 RPM 9 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	
FTP	1.41	13.01		20.6

ALASKA VEHICLE TEST RESULTS
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: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: 940 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 17 PPM 0.00 %
2500 RPM 11 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	9.00	89.00	0.04	101.00
BAG 1	1.90	224.00	11.80	1438.0
BAG 2	1.70	48.00	16.00	1806.0
BAG 3	4.30	45.00	17.40	1519.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.04	87.19	3.30	15.4
BAG 2	.43	12.28	4.09	
BAG 3	1.20	12.53	4.85	
FTP	1.18	27.77	4.13	18.0

ALASKA VEHICLE TEST RESULTS
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: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 6 MIN. IDLE SPEED: 950 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 17 PPM 0 %
2500 RPM 9 PPM 0 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	32.80	238.00	0.26	357.00
BAG 1	8.20	91.00	15.30	1498.0
BAG 2	1.60	43.00	14.20	1650.0
BAG 3	2.50	32.00	16.00	1406.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	11.42	91.64	4.33	12.7
BAG 2	.41	11.00	3.63	
BAG 3	.70	8.91	4.46	
FTP	2.75	27.03	4.00	18.3

ALASKA VEHICLE TEST RESULTS
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: 39 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 6 MIN. IDLE SPEED: 970 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 44 PPM 0.01 %
2500 RPM 0 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	13.20	114.00	0.36	398.00
BAG 1	19.50	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

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	9.11	52.65	4.22	14.6
BAG 2	.41	8.18	3.22	
BAG 3	.56	7.30	4.23	
FTP	2.24	17.09	3.70	19.8

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 35 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 830 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 125 PPM 4.80 %
2500 RPM 40 PPM 0.06 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		267.30		979.40
BAG 2		69.10		1245.4
BAG 3		40.00		1097.1

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	74.46	.00	22.8
BAG 2	.00	17.67	.00	
BAG 3	.00	11.14	.00	
FTP		27.58		25.4

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 75 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 910 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 78 PPM 4.39 %
2500 RPM 16 PPM 0.14 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		56.10		873.30
BAG 2		50.10		1082.4
BAG 3		34.30		977.60

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	15.63	.00	33.1
BAG 2	.00	12.81	.00	
BAG 3	.00	9.55	.00	
FTP		12.50		30.8

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	112 PPM	4.07 %
2500 RPM	28 PPM	0.10 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	9.30	44.80	0.07	59.30
BAG 1	14.50	83.20	4.40	753.70
BAG 2	3.00	48.10	4.50	803.60
BAG 3	3.00	23.40	6.20	649.20

GRAMS PER 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	
FTP	1.99	15.53	1.33	38.0

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	22 PPM	0.71 %
2500 RPM	16 PPM	0.26 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	24.70	257.80	6.10	867.40
BAG 2	1.80	30.70	8.70	1107.6
BAG 3	2.60	23.60	8.90	927.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.88	71.81	1.70	23.6
BAG 2	.46	7.85	2.23	
BAG 3	.72	6.57	2.48	
FTP	1.85	20.67	2.19	29.0

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 17 PPM 0.51 %
2500 RPM 10 PPM 0.11 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	4.60	54.50	8.90	982.20
BAG 2	1.90	23.90	9.10	1110.6
BAG 3	3.60	24.70	9.30	901.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.28	15.18	2.48	29.4
BAG 2	.49	6.11	2.33	
BAG 3	1.00	6.88	2.59	
FTP	0.79	8.19	2.43	30.8

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 32 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

	IDLE	PPM	%
	2500 RPM	PPM	%

CVS TEST RESULTS

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
BAG 2	1.80	22.10	5.40	1151.2
BAG 3	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
BAG 2	.46	5.65	1.38	
BAG 3	.67	4.87	2.31	
FTP	2.16	19.27	1.71	27.4

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 5 MODEL YEAR: 1978 MAKE/MODEL: FUJI
ENGINE CID: 97 ODOMETER: 26000 TEST DATE: 0482
TEST TEMP: 38 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 23 PPM 0.63 %
2500 RPM 19 PPM 0.11 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	11.00	47.40	0.08	53.50
BAG 1	21.60	149.70	8.30	968.60
BAG 2	2.00	22.80	7.40	1111.7
BAG 3	2.90	18.00	10.00	921.10

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	9.08	54.90	2.33	22.2
BAG 2	.51	5.83	1.89	
BAG 3	.81	5.01	2.79	
FTP	2.36	15.71	2.23	28.7

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 38 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	200 PPM	8.7 %
2500 RPM	160 PPM	4.4 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		130.70		1098.6
BAG 2		127.70		1274.3
BAG 3		60.80		1035.9

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	36.41	.00	24.4
BAG 2	.00	32.66	.00	
BAG 3	.00	16.94	.00	
FTP		29.14		24.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
 ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
 TEST TEMP: 70 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 211 PPM 7.89 %
 2500 RPM 194 PPM 6.62 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		69.30		652.38
BAG 2		139.23		1688.6
BAG 3		64.43		929.80

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	19.30	.00	41.9
BAG 2	.00	35.61	.00	
BAG 3	.00	17.95	.00	
FTP		27.43		23.6

