

APPENDIX A

Detailed Data Tabulations for the NO_x-Air Irradiations of the 13-Component Surrogate Hydrocarbon Mixture and of the Mini-Surrogate Mixture with Incremental Additions or Deletions of the Test Organics Carried Out Under Single-Mode Conditions in the 6400 Liter All-Teflon Chamber

ITC-397
FULL SURROGATE
1981 JULY 13

30-APR-83
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0815: DUMP AND FILL BAG.
0903: BEGIN THIRD FILL. 50% R.H. PURE AIR AT 85 DEGREES F.
0936: ALL INJECTIONS COMPLETED.
1100: T=0, 100% LIGHTS.
1704: DUMPED AND FILLED.

T=0 AT 1100 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.133	PPM
NO2-UNC	B-NOX-1	0.055	PPM
ETHENE	FN-1	0.0305	PPM
ETHANE	FN-1	0.0579	PPM
ACETYLEN	DMS-1	0.0403	PPM
ACETYLEN	FN-1	0.0388	PPM
PROPANE	DMS-1	0.0324	PPM
PROPENE	DMS-1	0.0094	PPM
N-C4	DMS-1	0.1247	PPM
CIS2-C4=	DMS-1	0.0105	PPM
2,3-DMB	DMS-1	0.0443	PPM
2ME-C4=2	DMS-1	0.0084	PPM
N-C6	DMS-1	0.0396	PPM
TOLUENE	SE-52C-2	0.0186	PPM
TOLUENE	10'C-600	0.0138	PPM
M-XYL	SE-52C-2	0.0269	PPM
M-XYL	10'C-600	0.0299	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	FN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1017	U-1070	DASIBI 1070 OZONE MONITOR

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH H-1070	NO PPH H-NOX-1	NO2-UNC PPH H-NOX-1	NOX-UNC PPH H-NOX-1	ETHENE PPH FN-1	ETHANE PPH FN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH FN-1	PROPANE PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1
1 910	-110	-----	-----	-----	-----	0.0022	0.0059	0.0027	0.0024	0.0054	0.0007	0.0008
1 940	-80	-----	-----	-----	-----	0.0305	0.0572	0.0395	0.0386	0.0329	0.0094	0.1258
1 1045	-15	0.002	0.131	0.056	0.186	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.002	0.133	0.055	0.185	0.0305	0.0579	0.0403	0.0388	0.0324	0.0094	0.1247
1 1115	15	0.005	0.100	0.084	0.183	-----	-----	-----	-----	-----	-----	-----
1 1130	30	0.012	0.073	0.104	0.178	-----	-----	-----	-----	-----	-----	-----
1 1145	45	0.024	0.055	0.118	0.172	0.0296	0.0605	0.0395	0.0382	0.0307	0.0060	0.1180
1 1200	60	0.032	0.046	0.122	0.167	-----	-----	-----	-----	-----	-----	-----
1 1215	75	0.046	0.039	0.126	0.163	-----	-----	-----	-----	-----	-----	-----
1 1230	90	0.054	0.034	0.125	0.158	0.0262	0.0580	0.0382	0.0369	0.0310	0.0047	0.1151
1 1245	105	0.063	0.032	0.126	0.157	-----	-----	-----	-----	-----	-----	-----
1 1300	120	0.078	0.028	0.125	0.152	-----	-----	-----	-----	-----	-----	-----
1 1315	135	0.085	0.027	0.124	0.148	-----	-----	-----	-----	-----	-----	-----
1 1330	150	0.100	0.026	0.124	0.147	0.0211	0.0511	0.0395	0.0344	0.0317	0.0036	0.1154
1 1345	165	0.110	0.024	0.122	0.142	-----	-----	-----	-----	-----	-----	-----
1 1400	180	0.115	0.023	0.120	0.141	-----	-----	-----	-----	-----	-----	-----
1 1415	195	0.129	0.022	0.117	0.137	-----	-----	-----	-----	-----	-----	-----
1 1430	210	0.139	0.021	0.117	0.135	0.0211	0.0562	0.0395	0.0358	0.0308	0.0024	0.1123
1 1445	225	0.146	0.021	0.114	0.133	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.156	0.021	0.112	0.130	-----	-----	-----	-----	-----	-----	-----
1 1515	255	0.166	0.020	0.109	0.126	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.176	0.018	0.108	0.125	0.0185	0.0555	0.0390	0.0349	0.0308	0.0016	0.1087
1 1545	285	0.185	0.020	0.106	0.123	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.195	0.018	0.103	0.120	-----	-----	-----	-----	-----	-----	-----
1 1615	315	0.200	0.017	0.101	0.117	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.210	0.017	0.100	0.114	0.0167	0.0553	0.0386	0.0349	0.0302	0.0011	0.1051
1 1645	345	0.220	0.013	0.098	0.108	-----	-----	-----	-----	-----	-----	-----
1 1700	360	0.225	0.016	0.095	0.109	0.0206 A	0.0521 A	-----	0.0330 A	-----	-----	-----

----- NO DATA TAKEN

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	CIS2-C4=2 PPM DMS-1	2,3-DMB PPM DMS-1	2ME-C4=2 PPM DMS-1	N-C6 PPM DMS-1	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 910	-110	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0008
1 940	-80	0.0103	0.0443	0.0084	0.0381	-----	-----	-----	-----	-----	-----	-----
1 946	-74	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.017	-----
1 1010	-50	-----	-----	-----	-----	-----	0.0127	-----	0.0134	-----	-----	-----
1 1045	-15	-----	-----	-----	-----	-----	-----	-----	0.0286	-----	-----	-----
1 1100	0	0.0105	-----	0.0084	0.0396	0.0186	0.0138	0.0269	0.0299	-----	-----	-----
1 1145	45	0.0039	0.0419	0.0015	0.0369	-----	0.0129	-----	0.0222	-----	-----	-----
1 1200	60	-----	-----	-----	-----	-----	-----	0.0175	-----	0.070	0.021	-----
1 1230	90	0.0014	0.0396	-----	0.0347	-----	0.0119	-----	0.0174	-----	-----	-----
1 1300	120	-----	-----	-----	-----	0.0121	-----	0.0142	-----	0.014	0.025	-----
1 1330	150	0.0002	0.0377	-----	0.0335	-----	0.0112	-----	0.0140	-----	-----	-----
1 1400	180	-----	-----	-----	-----	0.0113	-----	0.0107	-----	0.023	0.033	-----
1 1430	210	-----	0.0360	-----	0.0322	-----	0.0107	-----	-----	-----	-----	-----
1 1500	240	-----	-----	-----	-----	0.0109	-----	0.0086	-----	0.025	0.033	-----
1 1530	270	-----	0.0336	-----	0.0294	-----	0.0103	-----	0.0084	-----	-----	-----
1 1600	300	-----	-----	-----	-----	0.0100	-----	0.0115	-----	0.032	0.038	-----
1 1630	330	-----	0.0311	-----	-----	-----	0.0088	-----	0.0060	-----	-----	-----
1 1650	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.036	-----
1 1700	360	-----	-----	-----	-----	0.0093	0.0090	0.0051	0.0057	-----	-----	-----

----- NO DATA TAKEN

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 910	-110	0.0008	-----
1 1145	45	0.0132	0.0028
1 1230	90	0.0171	0.0045
1 1330	150	0.0142	0.0040
1 1430	210	0.0174	0.0054
1 1530	270	0.0256	0.0072
1 1630	330	0.0388	0.0093
1 1700	360	0.0323	0.0088

----- NO DATA TAKEN

NOTES

A CHEMILUMINESCENT INSTRUMENT IN THE VICINITY.

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0730: FLUSHED AND FILLED.
0831: BEGIN THIRD FILL. 50% R.H. PURE AIR AT 85 DEGREES F.
0837: INJECTED 0.24 ML. NO2 AND 0.96 ML. NO.
0840: FINISHED INJECTIONS FOR SURROGATE.
1000: T=0, 100% LIGHTS.
1704: LIGHTS OUT, DUMP AND FILL.

T=0 AT 1000 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.151	PPM
NO2-UNC	B-NOX-1	0.050	PPM
ETHENE	PN-1	0.0599	PPM
ETHANE	PN-1	0.1109	PPM
ACETYLEN	PN-1	0.0728	PPM
ACETYLEN	DMS-1	0.0729	PPM
PROPANE	DMS-1	0.0553	PPM
PROPENE	DMS-1	0.0166	PPM
N-C4	DMS-1	0.2241	PPM
C1S2-C4=	DMS-1	0.0189	PPM
2,3-DMB	DMS-1	0.0695	PPM
2ME-C4=2	DMS-1	0.0154	PPM
N-C6	DMS-1	0.0716	PPM
TOLUENE	10'C-600	0.0253	PPM
TOLUENE	SE-52C-2	0.0230	PPM
M-XYL	10'C-600	0.0649	PPM
M-XYL	SE-52C-2	0.0520	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECU
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIBI 1212 OZONE MONITOR

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM O-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	METHANE PPM PN-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1	PROPANE PPM DMS-1	PROPENE PPM DMS-1
1 915	-45	-----	-----	-----	-----	1.68	0.0596	0.1127	0.0740	0.0787	0.0618	0.0190
1 945	-15	0.005	0.151	0.049	0.197	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.005	0.151	0.050	0.198	-----	0.0599	0.1109	0.0728	0.0729	0.0553	0.0166
1 1015	15	0.002	0.114	0.082	0.195	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.002	0.071	0.122	0.190	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.002	0.044	0.141	0.183	-----	0.0547	0.1111	0.0718	0.0755	0.0573	0.0132
1 1100	60	0.005	0.032	0.146	0.177	-----	-----	-----	-----	-----	-----	-----
1 1115	75	0.002	0.027	0.144	0.169	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.124	0.026	0.144	0.167	-----	0.0503	0.1127	0.0734	0.0763	0.0568	0.0100
1 1145	105	0.139	0.023	0.140	0.162	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.161	0.022	0.140	0.161	-----	-----	-----	-----	-----	-----	-----
1 1215	135	0.173	0.022	0.136	0.157	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.183	0.021	0.133	0.152	-----	0.0439	0.1109	0.0716	0.0768	0.0551	0.0060
1 1245	165	0.203	0.021	0.131	0.148	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.242	0.021	0.129	0.147	-----	-----	-----	-----	-----	-----	-----
1 1315	195	0.254	0.020	0.126	0.144	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.269	0.020	0.122	0.139	-----	0.0381	0.1059	0.0686	0.0703	0.0560	0.0036
1 1345	225	0.286	0.020	0.119	0.137	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.303	0.020	0.118	0.135	-----	-----	-----	-----	-----	-----	-----
1 1415	255	0.317	0.020	0.117	0.134	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.327	0.018	0.115	0.131	-----	0.0355	0.1121	0.0684	0.0738	0.0556	0.0020
1 1500	300	0.342	0.019	0.120	-----	-----	-----	-----	-----	-----	-----	-----
1 1515	315	0.352	0.190	0.118	-----	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.356	0.019	0.115	-----	-----	0.0300	0.1059	0.0666	0.0686	0.0523	0.0011
1 1545	345	0.364	0.019	0.114	-----	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.364	0.020	0.111	-----	-----	0.0263	0.1057	0.0653	0.0660	0.0503	0.0008

----- NO DATA TAKEN

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	N-C4 PPH DMS-1	CIS2-C4= PPH DMS-1	2,3-DMB PPH DMS-1	2ME-C4=2 PPH DMS-1	N-C6 PPH DMS-1	TOLUENE PPH 10'C-600	TOLUENE PPH SE-52C-2	M-XYL PPH 10'C-600	M-XYL PPH SE-52C-2	PAN PPH ECD-1	HCHO PPH CA
1 915	-45	0.2539	0.0213	0.0797	0.0166	0.0749	0.0260	-----	-----	-----	-----	-----
1 922	-38	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010
1 1000	0	0.2241	0.0189	0.0695	0.0154	0.0716	0.0253	0.0230	0.0649	0.0520	0.000	-----
1 1045	45	0.2339	0.0096	0.0710	0.0032	0.0689	0.0241	-----	0.0514	-----	-----	-----
1 1100	60	-----	-----	-----	-----	-----	-----	0.0240	-----	0.0377	0.018	-----
1 1108	68	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.027
1 1130	90	0.2307	0.0024	0.0683	-----	0.0644	0.0220	-----	0.0406	-----	-----	-----
1 1200	120	-----	-----	-----	-----	-----	-----	0.0208	-----	0.0289	0.035	0.040
1 1230	150	0.2245	0.0010	0.0593	-----	-----	0.0212	-----	0.0320	-----	-----	-----
1 1300	180	-----	-----	-----	-----	-----	-----	0.0158	-----	0.0353	0.054	0.044
1 1330	210	0.2182	-----	-----	-----	-----	0.0202	-----	0.0257	-----	-----	-----
1 1400	240	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.066	0.048
1 1430	270	0.2116	-----	0.0556	-----	0.0537	0.0188	-----	0.0201	-----	-----	-----
1 1500	300	-----	-----	-----	-----	-----	-----	0.0173	-----	0.0146	0.076	0.054
1 1530	330	0.2010	-----	0.0516	-----	0.0501	0.0175	-----	0.0158	-----	-----	-----
1 1600	360	0.1916	-----	0.0500	-----	0.0488	0.0154	0.0167	0.0130	0.0126	0.076	0.059

----- NO DATA TAKEN

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 915	-45	0.0007	0.0002
1 1000	0	0.0023	0.0009
1 1045	45	-----	0.0037
1 1130	90	0.0331	0.0065
1 1230	150	0.0228	0.0055
1 1330	210	0.0483	0.0114
1 1430	270	0.0595	0.0135
1 1530	330	0.0490	0.0132
1 1600	360	----- B	----- B

----- NO DATA TAKEN

NOTES

A INTEGRATOR MALFUNCTION.
B LOST

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0835: BEGIN THIRD FILL. 50% R.H. PURE AIR AT 85 DEGREES F.
INJECTED 0.12 ML. NO2 AND 0.48 ML. NO.
0911: INJECTIONS COMPLETED FOR SURROGATE.
1000: I=0, 100% LIGHTS.
1600: BUMP AND FILL BAG TWICE.

I=0 AT 1000 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.075	PPM
NO2-UNC	B-NOX-1	0.032	PPM
ETHENE	PN-1	0.0589	PPM
ETHANE	PN-1	0.1084	PPM
ACETYLEN	PN-1	0.0705	PPM
ACETYLEN	DMS-1	0.0738	PPM
PROPANE	DMS-1	0.0567	PPM
PROPENE	DMS-1	0.0178	PPM
N-C4	DMS-1	0.2393	PPM
CIS2-C4=	DMS-1	0.0203	PPM
2,3-DMB	DMS-1	0.0750	PPM
2ME-C4=2	DMS-1	0.0164	PPM
N-C6	DMS-1	0.0713	PPM
TOLUENE	10'C-600	0.0233	PPM
TOLUENE	SE-52C-2	0.0266	PPM
m-XYL	10'C-600	0.0589	PPM
m-XYL	SE-52C-2	0.0559	PPM
ACETALD	10'C-600	0.0065	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
1212	D-1212	DASIB1 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1	PROPANE PPM DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1
1 920	-40	-----	-----	-----	-----	0.0636	0.1128	0.0666	0.0729	0.0531	0.0168	0.2342
1 1000	0	0.002	0.075	0.032	0.107	0.0589	0.1084	0.0705	0.0738	0.0567	0.0178	0.2393
1 1015	15	0.015	0.038	0.068	0.104	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.061	0.022	0.077	0.098	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.105	0.018	0.076	0.094	0.0505	0.1056	0.0693	0.0738	0.0580	0.0116	0.2325
1 1100	60	0.139	0.016	0.074	0.090	-----	-----	-----	-----	-----	-----	-----
1 1115	75	0.161	0.015	0.073	0.088	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.183	0.014	0.073	0.087	0.0470	0.1070	0.0690	0.0763	0.0550	0.0078	0.2290
1 1145	105	0.200	0.013	0.072	0.085	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.212	0.014	0.070	0.084	-----	-----	-----	-----	-----	-----	-----
1 1215	135	0.225	0.013	0.071	0.084	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.232	0.013	0.069	0.083	-----	-----	-----	0.0755	0.0553	0.0050	0.2241
1 1245	165	0.237	0.013	0.069	0.082	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.244	0.013	0.068	0.081	-----	-----	-----	-----	-----	-----	-----
1 1315	195	0.249	0.014	0.068	0.082	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.251	0.014	0.067	0.081	0.0374	0.1044	0.0686	0.0738	0.0579	0.0034	0.2227
1 1345	225	0.254	0.013	0.068	0.081	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.256	0.013	0.068	0.081	-----	-----	-----	-----	-----	-----	-----
1 1415	255	0.256	0.013	0.069	0.082	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.259	0.013	0.069	0.082	0.0322	0.0952	0.0643	0.0730	0.0556	-----	0.2147
1 1445	285	0.256	0.014	0.069	0.082	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.261	0.014	0.069	0.082	-----	-----	-----	-----	-----	-----	-----
1 1515	315	0.261	0.014	0.069	0.083	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.261	0.013	0.069	0.083	0.0336	0.1063	0.0664	0.0703	0.0558	0.0008	0.2121
1 1545	345	0.261	0.013	0.068	0.081	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.261	0.013	0.069	0.082	0.0313	0.1044	0.0649	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-399
FULL SURROGATE
1981 JULY 16

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CLOCK TIME	ELAPSED TIME	CIS2-C4= PPM	2,3-UMB PPM	2ME-C4=2 PPM	N-C6 PPM	TOLUENE PPM	TOLUENE PPM	M-XYL PPM	M-XYL PPM	PAN PPM	HCHO PPM	ACETALD PPM
DAY HR.	(MIN)	DMS-1	DMS-1	DMS-1	DMS-1	10'C-600	SE-52C-2	10'C-600	SE-52C-2	ECD-1	CA	10'C-600
1 920	-40	0.0196	0.0745	0.0158	0.0708	0.0240	-----	0.0592	-----	-----	-----	-----
1 952	-8	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1000	0	0.0203	0.0750	0.0164	0.0713	0.0233	0.0266	0.0589	0.0559	-----	-----	0.0065
1 1045	45	0.0051	0.0688	-----	0.0649	0.0219	-----	0.0423	-----	-----	-----	0.0378
1 1100	60	-----	-----	-----	-----	-----	0.0223	-----	0.0349	0.031	0.021	-----
1 1130	90	0.0005	0.0659	-----	0.0632	0.0205	-----	0.0337	-----	-----	-----	0.0490
1 1200	120	-----	-----	-----	-----	-----	0.0212	-----	0.0274	0.047	0.031	-----
1 1230	150	-----	0.0626	-----	0.0610	0.0200	-----	0.0289	-----	-----	-----	0.0593
1 1300	180	-----	-----	-----	-----	-----	0.0198	-----	0.0233	0.056	0.038	-----
1 1330	210	-----	0.0608	-----	0.0581	0.0192	-----	0.0246	-----	-----	-----	0.0692
1 1400	240	-----	-----	-----	-----	-----	0.0190	-----	0.0200	0.056	0.042	-----
1 1430	270	-----	0.0578	-----	0.0562	0.0172	-----	0.0199	-----	-----	-----	0.0910
1 1500	300	-----	-----	-----	-----	-----	0.0190 A	-----	0.0181 A	0.050	0.040	-----
1 1530	330	-----	0.0556	-----	0.0538	0.0177	-----	0.0183	-----	-----	-----	0.0534
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.042	-----
1 1600	360	-----	-----	-----	-----	0.0175	0.0170	0.0176	0.0144	0.056	-----	-----

----- NO DATA TAKEN

ITC-399
FULL SURROGATE
1981 JULY 16

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CLOCK TIME	ELAPSED TIME	ACETONE PPM	MEK PPM
DAY HR.	(MIN)	10'C-600	10'C-600
1 920	-40	0.0008	-----
1 1000	0	0.0007	-----
1 1045	45	0.0033	-----
1 1130	90	0.0046	-----
1 1230	150	0.0055	-----
1 1330	210	0.0078	-----
1 1430	270	0.0096	-----
1 1530	330	0.0074	-----
1 1600	360	0.0369	0.0107

----- NO DATA TAKEN

NOTES

A SAMPLE HELD ON BENCH WHILE LIQUID N2 WAS CHANGED.

ITC-400
FULL SURROGATE
1981 JULY 17

30-APR-83
PAGE 1

0831: BEGIN THIRD FILL. 50% R.H. PURE AIR AT 86 DEGREES F.
WET BULB: 69 DEGREES F DRY BULB: 76 DEGREES F.
0836: INJECTED SURROGATE COMPONENTS.
INJECTED 0.12 ML. NO2 AND 0.48 ML. NO
1000: T=0, 100% LIGHTS.
1620: DUMP AND FILL.