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	154 PPM	7.94 %
2500 RPM	108 PPM	3.21 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	1.16	41.32	1.50	76.61
BAG 1	4.10	114.18	16.80	777.62
BAG 2	6.04	191.20	11.40	858.04
BAG 3	3.52	87.45	28.20	688.70

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.47	43.31	5.10	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

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	260 PPM	8.00 %
2500 RPM	160 PPM	2.20 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	2.07	63.70	3.10	117.40
BAG 1	22.60	169.09	2.50	805.80
BAG 2	6.00	170.70	11.40	861.30
BAG 3	3.40	79.25	25.50	651.01

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.87	64.84	1.56	23.3
BAG 2	1.53	43.66	2.92	
BAG 3	.95	22.08	7.10	
FTP	2.47	42.13	3.78	30.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

IDLE 100 PPM 0.42 %
 2500 RPM 45 PPM 0.03 %

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 PER MILE/MILES 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

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 88 PPM 0.00 %
2500 RPM 109 PPM 0.60 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	2.07	23.14	63.70	883.90
BAG 2	0.37	0.90	32.00	1140.9
BAG 3	0.78	4.04	83.60	884.80

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.58	6.45	17.74	34.4
BAG 2	.09	.23	8.18	
BAG 3	.22	1.13	23.29	
FTP	0.23	1.75	14.27	32.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 73 PPM 0.78 %
2500 RPM 37 PPM 0.20 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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	0.32	3.43	30.20	1194.5
BAG 3	0.55	2.73	66.20	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	
BAG 3	.15	.76	18.44	
FTP	0.20	2.95	12.60	29.4

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 6 MODEL YEAR: 1980 MAKE/MODEL: AUDI
ENGINE CID: 97 ODOMETER: 22500 TEST DATE: 0482
TEST TEMP: 33 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	73 PPM	0.78 %
2500 RPM	37 PPM	0.20 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	0.59	38.50		116.90
BAG 1	0.81	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	CO	NOX	FE
BAG 1	.39	13.31	.00	26.9
BAG 2	.09	.95	7.37	
BAG 3	.10	.42	19.14	
FTP	0.16	3.35		29.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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 0.00 %
 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
BAG 2	1.73	2.70	7.20	2480.0
BAG 3	1.65	45.80	9.91	2200.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.34	96.66	1.86	9.8
BAG 2	.44	.69	1.84	
BAG 3	.46	12.76	2.76	
FTP	1.04	23.74	2.10	12.8

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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

	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.00	200.00	8.70	2540.0
BAG 2	1.29	57.00	10.00	2540.0
BAG 3	1.49	27.00	11.00	2250.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.06	55.71	2.42	11.0
BAG 2	.33	14.58	2.56	
BAG 3	.42	7.52	3.06	
FTP	0.92	21.12	2.67	12.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL
 ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182
 TEST TEMP: 22 DEG F SOAK TIME: 14 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 800 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 35 PPM 0.00 %
 2500 RPM 30 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	27.40	454.00	10.20	2540.0
BAG 2	9.83	1.21	11.20	2850.0
BAG 3	14.60	9.05	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	2.52	4.43	
FTP	3.99	26.88	3.29	11.8

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

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

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	12.00	288.00	2.50	2540.0
BAG 2	1.11	1.43	1.48	2870.0
BAG 3	1.57	5.76	2.00	2100.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.34	80.22	.70	10.5
BAG 2	.28	.37	.38	
BAG 3	.44	1.60	.56	
FTP	0.96	17.14	0.49	12.4

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL
ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182
TEST TEMP: 69 DEG F SOAK TIME: 22 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 780 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 0 PPM 0.01 %
2500 RPM 0 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	3.63	57.50	9.75	2170.0
BAG 2	11.20	9.70	7.30	2340.0
BAG 3	1.42	27.20	16.50	2060.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.01	16.02	2.72	14.0
BAG 2	2.86	2.48	1.87	
BAG 3	.40	7.58	4.60	
FTP	1.81	6.66	2.79	14.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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 PER 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

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: CHRYSL
ENGINE CID: 318 ODOMETER: 13600 TEST DATE: 0182
TEST TEMP: 22 DEG F SOAK TIME: 6 BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 750 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

	IDLE	PPM	%
	2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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 PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	2.79	53.76	4.43	9.1
BAG 2	2.26	.38	2.66	
BAG 3	3.98	1.85	4.87	
FTP	2.84	11.77	3.63	12.0

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 7 MODEL YEAR: 1980 MAKE/MODEL: 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

	HC	CO	NOX	CO2
BAG 0	1.78	104.00	15.50	1788.0
BAG 1	2.30	4.14	19.90	2550.0
BAG 2	0.65	0.43	10.30	2790.0
BAG 3	1.47	8.68	16.48	2210.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.14	30.12	9.86	7.0
BAG 2	.17	.11	2.63	
BAG 3	.41	2.42	4.59	
FTP	0.43	6.92	4.66	11.1

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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

IDLE 409 PPM 5.70 %
2500 RPM 55 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	15.60	140.00	11.50	1170.0
BAG 2	1.86	28.10	12.50	1120.0
BAG 3	2.19	10.30	15.50	990.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.35	39.00	3.20	22.1
BAG 2	.48	7.19	3.20	
BAG 3	.61	2.87	4.32	
FTP	1.32	12.56	3.50	28.1

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
 TEST TEMP: 23 DEG F SOAK TIME: 14 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

	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 PER MILE/MILES PER 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

ALASKA VEHICLE TEST RESULTS

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

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 350 PPM 4.40 %
 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

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.11	7.02	.00	28.9
BAG 2	.58	8.62	2.48	
BAG 3	.72	5.91	3.54	
FTP	0.73	7.55		29.1

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
TEST TEMP: 4 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 351 PPM 4.90 %
2500 RPM 58 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	13.20	115.00	14.10	1630.0
BAG 1				
BAG 2	3.68	27.80	13.50	980.00
BAG 3	2.68	21.20	15.40	1070.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.68	32.03	3.93	17.2
BAG 2	.94	7.11	3.45	
BAG 3	.75	5.91	4.29	
FTP	1.45	11.91	3.78	27.0

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
 TEST TEMP: 17 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 2 MIN. IDLE SPEED: 890 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 375 PPM 4.60 %
 2500 RPM 66 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	15.10	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

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.21	23.57	3.76	20.4
BAG 2	.66	7.37	3.35	
BAG 3	.65	4.82	4.60	
FTP	1.39	10.01	3.77	26.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
 TEST TEMP: 20 DEG F SOAK TIME: 23 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 2 MIN. IDLE SPEED: 840 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	4.50 %
2500 RPM	PPM	0.10 %

CVS TEST RESULTS

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
BAG 2	2.88	29.10	14.80	1260.0
BAG 3	2.16	14.90	17.60	1050.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.46	24.79	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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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	CO2
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	
FTP	1.78	12.66	3.65	26.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE PPM %
 2500 RPM PPM %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	17.40	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	
BAG 3	.61	4.09	4.85	
FTP	0.84	15.19	4.18	24.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 8 MODEL YEAR: 1980 MAKE/MODEL: NISSAN
 ENGINE CID: 85 ODOMETER: 30700 TEST DATE: 0182
 TEST TEMP: 22 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 900 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 365 PPM 5.00 %
 2500 RPM 62 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	0.82	81.90	0.78	400.00
BAG 1	2.20	23.50	17.20	1140.0
BAG 2	2.59	27.50	14.10	1030.0
BAG 3	2.01	12.60	17.30	1030.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	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	10.67	4.23	27.5

ALASKA VEHICLE TEST RESULTS
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: 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

IDLE	33 PPM	0.00 %
2500 RPM	42 PPM	0.08 %

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	.48	4.01	3.01	
FTP	1.70	8.21	2.91	32.1

ALASKA VEHICLE TEST RESULTS

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: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 760 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 300 PPM 1.02 %
 2500 RPM 75 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	8.38	117.00	9.40	940.00
BAG 2	1.82	8.77	12.30	920.00
BAG 3	1.67	14.80	16.00	1050.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	2.33	32.59	2.62	27.7
BAG 2	.47	2.24	3.15	
BAG 3	.47	4.12	4.46	
FTP	0.85	9.00	3.39	32.5

ALASKA VEHICLE TEST RESULTS

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: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 740 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 88 PPM 0.01 %
2500 RPM 39 PPM 0.00 %

CVS TEST RESULTS

RAW 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 PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	36.49	.00	23.7
BAG 2	.00	2.58	.00	
BAG 3	.00	1.61	.00	
FTP		9.30		29.3

ALASKA VEHICLE TEST RESULTS
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: 51 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 810 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 190 PPM 0.23 %
2500 RPM 30 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	2.05	19.30	12.30	1060.0
BAG 2	3.04	23.80	8.57	1570.0
BAG 3	1.55	4.07	12.50	950.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.57	5.38	3.43	29.0
BAG 2	.78	6.09	2.19	
BAG 3	.43	1.13	3.48	
FTP	0.64	4.60	2.80	25.2

ALASKA VEHICLE TEST RESULTS
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: 70 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 780 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 130 PPM 0.00 %
2500 RPM 27 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	4.41	28.90	12.10	990.00
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	FE
BAG 1	1.23	8.05	3.37	30.4
BAG 2	.34	2.45	2.63	
BAG 3	.51	2.65	3.87	
FTP	0.57	3.66	3.12	25.5

ALASKA VEHICLE TEST RESULTS

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: 77 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 770 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 110 PPM 0.15 %
 2500 RPM 29 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	3.64	24.00	11.80	1060.0
BAG 2	1.21	8.35	8.92	1230.0
BAG 3	1.38	7.48	13.10	940.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.01	6.69	3.29	28.7
BAG 2	.31	2.14	2.28	
BAG 3	.38	2.08	3.65	
FTP	0.47	3.06	2.86	29.3

ALASKA VEHICLE TEST RESULTS

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: 7 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: 760 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 0 PPM 0.04 %
 2500 RPM 0 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	17.30	111.00	11.50	1300.0
BAG 1				
BAG 2	1.84	13.20	12.00	1150.0
BAG 3	2.50	38.00	11.80	1070.0