T=0 AT 1000 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.088	PPM
NO2-UNC	B-NOX-1	0.025	PPM
ETHENE	FN-1	0.0350	PPM
ETHANE	FN-1	0.0662	PPM
ACETYLEN	FN-1	0.0360	PPM
ACETYLEN	DMS-1	0.0352	PPM
PROPANE	DMS-1	0.0307	PPM
PROPENE	DMS-1	0.0090	PPM
N-C4	DMS-1	0.1225	PPM
CIS2-C4=	DMS-1	0.0096	PPM
2,3-DMB	DMS-1	0.0378	PPM
2ME-C4=2	DMS-1	0.0083	PPM
N-C6	DMS-1	0.0372	PPM
TOLUENE	SE-52C-2	0.0142	PPM
TOLUENE	10'C-600	0.0118	PPM
m-XYL	SE-52C-2	0.0279	PPM
m-XYL	10'C-600	0.0335	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	FN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIBI 1212 OZONE MONITOR

ITC-400
FULL SURROGATE
1981 JULY 17

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PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1	PROPANE PPM DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1
1 910	-50	-----	-----	-----	-----	0.0297	0.0592	0.0329	0.0347	0.0315	0.0092	0.1225
1 1000	0	0.002	0.088	0.025	0.113	0.0350	0.0662	0.0360	0.0352	0.0307	0.0090	0.1225
1 1015	15	0.000	0.062	0.049	0.111	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.015	0.041	0.066	0.106	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.032	0.032	0.072	0.104	0.0262	0.0576	0.0314	0.0334	0.0287	0.0057	0.1154
1 1100	60	0.054	0.029	0.073	0.101	-----	-----	-----	-----	-----	-----	-----
1 1115	75	0.073	0.027	0.071	0.098	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.083	0.025	0.072	0.098	0.0237	0.0575	0.0326	0.0343	0.0299	0.0042	0.1145
1 1145	105	0.102	0.024	0.071	0.094	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.117	0.023	0.069	0.093	-----	-----	-----	-----	-----	-----	-----
1 1215	135	0.129	0.023	0.068	0.091	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.142	0.022	0.069	0.089	0.0224	0.0609	0.0328	0.0334	0.0278	0.0024	0.1074
1 1245	165	0.154	0.021	0.066	0.087	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.168	0.047	0.048	0.096	-----	-----	-----	-----	-----	-----	-----
1 1315	195	0.173	0.021	0.064	0.085	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.183	0.021	0.062	0.083	0.0183	0.0556	0.0320	0.0334	0.0295	0.0016	0.1078
1 1345	225	0.193	0.021	0.061	0.083	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.200	0.019	0.062	0.081	-----	-----	-----	-----	-----	-----	-----
1 1415	255	0.207	0.019	0.061	0.080	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.212	0.019	0.061	0.080	0.0175	0.0605	0.0311	0.0313	0.0280	0.0009	0.1069
1 1445	285	0.222	0.019	0.060	0.079	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.220	0.018	0.061	0.079	-----	-----	-----	-----	-----	-----	-----
1 1515	315	0.225	0.018	0.060	0.078	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.234	0.018	0.060	0.077	0.0150	0.0581	0.0295	-----	0.0259	0.0005	0.0958
1 1545	345	0.234	0.018	0.060	0.077	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.234	0.018	0.059	0.076	0.0152	0.0608	0.0302	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-400
FULL SURROGATE
1981 JULY 17

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	CIS2-C4= PPM DMS-1	2,3-DMB PPM DMS-1	2ME-C4=2 PPM DMS-1	N-C6 PPM DMS-1	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETONE PPM 10'C-600
1 910	-50	0.0105	0.0379	0.0081	0.0358	-----	0.0121	-----	0.0341	-----	-----	0.0014
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.017	-----
1 1000	0	0.0096	0.0378	0.0083	0.0372	0.0142	0.0118	0.0279	0.0335	----- B	-----	0.0008
1 1045	45	0.0039	0.0345	0.0010	0.0339	-----	0.0111	-----	0.0245	-----	-----	0.0090
1 1100	60	-----	-----	-----	-----	0.0113	-----	0.0183	-----	0.012	0.015	-----
1 1130	90	0.0008	0.0333	-----	0.0320	-----	0.0103	-----	0.0189	-----	-----	0.0119
1 1200	120	-----	-----	-----	-----	0.0019 A	-----	0.0072 A	-----	0.022	0.021	-----
1 1230	150	-----	0.0308	-----	0.0294	-----	0.0095	-----	0.0138	-----	-----	0.0173
1 1300	180	-----	-----	-----	-----	0.0101	-----	0.0102	-----	0.032	0.021	-----
1 1330	210	-----	0.0277	-----	0.0275	-----	0.0089	-----	0.0105	-----	-----	0.0245
1 1400	240	-----	-----	-----	-----	0.0081	-----	0.0079	-----	0.040	0.025	-----
1 1430	270	-----	0.0262	-----	0.0256	-----	0.0084	-----	0.0077	-----	-----	0.0466
1 1500	300	-----	-----	-----	-----	----- B	-----	----- A	-----	0.044	0.027	-----
1 1530	330	-----	0.0238	-----	0.0236	-----	0.0077	-----	0.0060	-----	-----	0.0509
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.031	-----
1 1600	360	-----	-----	-----	-----	0.0083	0.0083	0.0056	0.0056	0.045	-----	0.0522

----- NO DATA TAKEN

ITC-400
FULL SURROGATE
1981 JULY 17

30-APR-83
PAGE 4

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	MER PPM 10°C-600
1 910	-50	0.0000
1 1000	0	0.0003
1 1045	45	0.0016
1 1130	90	0.0021
1 1230	150	0.0037
1 1330	210	0.0055
1 1430	270	0.0088
1 1530	330	0.0097
1 1600	360	0.0097

----- NO DATA TAKEN

NOTES

A INTEGRATOR MALFUNCTION.
B MISSED SAMPLE.

ITC-401
FULL SURROGATE
1981 JULY 20

30-APR-83
PAGE 1

0730: BEGIN DUMP AND FILL.
0812: BEGIN THIRD FILL, 50% R.H. PURE AIR AT 80 DEGREES F.
0818: BEGIN INJECTION. 5.58 TORR 530 ML. BULB PARTIAL SURROGATE.
0829: .434 TORR 530 ML. BULB CH3CHO.
0843: .544 TORR 530 ML. BULB M-XYLENE.
0830: FINISHED INJECTION.
0.78 ML. ETHANE AND 0.49 ML. ETHENE.
0.24 ML. NO2 AND 0.96 ML. NO.
0945: T=0, 100% LIGHTS.
1545: RUN OVER.

T=0 AT 945 PST

K1 = 0.450 MIN-1

ID	INSI.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.142	PPM
NO2-UNC	B-NOX-1	0.045	PPM
ETHENE	FN-1	0.0560	PPM
ETHANE	FN-1	0.0797	PPM
ACETYLEN	FN-1	0.0716	PPM
ACETYLEN	DMS-1	0.0789	PPM
PROPANE	DMS-1	0.0523	PPM
PROPENE	DMS-1	0.0166	PPM
N-C4	DMS-1	0.2396	PPM
CIS2-C4=	DMS-1	0.0203	PPM
2,3-DMB	DMS-1	0.0738	PPM
2ME-C4=2	DMS-1	0.0154	PPM
N-C6	DMS-1	0.0658	PPM
TOLUENE	10'C-600	0.0247	PPM
M-XYL	10'C-600	0.0627	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	FN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIBI 1212 OZONE MONITOR

ITC-401
FULL SURROGATE
1981 JULY 20

30-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM U-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1	PROPANE PPM DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1
1 845	-40	-----	-----	-----	-----	0.0616	0.1181	0.0736	0.0746	0.0496	0.0158	0.2298
1 930	-15	0.000	0.143	0.045	0.187	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.002	0.142	0.045	0.186	0.0560	0.0797	0.0716	0.0789	0.0523	0.0166	0.2396
1 1000	15	0.002	0.104	0.079	0.183	-----	-----	-----	-----	-----	-----	-----
1 1015	30	0.020	0.061	0.117	0.178	-----	-----	-----	-----	-----	-----	-----
1 1030	45	0.049	0.040	0.133	0.172	0.0520	0.1111	0.0709	0.0763	0.0488	0.0114	0.2245
1 1045	60	0.078	0.029	0.138	0.167	-----	-----	-----	-----	-----	-----	-----
1 1100	75	0.100	0.025	0.137	0.162	-----	-----	-----	-----	-----	-----	-----
1 1115	90	0.122	0.022	0.136	0.158	0.0492	0.1138	0.0714	0.0755	0.0503	0.0085	0.2236
1 1130	105	0.144	0.020	0.134	0.154	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.168	0.020	0.130	0.150	-----	-----	-----	-----	-----	-----	-----
1 1200	135	0.183	0.019	0.129	0.147	-----	-----	-----	-----	-----	-----	-----
1 1215	150	0.207	0.018	0.125	0.143	0.0414	0.1093	0.0709	0.0772	0.0498	0.0054	0.2201
1 1230	165	0.220	0.017	0.123	0.140	-----	-----	-----	-----	-----	-----	-----
1 1245	180	0.239	0.018	0.120	0.137	-----	-----	-----	-----	-----	-----	-----
1 1300	195	0.247	0.016	0.119	0.134	-----	-----	-----	-----	-----	-----	-----
1 1315	210	0.271	0.016	0.117	0.133	0.0387	0.1112	0.0693	0.0714	0.0475	0.0032	0.2176
1 1330	225	0.283	0.016	0.113	0.129	-----	-----	-----	-----	-----	-----	-----
1 1345	240	0.293	0.016	0.112	0.127	-----	-----	-----	-----	-----	-----	-----
1 1400	255	0.308	0.016	0.109	0.125	-----	-----	-----	-----	-----	-----	-----
1 1415	270	0.320	0.017	0.107	0.124	0.0312	0.1032	0.0649	0.0738	0.0479	0.0014	0.2055
1 1430	285	0.329	0.016	0.107	0.122	-----	-----	-----	-----	-----	-----	-----
1 1445	300	0.339	0.016	0.104	0.120	-----	-----	-----	-----	-----	-----	-----
1 1500	315	0.342	0.015	0.104	0.119	-----	-----	-----	-----	-----	-----	-----
1 1515	330	0.347	0.014	0.102	0.116	0.0269	0.1023	0.0641	0.0686	0.0449	0.0009	0.1916
1 1530	345	0.352	0.015	0.102	0.116	-----	-----	-----	-----	-----	-----	-----
1 1545	360	0.356	0.015	0.101	0.115	0.0245	0.0968	0.0603	0.0669	0.0450	0.0007	0.1876

----- NO DATA TAKEN

ITC-401
FULL SURROGATE
1981 JULY 20

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	CIS2-C4= PPM DMS-1	2,3-DMB PPM DMS-1	2ME-C4=2 PPM DMS-1	N-C6 PPM DMS-1	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETONE PPM 10'C-600	NEK PPM 10'C-600
1 845	-60	0.0197	0.0708	0.0146	0.0687	-----	0.0247	0.0621	-----	-----	0.0006	0.0004
1 934	-11	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----	-----
1 945	0	0.0203	0.0738	0.0154	0.0658	----- B	0.0247	0.0627	-----	-----	0.0006	0.0005
1 1030	45	0.0079	0.0653	0.0024	0.0626	-----	0.0231	0.0485	-----	-----	0.0162	0.0029
1 1045	60	-----	-----	-----	-----	0.0142	-----	-----	0.018	0.019	-----	-----
1 1115	90	0.0017	0.0641	-----	0.0616	-----	0.0223	0.0395	-----	-----	0.0146	0.0031
1 1145	120	-----	-----	-----	-----	0.0164	-----	-----	0.041	0.031	-----	-----
1 1215	150	0.0001	0.0604	-----	0.0581	-----	0.0208	0.0313	-----	-----	0.0235	0.0059
1 1245	180	-----	-----	-----	-----	0.0158	-----	-----	0.051	0.044	-----	-----
1 1315	210	-----	0.0565	-----	0.0542	-----	0.0194	0.0244	-----	-----	0.0213	0.0057
1 1345	240	-----	-----	-----	-----	0.0150	-----	-----	0.068	0.036	-----	-----
1 1415	270	-----	0.0530	-----	0.0524	-----	0.0185	0.0187	-----	-----	0.0297	0.0085
1 1445	300	-----	-----	-----	-----	0.0137	-----	-----	0.078	0.040	-----	-----
1 1515	330	-----	0.0485	-----	0.0474	-----	0.0173	0.0151	-----	-----	0.0340	0.0101
1 1535	350	-----	-----	-----	-----	-----	-----	-----	-----	0.048	-----	-----
1 1545	360	-----	0.0466	-----	0.0472	0.0138	0.0171	0.0152	0.076	-----	0.0113	-----

----- NO DATA TAKEN

NOTES

- A MISSED PEAK.
- B PROGRAM MALFUNCTION.

ITC-403
MINI-SURROGATE (PRELIMINARY)
1981 JULY 28

30-APR-83
PAGE 1

0820: BEGIN FILL AND DUMP.
0916: BEGIN THIRD FILL WITH 50% R.H. PURE AIR AT 88 DEGREES F.
0920: INJECTED 1.0 ML. PROPENE.
 INJECTED ACETALDEHYDE.
 INJECTED 4.3 ML. N-BUTANE.
 INJECTED 2.2 MICROLITERS M-XYLENE.
 INJECTED 0.24 ML. NO2.
 INJECTED 0.96 ML. NO.
1100: T=0, 100% LIGHTS.
1701: DUMP AND FILL.

T=0 AT 1100 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.148	PPM
NO2-UNC	B-NOX-1	0.049	PPM
PROPENE	DMS-1	0.1451	PPM
N-C4	DMS-1	0.6191	PPM
M-XYL	10'C-600	0.0706	PPM
ACETALD	10'C-600	0.0391	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121# DIMETHYLSULFOLANE GC# FID
2920	10'C-600	RM-121# 10' 10% CARBOWAX-600 GC# FID
2000	ECU-1	RM-121# 12' 5% CARBOWAX-400 GC# ECU
2100	PN-1	RM-121 POROPAK-N GC# FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER# SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	B-1212	DASIBI 1212 OZONE MONITOR

ITC-403
 MINI-SURROGATE (PRELIMINARY)
 1981 JULY 28

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH B-NOX-1	NO2-UNC PPH B-NOX-1	NOX-UNC PPH B-NOX-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	PROPALD PPH 10'C-600
1 945	-75	-----	-----	-----	-----	0.1507	0.6388	0.0723	-----	-----	0.0249	-----
1 1030	-30	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----	-----
1 1035	-25	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0448	-----
1 1045	-15	0.005	0.148	0.048	0.196	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.012	0.148	0.049	0.196	0.1451	0.6191	0.0706	-----	-----	0.0391	-----
1 1115	15	0.000	0.109	0.085	0.194	-----	-----	-----	-----	-----	-----	-----
1 1130	30	0.012	0.072	0.114	0.186	-----	-----	-----	-----	-----	-----	-----
1 1145	45	0.024	0.050	0.134	0.181	-----	-----	-----	-----	-----	-----	-----
1 1200	60	0.029	0.038	0.141	0.178	0.1072	0.6201	0.0561	0.014	0.027	0.0567	0.0002
1 1215	75	0.051	0.031	0.142	0.173	-----	-----	-----	-----	-----	-----	-----
1 1230	90	0.102	0.027	0.145	0.170	-----	-----	-----	-----	-----	-----	-----
1 1245	105	0.132	0.024	0.144	0.166	-----	-----	-----	-----	-----	-----	-----
1 1300	120	0.154	0.022	0.140	0.161	0.0705	0.5942	0.0443	0.040	0.033	0.0715	0.0009
1 1315	135	0.178	0.020	0.137	0.156	-----	-----	-----	-----	-----	-----	-----
1 1330	150	0.200	0.018	0.136	0.152	-----	-----	-----	-----	-----	-----	-----
1 1345	165	0.220	0.018	0.133	0.148	-----	-----	-----	-----	-----	-----	-----
1 1400	180	0.247	0.017	0.130	0.145	0.0413	0.5686	0.0352	0.068	-----	0.0471	0.0008
1 1415	195	0.261	0.017	0.126	0.142	-----	-----	-----	-----	-----	-----	-----
1 1430	210	0.281	0.016	0.124	0.139	-----	-----	-----	-----	-----	-----	-----
1 1445	225	0.290	0.016	0.122	0.136	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.313	0.016	0.123	0.135	0.0230	0.5613	0.0280	0.088	0.050	0.0653	0.0016
1 1515	255	0.317	0.016	0.119	0.131	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.327	0.015	0.117	0.131	-----	-----	-----	-----	-----	-----	-----
1 1545	285	0.342	0.016	0.117	0.130	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.337	0.015	0.117	0.129	0.0126	-----	0.0224	0.100	0.054	0.0607	0.0017
1 1615	315	0.349	0.013	0.117	0.128	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.344	0.015	0.114	0.128	-----	-----	-----	-----	-----	-----	-----
1 1645	345	0.344	0.015	0.115	0.128	-----	-----	-----	-----	-----	-----	-----
1 1650	350	-----	-----	-----	-----	-----	-----	-----	-----	0.067	-----	-----
1 1700	360	0.354	0.013	0.114	0.126	0.0071	0.5211	0.0193	0.124	-----	0.0524	0.0021

----- NO DATA TAKEN

ITC-403
MINI-SURROGATE (PRELIMINARY)
1981 JULY 28

10-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1200	60	0.0027	0.0067
1 1300	120	0.0086	0.0140
1 1400	180	0.0062	0.0132
1 1500	240	0.0125	0.0224
1 1600	300	0.0129	0.0256
1 1700	360	0.0146	0.0310

----- NO DATA TAKEN

ITC-404
MINI-SURROGATE (PRELIMINARY)
1981 JULY 29

30-APR-83
PAGE 1

0850: BEGIN THIRD FILL AT 50% R.H. PURE AIR AT 88 DEGREES F.
0854: INJECTED 1.0 ML. PROPENE.
INJECTED 4.3 ML. N-BUTANE.
INJECTED 2.2 MICROLITERS M-XYLENE.
INJECTED ACETALDEHYDE.
INJECTED 0.12 ML. OF NO2.
INJECTED 0.48 ML. OF NO.
0940: SUPPLEMENTAL .3 TORR (TSCA BULB) CH3CHO.
1000: T=0, 100% LIGHTS.
1605: DUMP AND FILL.

T=0 AT 1000 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.087	PPM
NO2-UNC	B-NOX-1	0.030	PPM
PROPENE	DMS-1	0.1596	PPM
N-C4	DMS-1	0.6308	PPM
M-XYL	10'C-600	0.0726	PPM
ACETALD	10'C-600	0.0457	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
4600	B-NOX-1	BENDIX 8101RX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	U-1212	BASIBI 1212 OZONE MONITOR

ITC-404
 MINI-SURROGATE (PRELIMINARY)
 1981 JULY 29

30-APR-B3
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM B-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	PROPALD PPM 10'C-600
1 915	-45	-----	-----	-----	-----	0.1628	0.6454	0.0727	-----	-----	0.0178	-----
1 924	-36	-----	-----	-----	-----	-----	-----	-----	-----	0.025	-----	-----
1 945	-15	-----	-----	-----	-----	-----	-----	0.0726	-----	-----	0.0402	-----
1 1000	0	0.000	0.087	0.030	0.117	0.1596	0.6308	0.0726	-----	-----	0.0457	-----
1 1015	15	0.000	0.057	0.058	0.115	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.022	0.036	0.076	0.112	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.054	0.028	0.081	0.109	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.085	0.024	0.081	0.105	0.1121	0.6254	0.0555	0.017	0.056	0.0611	0.0004
1 1115	75	0.117	0.023	0.080	0.103	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.149	0.021	0.079	0.100	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.173	0.021	0.077	0.099	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.188	0.020	0.077	0.096	0.0720	0.6191	0.0434	0.041	0.023	0.0831	0.0013
1 1215	135	0.207	0.019	0.075	0.094	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.217	0.018	0.075	0.093	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.225	0.019	0.074	0.093	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.229	0.017	0.074	0.091	0.0441	0.5951	0.0358	0.062	-----	0.0807	0.0016
1 1315	195	0.232	0.017	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.237	0.017	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.242	0.018	0.072	0.089	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.229	0.017	0.073	0.090	0.0287	0.5890	0.0314	0.072	-----	0.0728	0.0015
1 1415	255	0.239	0.017	0.074	0.091	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.232	0.017	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.234	0.016	0.074	0.090	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.232	0.017	0.073	0.090	0.0182	0.5622	0.0283	0.056	0.082	0.0684	0.0019
1 1515	315	0.232	0.017	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.232	0.016	0.074	0.090	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.229	0.016	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	0.103	-----	-----
1 1600	360	0.232	0.014	0.074	0.089	0.0125	0.5534	0.0257	0.068	-----	0.0666	0.0018

----- NO DATA TAKEN

IIC-404
MINI-SURROGATE (PRELIMINARY)
1981 JULY 29

30-APR-83
PAGE 3

CLOCK TIME	ELAPSED TIME	ACETONE PPM	MEK PPM
DAY HR.	(MIN)	10'C-600	10'C-600
1 1000	0	0.0008	-----
1 1100	60	0.0050	0.0061
1 1200	120	0.0155	0.0155
1 1300	180	0.0242	0.0203
1 1400	240	0.0158	0.0201
1 1500	300	0.0140	0.0201
1 1600	360	0.0131	0.0207

----- NO DATA TAKEN

ITC-405
MINI-SURROGATE (PRELIMINARY)
1981 JULY 30

30-APR-83
PAGE 1

0849: BEGIN THIRD FILL AT 50% R.H. PURE AIR AT 88 DEGREES F.
0850: INJECTED 0.51 ML. PROPENE.
INJECTED 2.15 ML. N-BUTANE.
INJECTED 1.1 MICROLITERS M-XYLENE.
INJECTED 0.4 MICROLITERS CCHO.
INJECTED 0.12 ML. NO2.
INJECTED 0.48 ML. NO.
0928: VACK RACK CH3CHO INJECTED.
0946: SECOND VACK RACK CH3CHO INJECTED.
1000: T=0, 100% LIGHTS.
1640: DUMP AND FILL.

T=0 AT 1000 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.079	PPM
NO2-UNC	B-NOX-1	0.028	PPM
PROPENE	DMS-1	0.0793	PPM
n-C4	DMS-1	0.3367	PPM
m-XYL	10'C-600	0.0362	PPM
ACETALD	10'C-600	0.0282	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-121 POROPAK-N GC; FID
1212	D-1212	DASIB1 1212 OZONE MONITOR

ITC-405
 MINI-SURROGATE (PRELIMINARY)
 1981 JULY 30

10-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	PROPALD PPM 10'C-600
1 915	-45	-----	-----	-----	-----	0.0799	0.3438	0.0366	-----	-----	0.0030	-----
1 925	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----	-----
1 940	-20	-----	-----	-----	-----	-----	-----	0.0370	-----	-----	0.0145	-----
1 1000	0	0.002	0.079	0.028	0.107	0.0793	0.3367	0.0362	-----	-----	0.0282	0.0001
1 1015	15	0.000	0.058	0.047	0.105	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.010	0.039	0.064	0.103	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.029	0.030	0.071	0.100	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.044	0.023	0.077	0.097	0.0547	0.3247	0.0276	0.007	0.010	0.0326	0.0004
1 1115	75	0.068	0.020	0.075	0.096	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.076	0.018	0.078	0.095	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.098	0.016	0.079	0.094	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.107	0.015	0.077	0.092	0.0377	0.3207	0.0219	0.020	0.019	0.0334	0.0003
1 1215	135	0.129	0.014	0.077	0.091	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.144	0.013	0.076	0.090	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.159	0.013	0.076	0.090	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.176	0.014	0.074	0.088	0.0237	0.3087	0.0170	0.038	-----	0.0429	0.0008
1 1315	195	0.183	0.014	0.075	0.088	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.193	0.013	0.075	0.088	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.205	0.014	0.073	0.088	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.217	0.014	0.072	0.086	0.0137	0.2921	0.0133	0.046	-----	0.0376	0.0009
1 1405	245	-----	-----	-----	-----	-----	-----	-----	-----	0.036	-----	-----
1 1415	255	0.222	0.014	0.072	0.086	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.225	0.014	0.072	0.086	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.234	0.014	0.072	0.086	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.242	0.014	0.071	0.085	0.0082	0.2815	0.0104	0.046	0.029	-----	-----
1 1515	315	0.239	0.013	0.071	0.084	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.247	0.014	0.071	0.085	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.254	0.014	0.072	0.085	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	0.040	-----	-----
1 1600	360	0.251	0.015	0.071	0.085	0.0050	0.2761	0.0082	0.048	-----	0.0351	0.0015

----- NO DATA TAKEN

ITC-405
MINI-SURROGATE (PRELIMINARY)
1981 JULY 30

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1000	0	0.0013	0.0005
1 1100	60	0.0047	0.0042
1 1200	120	0.0037	0.0054
1 1300	180	0.0063	0.0071
1 1400	240	0.0097	0.0168
1 1500	300	0.0103	0.0146
1 1600	360	0.0126	0.0186

----- NO DATA TAKEN

NOTES

A MISSED, WRONG ATTENUATION, OFF SCALE.

ITC-406
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 3

30-APR-83
PAGE 1

1030: BEGIN FINAL FILL. WET BULB: 71.0 DRY BULB: 76.0
1035: INJECTED 1.0 ML. PROPENE, 4.3 ML. N-BUTANE,
2.2 MICROLITERS M-XYLENE, 0.12 ML. NO2, 0.48 ML. NO.
1120: .225 TORR (550 ML. BULB) CN3CHO SUPPLEMENT.
1705: DUMP AND FILL.