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	
BAG 3	.70	10.58	3.29	
FTP	1.43	11.01	3.16	26.8

ALASKA VEHICLE TEST RESULTS

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: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	13.40	89.70	11.90	1280.0
BAG 1				
BAG 2	1.44	11.20	11.10	1190.0
BAG 3	1.44	8.21	14.60	1040.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.73	24.99	3.31	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

ALASKA VEHICLE TEST RESULTS

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: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 6 MIN. IDLE SPEED: 830 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 153 PPM 0.88 %
2500 RPM 41 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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	2.23	.00	
BAG 3	.00	5.43	.00	
FTP		8.60		23.9

ALASKA VEHICLE TEST RESULTS

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: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 6 MIN. IDLE SPEED: 700 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 83 PPM 0.00 %
 2500 RPM 37 PPM 0.00 %

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	12.00	11.70	1110.0
BAG 3	1.40	7.58	14.60	990.00

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.09	26.07	3.03	20.1
BAG 2	.30	3.07	2.99	
BAG 3	.39	2.11	4.07	
FTP	0.90	7.54	3.29	27.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482
TEST TEMP: 38 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	85 PPM	0.00 %
2500 RPM	110 PPM	0.43 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		176.40		1051.2
BAG 2		39.70		1434.5
BAG 3		20.30		778.90

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	49.14	.00	24.0
BAG 2	.00	10.15	.00	
BAG 3	.00	5.65	.00	
FTP		16.95		26.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482
 TEST TEMP: 74 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 810 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 45 PPM 0.00 %
 2500 RPM 42 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		35.10		910.20
BAG 2		31.80		1299.8
BAG 3		7.10		1000.9

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	9.78	.00	33.0
BAG 2	.00	8.13	.00	
BAG 3	.00	1.98	.00	
FTP		6.79		28.4

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482
TEST TEMP: 36 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	76 PPM	0.00 %
2500 RPM	53 PPM	0.28 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	4.30	45.50	0.03	86.00
BAG 1	6.80	89.90	3.20	841.10
BAG 2	3.60	63.10	1.70	919.80
BAG 3	2.50	16.10	2.50	721.10

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.09	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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482
 TEST TEMP: 36 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 80 PPM 0.00 %
 2500 RPM 130 PPM 0.60 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.60	145.60	4.20	948.50
BAG 2	4.40	63.90	3.90	1063.4
BAG 3	3.20	33.50	4.90	900.10

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.23	40.56	1.17	26.2
BAG 2	1.13	16.34	1.00	
BAG 3	.89	9.33	1.36	
FTP	1.49	19.41	1.13	29.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 10 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 98 ODOMETER: 32000 TEST DATE: 0482
 TEST TEMP: 31 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE PPM %
 2500 RPM PPM %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	1.80	34.50	0.10	89.40
BAG 1	4.60	101.10	3.50	1012.2
BAG 2	1.90	45.60	2.80	1183.3
BAG 3	1.80	20.20	5.10	970.40

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.78	37.77	1.00	23.9
BAG 2	.49	11.66	.72	
BAG 3	.50	5.63	1.42	
FTP	0.76	15.39	0.97	27.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 27 PPM 0.00 %
 2500 RPM 35 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
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 PER MILE/MILES PER 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	
FTP	0.60	11.05	0.80	30.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 9 MODEL YEAR: 1981 MAKE/MODEL: CHRYSL
 ENGINE CID: 135 ODOMETER: 7500 TEST DATE: 0482
 TEST TEMP: 34 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE PPM %
 2500 RPM PPM %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	51.15	374.80	1.19	570.54
BAG 2	5.86	79.48	0.79	954.72
BAG 3	2.95	30.95	0.93	731.33

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	14.25	104.40	.33	24.1
BAG 2	1.50	20.33	.20	
BAG 3	.82	8.62	.26	
FTP	3.94	34.44	0.24	31.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 9 MODEL YEAR: 1981 MAKE/MODEL: CHRYSL
ENGINE CID: 135 ODOMETER: 7500 TEST DATE: 0482
TEST TEMP: 73 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 1130 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 131 PPM 4.15 %
2500 RPM 123 PPM 1.53 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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 PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	34.60	.00	27.8
BAG 2	.00	29.64	.00	
BAG 3	.00	22.84	.00	
FTP		28.80		27.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 9 MODEL YEAR: 1981 MAKE/MODEL: CHRYSL
 ENGINE CID: 135 ODOMETER: 7500 TEST DATE: 0582
 TEST TEMP: 51 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 1030 RPM

STEADY-STATE TEST RESULTS.