T=0 AT 1200 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.085	PPM
NO2-UNC	B-NOX-1	0.039	PPM
PROPENE	DMS-1	0.1482	PPM
N-C4	DMS-1	0.5897	PPM
M-XYL	SE-52C-2	0.0563	PPM
M-XYL	10'C-600	0.0752	PPM
ACETALD	10'C-600	0.0386	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
1212	D-1212	DASIBI 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

JTC-406
 MINI-SURROGATE (PRELIMINARY)
 1981 AUGUST 3

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 1105	-55	-----	-----	-----	-----	0.1567	0.6147	-----	0.0761	-----	-----	0.0247
1 1130	-30	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.025	-----
1 1135	-25	-----	-----	-----	-----	-----	-----	-----	0.0761	-----	-----	0.0394
1 1200	0	0.007	0.085	0.039	0.123	0.1482	0.5897	0.0563	0.0752	-----	-----	0.0386
1 1215	15	0.002	0.059	0.063	0.120	-----	-----	-----	-----	-----	-----	-----
1 1230	30	0.037	0.042	0.075	0.116	-----	-----	-----	-----	-----	-----	-----
1 1245	45	0.071	0.035	0.080	0.113	-----	-----	-----	-----	-----	-----	-----
1 1300	60	0.100	0.031	0.080	0.110	0.1068	0.5845	0.0430	0.0503	0.014	0.002	0.0548
1 1315	75	0.139	0.030	0.079	0.108	-----	-----	-----	-----	-----	-----	-----
1 1330	90	0.166	0.029	0.078	0.105	-----	-----	-----	-----	-----	-----	-----
1 1345	105	0.188	0.029	0.077	0.105	-----	-----	-----	-----	-----	-----	-----
1 1400	120	0.207	0.029	0.077	0.105	0.0654	-----	0.0334	0.0447	0.042	0.002	0.0653
1 1415	135	0.225	0.028	0.077	0.104	-----	-----	-----	-----	-----	-----	-----
1 1430	150	0.237	0.028	0.077	0.104	-----	-----	-----	-----	-----	-----	-----
1 1445	165	0.249	0.028	0.076	0.104	-----	-----	-----	-----	-----	-----	-----
1 1500	180	0.249	0.029	0.076	0.103	0.0419	0.5685	0.0276	0.0383	0.043	0.004	0.0805
1 1515	195	0.256	0.028	0.076	0.104	-----	-----	-----	-----	-----	-----	-----
1 1530	210	0.259	0.028	0.077	0.104	-----	-----	-----	-----	-----	-----	-----
1 1545	225	0.256	0.028	0.076	0.104	-----	-----	-----	-----	-----	-----	-----
1 1550	230	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----
1 1600	240	0.259	0.028	0.076	0.103	0.0228	0.5328	0.0247	0.0329	0.059	-----	0.0662
1 1615	255	0.259	0.028	0.076	0.104	-----	-----	-----	-----	-----	-----	-----
1 1630	270	0.256	0.028	0.076	0.103	-----	-----	-----	-----	-----	-----	-----
1 1645	285	0.254	0.028	0.075	0.102	-----	-----	-----	-----	-----	-----	-----
1 1700	300	0.261	0.027	0.077	0.103	0.0155	-----	0.0220	0.0281	0.052	-----	0.0664

----- NO DATA TAKEN

ITC-406
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 3

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1200	0	-----	0.0017	0.0006
1 1300	60	0.0003	0.0034	0.0058
1 1400	120	0.0009	0.0083	0.0131
1 1500	180	0.0012	0.0111	0.0181
1 1600	240	0.0013	0.0096	0.0179
1 1700	300	0.0017	0.0117	0.0229

----- NO DATA TAKEN

ITC-407
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 4

30-APR-83
PAGE 1

0840: START THIRD FILL.
INJECTED 0.51 ML. PROPENE.
INJECTED 2.14 ML. N-C4.
INJECTED 1.1 MICROLITERS M-XYLENE.
INJECTED 0.24 ML. NO2.
INJECTED 0.96 ML. NO.
INJECTED 0.3 TORR CCHO.
0916: SUPPLEMENTAL CH3CHO.
1000: T=0.
1605: DUMP AND FILL.

T=0 AT 1000 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.149	PPM
NO2-UNC	B-NOX-1	0.050	PPM
PROPENE	DMS-1	0.0701	PPM
N-C4	DMS-1	0.3012	PPM
M-XYL	SE-52C-2	0.0267	PPM
N-XYL	10'C-600	0.0369	PPM
ACETALD	10'C-600	0.0281	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
1212	D-1212	DASIBI 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-407
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 4

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PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 900	-60	-----	-----	-----	-----	-----	-----	-----	0.0373	-----	-----	0.0122
1 925	-35	-----	-----	-----	-----	-----	-----	-----	0.0373	-----	-----	0.0251
1 935	-25	-----	-----	-----	-----	0.0704	0.3002	-----	-----	-----	-----	-----
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----
1 1000	0	0.002	0.149	0.050	0.199	0.0701	0.3012	0.0267	0.0369	-----	-----	0.0281
1 1015	15	0.000	0.132	0.066	0.198	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.000	0.109	0.088	0.198	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.002	0.089	0.104	0.193	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.007	0.076	0.114	0.189	0.0528	0.2930	0.0210	0.0291	0.008	-----	0.0284
1 1115	75	0.017	0.064	0.123	0.187	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.024	0.057	0.127	0.183	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.039	0.050	0.131	0.181	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.046	0.045	0.132	0.177	0.0395	0.2850	0.0176	0.0237	0.010	0.013	0.0378
1 1215	135	0.058	0.042	0.133	0.174	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.076	0.040	0.133	0.172	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.083	0.038	0.132	0.169	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.102	0.035	0.131	0.166	0.0258	0.2718	0.0142	0.0193	0.018	0.013	0.0376
1 1315	195	0.085	0.034	0.131	0.164	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.112	0.034	0.128	0.161	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.127	0.033	0.126	0.159	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.134	0.032	0.124	0.154	0.0193	0.2718	0.0121	0.0153	0.028	0.013	0.0356
1 1415	255	0.151	0.031	0.121	0.151	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.159	0.029	0.120	0.148	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.171	0.029	0.119	0.147	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.156	0.027	0.117	0.145	0.0114	0.2502	0.0098	0.0123	0.038	0.019	0.0516
1 1515	315	0.185	0.028	0.115	0.143	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.190	0.026	0.113	0.139	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.188	0.026	0.111	0.137	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.023	-----
1 1600	360	-----	-----	-----	-----	0.0073	0.2495	-----	0.0095	0.040	-----	0.0308

----- NO DATA TAKEN

ITC-407
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 4

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1000	0	0.0000	0.0015	0.0004
1 1100	60	0.0001	0.0002	0.0025
1 1200	120	0.0003	0.0051	0.0066
1 1300	180	0.0007	0.0068	0.0091
1 1400	240	0.0009	0.0092	0.0113
1 1500	300	0.0012	0.0143	0.0142
1 1600	360	0.0012	0.0089	0.0130

----- NO DATA TAKEN

ITC-408
MINI-SURROGATE + TOLUENE (PRELIMINARY)
1981 AUGUST 5

30-APR-83
PAGE 1

0844: START THIRD FILL.
0850: START INJECTIONS:
0.5 TORR CCHO (488 CC BULB)
1.0 ML. PROPENE.
4.3 ML. N-C4.
2.2 MICROLITERS M-XYLENE.
3.7 MICROLITERS TOLUENE.
0.12 ML. NO2.
0.48 ML. NO.
1000: T=0.
1605: DUMP AND FILL.

T=0 AT 1000 PSI

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.098	PPM
NO2-UNC	B-NOX-1	0.028	PPM
PROPENE	DMS-1	0.1589	PPM
N-C4	DMS-1	0.6414	PPM
TOLUENE	SE-52C-2	0.1280	PPM
TOLUENE	10'C-600	0.1502	PPM
M-XYL	SE-52C-2	0.0676	PPM
N-XYL	10'C-600	0.0935	PPM
ACETALD	10'C-600	0.0543	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
1212	D-1212	MASIRI 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-408
 MINI-SURROGATE + TOLUENE (PRELIMINARY)
 1981 AUGUST 5

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM 0-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	BENZENE PPM 10'C-600	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600
1 900	-60	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0869
1 910	-50	-----	-----	-----	-----	0.1471	0.6156	-----	-----	-----	-----	-----
1 925	-35	-----	-----	-----	-----	-----	-----	-----	-----	0.1405	-----	0.0876
1 1000	0	0.002	0.098	0.028	0.126	0.1589	0.6414	-----	0.1280	0.1502	0.0676	0.0935
1 1015	15	0.000	0.063	0.060	0.122	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.024	0.043	0.075	0.118	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.058	0.035	0.079	0.114	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.100	0.033	0.076	0.108	0.1051	----- A	----- B	----- C	----- B	----- C	----- B
1 1115	75	0.139	0.031	0.074	0.105	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.156	0.030	0.071	0.101	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.171	0.030	0.069	0.099	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.188	0.030	0.067	0.098	0.0658	0.5968	----- B	0.1152	----- B	0.0417	----- B
1 1215	135	0.198	0.029	0.066	0.095	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.205	0.027	0.067	0.094	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.212	0.027	0.066	0.093	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.203	0.028	0.065	0.093	0.0448	0.5951	0.0183	0.1126	0.1291	0.0373	0.0492
1 1315	195	0.207	0.027	0.066	0.094	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.200	0.027	0.065	0.093	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.200	0.027	0.065	0.092	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.203	0.026	0.065	0.090	0.0307	0.5773	0.0146	----- B	0.1204	----- B	0.0426
1 1415	255	0.198	0.026	0.064	0.090	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.195	0.026	0.063	0.089	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.195	0.026	0.063	0.089	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.195	0.026	0.063	0.089	0.0223	0.5836	-----	0.0914	-----	0.0307	-----
1 1515	315	0.193	0.027	0.063	0.090	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.200	0.026	0.064	0.090	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.193	0.024	0.064	0.088	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.195	0.026	0.063	0.089	0.0160	0.5514	----- B	-----	----- B	-----	----- B

----- NO DATA TAKEN

ITC-408
 MINI-SURROGATE + TOLUENE (PRELIMINARY)
 1981 AUGUST 5

30-APR-83
 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600
1 900	-60	-----	-----	0.0148	-----	-----
1 925	-35	-----	-----	0.0400	-----	-----
1 940	-20	-----	0.017	-----	-----	-----
1 1000	0	-----	-----	0.0543	-----	0.0020
1 1100	60	0.020	0.021	----- B	----- B	----- B
1 1200	120	0.045	0.038	----- B	----- B	----- B
1 1300	180	0.060	0.040	0.0856	0.0011	0.0273
1 1400	240	0.056	0.042	0.0736	0.0010	0.0154
1 1500	300	0.050	0.040	----- C	-----	-----
1 1550	350	-----	0.044	-----	-----	-----
1 1600	360	0.050	-----	----- B	----- B	----- B

----- NO DATA TAKEN

NOTES

- A MISSED PEAK.
- B INSTRUMENT DEDICATED TO ANOTHER PROGRAM DURING THESE TIMES.
- C IMPROPER PROCEDURE, OMITTED.

LTC-409
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 6

30-APR-83
PAGE 1

0740: START FILL.
0850: THIRD FILL COMPLETED. R.H.=50% AT 89 DEGREES F PURE AIR.
0853: BEGIN INJECTION.
1.0 ML. PROPENE, 4.3 ML. N-BUTANE,
2.2 MICROLITERS M-XYL, 0.12 ML. NO2, AND 0.48 ML. NO.
0917: .212 TORR 500 M. BULB CH3CHO.
1634: DUMP AND FILL.

T=0 AT 1000 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.091	PPM
NO2-UNC	B-NOX-1	0.027	PPM
PROPENE	DMS-1	0.1580	PPM
N-C4	DMS-1	0.6325	PPM
M-XYL	SE-52C-2	0.0695	PPM
M-XYL	10'C-600	0.0926	PPM
ACETALD	10'C-600	0.0605	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121# DIMETHYLSULFOLANE GC# FID
2920	10'C-600	RM-121# 10' 10% CARBOWAX-600 GC# FID
2750	SE-52C-2	RM-121# 30M SE-52 QUARTZ CAP. GC# FID
2000	ECD-1	RM-121# 12' 5% CARBOWAX-400 GC# ECD
2100	PN-1	RM-121 POROPAK-N GC# FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER# SN300038-2
1212	D-1212	DAISIRI 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-409
 MINI-SURROGATE (PRELIMINARY)
 1981 AUGUST 6

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECB-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 910	-50	-----	-----	-----	-----	-----	-----	-----	0.0928	-----	-----	0.0391
1 915	-45	-----	-----	-----	-----	0.1537	-----	-----	-----	-----	-----	-----
1 925	-35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0826
1 930	-30	-----	-----	-----	-----	-----	0.6264	-----	-----	-----	-----	-----
1 933	-27	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 940	-20	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0726
1 1000	0	0.000	0.091	0.027	0.117	0.1580	0.6325	0.0695	0.0926	-----	-----	0.0605
1 1015	15	0.000	0.061	0.053	0.114	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.010	0.041	0.070	0.111	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.037	0.032	0.077	0.109	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.068	0.029	0.079	0.108	0.1149	0.6147	0.0565 A	-----	0.015	0.061	0.0696
1 1115	75	0.098	0.026	0.080	0.105	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.127	0.025	0.077	0.102	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.156	0.025	0.076	0.100	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.171	0.024	0.074	0.099	0.0755	0.5979	----- B	0.0588	0.045	0.017	0.0981
1 1215	135	0.190	0.023	0.074	0.097	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.203	0.024	0.073	0.097	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.217	0.024	0.072	0.096	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.225	0.024	0.073	0.097	0.0492	0.5968	0.0391	0.0506	0.062	-----	0.1066
1 1310	190	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.036	-----
1 1315	195	0.225	0.024	0.073	0.097	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.227	0.024	0.073	0.097	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.234	0.024	0.072	0.096	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.225	0.024	0.072	0.096	0.0318	0.5657	0.0340	-----	0.072	0.023	-----
1 1415	255	0.225	0.024	0.073	0.097	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.237	0.024	0.072	0.096	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.237	0.025	0.073	0.098	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.232	0.024	0.073	0.097	0.0217	0.5613	----- C	-----	0.072	0.025	-----
1 1515	315	0.239	0.025	0.072	0.097	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.234	0.025	0.072	0.098	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.232	0.025	0.073	0.098	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.036	-----
1 1600	360	0.232	0.025	0.073	0.098	0.0148	0.5443	0.0279	-----	0.088	-----	-----

----- NO DATA TAKEN

ITC-409
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 6

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
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1 1000	0	-----	0.0013	-----
1 1200	120	0.0008	0.0229	0.0138
1 1300	180	0.0010	0.0289	0.0200

----- NO DATA TAKEN

NOTES

- A DOUBLE PEAK.
- B TEMPORARY PROGRAM MALFUNCTION; OMITTED.
- C MINIGRATOR MALFUNCTION.

ITC-411
MINI-SURROGATE + TOLUENE (PRELIMINARY)
1981 AUGUST 10

30-APR-83
PAGE 1

0948: START THIRD FILL WITH 50% R.H. PURE AIR AT 88 DEGREES F.
0956: START INJECTIONS:
1.0 ML. PROPENE.
4.3 ML. N-C4.
2.2 MICROLITERS M-XYL.
1.9 MICROLITERS TOLUENE.
CCHO (VACK RACK)
0.12 ML. NO2.
0.48 ML. NO.
1045: T=0, 100% LIGHTS.
1700: DUMP AND FILL.

T=0 AT 1045 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.092	PPM
NO2-UNC	B-NOX-1	0.032.	PPM
PROPENE	DMS-1	0.1589	PPM
N-C4	DMS-1	0.6342	PPM
TOLUENE	SE-52C-2	0.0651	PPM
TOLUENE	10'C-600	0.0653	PPM
M-XYL	SE-52C-2	0.0668	PPM
M-XYL	10'C-600	0.0773	PPM
ACETALD	10'C-600	0.0577	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-411
 MINI-SURROGATE + TOLUENE (PRELIMINARY)
 1981 AUGUST 10

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1
1 1030	-15	0.005	0.091	0.035	0.120	0.1585	0.6334	-----	0.0650	-----	0.0767	-----
1 1045	0	0.000	0.092	0.032	0.122	0.1589	0.6342	0.0651	0.0653	0.0668	0.0773	-----
1 1100	15	0.002	0.062	0.060	0.119	-----	-----	-----	-----	-----	-----	-----
1 1115	30	0.027	0.039	0.079	0.116	-----	-----	-----	-----	-----	-----	-----
1 1130	45	0.061	0.029	0.085	0.113	-----	-----	-----	-----	-----	-----	-----
1 1145	60	0.093	0.026	0.084	0.110	0.1142	0.6219	0.0520	-----	0.0513	-----	0.019
1 1200	75	0.127	0.025	0.085	0.108	-----	-----	-----	-----	-----	-----	-----
1 1215	90	0.159	0.024	0.083	0.105	-----	-----	-----	-----	-----	-----	-----
1 1230	105	0.185	0.024	0.079	0.103	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.198	0.024	0.080	0.103	0.0672	0.5933	----- B	0.0570	----- B	0.0460	0.050
1 1300	135	0.225	0.025	0.080	0.103	-----	-----	-----	-----	-----	-----	-----
1 1315	150	0.242	0.025	0.079	0.103	-----	-----	-----	-----	-----	-----	-----
1 1330	165	0.249	0.026	0.078	0.103	-----	-----	-----	-----	-----	-----	-----
1 1345	180	0.254	0.026	0.078	0.104	0.0418	0.5879	0.0465	-----	0.0326	-----	0.066
1 1400	195	0.254	0.027	0.077	0.103	-----	-----	-----	-----	-----	-----	-----
1 1415	210	0.264	0.027	0.079	0.104	-----	-----	-----	-----	-----	-----	-----
1 1430	225	0.264	0.028	0.077	0.104	-----	-----	-----	-----	-----	-----	-----
1 1445	240	0.264	0.029	0.076	0.104	0.0257	0.5719	0.0423	-----	0.0304	-----	0.068
1 1500	255	0.256	0.027	0.073	0.100	-----	-----	-----	-----	-----	-----	-----
1 1515	270	0.261	0.026	0.074	0.099	-----	-----	-----	-----	-----	-----	-----
1 1530	285	0.256	0.024	0.074	0.096	-----	-----	-----	-----	-----	-----	-----
1 1545	300	0.254	0.024	0.073	0.094	0.0164	0.5542	0.0516	-----	0.0272	-----	0.070
1 1600	315	0.254	0.023	0.072	0.095	-----	-----	-----	-----	-----	-----	-----
1 1615	330	0.244	0.023	0.072	0.094	-----	-----	-----	-----	-----	-----	-----
1 1630	345	0.247	0.022	0.073	0.094	-----	-----	-----	-----	-----	-----	-----
1 1645	360	0.244	0.022	0.072	0.094	0.0042	----- A	0.0500	-----	0.0247	-----	0.062

----- NO DATA TAKEN

ITC-411
MINI-SURROGATE + TOLUENE (PRELIMINARY)
1981 AUGUST 10

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 950	-55	0.017	-----	-----	-----	-----
1 1030	-15	-----	0.0536	-----	-----	-----
1 1045	0	-----	0.0577	-----	0.0023	0.0011
1 1145	60	0.025	-----	-----	-----	-----
1 1245	120	0.021	0.0760	0.0010	0.0122	0.0107
1 1345	180	-----	-----	-----	-----	-----
1 1445	240	----- C	-----	-----	-----	-----
1 1545	300	0.036	-----	-----	-----	-----
1 1635	350	0.038	-----	-----	-----	-----

----- NO DATA TAKEN

NOTES

- A MISSED PEAK.
- B MALFUNCTION IN TEMPERATURE PROGRAM, OMITTED.
- C CYLINDER BROKE PRIOR TO READING.

ITC-412
MINI-SURROGATE + TOLUENE (PRELIMINARY)
1981 AUGUST 11

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0824: BEGIN THIRD FILL WITH 50% R.H. AT 88 DEGREES F.
0840: START INJECTIONS:
1.0 ML. PROPENE.
4.3 ML. N-C4.
2.2 MICROLITERS M-XYL.
5.6 MICROLITERS TOLUENE.
0.45 TORR (488 CC BULB) CCHO.
0.12 ML. NO2.
0.48 ML. NO.
0930: T=0, 100% LIGHTS.
1535: DUMP AND FILL.

T=0 AT 930 PSI

R1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.081	PPM
NO2-UNC	B-NOX-1	0.027	PPM
PROPENE	DMS-1	0.1495	PPM
N-C4	DMS-1	0.6130	PPM
TOLUENE	SE-52C-217.1970		PPM
TOLUENE	10'C-600 0.1855		PPM
M-XYL	SE-52C-2 0.0629		PPM
M-XYL	10'C-600 0.0741		PPM
ACETALD	10'C-600 0.0657		PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
1212	D-1212	BASIRI 1212 OZONE MONITOR
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

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 MINI-SURROGATE + TOLUENE (PRELIMINARY)
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	TOLUENE PPM SE-52C-2	TOLUENE PPM 10'C-600	M-XYL PPM SE-52C-2	M-XYL PPM 10'C-600	PAN PPM ECD-1
1 845	-45	-----	-----	-----	-----	-----	-----	-----	0.1905	-----	0.0750	-----
1 903	-27	-----	-----	-----	-----	-----	-----	-----	0.1852	-----	0.0750	-----
1 910	-20	-----	-----	-----	-----	0.1504	0.6130	-----	-----	-----	-----	-----
1 915	-15	0.005	0.080	0.028	0.105	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.000	0.081	0.027	0.106	0.1495	0.6130	17.20	0.1855	0.0629	0.0741	-----
1 945	15	0.002	0.050	0.057	0.105	-----	-----	-----	-----	-----	-----	-----
1 1000	30	0.029	0.031	0.073	0.101	-----	-----	-----	-----	-----	-----	-----
1 1015	45	0.056	0.022	0.077	0.098	-----	-----	-----	-----	-----	-----	-----
1 1030	60	0.095	0.020	0.077	0.094	0.1119	0.6040	17.25	-----	0.0507	-----	0.020
1 1045	75	0.129	0.018	0.074	0.089	-----	-----	-----	-----	-----	-----	-----
1 1100	90	0.156	0.016	0.071	0.085	-----	-----	-----	-----	-----	-----	-----
1 1115	105	0.178	0.016	0.069	0.083	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.185	0.015	0.068	0.081	0.0725	0.5907	16.40	-----	0.0417	-----	0.051
1 1145	135	0.198	0.015	0.067	0.081	-----	-----	-----	-----	-----	-----	-----
1 1200	150	0.203	0.016	0.066	0.080	-----	-----	-----	-----	-----	-----	-----
1 1215	165	0.207	0.016	0.066	0.081	-----	-----	-----	-----	-----	-----	-----
1 1230	180	0.212	0.017	0.065	0.081	0.0468	0.5443	----- A	0.1576	----- A	-----	0.060
1 1245	195	0.210	0.018	0.066	0.083	-----	-----	-----	-----	-----	-----	-----
1 1300	210	0.212	0.018	0.066	0.082	-----	-----	-----	-----	-----	-----	-----
1 1315	225	0.212	0.018	0.066	0.082	-----	-----	-----	-----	-----	-----	-----
1 1330	240	0.207	0.018	0.063	0.079	0.0311	0.5265	----- A	-----	----- A	-----	0.066
1 1345	255	0.210	0.018	0.064	0.080	-----	-----	-----	-----	-----	-----	-----
1 1400	270	0.212	0.018	0.063	0.080	-----	-----	-----	-----	-----	-----	-----
1 1415	285	0.207	0.018	0.063	0.079	-----	-----	-----	-----	-----	-----	-----
1 1430	300	0.205	0.019	0.063	0.080	0.0217	0.5060	13.81	-----	0.0277	-----	0.058
1 1445	315	0.200	0.019	0.064	0.080	-----	-----	-----	-----	-----	-----	-----
1 1500	330	0.207	0.020	0.063	0.081	-----	-----	-----	-----	-----	-----	-----
1 1515	345	0.207	0.020	0.063	0.080	-----	-----	-----	-----	-----	-----	-----
1 1530	360	0.203	0.020	0.061	0.080	0.0140	0.5211	13.27	-----	0.0248	-----	0.050
1 1545	375	0.198	0.018	0.060	0.076	-----	-----	-----	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-412
MINI-SURROGATE + TOLUENE (PRELIMINARY)
1981 AUGUST 11

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 845	-45	-----	0.0147	-----	-----	-----
1 903	-27	-----	0.0645	-----	-----	-----
1 930	0	0.000	0.0657	-----	-----	-----
1 1030	60	0.010	-----	-----	-----	-----
1 1130	120	0.017	-----	-----	-----	-----
1 1230	180	0.023	-----	0.0013	0.0130	0.0137
1 1245	195	-----	0.1001	-----	-----	-----
1 1330	240	0.019	-----	-----	-----	-----
1 1430	300	0.033	-----	-----	-----	-----
1 1520	350	0.029	-----	-----	-----	-----

----- NO DATA TAKEN

NOTES

A DOUBLE PEAK, OMITTED.