HYDROCARBONS CARBON MONOXIDE

IDLE 6 PPM 0.01 %
 2500 RPM 0 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	5.26	46.15	3.41	827.50
BAG 2	0.48	3.95	3.00	1423.0
BAG 3	0.57	3.93	5.10	1190.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.47	12.86	.95	34.8
BAG 2	.12	1.01	.77	
BAG 3	.16	1.09	1.42	
FTP	0.41	3.47	0.98	26.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 9 MODEL YEAR: 1981 MAKE/MODEL: CHRYSL
ENGINE CID: 135 ODOMETER: 7500 TEST DATE: 0482
TEST TEMP: 77 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 1100 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 14 PPM 0.00 %
2500 RPM 10 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	5.59	35.17	3.48	1163.0
BAG 2	0.38	3.93	1.53	1717.5
BAG 3	0.74	7.07	2.40	1089.6

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.56	9.80	.97	25.8
BAG 2	.10	1.01	.39	
BAG 3	.21	1.97	.67	
FTP	0.43	3.08	0.59	23.1

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 9 MODEL YEAR: 1981 MAKE/MODEL: CHRYSL
 ENGINE CID: 135 ODOMETER: 7500 TEST DATE: 0582
 TEST TEMP: 50 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: 1010 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE 4 PPM 0.01 %
 2500 RPM 0 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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	3.61	4.83	1138.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.02	20.71	1.50	19.0
BAG 2	.12	1.01	.64	
BAG 3	.16	1.01	1.35	
FTP	0.73	5.06	1.01	24.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

 IDLE 40 PPM 0.00 %
 2500 RPM 25 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	1.10	230.00	3.86	2310.0
BAG 2	1.51	15.10	3.65	2340.0
BAG 3	1.98	4.42	6.22	1960.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.31	64.07	1.08	11.9
BAG 2	.39	3.86	.93	
BAG 3	.55	1.23	1.73	
FTP	0.41	15.54	1.18	14.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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: 80 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE PPM %

 2500 RPM PPM %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	68.00	711.00	3.72	1720.0
BAG 2	0.55	1.38	5.18	2150.0
BAG 3	1.18	10.20	4.85	1820.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	18.94	198.05	1.04	10.4
BAG 2	.14	.35	1.32	
BAG 3	.33	2.84	1.35	
FTP	4.06	41.72	1.27	14.7

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
 ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182
 TEST TEMP: 20 DEG F SOAK TIME: 26 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 700 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	60 PPM	0.00 %
2500 RPM	32 PPM	0.00 %

CVS TEST RESULTS

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 3	1.04	6.38	4.55	1620.0

GRAMS PER 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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
 ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0282
 TEST TEMP: 70 DEG F SOAK TIME: 23 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 730 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 18 PPM 0.00 %
 2500 RPM 10 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	3.18	13.40	6.55	1810.0
BAG 2	0.92	0.86	2.33	1870.0
BAG 3	0.98	1.97	4.29	1620.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.89	3.73	1.82	17.3
BAG 2	.24	.22	.60	
BAG 3	.27	.55	1.19	
FTP	0.38	1.03	1.01	18.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
 ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0282
 TEST TEMP: 72 DEG F SOAK TIME: 80 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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 PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	1.08	6.32	1.79	17.6
BAG 2	.21	.15	.70	
BAG 3	.38	2.45	1.03	
FTP	0.43	2.05	1.01	19.0

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 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 %
 2500 RPM 55 PPM 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	1.30	4.24	3.64	2240.0
BAG 3	2.24	4.27	7.18	1900.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	8.58	95.82	1.96	11.0
BAG 2	.33	1.08	.93	
BAG 3	.62	1.19	2.00	
FTP	2.11	20.61	1.43	14.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

IDLE PPM 0.00 %
2500 RPM PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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 PER MILE/MILES PER 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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

 IDLE 41 PPM 0.00 %
 2500 RPM 13 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	14.60	201.00	20.30	2590.0
BAG 2	1.09	1.68	2.83	1930.0
BAG 3	1.09	4.03	4.90	1630.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.07	55.99	5.65	11.1
BAG 2	.28	.43	.72	
BAG 3	.30	1.12	1.36	
FTP	1.07	12.05	1.91	16.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 11 MODEL YEAR: 1981 MAKE/MODEL: GM
 ENGINE CID: 229 ODOMETER: 7500 TEST DATE: 0182
 TEST TEMP: 22 DEG F SOAK TIME: 23 BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 760 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 40 PPM 0.01 %
 2500 RPM 25 PPM 0.13 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	11.50	107.20	0.79	776.00
BAG 1	1.15	75.50	6.71	2160.0
BAG 2	1.11	0.80	3.10	2170.0
BAG 3	1.67	12.40	5.66	1800.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	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

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0282
TEST TEMP: 3 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 1080 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 329 PPM 5.58 %
 2500 RPM 198 PPM 1.49 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		431.00		1950.0
BAG 2		155.00		1960.0
BAG 3		440.00		1870.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	120.06	.00	12.1
BAG 2	.00	39.64	.00	
BAG 3	.00	122.56	.00	
FTP		78.82		13.9

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

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

 IDLE 18 PPM 0.00 %
 2500 RPM 18 PPM 0.00 %

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 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	
FTP		50.62		14.1

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
TEST TEMP: 72 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 1050 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 8 PPM 0.00 %
 2500 RPM 10 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	1.41	4.80		1880.0
BAG 2	2.56	20.40		1670.0
BAG 3	0.50	2.92		1510.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.39	1.34	.00	16.8
BAG 2	.65	5.22	.00	
BAG 3	.14	.81	.00	
FTP	0.46	3.22		19.6