ITC-413
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 12

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PAGE 1

0834: START THIRD FILL WITH 50% R.H. AT 88 DEGREES F.
0837: BEGIN SURROGATE INJECTIONS.
0843: .9 TORR (500 ML. BULB) CH3CHO.
1.0 ML. PROPENE.
4.3 ML. N-C4.
2.2 MICROLITERS M-XYLENE.
0848: 0.12 ML. NO2.
0.48 ML. NO.
0907: .24 TORR (500 ML. BULB) SUPPLEMENTAL CH3CHO.
0940: SUPPLEMENTAL M-XYL.
1015: T=0, 100% LIGHTS.
1624: DUMP AND FILL.

T=0 AT 1015 PST

K1 = 0.450 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	B-NOX-1	0.084	PPM
NO2-UNC	B-NOX-1	0.024	PPM
PROPENE	DMS-1	0.1499	PPM
N-C4	DMS-1	0.6130	PPM
M-XYL	SE-52C-2	0.0605	PPM
M-XYL	10'C-600	0.0705	PPM
ACETALD	10'C-600	0.0676	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2720	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2750	SE-52C-2	RM-121; 30M SE-52 QUARTZ CAP. GC; FID
2000	ECB-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121 POROPAK-N GC; FID
4600	B-NOX-1	BENDIX 8101BX NOX ANALYZER; SN300038-2
1212	D-1212	DASIBI 1212 OZONE MONITOR
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

JTC-413
 MINI-SURROGATE (PRELIMINARY)
 1981 AUGUST 12

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM 0-1212	NO PPM B-NOX-1	NO2-UNC PPM B-NOX-1	NOX-UNC PPM B-NOX-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	H-XYL PPM SE-52C-2	H-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 900	-75	-----	-----	-----	-----	-----	-----	-----	0.0442	-----	-----	0.0333
1 918	-57	-----	-----	-----	-----	0.1550	0.6254	-----	-----	-----	-----	-----
1 923	-52	-----	-----	-----	-----	-----	-----	-----	0.0454	-----	-----	0.0496
1 937	-38	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002	-----
1 955	-20	-----	-----	-----	-----	-----	-----	-----	0.0701	-----	-----	0.0554
1 1011	-4	0.005	0.085	0.023	0.107	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.007	0.084	0.024	0.106	0.1499	0.6130	0.0605	0.0705	-----	-----	0.0676
1 1030	15	0.002	0.054	0.053	0.105	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.024	0.033	0.070	0.102	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.049	0.025	0.076	0.100	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.071	0.021	0.077	0.098	0.1145	0.6120	0.0486	0.0561	0.014	-----	0.0641
1 1118	63	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.046	-----
1 1130	75	0.102	0.020	0.077	0.096	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.134	0.018	0.077	0.094	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.159	0.018	0.075	0.093	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.176	0.018	0.074	0.092	0.0749	0.5907	0.0385	0.0449	0.038	0.023	0.0738
1 1230	135	0.193	0.018	0.073	0.091	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.210	0.018	0.073	0.090	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.222	0.019	0.074	0.091	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.225	0.020	0.072	0.091	0.0467	0.5685	0.0323	0.0370	0.054	-----	0.0801
1 1330	195	0.229	0.020	0.073	0.092	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.239	0.020	0.071	0.091	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.244	0.021	0.072	0.091	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.239	0.021	0.072	0.091	0.0285	0.5354	0.0283	0.0320	0.064	-----	0.0664
1 1425	250	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.015	-----
1 1430	255	0.239	0.021	0.071	0.091	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.239	0.021	0.072	0.091	-----	-----	-----	-----	-----	-----	-----
1 1507	292	0.242	0.021	0.071	0.091	-----	-----	-----	-----	-----	-----	-----
1 1515	300	-----	-----	-----	-----	0.0186	0.5265	0.0251	0.0276	-----	-----	0.0732
1 1522	307	0.237	0.021	0.073	0.092	-----	-----	-----	-----	-----	-----	-----
1 1541	326	0.247	0.021	0.072	0.092	-----	-----	-----	-----	-----	-----	-----
1 1556	341	0.237	0.022	0.072	0.092	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.029	-----
1 1611	356	0.239	-----	0.072	0.092	-----	-----	-----	-----	-----	-----	-----
1 1615	360	-----	-----	-----	-----	0.0123	0.5077	0.0211	0.0251	0.061	-----	0.0770

----- NO DATA TAKEN

ITC-413
MINI-SURROGATE (PRELIMINARY)
1981 AUGUST 12

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PROPALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1015	0	-----	0.0012	-----
1 1115	60	0.0005	0.0035	0.0049
1 1215	120	0.0010	0.0071	0.0100
1 1315	180	0.0013	0.0105	0.0154
1 1415	240	0.0009	0.0065	0.0137
1 1515	300	0.0014	0.0151	0.0188
1 1615	360	0.0019	0.0141	0.0237

----- NO DATA TAKEN

NOTES

A POOR DILUTION, OMITTED.

ITC-450
MINI-SURROGATE
1982 MARCH 9

29-APR-83
PAGE 1

0838: THIRD FILL.
0930: INJECTIONS: 1.1 ML. PROPENE, 4.6 ML. N-BUTANE, 0.51 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 2.3 MICROLITERS M-XYL.
1033: DILUTE ITC ~12%
1048: SUPPLEMENTAL NO.
1100: I=0. /0% LIGHTS.

T=0 AT 1100 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
I	DORIC-1	29.3	1.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-1	0.070	PPM
NO2-UNC	I 14B-1	0.021	PPM
PROPENE	DMS-1	0.1759	PPM
N-C4	DMS-1	0.6947	PPM
T2-C4=	DMS-1	0.0244	PPM
M-XYL	10'C-600	0.0746	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1510	I 14B-1	TECO 14B-1 NO-NOX ANALYZER
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-450
MINI-SURROGATE
1982 MARCH 9

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	UZONE PPM U-1212	NO PPM I 14B-1	NO2-UNC PPM I 14B-1	NOX-UNC PPM I 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 845	-135	-----	-----	-----	-----	0.0017	0.0004	-----	-----	0.000	-----	0.0000
1 945	-75	-----	-----	-----	-----	0.2065	0.8133	0.0284	0.0855	-----	-----	0.0000
1 950	-70	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 1021	-39	-----	-----	-----	-----	0.1804	0.7105	0.0248	0.0738	-----	-----	0.0000
1 1040	-20	-----	-----	-----	-----	0.1774	0.6986	0.0244	0.0743	-----	-----	0.0000
1 1045	-15	0.000	0.056	0.019	0.075	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.000	0.070	0.021	0.091	0.1759	0.6947	0.0244	0.0746	0.000	-----	0.0000
1 1115	15	0.000	0.043	0.011	0.087	-----	-----	-----	-----	-----	-----	-----
1 1130	30	0.037	0.018	0.064	0.082	-----	-----	-----	-----	-----	-----	-----
1 1145	45	0.095	0.010	0.067	0.077	-----	-----	-----	-----	-----	-----	-----
1 1200	60	0.147	0.009	0.065	0.074	0.1047	0.6749	0.0018	0.0483	0.016	0.004	0.0325
1 1215	75	0.183	0.008	0.064	0.071	-----	-----	-----	-----	-----	-----	-----
1 1230	90	0.220	0.008	0.063	0.070	-----	-----	-----	-----	-----	-----	-----
1 1245	105	0.243	0.007	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1300	120	0.265	0.008	0.061	0.069	0.0564	0.6433	0.0000	0.0371	0.038	0.002	-----
1 1315	135	0.278	0.007	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1330	150	0.289	0.007	0.061	0.068	-----	-----	-----	-----	-----	-----	-----
1 1345	165	0.294	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1400	180	0.297	0.007	0.060	0.067	0.0321	0.6295	0.0000	0.0314	0.047	0.000	0.0438
1 1415	195	0.309	0.008	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1430	210	0.308	0.007	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1445	225	0.311	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.320	0.008	0.059	0.067	0.0183	0.5800	0.0000	0.0269	0.051	0.002	0.0447
1 1515	255	0.322	0.009	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.326	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1545	285	0.331	0.009	0.057	0.066	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.335	0.009	0.058	0.066	0.0114	0.6156	0.0000	0.0246	0.051	-----	0.0462
1 1615	315	0.339	0.009	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.339	0.009	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1640	340	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1645	345	0.343	0.009	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1700	360	0.338	0.008	0.056	0.065	0.0069	0.6255	0.0000	0.0224	0.051	-----	0.0428

----- NO DATA TAKEN

ITC-450
MINI-SURROGATE
1982 MARCH 9

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 845	-135	0.0000	0.0000
1 945	-75	0.0000	0.0000
1 1021	-39	0.0013	0.0010
1 1040	-20	0.0009	0.0008
1 1100	0	0.0009	0.0010
1 1200	60	0.0133	0.0143
1 1300	120	-----	-----
1 1400	180	0.0277	0.0273
1 1500	240	0.0275	0.0313
1 1600	300	0.0345	0.0437
1 1700	360	0.0289	0.0378

----- NO DATA TAKEN

ITC-451
MINI-SURROGATE + 180 PPB TOLUENE
1982 MARCH 10

29-APR-83
PAGE 1

0838: THIRD FILL.
0932: INJECTIONS: 0.9 ML. PROPENE, 3.9 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO₂, 0.14 ML. T₂-C₄=, 1.9 MICROLITERS M-XYL,
AND 4.7 MICROLITERS TOLUENE.
1017: SUPPLEMENTAL PROPENE (0.118 ML.)
1100: T=0. 70% LIGHTS.

T=0 AT 1100 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	29.0	2.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-1	0.068	PPM
NO ₂ -UNC	I 14B-1	0.031	PPM
PROPENE	DMS-1	0.1700	PPM
N-C ₄	DMS-1	0.6739	PPM
T ₂ -C ₄ =	DMS-1	0.0231	PPM
TOLUENE	10'C-600	0.1796	PPM
M-XYL	10'C-600	0.0746	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	I 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-451
 MINI-SURROGATE + 180 PPB TOLUENE
 1982 MARCH 10

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM O-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	TOLUENE PPM 10'C-600	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM LA
1 844	-136	-----	-----	-----	-----	0.0015	0.0028	-----	-----	-----	0.000	-----
1 915	-105	0.000	0.004	0.006	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-90	0.000	0.004	0.006	0.010	-----	-----	-----	-----	-----	-----	-----
1 944	-76	-----	-----	-----	-----	0.1449	0.6611	0.0225	0.1796	0.0739	-----	-----
1 945	-75	0.000	0.072	0.025	0.097	-----	-----	-----	-----	-----	-----	-----
1 1000	-60	0.000	0.067	0.031	0.098	-----	-----	-----	-----	-----	-----	-----
1 1015	-45	0.000	0.068	0.030	0.097	-----	-----	-----	-----	-----	-----	-----
1 1021	-39	-----	-----	-----	-----	0.1714	0.6808	0.0233	0.1760	0.0746	-----	-----
1 1030	-30	0.000	0.067	0.031	0.097	-----	-----	-----	-----	-----	-----	0.019
1 1038	-22	-----	-----	-----	-----	0.1700	0.6749	0.0231	0.1792	0.0751	-----	-----
1 1045	-15	0.000	0.067	0.030	0.097	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.000	0.068	0.031	0.099	0.1700	0.6739	0.0231	0.1796	0.0746	0.000	-----
1 1115	15	0.001	0.038	0.054	0.092	-----	-----	-----	-----	-----	-----	-----
1 1130	30	0.061	0.015	0.071	0.086	-----	-----	-----	-----	-----	-----	-----
1 1145	45	0.120	0.010	0.068	0.078	-----	-----	-----	-----	-----	-----	-----
1 1200	60	0.181	0.009	0.065	0.074	0.0919	0.6354	0.0011	0.1528	0.0460	0.021	0.004
1 1215	75	0.218	0.009	0.062	0.070	-----	-----	-----	-----	-----	-----	-----
1 1230	90	0.238	0.008	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1245	105	0.266	0.009	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	120	0.275	0.008	0.058	0.066	0.0499	0.6146	0.0000	0.1433	0.0352	0.044	-----
1 1315	135	0.279	0.008	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1330	150	0.286	0.009	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1345	165	0.286	0.009	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	180	0.292	0.009	0.055	0.063	0.0301	0.6018	0.0000	0.1377	0.0308	0.048	0.010
1 1415	195	0.289	0.009	0.054	0.063	-----	-----	-----	-----	-----	-----	-----
1 1430	210	0.294	0.009	0.054	0.063	-----	-----	-----	-----	-----	-----	-----
1 1445	225	0.294	0.015	0.062	0.077	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.290	0.013	0.052	0.065	0.0189	0.6067	0.0000	0.1356	0.0277	0.047	0.013
1 1515	255	0.299	0.009	0.053	0.062	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.305	0.010	0.052	0.062	-----	-----	-----	-----	-----	-----	-----
1 1545	285	0.305	0.010	0.052	0.062	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.309	0.011	0.055	0.066	0.0116	0.5949	0.0000	0.1302	0.0250	0.042	0.006
1 1615	315	0.307	0.011	0.052	0.063	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.308	0.011	0.051	0.062	-----	-----	-----	-----	-----	-----	-----
1 1645	345	0.308	0.012	0.051	0.063	-----	-----	-----	-----	-----	-----	0.010
1 1700	360	0.312	0.012	0.051	0.062	0.0072	0.5771	0.0000	0.1267	0.0227	0.041	-----

----- NO DATA TAKEN

ITC-451
MINI-SURROGATE + 180 PFB TOLUENE
1982 MARCH 10

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 844	-136	-----	0.0009	-----
1 1100	0	-----	0.0019	-----
1 1200	60	0.0339	0.0183	0.0132
1 1300	120	0.0402	0.0271	0.0212
1 1400	180	0.0427	0.0224	0.0236
1 1500	240	0.0408	0.0206	0.0235
1 1600	300	0.0398	0.0292	0.0304
1 1700	360	0.0391	0.0232	0.0318

----- NO DATA TAKEN

ITC-452
MINI-SURROGATE
1982 MARCH 11

29-APR-83
PAGE 1

0852: THIRD FILL.
0925: INJECTIONS: 1.0 ML. PROPENE, 4.0 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.15 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.5	2.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-1	0.069	PPM
NO2-UNC	I 14B-1	0.023	PPM
PROPENE	DMS-1	0.1665	PPM
N-C4	DMS-1	0.6808	PPM
T2-C4=	DMS-1	0.0241	PPM
M-XYL	10'C-600	0.0705	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	I 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-452
MINI-SURROGATE
1982 MARCH 11

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH U-1212	NO PPH Y 14B-1	NO2-UNC PPH Y 14B-1	NOX-UNC PPH Y 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	12-C4= PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 829	-106	0.000	0.002	0.007	0.009	-----	-----	-----	-----	-----	-----	-----
1 841	-94	-----	-----	-----	-----	0.0019	0.0022	-----	-----	0.000	-----	-----
1 844	-91	0.000	0.003	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 900	-75	0.000	0.003	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.003	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.001	0.070	0.023	0.092	-----	-----	-----	-----	-----	-----	-----
1 934	-41	-----	-----	-----	-----	0.1655	0.6710	0.0240	0.0719	-----	-----	-----
1 943	-32	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 945	-30	0.001	0.069	0.023	0.092	-----	-----	-----	-----	-----	-----	-----
1 954	-21	-----	-----	-----	-----	0.1669	0.6779	0.0240	0.0717	-----	-----	-----
1 1000	-15	0.000	0.069	0.023	0.092	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.069	0.023	0.092	0.1665	0.6808	0.0241	0.0705	0.000	0.008	-----
1 1030	15	0.000	0.042	0.047	0.089	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.029	0.018	0.066	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.088	0.011	0.066	0.077	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.138	0.008	0.066	0.074	0.0990	0.6512	0.0019	0.0492	0.016	0.006	0.0317
1 1130	75	0.176	0.007	0.065	0.072	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.207	0.007	0.063	0.070	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.230	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.245	0.006	0.061	0.067	0.0543	0.6305	0.0000	0.0366	0.039	-----	0.0423
1 1230	135	0.269	0.007	0.060	0.066	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.275	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.292	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.302	0.008	0.061	0.068	0.0307	0.6196	0.0000	0.0301	0.050	0.008	0.0423
1 1330	195	0.310	0.008	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.312	0.008	0.061	0.069	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.314	0.008	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.316	0.008	0.060	0.068	0.0180	0.6057	0.0000	0.0262	0.055	0.015	0.0403
1 1430	255	0.321	0.008	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.325	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.327	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.332	0.009	0.059	0.068	0.0107	0.6038	0.0000	0.0231	0.053	0.010	0.0429
1 1530	315	0.336	0.010	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.335	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.338	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.008	-----
1 1615	360	0.342	0.010	0.057	0.067	0.0061	0.5761	0.0000	0.0214	0.052	-----	0.0407

----- NO DATA TAKEN

ITC-452
MINI-SURROGATE
1982 MARCH 11

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	NEK PPM 10'C-600
1 841	-94	0.0024	-----
1 934	-41	0.0028	-----
1 954	-21	0.0022	-----
1 1015	0	0.0024	-----
1 1115	60	0.0129	0.0121
1 1215	120	0.0187	0.0217
1 1315	180	0.0186	0.0262
1 1415	240	0.0223	0.0291
1 1515	300	0.0224	0.0327
1 1615	360	0.0244	0.0361

----- NO DATA TAKEN

ITC-455
MINI-SURROGATE + 89 PFB TOLUENE
1982 MARCH 15

29-APR-83
PAGE 1

0855: THIRD FILL. R.H. = 50%
0949: INJECTIONS: 1.0 ML. PROPENE, 4.1 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.15 ML. T2-C4=, 1.9 MICROLITERS M-XYL, AND
2.4 MICROLITERS TOLUENE.
1045: T=0. 70% LIGHTS.

T=0 AT 1045 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	29.4	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.064	PPM
NO2-UNC	T 14B-1	0.028	PPM
PROPENE	DMS-1	0.1643	PPM
N-C4	DMS-1	0.6551	PPM
T2-C4=	DMS-1	0.0212	PPM
M-XYL	10'C-600	0.0722	PPM
TOLUENE	10'C-600	0.0890	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORICr1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCU ANALYSIS

ITC-455
 MINI-SURROGATE + 89 PPB TOLUENE
 1982 MARCH 15

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	TOLUENE PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 900	-105	-----	-----	-----	-----	0.0015	0.0004	-----	-----	-----	0.000	-----
1 1001	-44	-----	-----	-----	-----	0.1653	0.6561	0.0213	0.0698	0.0884	-----	-----
1 1008	-37	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.008
1 1021	-24	-----	-----	-----	-----	0.1660	0.6611	0.0214	0.0706	0.0881	-----	-----
1 1045	0	0.000	0.064	0.028	0.092	0.1643	0.6551	0.0212	0.0722	0.0890	0.000	-----
1 1100	15	0.000	0.042	0.046	0.088	-----	-----	-----	-----	-----	-----	-----
1 1115	30	0.043	0.015	0.065	0.080	-----	-----	-----	-----	-----	-----	-----
1 1130	45	0.102	0.008	0.066	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	60	0.154	0.006	0.063	0.069	0.0964	0.6463	0.0014	0.0472	0.0808	0.017	0.008
1 1200	75	0.196	0.005	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1215	90	0.223	0.005	0.059	0.064	-----	-----	-----	-----	-----	-----	-----
1 1230	105	0.244	0.005	0.058	0.062	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.257	0.006	0.055	0.061	0.0507	0.6107	0.0000	0.0354	0.0747	0.041	0.000
1 1300	135	0.269	0.005	0.055	0.059	-----	-----	-----	-----	-----	-----	-----
1 1315	150	0.275	0.004	0.055	0.059	-----	-----	-----	-----	-----	-----	-----
1 1330	165	0.282	0.005	0.054	0.059	-----	-----	-----	-----	-----	-----	-----
1 1345	180	0.286	0.005	0.053	0.058	0.0304	0.6067	0.0000	0.0296	0.0729	0.048	0.006
1 1400	195	0.286	0.005	0.053	0.058	-----	-----	-----	-----	-----	-----	-----
1 1415	210	0.290	0.006	0.052	0.058	-----	-----	-----	-----	-----	-----	-----
1 1430	225	0.291	0.005	0.053	0.058	-----	-----	-----	-----	-----	-----	-----
1 1445	240	0.293	0.005	0.053	0.057	0.0190	0.6008	0.0000	0.0269	0.0697	0.050	0.000
1 1500	255	0.296	0.005	0.052	0.057	-----	-----	-----	-----	-----	-----	-----
1 1515	270	0.295	0.005	0.053	0.058	-----	-----	-----	-----	-----	-----	-----
1 1530	285	0.294	0.006	0.052	0.059	-----	-----	-----	-----	-----	-----	-----
1 1545	300	0.299	0.005	0.052	0.057	0.0118	0.5860	0.0000	0.0252	0.0670	0.049	0.008
1 1600	315	0.299	0.006	0.051	0.057	-----	-----	-----	-----	-----	-----	-----
1 1615	330	0.301	0.005	0.052	0.057	-----	-----	-----	-----	-----	-----	-----
1 1630	345	0.303	0.006	0.051	0.057	-----	-----	-----	-----	-----	-----	-----
1 1635	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.008
1 1645	360	0.304	0.005	0.051	0.056	0.0077	0.5988	0.0000	0.0221	0.0660	0.046	-----

----- NO DATA TAKEN

ITC-455
MINI-SURROGATE + 89 PPB TOLUENE
1982 MARCH 15

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1001	-44	-----	0.0020	-----
1 1145	60	-----	0.0099	0.0123
1 1245	120	0.0458	0.0234	0.0217
1 1345	180	-----	-----	-----
1 1445	240	0.0463	0.0252	0.0295
1 1545	300	0.0433	0.0162	0.0315
1 1645	360	0.0431	0.0168	0.0353

----- NO DATA TAKEN

IIC-456
MINI-SURROGATE
1982 MARCH 16

29-APR-83
PAGE 1

0821: THIRD FILL.
0918: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.16 ML. T2-C4=, 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.3	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.063	PPM
NO2-UNC	T 14B-1	0.029	PPM
PROPENE	DMS-1	0.1676	PPM
N-C4	DMS-1	0.7214	PPM
T2-C4=	10'C-600	0.0243	PPM
M-XYL	10'C-600	0.0698	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12% 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-456
 MINI-SURROGATE
 1982 MARCH 16

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH F 14B-1	NO2-UNC PPH F 14B-1	NOX-UNC PPH F 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	12-C4= PPH 10'C-600	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 814	-121	0.002	0.002	0.005	0.007	-----	-----	-----	-----	-----	-----	-----
1 829	-106	0.000	0.002	0.004	0.007	-----	-----	-----	-----	-----	-----	-----
1 836	-99	-----	-----	-----	-----	0.0015	0.0024	-----	-----	0.000	-----	-----
1 844	-91	0.000	0.003	0.005	0.008	-----	-----	-----	-----	-----	-----	-----
1 859	-76	0.000	0.003	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 914	-61	0.000	0.004	0.005	0.008	-----	-----	-----	-----	-----	-----	-----
1 929	-46	0.000	0.062	0.029	0.090	-----	-----	-----	-----	-----	-----	-----
1 930	-45	-----	-----	-----	-----	0.1653	0.7115	0.0239	0.0698	-----	-----	-----
1 936	-39	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.019	-----
1 945	-30	0.000	0.063	0.028	0.091	-----	-----	-----	-----	-----	-----	-----
1 948	-27	-----	-----	-----	-----	0.1686	0.7253	0.0244	0.0705	-----	-----	-----
1 1000	-15	0.000	0.064	0.029	0.093	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.063	0.029	0.091	0.1676	0.7214	0.0243	0.0698	0.000	-----	-----
1 1030	15	0.000	0.041	0.047	0.088	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.035	0.016	0.064	0.081	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.089	0.010	0.065	0.075	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.136	0.007	0.064	0.071	0.0992	0.6967	0.0019	0.0475	0.016	0.010	-----
1 1130	75	0.169	0.006	0.063	0.069	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.203	0.006	0.062	0.067	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.229	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.251	0.005	0.059	0.064	0.0535	0.6611	0.0000	0.0368	0.037	0.008	0.0449
1 1230	135	0.267	0.004	0.059	0.063	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.275	0.004	0.057	0.061	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.283	0.004	0.057	0.061	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.295	0.005	0.057	0.062	0.0307	0.6542	0.0000	0.0300	0.046	-----	0.0438
1 1330	195	0.295	0.004	0.056	0.060	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.301	0.005	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.305	0.004	0.056	0.060	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.307	0.005	0.056	0.061	0.0184	0.6413	0.0000	0.0264	0.053	0.006	0.0472
1 1430	255	0.313	0.005	0.057	0.061	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.319	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.322	0.005	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.323	0.005	0.056	0.061	0.0111	0.6453	0.0000	0.0225	0.051	0.008	0.0449
1 1530	315	0.323	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.333	0.006	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.332	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1610	355	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 1615	360	0.336	0.006	0.057	0.062	-----	-----	-----	0.0208	0.049	-----	0.0419
1 1616	361	-----	-----	-----	-----	0.0066	0.6305	0.0000	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-456
MINI-SURROGATE
1982 MARCH 16

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 836	-99	0.0011	-----
1 1015	0	0.0016	-----
1 1115	60	0.0092	0.0108
1 1215	120	0.0221	0.0192
1 1315	180	0.0181	0.0245
1 1415	240	0.0305	0.0285
1 1515	300	0.0181	0.0310
1 1615	360	0.0186	0.0335

----- NO DATA TAKEN

ITC-457
MINI-SURROGATE + BENZALDEHYDE
1982 MARCH 17

29-APR-83
PAGE 1

0833: THIRD FILL.
0945: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.16 ML. T2-C4=, 1.9 MICROLITERS M-XYL, AND
7.0 MICROLITERS BENZALDEHYDE.
1100: I=0. 70% LIGHTS.
1630: LIGHTS OFF.
NOTE: BENZALDEHYDE DATA QUESTIONABLE.

I=0 AT 1100 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
I	DORIC-1	28.5	2.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-1	0.062	PPM
NO2-UNC	I 14B-1	0.033	PPM
PROPENE	DMS-1	0.1660	PPM
N-C4	DMS-1	0.7125	PPM
T2-C4=	DMS-1	0.0234	PPM
M-XYL	10'C-600	0.0710	PPM
BZALD	5' C-600	0.5026	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	I 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2720	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2930	5' C-600	RM-103; 5'5% CARBOWAX-600 GC; FID

ITC-457
 MINI-SURROGATE + BENZALDEHYDE
 1982 MARCH 17

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM F 14B-1	NO2-UNC PPM F 14B-1	NOX-UNC PPM F 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	f2-C4= PPM DMS-1	M-XYL PPM 10' C-600	BZALD PPM 5' C-600	PAN PPM ECD-1	HCHO PPM CA
1 841	-139	-----	-----	-----	-----	0.0014	0.0002	-----	-----	0.0667	0.000	-----
1 925	-95	-----	-----	-----	-----	-----	-----	-----	-----	0.0035	-----	-----
1 1000	-60	0.000	0.061	0.033	0.094	0.1653	0.7154	0.0236	0.0675	-----	-----	-----
1 1005	-55	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002
1 1015	-45	0.000	0.061	0.033	0.094	-----	-----	-----	-----	-----	-----	-----
1 1018	-42	-----	-----	-----	-----	0.1688	0.7293	0.0240	0.0710	-----	-----	-----
1 1030	-30	0.000	0.061	0.033	0.094	-----	-----	-----	-----	-----	-----	-----
1 1045	-15	0.000	0.062	0.033	0.095	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.000	0.062	0.033	0.095	0.1660	0.7125	0.0234	----- B	0.5026	0.000	-----
1 1115	15	0.000	0.058	0.036	0.093	-----	-----	-----	-----	-----	-----	-----
1 1130	30	0.000	0.046	0.044	0.090	-----	-----	-----	-----	-----	-----	-----
1 1145	45	0.003	0.035	0.052	0.088	-----	-----	-----	-----	-----	-----	-----
1 1200	60	0.015	0.025	0.059	0.084	0.1499	0.7233	0.0136	0.0658	0.4862	0.001	0.002
1 1215	75	0.036	0.018	0.062	0.080	-----	-----	-----	-----	-----	-----	-----
1 1230	90	0.058	0.014	0.064	0.077	-----	-----	-----	-----	-----	-----	-----
1 1245	105	0.082	0.011	0.063	0.074	-----	-----	-----	-----	-----	-----	-----
1 1300	120	0.102	0.009	0.062	0.071	0.1049 A	0.6492 A	0.0016 A	0.0550	0.4203	0.008	0.000
1 1315	135	0.121	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1330	150	0.139	0.007	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1345	165	0.159	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1400	180	0.169	0.007	0.055	0.062	0.0683	0.6759	0.0000	0.0479	0.3560	0.014	0.000
1 1415	195	0.177	0.007	0.054	0.061	-----	-----	-----	-----	-----	-----	-----
1 1430	210	0.178	0.008	0.053	0.061	-----	-----	-----	-----	-----	-----	-----
1 1445	225	0.182	0.007	0.051	0.058	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.182	0.007	0.050	0.057	0.0571	0.6334	0.0000	0.0436	0.3489	0.019	0.000
1 1515	255	0.187	0.008	0.050	0.057	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.182	0.007	0.048	0.056	-----	-----	-----	-----	-----	-----	-----
1 1545	285	0.184	0.008	0.047	0.055	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.181	0.008	0.045	0.053	0.0437	0.6828	0.0000	0.0411	0.3210	0.016	0.006
1 1615	315	0.181	0.008	0.045	0.053	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.178	0.008	0.044	0.051	0.0381	0.6828	0.0000	0.0406	0.3342	0.016	-----

----- NO DATA TAKEN

ITC-457
MINI-SURROGATE + BENZALDEHYDE
1982 MARCH 17

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 841	-139	-----	0.0017	-----
1 1100	0	-----	0.0024	-----
1 1200	60	0.0088	0.0034	0.0029
1 1300	120	0.0240	0.0098	0.0074
1 1400	180	-----	0.0142	0.0105
1 1500	240	0.0352	0.0128	0.0119
1 1600	300	0.0387	0.0077	0.0126
1 1630	330	0.0433	0.0145	0.0158

----- NO DATA TAKEN

NOTES

- A VALUES SUSPECT--SYRINGE STICKING.
- B PEAK ATOP OF ANOTHER PEAK.

ITC-459
MINI-SURROGATE
1982 MARCH 19

29-APR-83
PAGE 1

0835: THIRD FILL.
0928: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.9	2.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.065	PPM
NO2-UNC	T 14B-1	0.026	PPM
PROPENE	DMS-1	0.1738	PPM
N-C4	DMS-1	0.7233	PPM
T2-C4=	DMS-1	0.0260	PPM
M-XYL	10'C-600	0.0697	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-459
 MINI-SURROGATE
 1982 MARCH 19

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 841	-109	-----	-----	-----	-----	0.0013	0.0010	-----	-----	0.000	-----	-----
1 930	-60	0.000	0.065	0.027	0.091	-----	-----	-----	-----	-----	-----	-----
1 941	-49	-----	-----	-----	-----	0.1722	0.7194	0.0257	0.0691	-----	-----	-----
1 945	-45	0.000	0.063	0.027	0.090	-----	-----	-----	-----	-----	-----	-----
1 950	-40	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1000	-30	0.000	0.067	0.031	0.098	0.1736	0.7293	0.0259	0.0689	-----	-----	-----
1 1015	-15	0.000	0.064	0.026	0.090	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.000	0.065	0.026	0.091	0.1738	0.7233	0.0260	0.0697	0.000	-----	-----
1 1045	15	0.002	0.039	0.048	0.087	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.046	0.015	0.066	0.081	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.102	0.009	0.066	0.075	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.146	0.031	0.042	0.072	0.1540	0.6878	0.0018	0.0472	0.018	0.000	0.0332
1 1145	75	0.182	0.008	0.061	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.208	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.234	0.006	0.060	0.066	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.248	0.005	0.059	0.065	0.0564	0.6729	0.0000	0.0359	0.037	0.000	0.0423
1 1245	135	0.270	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.276	0.005	0.059	0.064	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.290	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.298	0.008	0.058	0.066	0.0332	0.6611	0.0000	0.0302	0.047	-----	0.0387
1 1345	195	0.307	0.005	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.309	0.006	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.312	0.006	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.313	0.005	0.058	0.063	0.0201	0.6472	0.0000	0.0260	0.051	0.000	0.0434
1 1445	255	0.308	0.007	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.312	0.008	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.313	0.007	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.315	0.005	0.061	0.066	0.0125	0.6463	0.0000	0.0238	0.052	0.000	0.0414
1 1545	315	0.324	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.326	0.005	0.055	0.060	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.330	0.016	0.096	0.100	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002	-----
1 1630	360	0.330	0.010	0.063	0.073	0.0077	0.6364	0.0000	0.0213	0.047	-----	0.0416

----- NO DATA TAKEN

ITC-459
MINI-SURROGATE
1982 MARCH 19

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	MEK PPH 10'C-600
1 841	-109	0.0016	-----
1 1130	60	0.0080	0.0130
1 1230	120	0.0130	0.0197
1 1330	180	0.0093	0.0186
1 1430	240	0.0145	0.0276
1 1530	300	0.0133	0.0305
1 1630	360	0.0130	0.0320

----- NO DATA TAKEN

ITC-461
MINI-SURROGATE
1982 MARCH 24

29-APR-83
PAGE 1

0817: THIRD FILL. 50% R.H.
0916: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.67 ML. NO,
0.10 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PSI

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.9	2.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.071	PPM
NO2-UNC	T 14B-1	0.024	PPM
PROPENE	DMS-1	0.1722	PPM
N-C4	DMS-1	0.7352	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASI81 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10°C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-461
 MINI-SURROGATE
 1982 MARCH 24

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM 0-1212	NO PPM 14B-1	NO2-UNC PPM 14B-1	NOX-UNC PPM 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	N-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETONE PPM 10'C-600
1 815	-120	0.009	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 830	-105	0.000	0.003	0.007	0.010	-----	-----	-----	-----	-----	-----	-----
1 833	-102	-----	-----	-----	-----	0.0016	0.0002	-----	-----	0.000	-----	0.0019
1 845	-90	0.000	0.003	0.006	0.009	-----	-----	-----	-----	-----	-----	-----
1 900	-75	0.000	0.004	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.004	0.005	0.010	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.072	0.023	0.094	-----	-----	-----	-----	-----	-----	-----
1 938	-37	-----	-----	-----	-----	0.1700	0.7293	0.0267	0.0698	-----	0.000	-----
1 945	-30	0.000	0.071	0.024	0.095	-----	-----	-----	-----	-----	-----	-----
1 947	-28	-----	-----	-----	-----	0.1736	0.7441	0.0273	0.0713	-----	-----	-----
1 1000	-15	0.000	0.072	0.024	0.095	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.071	0.024	0.095	0.1722	0.7352	0.0269	0.0715	0.000	-----	-----
1 1030	15	0.000	0.048	0.044	0.091	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.025	0.020	0.066	0.085	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.077	0.012	0.069	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.127	0.009	0.069	0.077	0.1032	0.7026	0.0025	-----	0.017	0.000	-----
1 1130	75	0.162	0.008	0.066	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.188	0.007	0.065	0.072	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.217	0.007	0.063	0.069	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.240	0.006	0.063	0.069	0.0591	0.6859	0.0000	0.0372	0.037	0.000	-----
1 1230	135	0.258	0.006	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.272	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.283	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.291	0.006	0.060	0.066	0.0343	0.6710	0.0000	0.0287	0.051	0.000	-----
1 1330	195	0.298	0.006	0.059	0.065	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.301	0.006	0.059	0.065	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.305	0.006	0.060	0.066	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.308	0.006	0.059	0.066	0.0208	0.6690	0.0000	-----	0.055	0.004	-----
1 1430	255	0.307	0.006	0.059	0.065	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.314	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.315	0.007	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.320	0.012	0.055	0.066	0.0130	0.6571	0.0000	0.0224	0.056	-----	-----
1 1521	306	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----
1 1530	315	0.321	0.007	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.321	0.007	0.059	0.065	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.323	0.007	0.058	0.064	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1615	360	0.327	0.007	0.058	0.064	0.0078	0.6413	0.0000	-----	0.051	-----	-----

----- NO DATA TAKEN

ITC-462
MINI-SURROGATE + 518 PPB BENZALDEHYDE
1982 MARCH 25

29-APR-83
PAGE 1

0833: THIRD FILL, 50% R.H.
0842: FILLED.
0935: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.67 ML. NO,
0.10 ML. NO2, 0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYL, AND
22.4 MICROLITERS BENZALDEHYDE.
1045: T=0. 70% LIGHTS.

T=0 AT 1045 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.7	2.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.066	PPM
NO2-UNC	T 14B-1	0.039	PPM
PROPENE	DMS-1	0.1643	PPM
N-C4	DMS-1	0.6957	PPM
T2-C4=	DMS-1	0.0255	PPM
M-XYL	10'C-600	0.0691	PPM
BZALD	5' C-600	0.5115	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2930	5' C-600	RM-103; 5'5% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-462
 MINI-SURROGATE + 518 PPB BENZALDEHYDE
 1982 MARCH 25

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM B-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	N-XYL PPM 10' C-600	BZALD PPM 5' C-600	PAN PPM ECD-1	HCHO PPM CA
1 830	-135	0.000	0.002	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 840	-125	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 845	-120	0.000	0.004	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 900	-105	0.000	0.005	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 915	-90	0.000	0.005	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-75	0.000	0.005	0.005	0.010	-----	-----	-----	-----	-----	-----	-----
1 945	-60	0.000	0.058	0.035	0.093	-----	-----	-----	-----	-----	-----	-----
1 950	-55	-----	-----	-----	-----	0.1667	0.7046	0.0258	0.0669	0.5177	-----	-----
1 958	-47	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1000	-45	0.000	0.064	0.038	0.100	-----	-----	-----	-----	-----	-----	-----
1 1015	-30	0.000	0.065	0.039	0.100	-----	-----	-----	-----	-----	-----	-----
1 1016	-29	-----	-----	-----	-----	0.1665	0.7085	0.0263	0.0698	0.5408	-----	-----
1 1030	-15	0.007	0.065	0.039	0.100	-----	-----	-----	-----	-----	-----	-----
1 1045	0	0.000	0.066	0.039	0.100	0.1643	0.6957	0.0255	0.0691	0.5115	0.000	-----
1 1100	15	0.000	0.065	0.038	0.100	-----	-----	-----	-----	-----	-----	-----
1 1115	30	0.000	0.055	0.045	0.100	-----	-----	-----	-----	-----	-----	-----
1 1130	45	0.000	0.049	0.048	0.097	-----	-----	-----	-----	-----	-----	-----
1 1145	60	0.001	0.037	0.056	0.093	0.1605	0.7105	0.0186	-----	0.5044	0.000	-----
1 1150	65	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1200	75	0.005	0.030	0.060	0.089	-----	-----	-----	-----	-----	-----	-----
1 1215	90	0.016	0.023	0.063	0.086	-----	-----	-----	-----	-----	-----	-----
1 1230	105	0.025	0.019	0.064	0.082	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.037	0.016	0.063	0.078	0.1423	0.6996	0.0068	0.0618	----- A	0.001	0.000
1 1300	135	0.052	0.013	0.063	0.076	-----	-----	-----	-----	-----	-----	-----
1 1315	150	0.062	0.012	0.062	0.073	-----	-----	-----	-----	-----	-----	-----
1 1330	165	0.074	0.010	0.061	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	180	0.086	0.010	0.055	0.065	0.1212	0.6976	0.0009	0.0598	0.4902	0.003	0.000
1 1400	195	0.092	0.009	0.052	0.061	-----	-----	-----	-----	-----	-----	-----
1 1415	210	0.097	0.009	0.050	0.058	-----	-----	-----	-----	-----	-----	-----
1 1430	225	0.099	0.009	0.048	0.056	-----	-----	-----	-----	-----	-----	-----
1 1445	240	0.093	0.008	0.046	0.054	0.1037	0.7006	0.0001	-----	0.4405	0.004	0.000
1 1500	255	0.090	0.008	0.043	0.051	-----	-----	-----	-----	-----	-----	-----
1 1515	270	0.092	0.008	0.041	0.049	-----	-----	-----	-----	-----	-----	-----
1 1530	285	0.093	0.008	0.040	0.048	-----	-----	-----	-----	-----	-----	-----
1 1545	300	0.088	0.008	0.039	0.046	0.0867	0.6848	0.0000	0.0552	0.4493	0.004	-----
1 1600	315	0.085	0.007	0.037	0.044	-----	-----	-----	-----	-----	-----	-----
1 1615	330	0.089	0.008	0.036	0.041	0.0821	0.6858	0.0000	0.0565	----- A	0.003	-----
1 1620	335	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002
1 1630	345	0.086	0.007	0.035	0.042	-----	-----	-----	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-462
MINI-SURROGATE + 518 PPB BENZALDEHYDE
1982 MARCH 25

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CLOCK	ELAPSED	ACETONE
TIME	TIME	PPM
DAY HR.	(MIN)	10'C-600

1	840	-125	0.0027
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----- NO DATA TAKEN

NOTES

A INTERFERENCE--NO DATA.

ITC-465
MINI-SURROGATE
1982 MARCH 29

29-APR-83
PAGE 1

0849: THIRD FILL.
0934: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PSI

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.8	2.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.024	PPM
PROPENE	DMS-1	0.1639	PPM
N-C4	DMS-1	0.7016	PPM
T2-C4=	DMS-1	0.0258	PPM
M-XYL	10'C-600	0.0670	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-465
MINI-SURROGATE
1982 MARCH 29

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM U-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 845	-105	0.002	0.000	0.001	0.001	-----	-----	-----	-----	-----	-----	-----
1 857	-93	-----	-----	-----	-----	0.0017	0.0002	-----	-----	0.000	-----	-----
1 900	-90	0.000	0.003	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 915	-75	0.000	0.004	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-60	0.000	0.065	0.023	0.088	-----	-----	-----	-----	-----	-----	-----
1 945	-45	0.000	0.077	0.024	0.100	-----	-----	-----	-----	-----	-----	-----
1 948	-42	-----	-----	-----	-----	0.1605	0.6858	0.0253	0.0653	-----	-----	-----
1 1000	-30	0.000	0.077	0.024	0.100	-----	-----	-----	-----	-----	-----	-----
1 1006	-24	-----	-----	-----	-----	0.1617	0.6907	0.0256	0.0670	-----	0.025	-----
1 1015	-15	0.000	0.077	0.024	0.100	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.000	0.076	0.024	0.100	0.1639	0.7016	0.0258	0.0670	0.000	-----	-----
1 1045	15	0.000	0.047	0.050	0.097	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.030	0.030	0.072	0.092	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.083	0.011	0.075	0.085	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.131	0.008	0.073	0.080	0.0954	0.6551	0.0024	0.0458	0.014	0.004	0.0407
1 1145	75	0.170	0.007	0.071	0.078	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.197	0.006	0.070	0.076	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.225	0.006	0.069	0.075	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.247	0.006	0.068	0.074	0.0532	0.6403	0.0000	0.0336	0.037	0.002	0.0516
1 1245	135	0.264	0.006	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.277	0.006	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.285	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.295	0.006	0.066	0.072	0.0307	0.6314	0.0000	0.0279	0.048	-----	0.0244
1 1345	195	0.302	0.006	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.306	0.006	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.312	0.006	0.065	0.071	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.316	0.006	0.065	0.071	0.0186	0.6196	0.0000	-----	0.050	0.000	-----
1 1445	255	0.318	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.319	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.321	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.322	0.005	0.065	0.070	0.0115	0.6176	0.0000	-----	0.052	0.002	-----
1 1545	315	0.326	0.006	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.325	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.331	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 1630	360	0.330	0.006	0.064	0.069	0.0071	0.6097	0.0000	0.0191	0.051	-----	0.0542

----- NO DATA TAKEN

ITC-465
MINI-SURROGATE
1982 MARCH 29

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 857	-93	0.0011	-----
1 1030	0	0.0010	-----
1 1130	60	0.0072	0.0132
1 1230	120	0.0131	0.0238
1 1330	180	0.0078	0.0187
1 1630	360	0.0157	0.0375

----- NO DATA TAKEN

ITC-466
MINI-SURROGATE + 347 PPB BENZALDEHYDE
1982 MARCH 30

29-APR-83
PAGE 1

0844: THIRD FILL. 50% R.H.
0930: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYL, AND
4.7 MICROLITERS BENZALDEHYDE.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.6	2.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.080	PPM
NO2-UNC	T 14B-1	0.024	PPM
PROPENE	DMS-1	0.1688	PPM
N-C4	DMS-1	0.7233	PPM
T2-C4=	DMS-1	0.0260	PPM
M-XYL	10'C-600	0.0705	PPM
BZALD	5' C-600	0.3472	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIDI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2930	5' C-600	RM-103; 5'5% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-466
 MINI-SURROGATE + 347 PPB BENZALDEHYDE
 1982 MARCH 30