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1080 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 329 PPM 5.58 %
 2500 RPM 198 PPM 1.49 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	.00	175.21	.00	9.4
BAG 2	.00	118.41	.00	
BAG 3	.00	81.34	.00	
FTP		119.99		12.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
TEST TEMP: 18 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1050 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 6 PPM 0.00 %
 2500 RPM 9 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	21.30	147.00		1800.0
BAG 1	8.73	1950.0		1580.0
BAG 2	6.42	94.10		1760.0
BAG 3	0.68	1.67		1660.0

GRAMS PER 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	.47	.00	
FTP	2.63	132.90		11.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0282
TEST TEMP: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1050 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	9 PPM	0.00 %
2500 RPM	19 PPM	0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0		343.00		1850.0
BAG 1				
BAG 2		131.00		1980.0
BAG 3		3.20		1860.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	95.54	.00	13.3
BAG 2	.00	33.50	.00	
BAG 3	.00	.89	.00	
FTP		37.38		15.6

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
TEST TEMP: 24 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 1060 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	16 PPM	0.00 %
2500 RPM	16 PPM	0.00 %

CVS TEST RESULTS

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

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	2.39	64.07	.36	13.6
BAG 2	.72	8.26	.98	
BAG 3	.13	1.16	1.21	
FTP	0.90	17.81	0.92	16.9

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 1050 RPM

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	CO2
BAG 0		293.00		2470.0
BAG 1				
BAG 2		242.00		1800.0
BAG 3		13.90		1850.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	81.62	.00	10.9
BAG 2	.00	61.89	.00	
BAG 3	.00	3.87	.00	
FTP		50.12		14.8

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
 TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 6 MIN. IDLE SPEED: 1020 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 1 PPM 0.00 %
 2500 RPM 1 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	13.50	245.00		710.00
BAG 1	6.97	138.00		1610.0
BAG 2	3.17	45.20		1990.0
BAG 3	0.79	2.94		1760.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	5.70	106.69	.00	10.7
BAG 2	.81	11.56	.00	
BAG 3	.22	.82	.00	
FTP	1.66	28.21		15.3

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
TEST TEMP: 21 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 7 PPM 0.00 %
 2500 RPM 5 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	31.50	406.00	0.52	1630.0
BAG 2	9.22	188.00	0.09	1840.0
BAG 3	0.54	0.22	1.02	1940.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	8.77	113.09	.14	13.5
BAG 2	2.36	48.08	.02	
BAG 3	.15	.06	.28	
FTP	3.08	48.36	0.12	15.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
 TEST TEMP: 79 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 0 MIN. IDLE SPEED: 890 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 6 PPM 0.00 %
 2500 RPM 2 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	0.74	1.98		1820.0
BAG 2	0.79	1.72		1930.0
BAG 3	0.51	0.20		1710.0

GRAMS PER MILE/MILES PER GALLON

	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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
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

 IDLE 5 PPM 0.00 %
 2500 RPM 3 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	
FTP	1.03	19.96	0.26	14.6

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
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: 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

	HC	CO	NOX	CO2
BAG 0	5.46	60.80	0.12	205.00
BAG 1	8.14	244.00	1.06	1840.0
BAG 2	1.14	41.70	4.34	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	84.90	.33	12.4
BAG 2	.29	10.66	1.11	
BAG 3	.14	1.39	.84	
FTP	0.97	23.42	0.88	14.4

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 12 MODEL YEAR: 1981 MAKE/MODEL: FORD
 ENGINE CID: 200 ODOMETER: 3300 TEST DATE: 0382
 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

	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	
FTP	2.26	36.13	0.20	14.7

ALASKA VEHICLE TEST RESULTS

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: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	19.30	197.00	2.20	1260.0
BAG 2	0.30	0.20	3.00	1610.0
BAG 3	0.30	3.50	3.10	1480.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	5.38	54.87	.61	19.5
BAG 2	.08	.05	.77	
BAG 3	.08	.97	.86	
FTP	1.17	11.59	0.76	21.1

ALASKA VEHICLE TEST RESULTS

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 PER 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

ALASKA VEHICLE TEST RESULTS

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: 69 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 1020 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 0 PPM 0.00 %
 2500 RPM 0 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	1.50	32.60	5.90	1600.0
BAG 2	0.20	0.30	2.60	1590.0
BAG 3	0.20	3.70	1.90	1150.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.42	9.08	1.64	19.2
BAG 2	.05	.08	.66	
BAG 3	.06	1.03	.53	
FTP	0.13	2.19	0.83	22.5

ALASKA VEHICLE TEST RESULTS

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: 5 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 960 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 13 PPM 0.07 %
 2500 RPM 20 PPM 0.08 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	39.50	392.00	3.10	1780.0
BAG 1				
BAG 2	0.20	0.60	1.90	1640.0
BAG 3	0.70	3.60	0.90	1370.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	11.00	109.19	.86	12.6
BAG 2	.05	.15	.49	
BAG 3	.19	1.00	.25	
FTP	2.34	22.83	0.50	19.0