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM O-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	BZALD PPM 5' C-600	PAN PPM ECD-1	HCHO PPM CA
1 815	-135	0.021	0.001	0.005	0.006	-----	-----	-----	-----	-----	-----	-----
1 830	-120	0.005	0.003	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 845	-105	0.004	0.005	0.012	0.016	-----	-----	-----	-----	-----	-----	-----
1 854	-96	-----	-----	-----	-----	0.0013	0.0023	-----	-----	0.0000	0.000	-----
1 900	-90	0.001	0.005	0.005	0.010	-----	-----	-----	-----	-----	-----	-----
1 915	-75	0.000	0.005	0.004	0.010	-----	-----	-----	-----	-----	-----	-----
1 930	-60	0.007	0.081	0.021	0.100	-----	-----	-----	-----	-----	-----	-----
1 941	-49	-----	-----	-----	-----	0.1665	0.7095	0.0255	0.0679	0.3579	-----	-----
1 945	-45	0.008	0.080	0.024	0.100	-----	-----	-----	-----	-----	-----	-----
1 950	-40	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1000	-30	0.000	0.078	0.023	0.100	-----	-----	-----	-----	-----	-----	-----
1 1003	-27	-----	-----	-----	-----	0.1679	0.7154	0.0258	0.0705	0.3570	-----	-----
1 1015	-15	0.002	0.079	0.023	0.100	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.005	0.080	0.024	0.100	0.1688	0.7233	0.0260	-----	0.3472	0.000	-----
1 1045	15	0.000	0.074	0.027	0.100	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.000	0.065	0.032	0.097	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.000	0.056	0.039	0.095	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.001	0.046	0.047	0.093	0.1617	0.7233	0.0205	-----	0.3428	0.000	-----
1 1133	63	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1145	75	0.005	0.037	0.053	0.090	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.001	0.028	0.057	0.086	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.014	0.022	0.060	0.082	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.024	0.017	0.062	0.079	0.1463	0.7194	0.0091	0.0630	0.3232	0.002	0.000
1 1245	135	0.056	0.015	0.063	0.077	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.068	0.012	0.061	0.073	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.069	0.010	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.093	0.009	0.058	0.067	0.1205	0.7105	0.0013	0.0577	-----	0.004	0.000
1 1345	195	0.100	0.008	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.112	0.007	0.054	0.060	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.109	0.007	0.050	0.057	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.131	0.007	0.050	0.056	0.0963	0.7006	0.0000	-----	0.2700	0.007	0.000
1 1445	255	0.115	0.006	0.047	0.053	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.127	0.007	0.046	0.053	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.115	0.006	0.044	0.050	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.123	0.006	0.044	0.050	0.0787	0.6884	0.0000	0.0515	0.2691	0.007	-----
1 1545	315	0.110	0.006	0.041	0.047	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.111	0.006	0.040	0.046	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.107	0.005	0.039	0.044	-----	-----	-----	-----	-----	-----	-----
1 1630	360	0.112	0.006	0.037	0.043	0.0667	0.6996	0.0000	0.0505	0.2646	0.005	-----

----- NO DATA TAKEN

ITC-466
MINI-SURROGATE + 347 PPB BENZALDEHYDE
1982 MARCH 30

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 854	-96	-----	0.0014	-----
1 1030	0	-----	0.0019	-----
1 1230	120	0.0209	0.0052	0.0038
1 1330	180	0.0296	0.0095	0.0065
1 1530	300	0.0426	0.0196	0.0087
1 1630	360	-----	-----	0.0092

----- NO DATA TAKEN

ITC-467
MINI-SURROGATE
1982 MARCH 31

29-APR-83
PAGE 1

0842: THIRD FILL.
0930: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.6	2.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.077	PPM
NO2-UNC	T 14B-1	0.023	PPM
PROPENE	DMS-1	0.1594	PPM
N-C4	DMS-1	0.7144	PPM
T2-C4=	DMS-1	0.0260	PPM
M-XYL	10'C-600	0.0693	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12" 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-467
MINI-SURROGATE
1982 MARCH 31

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 815	-135	0.000	0.007	0.029	0.036	-----	-----	-----	-----	-----	-----	-----
1 830	-120	0.011	0.003	0.025	0.028	-----	-----	-----	-----	-----	-----	-----
1 845	-105	0.003	0.004	0.026	0.030	-----	-----	-----	-----	-----	-----	-----
1 850	-100	-----	-----	-----	-----	0.0018	0.0026	-----	-----	0.000	-----	-----
1 900	-90	0.014	0.002	0.021	0.024	-----	-----	-----	-----	-----	-----	-----
1 915	-75	0.022	0.003	0.020	0.023	-----	-----	-----	-----	-----	-----	-----
1 930	-60	0.000	0.077	0.012	0.089	-----	-----	-----	-----	-----	-----	-----
1 941	-49	-----	-----	-----	-----	0.1560	0.7006	0.0255	0.0679	-----	-----	-----
1 945	-45	0.000	0.077	0.024	0.100	-----	-----	-----	-----	-----	-----	-----
1 950	-40	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 1000	-30	0.000	0.096	0.014	0.100	-----	-----	-----	-----	-----	-----	-----
1 1002	-28	-----	-----	-----	-----	0.1579	0.7065	0.0258	0.0685	-----	-----	-----
1 1015	-15	0.001	0.077	0.023	0.100	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.000	0.077	0.023	0.100	0.1594	0.7144	0.0260	0.0693	0.000	-----	0.0024
1 1045	15	0.002	0.058	0.042	0.099	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.007	0.026	0.065	0.091	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.053	0.013	0.071	0.085	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.110	0.010	0.072	0.082	0.0969	0.6789	0.0029	0.0476	0.013	0.002	0.0450
1 1145	75	0.143	0.008	0.070	0.079	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.173	0.008	0.069	0.076	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.194	0.007	0.067	0.074	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.217	0.007	0.066	0.072	0.0554	0.7566	0.0000	0.0346	0.035	0.000	0.0493
1 1245	135	0.238	0.006	0.064	0.071	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.253	0.006	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.263	0.006	0.063	0.069	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.274	0.006	0.063	0.069	0.0324	0.6384	0.0000	-----	0.043	0.000	-----
1 1345	195	0.280	0.006	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.281	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.286	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.292	0.006	0.062	0.068	0.0200	0.6334	0.0000	0.0244	0.050	-----	0.0435
1 1445	255	0.296	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.296	0.006	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.297	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.297	0.005	0.060	0.065	0.0126	0.6305	0.0000	0.0226	0.049	0.006	0.0489
1 1545	315	0.298	0.005	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.301	0.005	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.300	0.006	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.008	-----
1 1630	360	0.305	0.005	0.059	0.064	0.0081	0.6245	0.0000	0.0206	0.047	-----	-----

----- NO DATA TAKEN

ITC-467
MINI-SURROGATE
1982 MARCH 31

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10°C-600	MEK PPM 10°C-600
1 850	-100	0.0014	-----
1 1030	0	0.0043	-----
1 1130	60	0.0087	0.0110
1 1230	120	0.0162	0.0200
1 1430	240	0.0138	0.0265
1 1530	300	0.0311	0.0336
1 1630	360	-----	0.0377

----- NO DATA TAKEN

ITC-468
MINI-SURROGATE + 115 PPB BENZALDEHYDE
1982 APRIL 1

29-APR-83
PAGE 1

0847: THIRD FILL. 50% R.H.
0945: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYL, AND
4.7 MICROLITERS BENZALDEHYDE.
1045: T=0. 70% LIGHTS.

T=0 AT 1045 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.4	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1605	PPM
N-C4	DMS-1	0.6808	PPM
T2-C4=	DMS-1	0.0250	PPM
M-XYL	10'C-600	0.0657	PPM
BZALD	5' C-600	0.1146	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	OASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2930	5' C-600	RM-103; 5'5% CARBOWAX-600 GC; FID

ITC-468
 MINI-SURROGATE + 115 PPB BENZALDEHYDE
 1982 APRIL 1

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T2-C4= PPH DMS-1	M-XYL PPH 10'C-600	BZALD PPH 5' C-600	PAN PPH ECD-1	HCHO PPH CA
1 815	-150	0.013	0.001	0.014	0.015	-----	-----	-----	-----	-----	-----	-----
1 830	-135	0.000	0.000	0.017	0.017	-----	-----	-----	-----	-----	-----	-----
1 845	-120	0.000	0.007	0.031	0.038	-----	-----	-----	-----	-----	-----	-----
1 900	-105	0.003	0.004	0.031	0.034	-----	-----	-----	-----	-----	-----	-----
1 902	-103	-----	-----	-----	-----	0.0013	0.0020	-----	-----	0.0000	0.000	-----
1 915	-90	0.003	0.002	0.005	0.007	-----	-----	-----	-----	-----	-----	-----
1 930	-75	0.000	0.002	0.005	0.007	-----	-----	-----	-----	-----	-----	-----
1 945	-60	0.000	0.074	0.020	0.094	-----	-----	-----	-----	-----	-----	-----
1 958	-47	-----	-----	-----	-----	0.1570	0.6700	0.0245	0.0679	0.1137	-----	-----
1 1000	-45	0.000	0.072	0.021	0.093	-----	-----	-----	-----	-----	-----	-----
1 1007	-38	0.004	0.073	0.022	0.094	-----	-----	-----	-----	-----	-----	-----
1 1010	-35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1015	-30	0.004	0.073	0.021	0.094	-----	-----	-----	-----	-----	-----	-----
1 1019	-26	-----	-----	-----	-----	0.1615	0.6838	0.0253	-----	0.1110	-----	-----
1 1021	-24	-----	-----	-----	-----	-----	-----	-----	0.0685	-----	-----	-----
1 1030	-15	0.000	0.074	0.021	0.095	-----	-----	-----	-----	-----	-----	-----
1 1045	0	0.000	0.073	0.021	0.094	0.1605	0.6808	0.0250	0.0657 B	0.1146	0.000	-----
1 1100	15	0.003	0.067	0.026	0.093	-----	-----	-----	-----	-----	-----	-----
1 1115	30	0.000	0.052	0.036	0.089	-----	-----	-----	-----	-----	-----	-----
1 1130	45	0.000	0.038	0.048	0.086	-----	-----	-----	-----	-----	-----	-----
1 1145	60	0.000	0.025	0.056	0.081	0.1414	0.6729	0.0146	-----	0.1012	0.001	-----
1 1200	75	0.028	0.016	0.062	0.077	-----	-----	-----	-----	-----	-----	-----
1 1215	90	0.053	0.012	0.063	0.074	-----	-----	-----	-----	-----	-----	-----
1 1230	105	0.059	0.008	0.061	0.070	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.090	0.008	0.061	0.068	0.1075	0.6739	0.0018	0.0504	0.0870	0.008	0.002
1 1300	135	0.100	0.006	0.058	0.064	-----	-----	-----	-----	-----	-----	-----
1 1315	150	0.130	0.006	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1330	165	0.129	0.005	0.054	0.059	-----	-----	-----	0.0429	-----	-----	-----
1 1345	180	0.150	0.005	0.054	0.058	0.0664 A	0.5771 A	0.0000	-----	0.0790	0.014	0.004
1 1400	195	0.167	0.005	0.053	0.057	-----	-----	-----	-----	-----	-----	-----
1 1415	210	0.167	0.005	0.051	0.055	-----	-----	-----	-----	-----	-----	-----
1 1430	225	0.161	0.004	0.050	0.054	-----	-----	-----	-----	-----	-----	-----
1 1445	240	0.176	0.005	0.050	0.054	0.0530	0.6354	0.0000	-----	0.0790	0.020	0.000
1 1500	255	0.165	0.004	0.049	0.053	-----	-----	-----	-----	-----	-----	-----
1 1515	270	0.170	0.004	0.048	0.052	-----	-----	-----	-----	-----	-----	-----
1 1530	285	0.164	0.004	0.046	0.051	-----	-----	-----	-----	-----	-----	-----
1 1535	290	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000
1 1545	300	0.167	0.004	0.046	0.050	0.0407	0.6423	0.0000	-----	0.0737	0.021	-----
1 1600	315	0.176	0.005	0.046	0.050	-----	-----	-----	-----	-----	-----	-----
1 1615	330	0.172	0.005	0.045	0.049	-----	-----	-----	-----	-----	-----	-----
1 1630	345	0.166	0.004	0.044	0.048	-----	-----	-----	-----	-----	-----	-----
1 1645	360	0.165	0.004	0.043	0.047	0.0306	0.6334	0.0000	0.0360	0.0702	0.019	-----

----- NO DATA TAKEN

ITC-468
MINI-SURROGATE + 115 PPB BENZALDEHYDE
1982 APRIL 1

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 902	-103	-----	0.0017	-----
1 1045	0	-----	0.0018	-----
1 1245	120	0.0401	0.0095	0.0103
1 1330	165	0.0448	0.0030	0.0146
1 1645	360	0.0493	0.0188	0.0458

----- NO DATA TAKEN

NOTES

- A VALUES SUSPECT.
- B ESTIMATION BECAUSE OF PEAK ON TOP OF BZALD PEAK FROM 0958 INJECTION.

ITC-471
MINI-SURROGATE
1982 APRIL 5

29-APR-83
PAGE 1

0849: THIRD FILL. 50% R.H.
0930: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.5	3.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.075	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.1594	PPM
N-C4	DMS-1	0.6759	PPM
T2-C4=	DMS-1	0.0252	PPM
M-XYL	10'C-600	0.0685	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECU
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-471
MINI-SURROGATE
1982 APRIL 5

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 815	-120	0.001	0.001	0.001	0.002	-----	-----	-----	-----	-----	-----	-----
1 830	-105	0.000	0.000	0.000	0.000	-----	-----	-----	-----	-----	-----	-----
1 845	-90	0.006	0.001	0.001	0.001	-----	-----	-----	-----	-----	-----	-----
1 853	-82	-----	-----	-----	-----	0.0020	0.0002	-----	-----	0.000	-----	-----
1 900	-75	0.005	0.001	0.001	0.001	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.000	0.000	0.000	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.003	0.000	0.003	-----	-----	-----	-----	-----	-----	-----
1 941	-34	-----	-----	-----	-----	0.1603	0.6808	0.0253	0.0683	-----	-----	-----
1 945	-30	0.007	0.076	0.018	0.093	-----	-----	-----	-----	-----	-----	-----
1 956	-19	-----	-----	-----	-----	0.1608	0.6848	0.0254	0.0683	-----	-----	-----
1 1000	-15	0.000	0.075	0.018	0.093	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.075	0.019	0.094	0.1594	0.6759	0.0252	0.0685	0.000	-----	-----
1 1021	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1030	15	0.000	0.050	0.040	0.090	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.005	0.020	0.063	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.051	0.010	0.067	0.077	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.108	0.008	0.066	0.074	0.0942	0.6453	0.0023	-----	0.015	-----	-----
1 1120	65	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1130	75	0.141	0.007	0.066	0.073	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.170	0.006	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.194	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.215	0.005	0.060	0.065	0.0567	0.6255	0.0001	0.0355	0.036	0.000	0.0492
1 1230	135	0.231	0.005	0.059	0.064	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.245	0.005	0.058	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.256	0.005	0.058	0.062	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.266	0.005	0.057	0.062	0.0327	0.6137	0.0000	0.0295	0.043	0.000	0.0503
1 1330	195	0.272	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.283	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.275	0.005	0.056	0.060	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.288	0.006	0.056	0.061	0.0205	0.6146	0.0000	0.0264	0.051	0.000	0.0525
1 1430	255	0.280	0.005	0.055	0.060	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.295	0.005	0.055	0.060	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.294	0.005	0.055	0.060	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.289	0.005	0.054	0.059	0.0132	0.6196	0.0000	0.0234	0.048	0.000	0.0477
1 1530	315	0.292	0.005	0.055	0.059	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.293	0.005	0.054	0.059	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.293	0.005	0.055	0.059	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1615	360	0.297	0.005	0.054	0.059	0.0080	0.5860	0.0000	0.0214	0.047	-----	0.0485

----- NO DATA TAKEN

ITC-471
MINI-SURROGATE
1982 APRIL 5

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 853	-82	0.0005	-----
1 1015	0	0.0006	0.0004
1 1215	120	0.0214	0.0195
1 1315	180	0.0195	0.0261
1 1415	240	0.0209	0.0272
1 1515	300	0.0211	0.0324
1 1615	360	0.0204	0.0370

----- NO DATA TAKEN

ITC-472
MINI-SURROGATE W/O PROPENE
1982 APRIL 6

29-APR-83
PAGE 1

0834: THIRD FILL.
0844: FILLED.
0910: INJECTIONS: 4.2 ML. N-BUTANE, 0.64 ML. NO, 0.13 ML. NO2,
0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T.	DORIC-1	22.8	2.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.084	PPM
NO2-UNC	T 14B-1	0.019	PPM
N-C4	DMS-1	0.7293	PPM
T2-C4=	DMS-1	0.0266	PPM
M-XYL	10'C-600	0.0745	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-472
 MINI-SURROGATE W/O PROPENE
 1982 APRIL 6

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM U-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	H-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
1 838	-82	-----	-----	-----	-----	0.0012	-----	-----	0.000	-----	-----	0.0010
1 845	-75	0.008	0.003	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.000	0.004	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.004	0.004	0.085	-----	-----	-----	-----	-----	-----	-----
1 920	-40	-----	-----	-----	-----	0.7303	0.0267	0.0738	-----	-----	-----	0.0004
1 930	-30	0.000	0.080	0.018	0.097	-----	-----	-----	-----	-----	-----	-----
1 938	-22	-----	-----	-----	-----	0.7293	0.0265	0.0737	-----	-----	-----	-----
1 945	-15	0.000	0.083	0.018	0.100	-----	-----	-----	-----	-----	-----	-----
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----	-----
1 1000	0	0.000	0.084	0.019	0.100	0.7293	0.0266	0.0745	0.000	-----	-----	0.0009
1 1015	15	0.005	0.070	0.030	0.099	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.000	0.045	0.049	0.093	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.016	0.024	0.062	0.086	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.042	0.015	0.066	0.081	0.7075	0.0055	0.0499	0.007	-----	0.0176	0.0078
1 1115	75	0.064	0.012	0.065	0.077	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.085	0.010	0.064	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.101	0.009	0.062	0.071	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.116	0.008	0.061	0.069	0.6888	0.0002	0.0366	0.020	0.000	0.0258	0.0194
1 1215	135	0.129	0.007	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.146	0.007	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.156	0.006	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.175	0.007	0.056	0.063	0.6601	0.0000	0.0283	0.031	-----	0.0219	0.0236
1 1315	195	0.182	0.006	0.055	0.060	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.199	0.006	0.054	0.060	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.202	0.006	0.053	0.059	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.213	0.006	0.052	0.058	0.6413	0.0000	0.0230	0.040	0.000	-----	0.0206
1 1415	255	0.224	0.006	0.052	0.057	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.227	0.005	0.050	0.056	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.236	0.005	0.050	0.056	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.243	0.005	0.050	0.056	0.6137	0.0000	0.0194	0.044	-----	0.0220	0.0225
1 1515	315	0.247	0.005	0.050	0.055	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.249	0.004	0.050	0.055	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.254	0.006	0.050	0.055	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----	-----
1 1600	360	0.258	0.006	0.050	0.055	0.6413	0.0000	0.0165	0.044	-----	0.0229	0.0151

----- NO DATA TAKEN

ITC-472
MINI-SURROGATE W/O PROPENE
1982 APRIL 6

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	MEK PPM 10'C-600	T DEG C DORIC-1
1 845	-75	-----	23.7
1 900	-60	-----	23.4
1 915	-45	-----	23.4
1 930	-30	-----	20.9
1 945	-15	-----	20.9
1 1000	0	-----	20.9
1 1015	15	-----	21.0
1 1030	30	-----	21.2
1 1045	45	-----	29.4
1 1100	60	0.0127	-----
1 1115	75	-----	-----
1 1130	90	-----	-----
1 1145	105	-----	-----
1 1200	120	0.0229	-----
1 1215	135	-----	-----
1 1230	150	-----	-----
1 1245	165	-----	-----
1 1300	180	0.0316	-----
1 1315	195	-----	-----
1 1330	210	-----	-----
1 1345	225	-----	-----
1 1400	240	0.0364	-----
1 1415	255	-----	-----
1 1430	270	-----	-----
1 1445	285	-----	-----
1 1500	300	0.0102	-----
1 1515	315	-----	-----
1 1530	330	-----	-----
1 1545	345	-----	-----
1 1600	360	0.0324	-----

----- NO DATA TAKEN

ITC-473
MINI-SURROGATE
1982 APRIL 7

29-APR-83
PAGE 1

0846: THIRD FILL.

0925: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	29.9	0.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1613	PPM
N-C4	DMS-1	0.6917	PPM
M-XYL	10'C-600	0.0711	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-473
 MINI-SURROGATE
 1982 APRIL 7

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 815	-120	0.011	0.043	0.036	0.078	-----	-----	-----	-----	-----	-----	-----
1 830	-105	0.002	0.003	0.005	0.008	-----	-----	-----	-----	-----	-----	-----
1 845	-90	0.000	0.002	0.004	0.007	-----	-----	-----	-----	-----	-----	-----
1 852	-83	-----	-----	-----	-----	0.0015	0.0018	-----	-----	0.000	-----	-----
1 900	-75	0.000	0.003	0.004	0.007	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.002	0.004	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.074	0.019	0.093	-----	-----	-----	-----	-----	-----	-----
1 940	-35	-----	-----	-----	-----	0.1596	0.6888	0.0243	0.0694	-----	-----	-----
1 945	-30	0.000	0.075	0.019	0.093	-----	-----	-----	-----	-----	-----	-----
1 958	-17	-----	-----	-----	-----	0.1613	0.6937	0.0245	0.0705	-----	-----	-----
1 1000	-15	0.008	0.075	0.020	0.094	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.074	0.018	0.092	0.1613	0.6917	0.0243	0.0711	0.000	-----	-----
1 1030	15	0.000	0.053	0.038	0.091	-----	-----	-----	-----	-----	-----	-----
1 1040	25	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1045	30	0.017	0.024	0.060	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.050	0.012	0.064	0.076	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.093	0.008	0.063	0.072	0.1014	0.6700	0.0029	0.0490	0.018	-----	0.0011
1 1130	75	0.125	0.007	0.061	0.068	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.172	0.008	0.061	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.178	0.006	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.197	0.006	0.058	0.064	0.0587	0.6542	0.0000	0.0369	0.035	0.000	0.0477
1 1230	135	0.219	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.251	0.007	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.258	0.007	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.245	0.005	0.055	0.061	0.0347	0.6314	0.0000	0.0300	0.042	-----	0.0442
1 1330	195	0.267	0.006	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.277	0.007	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.271	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.279	0.007	0.056	0.062	0.0220	0.6364	0.0000	0.0266	0.050	0.006	0.0473
1 1430	255	0.267	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.285	0.008	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.295	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.273	0.006	0.053	0.060	0.0139	0.6295	0.0000	0.0241	0.042	-----	0.0460
1 1530	315	0.274	0.006	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.275	0.006	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.279	0.006	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 1615	360	0.292	0.007	0.053	0.060	0.0086	0.6107	0.0000	0.0217	0.048	-----	0.0359

----- NO DATA TAKEN

ITC-473
MINI-SURROGATE
1982 APRIL 7

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 852	-83	0.0004	-----
1 1015	0	0.0008	-----
1 1115	60	0.0073	0.0095
1 1215	120	0.0171	0.0202
1 1315	180	0.0113	0.0174
1 1415	240	0.0183	0.0290
1 1515	300	0.0203	0.0319
1 1615	360	0.0113	0.0242

----- NO DATA TAKEN

ITC-474
MINI-SURROGATE + 113 PPB ADDED PROPENE
1982 APRIL 8

29-APR-83
PAGE 1

0844: THIRD FILL @ 50% R.H.
0953: INJECTIONS: 1.8 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	29.4	0.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.075	PPM
NO2-UNC	T 14B-1	0.017	PPM
PROPENE	DMS-1	0.2785	PPM
N-C4	DMS-1	0.6700	PPM
T2-C4=	DMS-1	0.0250	PPM
M-XYL	10'C-600	0.0678	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-474
 MINI-SURROGATE + 113 PPB ADDED PROPENE
 1982 APRIL 8

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 851	-99	-----	-----	-----	-----	0.0015	0.0012	-----	-----	0.000	-----	-----
1 953	-37	-----	-----	-----	-----	0.2785	0.6690	0.0250	0.0663	-----	-----	-----
1 1003	-27	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.008	-----
1 1010	-20	-----	-----	-----	-----	0.2813	0.6748	0.0251	0.0671	-----	-----	-----
1 1030	0	0.000	0.075	0.017	0.092	0.2785	0.6700	0.0250	0.0678	0.000	-----	-----
1 1033	3	0.000	0.075	0.017	0.092	-----	-----	-----	-----	-----	-----	-----
1 1045	15	0.000	0.051	0.039	0.089	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.021	0.019	0.064	0.082	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.086	0.010	0.068	0.078	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.138	0.008	0.065	0.073	0.1767	0.6512	0.0024	0.0479	0.016	-----	0.0486
1 1145	75	0.174	0.007	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.206	0.007	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.231	0.006	0.059	0.065	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.247	0.006	0.058	0.064	0.1014	0.6324	0.0000	0.0379	0.040	0.088	0.0669
1 1245	135	0.259	0.006	0.058	0.064	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.265	0.006	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.271	0.006	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.274	0.006	0.057	0.062	0.0617	0.6216	0.0000	0.0323	0.051	0.107	0.0663
1 1345	195	0.274	0.006	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.276	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.280	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.277	0.008	0.057	0.064	0.0393	0.6067	0.0000	0.0291	0.051	-----	0.0651
1 1440	250	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.115	-----
1 1445	255	0.279	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.279	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.279	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.282	0.006	0.056	0.062	0.0251	0.5998	0.0000	0.0266	0.050	0.126	0.0656
1 1545	315	0.283	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.284	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.293	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.128	-----
1 1630	360	0.288	0.007	0.056	0.064	0.0164	0.6008	0.0000	0.0243	0.047	-----	0.0671

----- NO DATA TAKEN

ITC-474
MINI-SURROGATE + 113 PPB ADDED PROPENE
1982 APRIL 8

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 851	-99	0.0002	-----
1 1030	0	0.0009	-----
1 1130	60	0.0082	0.0074
1 1230	120	0.0199	0.0184
1 1330	180	0.0143	0.0188
1 1430	240	0.0137	0.0204
1 1530	300	0.0137	0.0220
1 1630	360	0.0166	0.0268

----- NO DATA TAKEN

ITC-477
MINI-SURROGATE
1982 APRIL 14

29-APR-83
PAGE 1

0855: THIRD FILL.
0937: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
NOTE: 0.12 ML. MORE PROPENE ADDED BETWEEN 0958 AND 1022.
1100: T=0. 70% LIGHTS.