ALASKA VEHICLE TEST RESULTS
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: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

	IDLE	PPM	%
	2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	6.30	107.00	0.20	120.00
BAG 1	10.30	110.00	5.30	1350.0
BAG 2	0.20	1.30	3.30	1330.0
BAG 3	0.04	3.10	2.30	1490.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	4.62	60.45	1.53	17.1
BAG 2	.05	.33	.84	
BAG 3	.01	.86	.64	
FTP	0.98	12.85	0.93	22.3

ALASKA VEHICLE TEST RESULTS

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: 23 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 2 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

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
BAG 3	0.50	2.80	2.40	1570.0

GRAMS PER MILE/MILES 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	
FTP	0.89	14.54	1.03	19.3

ALASKA VEHICLE TEST RESULTS
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: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 970 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 18 PPM 0.00 %
 2500 RPM 15 PPM 0.00 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	17.30	214.00	0.50	323.00
BAG 1	3.20	35.00	3.40	1430.0
BAG 2	0.30	0.60	3.10	1410.0
BAG 3	0.40	2.30	1.70	1340.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	5.71	69.36	1.09	14.4
BAG 2	.08	.15	.79	
BAG 3	.11	.64	.47	
FTP	1.25	14.53	0.77	21.3

ALASKA VEHICLE TEST RESULTS
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: 25 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 960 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 0 PPM 0.01 %
 2500 RPM 0 PPM 0.01 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	18.60	235.00	0.70	320.00
BAG 1	4.80	4.40	6.70	1650.0
BAG 2	0.20	0.10	2.60	1410.0
BAG 3	0.50	3.80	2.30	1300.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	6.52	66.69	2.06	13.2
BAG 2	.05	.03	.66	
BAG 3	.14	1.06	.64	
FTP	1.41	14.03	0.95	20.8

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

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

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

IDLE	PPM	%
2500 RPM	PPM	%

CVS TEST RESULTS

RAW BAG DATA - GRAMS

BAG	HC	CO	NOX	CO2
BAG 0				
BAG 1		315.00		1390.0
BAG 2		110.00		1460.0
BAG 3		51.90		1420.0

GRAMS PER MILE/MILES PER GALLON

BAG	HC	CO	NOX	FE
BAG 1	.00	87.74	.00	16.9
BAG 2	.00	28.13	.00	
BAG 3	.00	14.46	.00	
FTP		36.67		20.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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
IDLE	426 PPM	3.35 %
2500 RPM	146 PPM	0.50 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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 PER MILE/MILES PER 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

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 37 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 345 PPM 2.23 %
 2500 RPM 135 PPM 0.25 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		144.00	7.10	1350.0
BAG 2		59.20	5.50	1500.0
BAG 3		25.20	6.40	1490.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	40.11	1.98	20.2
BAG 2	.00	15.14	1.41	
BAG 3	.00	7.02	1.78	
FTP		18.06	1.63	21.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

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
IDLE 375 PPM 0.88 %
2500 RPM 1 PPM 0.00 %

CVS TEST RESULTS
RAW BAG DATA - GRAMS
HC CO NOX CO2
BAG 0
BAG 1 11.00 67.20 9.80 1190.0
BAG 2 9.30 62.50 5.20 1250.0
BAG 3 5.60 23.50 10.60 1200.0

GRAMS PER MILE/MILES PER GALLON
HC CO NOX FE
BAG 1 3.06 18.72 2.73 23.9
BAG 2 2.38 15.98 1.33
BAG 3 1.56 6.55 2.95
FTP 2.30 13.97 2.06 25.0

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 70 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 0 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 333 PPM 0.80 %
 2500 RPM 78 PPM 0.09 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	10.30	95.40	12.70	1750.0
BAG 2	10.20	75.70	5.80	1320.0
BAG 3	6.80	34.70	10.40	1260.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	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	
FTP	2.47	18.20	2.29	21.7

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
 ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
 TEST TEMP: 71 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
 BAG 0 TIME: 0 MIN. IDLE SPEED: 910 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 305 PPM 1.00 %
 2500 RPM 252 PPM 1.06 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	13.30	111.00	10.50	1290.0
BAG 2	9.10	51.00	4.70	1050.0
BAG 3	7.40	36.40	10.00	1200.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.70	30.92	2.92	21.1
BAG 2	2.33	13.04	1.20	
BAG 3	2.06	10.14	2.79	
FTP	2.54	15.93	1.99	26.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

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

	HC	CO	NOX	CO2
BAG 0				
BAG 1	11.30	68.40	11.30	1150.0
BAG 2	12.40	81.80	6.50	1320.0
BAG 3	7.50	33.50	11.90	1170.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.15	19.05	3.15	24.6
BAG 2	3.17	20.92	1.66	
BAG 3	2.09	9.33	3.31	
FTP	2.87	17.37	2.42	24.2