T=0 AT 1100 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	26.9	4.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.077	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.1665	PPM
N-C4	DMS-1	0.6700	PPM
T2-C4=	DMS-1	0.0250	PPM
M-XYL	10'C-600	0.0685	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1910	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-477
MINI-SURROGATE
1982 APRIL 14

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 830	-150	-----	0.000	0.002	0.002	-----	-----	-----	-----	-----	-----	-----
1 845	-135	-----	0.000	0.001	0.001	-----	-----	-----	-----	-----	-----	-----
1 900	-120	-----	0.000	0.000	0.000	0.0017	0.0003	0.0002	-----	0.000	-----	0.0007
1 915	-105	-----	0.001	0.001	0.001	-----	-----	-----	-----	-----	-----	-----
1 930	-90	-----	0.003	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 945	-75	-----	0.078	0.012	0.091	-----	-----	-----	-----	-----	-----	-----
1 958	-62	-----	-----	-----	-----	0.1501	0.6808	0.0254	0.0710	-----	-----	-----
1 1000	-60	-----	0.076	0.020	0.096	-----	-----	-----	-----	-----	-----	-----
1 1010	-50	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 1015	-45	-----	0.077	0.020	0.096	-----	-----	-----	-----	-----	-----	-----
1 1022	-38	-----	-----	-----	-----	0.1698	0.6828	0.0253	0.0698	-----	-----	-----
1 1030	-30	-----	0.077	0.020	0.097	-----	-----	-----	-----	-----	-----	-----
1 1042	-18	-----	-----	-----	-----	0.1672	0.6749	0.0251	0.0706	-----	-----	-----
1 1045	-15	-----	0.077	0.019	0.096	-----	-----	-----	-----	-----	-----	-----
1 1100	0	-----	0.077	0.019	0.095	0.1665	0.6700	0.0250	0.0685	0.000	-----	-----
1 1115	15	-----	0.056	0.036	0.092	-----	-----	-----	-----	-----	-----	-----
1 1130	30	-----	0.024	0.061	0.086	-----	-----	-----	-----	-----	-----	-----
1 1145	45	-----	0.013	0.068	0.080	-----	-----	-----	-----	-----	-----	-----
1 1200	60	-----	0.009	0.067	0.076	0.1025	0.6542	0.0026	-----	0.013	0.044	-----
1 1215	75	-----	0.007	0.066	0.073	-----	-----	-----	-----	-----	-----	-----
1 1230	90	-----	0.006	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1245	105	-----	0.006	0.063	0.069	-----	-----	-----	-----	-----	-----	-----
1 1300	120	-----	0.005	0.062	0.067	0.0561	0.6235	0.0000	0.0358	0.036	0.069	0.0525
1 1315	135	-----	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1330	150	-----	0.005	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1345	165	-----	0.005	0.059	0.064	-----	-----	-----	-----	-----	-----	-----
1 1400	180	-----	0.005	0.059	0.064	0.0324	0.6206	0.0000	0.0295	0.046	-----	0.0622
1 1415	195	-----	0.005	0.059	0.063	-----	-----	-----	-----	-----	-----	-----
1 1430	210	-----	0.005	0.058	0.062	-----	-----	-----	-----	-----	-----	-----
1 1445	225	0.306	0.005	0.058	0.063	-----	-----	-----	-----	-----	-----	-----
1 1500	240	0.314	0.005	0.057	0.062	0.0190	0.6146	0.0000	0.0252	0.051	0.086	0.0543
1 1515	255	0.317	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1530	270	0.316	0.004	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1545	285	0.320	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1600	300	0.320	0.005	0.057	0.062	0.0116	0.6107	0.0000	0.0225	0.051	0.084	0.0505
1 1615	315	0.328	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1630	330	0.327	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1645	345	0.331	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1650	350	-----	-----	-----	-----	0.0075	0.5939	0.0000	0.0210	0.051	0.084	0.0485
1 1700	360	0.328	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----

----- NO DATA TAKEN

ITC-477
MINI-SURROGATE
1982 APRIL 14

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 900	-120	0.0015	0.0002
1 1300	120	0.0292	0.0187
1 1400	180	0.0367	0.0265
1 1500	240	0.0487	0.0365
1 1600	300	0.0394	0.0383
1 1650	350	0.0428	0.0438

----- NO DATA TAKEN

ITC-478
MINI-SURROGATE + 334 PPB ADDED PROPENE
1982 APRIL 15

29-APR-83
PAGE 1

0805: THIRD FILL @ 50% R.H.
0900: INJECTIONS: 3.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO2, 0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1000: T=0, 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.7	2.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO -	T 14B-1	0.078	PPM
NO2-UNC	T 14B-1	0.017	PPM
PROPENE	DMS-1	0.5001	PPM
N-C4	DMS-1	0.7075	PPM
T2-C4=	DMS-1	0.0258	PPM
M-XYL	10'C-600	0.0710	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12" 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-478
 MINI-SURROGATE + 334 PPB ADDED PROPENE
 1982 APRIL 15

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM 0-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 824	-96	-----	-----	-----	-----	0.0018	0.0014	-----	-----	0.000	-----	-----
1 900	-60	0.000	0.076	0.006	0.082	-----	-----	-----	-----	-----	-----	-----
1 911	-49	-----	-----	-----	-----	0.4944	0.6986	0.0255	0.0707	-----	-----	-----
1 915	-45	0.002	0.077	0.018	0.094	-----	-----	-----	-----	-----	-----	-----
1 920	-40	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 930	-30	0.008	0.078	0.019	0.096	-----	-----	-----	-----	-----	-----	-----
1 939	-21	-----	-----	-----	-----	0.4944	0.6976	0.0254	0.0706	-----	-----	-----
1 945	-15	0.000	0.077	0.017	0.095	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.002	0.078	0.017	0.095	0.5001	0.7075	0.0258	0.0710	0.000	-----	-----
1 1015	15	0.000	0.042	0.049	0.090	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.055	0.010	0.071	0.082	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.148	0.005	0.069	0.075	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.215	0.005	0.069	0.074	0.2965	0.6710	0.0010	0.0506	0.025	0.119	0.0894
1 1115	75	0.264	0.005	0.068	0.074	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.290	0.005	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.289	0.005	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.304	0.005	0.066	0.071	0.1591	0.6502	0.0000	0.0406	0.049	0.180	0.1242
1 1215	135	0.311	0.005	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.319	0.006	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.319	0.006	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.308	0.005	0.066	0.071	0.0966	0.6492	0.0000	0.0361	0.056	0.188	0.1250
1 1315	195	0.320	0.007	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.318	0.006	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.312	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.316	0.006	0.066	0.072	0.0600	0.6453	0.0000	0.0336	0.056	0.197	0.1262
1 1415	255	0.314	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.310	0.007	0.065	0.072	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.314	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.311	0.006	0.065	0.071	0.0385	0.6453	0.0000	0.0309	0.056	-----	0.1264
1 1515	315	0.319	0.006	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.308	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.322	0.006	0.065	0.071	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.311	0.005	0.065	0.071	0.0238	0.6245	0.0000	0.0286	0.055	-----	0.1230

----- NO DATA TAKEN

ITC-478
MINI-SURROGATE + 334 PPB ADDED PROPENE
1982 APRIL 15

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	0.0242	0.0118
1 1200	120	0.0305	0.0192
1 1300	180	0.0218	0.0204
1 1400	240	0.0218	0.0238
1 1500	300	0.0249	0.0291
1 1600	360	0.0228	0.0299

----- NO DATA TAKEN

ITC-479
MINI-SURROGATE
1982 APRIL 16

29-APR-83
PAGE 1

0807: THIRD AND FINAL FILL, 50% R.H.
0847: INJECTIONS: 1.0 M. PROPENE, 4.2 ML. N-BUTANE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.64 ML. NO, AND
0.13 ML. NO2.
0930: T=0, 70% LIGHTS.

T=0 AT 930 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.2	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.16410	PPM
N-C4	DMS-1	0.70357	PPM
T2-C4=	DMS-1	0.0253	PPM
M-XYL	10'C-600	0.0733	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-479
 MINI-SURROGATE
 1982 APRIL 16

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 814	-74	-----	-----	-----	-----	0.00157	0.00174	-----	-----	0.000	-----	-----
1 857	-33	-----	-----	-----	-----	0.1617	0.6947	0.0248	0.0703	-----	-----	-----
1 908	-22	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 912	-18	-----	-----	-----	-----	0.1641	0.7026	0.0250	0.0733	-----	-----	-----
1 915	-15	0.000	0.073	0.018	0.091	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.000	0.073	0.019	0.092	0.1641	0.7036	0.0253	0.0733	0.000	-----	-----
1 945	15	0.000	0.050	0.039	0.089	-----	-----	-----	-----	-----	-----	-----
1 1000	30	0.016	0.021	0.061	0.082	-----	-----	-----	-----	-----	-----	-----
1 1015	45	0.063	0.011	0.065	0.076	-----	-----	-----	-----	-----	-----	-----
1 1030	60	0.115	0.008	0.065	0.073	0.09993	0.6700	0.0028	0.0504	0.013	0.042	0.0330
1 1045	75	0.152	0.007	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1100	90	0.185	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1115	105	0.213	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.231	0.005	0.059	0.064	0.05435	0.6472	0.0000	-----	0.036	0.069	-----
1 1135	125	-----	-----	-----	-----	-----	-----	-----	0.0349	-----	-----	0.0596
1 1145	135	0.254	0.005	0.058	0.064	-----	-----	-----	-----	-----	-----	-----
1 1200	150	0.263	0.005	0.058	0.063	-----	-----	-----	-----	-----	-----	-----
1 1215	165	0.281	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1230	180	0.291	0.005	0.057	0.062	0.03061	0.6344	0.0000	0.0299	0.047	0.084	0.0632
1 1245	195	0.294	0.005	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	210	0.301	0.005	0.056	0.061	-----	-----	-----	-----	-----	-----	-----
1 1315	225	0.307	0.005	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1330	240	0.312	0.006	0.055	0.061	0.01800	0.6285	-----	0.0252	0.047	0.082	0.0578
1 1345	255	0.315	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1400	270	0.319	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1415	285	0.320	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1430	300	0.326	0.007	0.056	0.063	0.01076	0.6156	-----	0.0226	0.050	0.084	0.0466
1 1445	315	0.326	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	330	0.327	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	345	0.331	0.006	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1520	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.081	-----
1 1530	360	0.332	0.007	0.056	0.063	0.00667	0.6344	-----	0.0203	0.046	-----	0.0389

----- NO DATA TAKEN

ITC-479
MINI-SURROGATE
1982 APRIL 16

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 814	-76	0.0004	-----
1 1030	60	0.0143	0.0129
1 1135	125	0.0278	0.0229
1 1230	180	0.0381	0.0305
1 1330	240	0.0289	0.0335
1 1430	300	0.0264	0.0375
1 1530	360	0.0130	0.0256

----- NO DATA TAKEN

ITC-482
MINI-SURROGATE WITHOUT N-BUTANE
1982 APRIL 21

29-APR-83
PAGE 1

0829: THIRD FILL @ 50% R.H.
0920: INJECTIONS: 1.0 ML. PROPENE, 0.64 ML. NO, 0.13 ML. NO2,
0.17 ML. T2-C4=, AND 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.7	2.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.022	PPM
PROPENE	DMS-1	0.1665	PPM
T2-C4=	DMS-1	0.0259	PPM
M-XYL	10'C-600	0.0717	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-482
 MINI-SURROGATE WITHOUT N-BUTANE
 1982 APRIL 21

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
1 848	-87	-----	-----	-----	-----	0.0204	-----	-----	0.000	-----	-----	0.0007
1 900	-75	0.000	0.004	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.004	0.004	0.008	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.073	0.021	0.094	-----	-----	-----	-----	-----	-----	-----
1 934	-41	-----	-----	-----	-----	0.1443	0.0255	0.0709	-----	-----	-----	-----
1 945	-30	0.008	0.074	0.022	0.095	-----	-----	-----	-----	0.015	-----	-----
1 950	-25	-----	-----	-----	-----	0.1465	0.0259	0.0717	-----	-----	-----	-----
1 1000	-15	0.000	0.073	0.021	0.095	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.002	0.074	0.022	0.095	0.1465	0.0259	0.0717	0.000	-----	-----	-----
1 1030	15	0.000	0.055	0.037	0.093	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.011	0.028	0.061	0.088	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.034	0.014	0.066	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.076	0.010	0.063	0.073	0.0992	0.0032	0.0478	0.013	0.042	0.0315	0.0085
1 1130	75	0.125	0.009	0.062	0.071	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.136	0.007	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.176	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.195	0.008	0.057	0.064	0.0508	0.0000	0.0319	0.032	0.048	0.0363	0.0217
1 1230	135	0.206	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.214	0.007	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.220	0.007	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.226	0.007	0.052	0.059	0.0272	0.0000	0.0239	0.049	0.044	0.0319	0.0146
1 1330	195	0.249	0.008	0.053	0.060	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.244	0.008	0.052	0.059	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.240	0.007	0.051	0.058	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.261	0.009	0.052	0.060	0.0157	0.0000	0.0193	0.052	0.046	0.0309	0.0166
1 1430	255	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1 1445	270	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.260	0.008	0.050	0.059	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.259	0.008	0.049	0.057	0.0091	0.0000	0.0157	0.052	0.050	0.0256	0.0077
1 1530	315	0.268	0.009	0.049	0.057	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.275	0.009	0.049	0.057	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.274	0.008	0.048	0.056	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	0.046	-----	-----
1 1615	360	0.279	0.008	0.048	0.056	0.0052	0.0000	0.0134	0.051	-----	0.0296	0.0194

----- NO DATA TAKEN

ITC-483
MINI-SURROGATE
1982 APRIL 22

29-APR-83
PAGE 1

0828: THIRD FILL @ 50% R.H. PURE AIR,
0908: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.64 ML. NO,
0.13 ML. NO₂, 0.17 ML. T₂-C₄=, AND 1.9 MICROLITERS M-XYL.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K₁ = 0.900 MIN⁻¹

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.4	2.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO ₂ -UNC	T 14B-1	0.020	PPM
PROPENE	DMS-1	0.1613	PPM
N-C ₄	DMS-1	0.7105	PPM
T ₂ -C ₄ =	DMS-1	0.0261	PPM
M-XYL	10'C-600	0.0707	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

IYC-483
 MINI-SURROGATE
 1982 APRIL 22

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	N-XYL PPM 10'C-600	FAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 835	-100	-----	-----	-----	-----	0.0015	0.0003	-----	-----	0.000	-----	-----
1 915	-60	0.000	0.072	0.021	0.093	-----	-----	-----	-----	-----	-----	-----
1 917	-58	-----	-----	-----	-----	0.1605	0.7046	0.0258	0.0690	-----	-----	-----
1 930	-45	0.000	0.072	0.020	0.092	-----	-----	-----	-----	-----	-----	-----
1 934	-41	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.015	-----
1 945	-30	0.000	0.073	0.020	0.093	-----	-----	-----	-----	-----	-----	-----
1 951	-24	-----	-----	-----	-----	0.1620	0.7135	0.0262	0.0685	-----	-----	-----
1 1000	-15	0.007	0.074	0.021	0.094	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.073	0.020	0.094	0.1613	0.7105	0.0261	0.0707	0.000	-----	-----
1 1030	15	0.011	0.054	0.039	0.092	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.005	0.024	0.060	0.084	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.072	0.013	0.067	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.104	0.009	0.065	0.074	0.0991	0.6828	0.0027	0.0484	0.013	0.025	0.0379
1 1130	75	0.165	0.009	0.065	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.194	0.009	0.064	0.071	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.211	0.008	0.061	0.069	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.241	0.008	0.060	0.068	0.0532	0.6542	0.0000	0.0358	0.035	0.036	0.0542
1 1230	135	0.240	0.007	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.276	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.289	0.008	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.294	0.008	0.058	0.065	0.0301	0.6403	0.0000	0.0292	0.046	-----	0.0526
1 1330	195	0.303	0.008	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.306	0.008	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.306	0.008	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.294	0.007	0.056	0.063	0.0179	0.6305	0.0000	0.0254	0.049	-----	0.0535
1 1430	255	0.311	0.008	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.299	0.007	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.326	0.009	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.304	0.008	0.054	0.062	0.0104	0.6216	0.0000	0.0225	0.048	0.033	0.0503
1 1530	315	0.332	0.009	0.056	0.065	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.325	0.009	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.327	0.009	0.055	0.064	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.042	-----
1 1615	360	0.337	0.009	0.055	0.063	0.0063	0.6117	0.0000	0.0204	0.047	-----	0.0445

----- NO DATA TAKEN

ITC-483
MINI-SURROGATE
1982 APRIL 22

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	HEK PPM 10'C-600
1 1115	60	0.0094	0.0117
1 1215	120	0.0196	0.0230
1 1315	180	0.0203	0.0280
1 1415	240	0.0206	0.0327
1 1515	300	0.0204	0.0358
1 1615	360	0.0161	0.0336

----- NO DATA TAKEN

ITC-487
MINI-SURROGATE
1982 APRIL 28

29-APR-83
PAGE 1

0847: THIRD FILL @ 50% R.H.
0930: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, 0.13 NL. NO2.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
1	DORIC-1	27.9	4.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.070	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1655	PPM
N-C4	DMS-1	0.7135	PPM
T2-C4=	DMS-1	0.0264	PPM
M-XYL	10'C-600	0.0774	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-487
 MINI-SURROGATE
 1982 APRIL 28

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM EQB-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 845	-90	0.004	0.001	0.024	0.026	-----	-----	-----	-----	-----	-----	-----
1 853	-82	-----	-----	-----	-----	0.0016	0.0003	-----	-----	0.000	-----	-----
1 900	-75	0.000	0.002	0.007	0.009	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.002	0.006	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.069	0.009	0.079	-----	-----	-----	-----	-----	-----	-----
1 940	-35	-----	-----	-----	-----	0.1660	0.7125	0.0263	0.0770	-----	-----	-----
1 945	-30	0.000	0.069	0.021	0.090	-----	-----	-----	-----	-----	-----	-----
1 950	-25	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 955	-20	-----	-----	-----	-----	0.1643	0.7036	0.0263	0.0771	-----	-----	-----
1 1000	-15	0.002	0.070	0.021	0.091	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.020	0.070	0.021	0.091	0.1655	0.7135	0.0264	0.0774	0.000	-----	-----
1 1030	15	0.000	0.051	0.036	0.087	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.020	0.022	0.060	0.081	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.056	0.010	0.065	0.076	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.097	0.007	0.065	0.073	0.1040	0.6907	0.0031	0.0536	0.013	0.042	0.0394
1 1130	75	0.133	0.006	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.163	0.006	0.063	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.178	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.206	0.006	0.060	0.066	0.0591	0.6631	0.0001	0.0403	0.035	0.075	0.0488
1 1230	135	0.220	0.006	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.224	0.005	0.058	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.237	0.005	0.058	0.063	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.249	0.006	0.058	0.063	0.0348	0.6413	0.0000	0.0332	0.048	0.088	0.0507
1 1330	195	0.252	0.006	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.251	0.005	0.057	0.062	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.255	0.005	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.259	0.006	0.056	0.061	0.0214	0.6413	-----	0.0289	0.052	0.082	0.0502
1 1430	255	0.265	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.271	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.267	0.006	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.275	0.007	0.056	0.062	0.0134	0.6364	-----	0.0260	0.052	0.088	0.0397
1 1530	315	0.265	0.006	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.275	0.007	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.277	0.007	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.090	-----
1 1615	360	0.271	0.006	0.055	0.061	0.0084	0.6305	-----	0.0242	0.052	-----	0.0465

----- NO DATA TAKEN

IIC-487
MINI-SURROGATE
1982 APRIL 28

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	MEK PPH 10'C-600
1 1115	60	0.0152	0.0135
1 1215	120	0.0171	0.0217
1 1315	180	0.0179	0.0276
1 1415	240	0.0189	0.0323
1 1515	300	0.0124	0.0261
1 1615	360	0.0206	0.0394

----- NO DATA TAKEN

ITC-488
MINI-SURROGATE + 483 PPB ADDED N-BUTANE
1982 APRIL 29

30-APR-83
PAGE 1

0849: THIRD FILL @ 50% R.H. PURE AIR.
0935: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1030: T=0. 70% LIGHTS.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.9	2.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.069	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1665	PPM
N-C4	DMS-1	1.1838	PPM
T2-C4=	DMS-1	0.0259	PPM
M-XYL	10'C-600	0.0777	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121# DIMETHYLSULFOLANE GC# FID
2100	PN-1	RM-121 POROPAK-N GC# FID
2920	10'C-600	RM-121# 10' 10% CARBOWAX-600 GC# FID
2000	ECD-1	RM-121# 12' 5% CARBOWAX-400 GC# ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-488
 MINI-SURROGATE + 483 PPB ADDED N-BUTANE
 1982 APRIL 29