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0182
TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 2 MIN. IDLE SPEED: 880 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 391 PPM 4.67 %
 2500 RPM 126 PPM 0.49 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	44.80	383.00	27.30	1690.0
BAG 1				
BAG 2	13.40	117.00	12.20	1460.0
BAG 3	9.70	57.40	14.00	1380.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	12.48	106.69	7.60	13.1
BAG 2	3.43	29.92	3.12	
BAG 3	2.70	15.99	3.90	
FTP	5.09	41.92	4.26	18.5

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0182
TEST TEMP: 18 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: 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 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	35.90	345.00	16.00	1700.0
BAG 1				
BAG 2	13.60	119.00	8.90	1580.0
BAG 3	11.00	69.40	12.40	1440.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	10.00	96.10	4.46	13.5
BAG 2	3.48	30.43	2.28	
BAG 3	3.06	19.33	3.45	
FTP	4.71	40.92	3.05	17.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 4 MIN. IDLE SPEED: 880 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 290 PPM 2.60 %
2500 RPM 76 PPM 0.04 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	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 MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	7.86	74.93	2.26	14.5
BAG 2	2.35	13.45	1.05	
BAG 3	1.81	9.08	1.81	
FTP	3.34	24.91	1.51	21.0

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0182
TEST TEMP: 20 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: B
BAG 0 TIME: 6 MIN. IDLE SPEED: 910 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 309 PPM 3.04 %
 2500 RPM 113 PPM 0.43 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	30.30	270.00	1.00	465.00
BAG 1	12.50	95.60	13.30	1310.0
BAG 2	14.50	125.00	7.30	1290.0
BAG 3	9.10	49.80	11.00	1200.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
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	41.41	2.63	19.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 83 PPM 0.02 %
 2500 RPM 32 PPM 0.26 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1		62.30		1310.0
BAG 2		58.80		1560.0
BAG 3		21.30		1320.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	.00	17.35	.00	22.6
BAG 2	.00	15.04	.00	
BAG 3	.00	5.93	.00	
FTP		13.03		22.0

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0382
TEST TEMP: 80 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 0 MIN. IDLE SPEED: 940 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 35 PPM 0.00 %
 2500 RPM 20 PPM 0.04 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0				
BAG 1	9.00	73.30		1020.0
BAG 2	10.60	84.60		1210.0
BAG 3	7.60	49.40		1110.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	2.51	20.42	.00	27.4
BAG 2	2.71	21.64	.00	
BAG 3	2.12	13.76	.00	
FTP	2.51	19.24		25.9

ALASKA VEHICLE TEST RESULTS
1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 3 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: 880 RPM

STEADY-STATE TEST RESULTS

	HYDROCARBONS	CARBON MONOXIDE
IDLE	226 PPM	0.28 %
2500 RPM	108 PPM	0.30 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	39.40	319.00	19.10	1770.0
BAG 1				
BAG 2	12.70	104.00	8.80	1430.0
BAG 3	8.60	42.70	11.90	1300.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	10.97	88.86	5.32	13.3
BAG 2	3.25	26.60	2.25	
BAG 3	2.40	11.89	3.31	
FTP	4.61	35.40	3.17	19.2

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0382
TEST TEMP: 12 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 2 MIN. IDLE SPEED: 950 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 100 PPM 0.07 %
 2500 RPM 50 PPM 0.11 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	6.80	54.30		267.00
BAG 1	7.10	204.00		1080.0
BAG 2	9.30	58.30		1390.0
BAG 3	6.60	33.40		1220.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
BAG 1	3.87	71.95	.00	17.7
BAG 2	2.38	14.91	.00	
BAG 3	1.84	9.30	.00	
FTP	2.54	25.12		22.0

ALASKA VEHICLE TEST RESULTS
 1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
 ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
 TEST TEMP: 19 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 TIME: 2 MIN. IDLE SPEED: 910 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 56 PPM 0.00 %
 2500 RPM 40 PPM 0.07 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
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	.00	16.9
BAG 2	.00	13.22	.00	
BAG 3	.00	7.21	.00	
FTP		25.03		21.6

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0282
TEST TEMP: 2 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
BAG 0 TIME: 6 MIN. IDLE SPEED: 930 RPM

STEADY-STATE TEST RESULTS

HYDROCARBONS CARBON MONOXIDE

 IDLE 129 PPM 0.03 %
 2500 RPM 68 PPM 0.05 %

CVS TEST RESULTS

RAW BAG DATA - GRAMS

	HC	CO	NOX	CO2
BAG 0	41.80	337.00	7.30	2020.0
BAG 1				
BAG 2	14.10	121.00	8.60	1500.0
BAG 3	10.00	56.70	12.60	1330.0

GRAMS PER MILE/MILES PER GALLON

	HC	CO	NOX	FE
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	
FTP	5.04	39.76	2.52	17.9

ALASKA VEHICLE TEST RESULTS

1981/82 METFAC PROGRAM

VEHICLE AND TEST PARAMETERS

VEHICLE NO: 14 MODEL YEAR: 1981 MAKE/MODEL: TOYOTA
 ENGINE CID: 144 ODOMETER: 16800 TEST DATE: 0382
 TEST TEMP: 16 DEG F SOAK TIME: BEFORE/AFTER REPAIRS: A
 BAG 0 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

	HC	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	
FTP	3.09	25.31		21.6