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM B-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM BMS-1	N-C4 PPM BMS-1	I2-C4= PPM BMS-1	M-XYL PPM 10'C-600	PAN PPM ECB-1	MCHO PPM CA	ACETALD PPM 10'C-600
1 830	-120	0.004	0.002	0.004	0.005	-----	-----	-----	-----	-----	-----	-----
1 845	-105	0.000	0.002	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 851	-99	-----	-----	-----	-----	0.0015	0.0017	-----	-----	0.000	-----	-----
1 900	-90	0.003	0.004	0.007	0.010	-----	-----	-----	-----	-----	-----	-----
1 915	-75	0.000	0.003	0.005	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-60	0.005	0.004	0.006	0.010	-----	-----	-----	-----	-----	-----	-----
1 945	-45	0.000	0.068	0.020	0.088	-----	-----	-----	-----	-----	-----	-----
1 946	-44	-----	-----	-----	-----	0.1641	1.166	0.0257	0.0783	-----	-----	-----
1 956	-34	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 1000	-30	0.000	0.068	0.022	0.089	-----	-----	-----	-----	-----	-----	-----
1 1003	-27	-----	-----	-----	-----	0.1688	1.194	0.0263	0.0790	-----	-----	-----
1 1015	-15	0.000	0.068	0.021	0.089	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.000	0.069	0.021	0.090	0.1665	1.184	0.0259	0.0777	0.000	-----	-----
1 1045	15	0.001	0.046	0.041	0.087	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.035	0.018	0.062	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.091	0.010	0.066	0.077	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.140	0.008	0.065	0.073	0.1049	1.142	0.0027	0.0554	0.015	0.048	0.0345
1 1145	75	0.180	0.008	0.063	0.070	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.213	0.007	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.235	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.250	0.007	0.059	0.066	0.0613	1.107	0.0000	0.0439	0.035	0.069	0.0513
1 1245	135	0.266	0.007	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.281	0.007	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.289	0.007	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.298	0.007	0.058	0.065	0.0371	1.085	0.0000	0.0376	0.047	0.082	0.0532
1 1345	195	0.305	0.007	0.057	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.311	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.316	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.318	0.007	0.057	0.064	0.0226	1.069	0.0000	0.0334	0.050	0.084	0.0566
1 1445	255	0.321	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.319	0.008	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.323	0.008	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.324	0.008	0.057	0.065	0.0142	1.067	0.0000	0.0309	0.051	0.088	0.0537
1 1545	315	0.325	0.008	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.327	0.008	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.333	0.008	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.092	-----
1 1630	360	0.334	0.008	0.056	0.065	0.0089	1.063	0.0000	0.0283	0.050	-----	0.0458

----- NO DATA TAKEN

ITC-488
MINI-SURROGATE + 483 PPB ADDED N-BUTANE
1982 APRIL 29

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10°C-600	MEK PPM 10°C-600
1 1130	60	0.0067	0.0152
1 1230	120	0.0168	0.0346
1 1330	180	0.0193	0.0422
1 1430	240	0.0246	0.0509
1 1530	300	0.0267	0.0531
1 1630	360	0.0123	0.0434

----- NO DATA TAKEN

IIC-489
MINI-SURROGATE
1982 APRIL 30

29-APR-83
PAGE 1

0844: THIRD FILL @ 50% R.H.
0925: INJECTIONS: 1.0 ML. PROPENE, 4.2 ML. N-BUTANE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1015: T=0. 70% LIGHTS.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.6	4.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.071	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1679	PPM
N-C4	DMS-1	0.7135	PPM
T2-C4=	DMS-1	0.0263	PPM
M-XYL	10'C-600	0.0765	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-489
MINI-SURROGATE
1982 APRIL 30

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T-14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T2-C4= PPH DMS-1	H-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 851	-84	-----	-----	-----	-----	0.0020	0.0034	-----	-----	0.000	-----	-----
1 900	-75	0.000	0.002	0.006	0.008	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.003	0.006	0.009	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.007	0.072	0.021	0.092	-----	-----	-----	-----	-----	-----	-----
1 937	-38	-----	-----	-----	-----	0.1688	0.7184	0.0263	0.0758	-----	-----	-----
1 945	-30	0.006	0.071	0.022	0.092	-----	-----	-----	-----	-----	-----	-----
1 953	-22	-----	-----	-----	-----	0.1676	0.7135	0.0262	0.0763	-----	-----	-----
1 1000	-15	0.000	0.071	0.021	0.092	-----	-----	-----	-----	-----	-----	-----
1 1003	-12	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1015	0	0.000	0.071	0.021	0.092	0.1679	0.7135	0.0263	0.0765	0.000	-----	-----
1 1030	15	0.009	0.053	0.038	0.090	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.028	0.021	0.063	0.084	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.085	0.012	0.069	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.124	0.008	0.068	0.076	0.1047	0.6828	0.0032	0.0532	0.013	0.023	0.0383
1 1130	75	0.161	0.007	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.190	0.006	0.065	0.072	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.221	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.245	0.006	0.064	0.069	0.0573	0.6631	0.0000	0.0399	0.036	-----	0.0495
1 1230	135	0.261	0.006	0.063	0.068	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.272	0.006	0.062	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.285	0.006	0.062	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.294	0.006	0.062	0.067	0.0353	0.6601	0.0000	0.0329	0.048	0.065	0.0508
1 1330	195	0.303	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.302	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.310	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.315	0.005	0.061	0.066	0.0212	0.6512	0.0000	0.0288	0.052	0.079	0.0473
1 1430	255	0.315	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.314	0.005	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.322	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.324	0.005	0.061	0.066	0.0128	0.6314	0.0000	0.0257	0.054	0.071	0.0477
1 1530	315	0.332	0.006	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.331	0.006	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.334	0.006	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.079	-----
1 1615	360	0.335	0.006	0.061	0.067	0.0080	0.6305	0.0000	0.0233	0.054	-----	0.0441

----- NO DATA TAKEN

IIC-489
MINI-SURROGATE
1982 APRIL 30

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 851	-84	0.0003	-----
1 1115	60	0.0085	0.0132
1 1215	120	0.0143	0.0285
1 1315	180	0.0128	0.0302
1 1415	240	0.0110	0.0242
1 1515	300	0.0158	0.0394
1 1615	360	0.0167	0.0445

----- NO DATA TAKEN

ITC-492
MINI-SURROGATE + 1009 PPB ADDED N-BUTANE
1982 MAY 4

29-APR-83
PAGE 1

0856: THIRD AND FINAL FILL AT 50% R.H.
0945: INJECTIONS: 9.9 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1030: T=0. 70% LIGHTS.

NOTE: NO TEMPERATURE DATA FOR THIS RUN. DORIC OUT FOR REPAIR.

T=0 AT 1030 PST

K1 = 0.900 MIN-1

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1733	PPM
N-C4	DMS-1	1.7095	PPM
M-XYL	10'C-600	0.0777	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 PORUPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-492
 MINI-SURROGATE + 1009 PPB ADDED N-BUTANE
 1982 MAY 4

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 904	-86	-----	-----	-----	-----	0.0018	0.0003	-----	-----	0.000	-----	-----
1 945	-45	0.004	0.074	0.007	0.080	-----	-----	-----	-----	-----	-----	-----
1 953	-37	-----	-----	-----	-----	0.1717	1.700	0.0256	0.0765	-----	-----	-----
1 1000	-30	0.000	0.073	0.017	0.091	-----	-----	-----	-----	-----	-----	-----
1 1001	-29	-----	-----	-----	-----	0.1741	1.725	0.0259	-----	-----	-----	-----
1 1009	-21	-----	-----	-----	-----	-----	-----	-----	0.0765	-----	-----	-----
1 1013	-17	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1015	-15	0.000	0.073	0.017	0.090	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.005	0.074	0.018	0.090	0.1733	1.709	0.0258	0.0777	0.000	-----	-----
1 1045	15	0.000	0.050	0.038	0.088	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.029	0.020	0.062	0.082	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.096	0.011	0.067	0.078	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.156	0.009	0.065	0.074	0.1080	1.658	0.0019	0.0568	0.014	0.046	0.0493
1 1145	75	0.207	0.008	0.064	0.072	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.237	0.008	0.063	0.070	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.265	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.285	0.007	0.061	0.068	0.0642	1.627	0.0000	0.0454	0.033	0.069	0.0648
1 1245	135	0.301	0.007	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.318	0.008	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.326	0.007	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.335	0.007	0.059	0.066	0.0380	1.609	0.0000	0.0394	0.048	0.084	0.0686
1 1345	195	0.336	0.007	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.343	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.348	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.353	0.008	0.059	0.066	0.0227	1.587	0.0000	0.0359	0.050	0.079	0.0684
1 1445	255	0.356	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.357	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.359	0.008	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.361	0.008	0.058	0.066	0.0136	1.587	0.0000	0.0335	0.054	0.071	0.0641
1 1545	315	0.364	0.008	0.058	0.067	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.367	0.008	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.370	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.073	-----
1 1630	360	0.372	0.008	0.058	0.066	0.0081	1.534	0.0000	0.0312	0.051	-----	0.0636

----- NO DATA TAKEN

ITC-492
MINI-SURROGATE + 1009 PPB ADDED N-BUTANE
1982 MAY 4

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1130	60	0.0113	0.0232
1 1230	120	0.0198	0.0504
1 1330	180	0.0194	0.0619
1 1430	240	0.0188	0.0708
1 1530	300	0.0112	0.0633
1 1630	360	0.0131	-----

----- NO DATA TAKEN

ITC-493
MINI-SURROGATE
1982 MAY 5

29-APR-83
PAGE 1

0837: THIRD AND FINAL FILL AT 50% R.H.
0927: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1015: T=0. 70% LIGHTS.

NOTE: TEMPERATURE DATA SPARSE. MORIC OUT FOR REPAIR.

T=0 AT 1015 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T		30.3	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.070	PPM
NO2-UNC	T 14B-1	0.022	PPM
PROPENE	DMS-1	0.1731	PPM
N-C4	DMS-1	0.7135	PPM
T2-C4=	DMS-1	0.0249	PPM
M-XYL	10'C-600	0.0777	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-493
 MINI-SURROGATE
 1982 MAY 5

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	H-XYL PPM 10'C-600	PAN PPM ECH-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 845	-90	-----	-----	-----	-----	0.0018	0.0050	-----	-----	0.000	-----	-----
1 900	-75	0.001	0.005	0.006	0.011	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.005	0.005	0.011	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.070	0.021	0.091	-----	-----	-----	-----	-----	-----	-----
1 933	-42	-----	-----	-----	-----	0.1724	0.7085	0.0248	0.0765	-----	-----	-----
1 945	-30	0.003	0.071	0.022	0.092	-----	-----	-----	-----	-----	0.008	-----
1 950	-25	-----	-----	-----	-----	0.1748	0.7184	0.0250	0.0778	-----	-----	-----
1 1000	-15	0.003	0.071	0.022	0.092	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.070	0.022	0.092	0.1731	0.7135	0.0249	0.0777	0.000	-----	-----
1 1030	15	0.011	0.050	0.041	0.089	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.036	0.022	0.062	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.088	0.012	0.066	0.078	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.134	0.010	0.064	0.074	0.1037	0.6798	0.0023	0.0531	0.015	0.052	0.0377
1 1130	75	0.180	0.009	0.064	0.073	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.200	0.008	0.062	0.071	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.242	0.009	0.062	0.070	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.262	0.009	0.061	0.069	0.0580	0.6591	0.0000	0.0401	0.038	0.082	0.0493
1 1230	135	0.260	0.007	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.273	0.007	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.292	0.008	0.059	0.066	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.312	0.009	0.059	0.067	0.0333	0.6492	0.0000	0.0329	0.049	0.096	0.0494
1 1330	195	0.304	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.313	0.009	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.327	0.009	0.059	0.067	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.321	0.008	0.058	0.066	0.0199	0.6364	0.0000	0.0290	0.055	0.094	0.0487
1 1430	255	0.318	0.007	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.331	0.008	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.334	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.326	0.007	0.057	0.064	0.0122	0.6305	0.0000	0.0261	0.056	0.092	0.0481
1 1530	315	0.333	0.008	0.058	0.065	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.329	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.330	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.098	-----
1 1615	360	0.339	0.008	0.058	0.065	0.0076	0.6314	0.0000	0.0239	0.057	-----	0.0495

----- NO DATA TAKEN

ITC-493
MINI-SURROGATE
1982 MAY 5

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	HEK PPM 10'C-600	T DEG C
1 1115	60	0.0042	0.0105	-----
1 1215	120	0.0131	0.0261	-----
1 1315	180	0.0135	0.0325	30.6
1 1415	240	0.0153	0.0372	-----
1 1453	278	-----	-----	30.1
1 1515	300	0.0141	0.0405	-----
1 1615	360	0.0153	0.0443	-----

----- NO DATA TAKEN

ITC-494
MINI-SURROGATE + 1129 PFB ADDED N-BUTANE
1982 MAY 6

29-APR-83
PAGE 1

0842: THIRD AND FINAL FILL AT 50% R.H.
0928: INJECTIONS: 10.6 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1015: T=0. 70% LIGHTS.

NOTE: TEMPERATURE DATA SPARSE. DORIC OUT FOR REPAIR.

T=0 AT 1015 PSI

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
I		86.3	1.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO2-UNC	T 14B-1	0.020	PPM
PROPENE	DMS-1	0.1750	PPM
N-C4	DMS-1	1.8301	PPM
T2-C4=	DMS-1	0.0263	PPM
M-XYL	10'C-600	0.0735	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-494
 MINI-SURROGATE + 1129 PFB ADDED N-BUTANE
 1982 MAY 6

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 830	-105	-----	0.003	0.000	0.003	-----	-----	-----	-----	-----	-----	-----
1 845	-90	0.000	0.002	0.000	0.002	-----	-----	-----	-----	-----	-----	-----
1 847	-88	-----	-----	-----	-----	0.0019	0.0025	-----	-----	0.000	-----	-----
1 900	-75	0.004	0.003	0.000	0.003	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.002	0.000	0.002	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.003	0.000	0.003	-----	-----	-----	-----	-----	-----	-----
1 936	-39	-----	-----	-----	-----	0.1736	1.812	0.0260	0.0729	-----	-----	-----
1 945	-30	0.004	0.072	0.020	0.091	-----	-----	-----	-----	-----	-----	-----
1 946	-29	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 952	-23	-----	-----	-----	-----	0.1745	1.820	0.0260	0.0729	-----	-----	-----
1 1000	-15	0.000	0.072	0.019	0.090	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.002	0.073	0.020	0.092	0.1750	1.830	0.0263	0.0735	0.000	-----	-----
1 1030	15	0.001	0.051	0.038	0.089	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.030	0.022	0.061	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.102	0.013	0.067	0.080	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.158	0.011	0.067	0.078	0.1108	1.723	0.0027	0.0538	0.014	0.042	0.0469
1 1130	75	0.193	0.010	0.065	0.075	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.226	0.010	0.063	0.073	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.260	0.010	0.063	0.073	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.274	0.010	0.062	0.071	0.0674	1.721	0.0000	0.0438	0.034	0.071	0.0647
1 1230	135	0.298	0.010	0.062	0.071	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.301	0.009	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.321	0.009	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.326	0.009	0.059	0.068	0.0398	1.696	0.0000	0.0380	0.047	0.086	0.0698
1 1330	195	0.341	0.010	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.346	0.010	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.341	0.010	0.059	0.069	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.343	0.010	0.059	0.069	0.0237	1.674	0.0000	0.0345	0.051	0.092	0.0710
1 1430	255	0.350	0.010	0.059	0.069	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.347	0.010	0.059	0.069	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.362	0.011	0.059	0.070	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.366	0.012	0.060	0.070	0.0143	1.646	0.0000	0.0316	0.053	0.090	0.0686
1 1530	315	0.363	0.012	0.059	0.070	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.366	0.012	0.059	0.070	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.353	0.011	0.057	0.069	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.092	-----
1 1615	360	0.366	0.012	0.058	0.069	0.0087	1.644	0.0000	0.0295	0.052	-----	0.0690

----- NO DATA TAKEN

ITC-494
MINI-SURROGATE + 1129 PPB ADDED N-BUTANE
1982 MAY 6

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	T DEG C
1 1023	0	-----	-----	85.7
1 1115	60	0.0100	0.0298	-----
1 1215	120	0.0153	0.0516	85.3
1 1315	180	0.0185	0.0661	-----
1 1415	240	0.0169	0.0701	-----
1 1438	263	-----	-----	86.6
1 1515	300	0.0182	0.0767	-----
1 1615	360	0.0171	0.0844	87.6

----- NO DATA TAKEN

ITC-497
MINI-SURROGATE
1982 MARCH 11

30-APR-83
PAGE 1

0842: FINAL FILL AT 50% R.H.
0920: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. 12-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.0	1.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1655	PPM
N-C4	DMS-1	0.7006	PPM
12-C4=	DMS-1	0.0262	PPM
M-XYL	10'C-600	0.0719	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-497
 MINI-SURROGATE
 1982 MARCH 11

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM I 14B-1	NO2-UNC PPM I 14B-1	NOX-UNC PPM I 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	M-XYL PPM 10'C-600	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
1 830	-90	0.038	0.008	0.027	0.034	-----	-----	-----	-----	-----	-----	-----
1 845	-75	0.079	0.007	0.028	0.035	-----	-----	-----	-----	-----	-----	-----
1 850	-70	-----	-----	-----	-----	0.0017	0.0004	-----	-----	-----	-----	-----
1 900	-60	0.000	0.006	0.005	0.012	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.007	0.008	0.006	0.013	-----	-----	-----	-----	-----	-----	-----
1 930	-30	0.004	0.074	0.021	0.094	0.1641	0.6947	0.0260	0.0717	-----	-----	-----
1 945	-15	0.005	0.074	0.020	0.093	0.1686	0.7135	0.0267	0.0722	-----	-----	-----
1 948	-12	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----	-----
1 1000	0	0.001	0.074	0.018	0.092	0.1655	0.7006	0.0262	0.0719	-----	-----	-----
1 1015	15	0.000	0.055	0.035	0.090	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.020	0.027	0.058	0.085	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.066	0.016	0.064	0.080	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.108	0.012	0.063	0.075	0.1056	0.6739	0.0036 A	0.0486	0.027	0.0364	0.0059
1 1115	75	0.151	0.010	0.062	0.072	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.182	0.009	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.208	0.008	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.232	0.008	0.058	0.066	0.0601	0.6542	0.0001	0.0370	0.036	0.0474	0.0110
1 1215	135	0.249	0.008	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.264	0.007	0.057	0.064	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.276	0.007	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.286	0.007	0.055	0.062	0.0348	0.6384	0.0000	0.0300	0.084	0.0474	0.0103
1 1315	195	0.293	0.007	0.056	0.062	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.300	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.304	0.007	0.055	0.062	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.310	0.007	0.055	0.062	0.0209	0.6295	0.0000	0.0262	-----	0.0481	0.0113
1 1408	248	-----	-----	-----	-----	-----	-----	-----	-----	0.088	-----	-----
1 1415	255	0.312	0.007	0.054	0.061	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.316	0.007	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.320	0.007	0.054	0.061	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.319	0.007	0.054	0.061	0.0127	0.6216	0.0000	0.0234	0.088	0.0461	0.0092
1 1515	315	0.323	0.007	0.054	0.061	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.326	0.007	0.055	0.061	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.328	0.007	0.054	0.061	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	0.096	-----	-----
1 1600	360	0.334	0.007	0.054	0.061	0.0077	0.6107	0.0000	0.0209	-----	0.0447	0.0113

----- NO DATA TAKEN

ITC-497
MINI-SURROGATE
1982 MARCH 11

30-APR-83
PAGE 3

CLOCK TIME	ELAPSED TIME (MIN)	MEK PFM 10°C-600
1 1100	60	0.0123
1 1200	120	0.0234
1 1300	180	0.0291
1 1400	240	0.0337
1 1500	300	0.0350
1 1600	360	0.0405

----- NO DATA TAKEN

NOTES

A STRANGE PEAK UNDERNEATH.

ITC-498
MINI-SURROGATE WITHOUT TRANS-2-BUTENE
1982 MAY 13

29-APR-83
PAGE 1

0833: THIRD AND FINAL FILL AT 50% R.H.
0912: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.8	1.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.079	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.1679	PPM
N-C4	DMS-1	0.7135	PPM
M-XYL	10'C-600	0.0731	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-498
 MINI-SURROGATE WITHOUT TRANS-2-BUTENE
 1982 MAY 13

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600
1 839	-81	-----	-----	-----	-----	0.0017	0.0003	-----	0.000	-----	-----	-----
1 845	-75	0.006	0.010	0.008	0.017	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.000	0.009	0.006	0.016	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.077	0.018	0.095	-----	-----	-----	-----	-----	-----	-----
1 922	-38	-----	-----	-----	-----	0.1665	0.7085	0.0733	-----	-----	-----	-----
1 930	-30	0.007	0.078	0.019	0.096	-----	-----	-----	-----	-----	-----	-----
1 932	-28	-----	-----	-----	-----	-----	-----	-----	-----	0.021	-----	-----
1 939	-21	-----	-----	-----	-----	0.1672	0.7075	0.0731	-----	-----	-----	-----
1 945	-15	0.007	0.078	0.020	0.097	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.005	0.079	0.019	0.096	0.1679	0.7135	0.0731	0.000	-----	-----	-----
1 1015	15	0.000	0.059	0.034	0.093	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.000	0.033	0.053	0.087	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.038	0.021	0.063	0.084	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.066	0.016	0.063	0.079	0.1153	0.6897	0.0538	0.005	-----	0.0207	0.0053
1 1110	70	-----	-----	-----	-----	-----	-----	-----	-----	0.046	-----	-----
1 1115	75	0.105	0.014	0.063	0.076	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.132	0.013	0.061	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.156	0.011	0.060	0.071	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.192	0.012	0.060	0.071	0.0690	0.6690	0.0400	0.022	0.071	0.0345	0.0110
1 1215	135	0.211	0.011	0.057	0.068	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.225	0.010	0.056	0.066	-----	-----	-----	-----	-----	-----	-----
1 1245	165	-----	0.011	0.056	0.065	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.253	0.009	0.054	0.064	0.0384	0.6364	0.0313	0.038	0.086	0.0398	0.0113
1 1315	195	0.272	0.010	0.053	0.063	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.286	0.010	0.053	0.063	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.292	0.010	0.053	0.062	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.291	0.010	0.052	0.061	0.0229	0.6334	0.0262	0.043	0.094	0.0414	0.0116
1 1415	255	0.301	0.010	0.052	0.061	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.298	0.009	0.051	0.060	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.310	0.010	0.051	0.061	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.310	0.010	0.051	0.060	0.0137	0.6255	0.0233	0.048	0.086	0.0415	0.0118
1 1515	315	0.305	0.009	0.050	0.060	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.320	0.010	0.051	0.060	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.315	0.009	0.051	0.060	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.311	0.009	0.050	0.059	0.0083	0.6166	0.0213	0.048	-----	0.0418	0.0151

----- NO DATA TAKEN

ITC-498
MINI-SURROGATE WITHOUT TRANS-2-BUTENE
1982 MAY 13

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	MEK PPM 10'C-600
1 1100	60	0.0102
1 1200	120	0.0211
1 1300	180	0.0274
1 1400	240	0.0326
1 1500	300	0.0361
1 1600	360	0.0410

----- NO DATA TAKEN

ITC-499
MINI-SURROGATE
1982 MAY 14

29-APR-83
PAGE 1

0831: THIRD AND FINAL FILL AT 50% R.H.
0915: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1000: T=0, 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.2	0.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.074	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1632	PPM
N-C4	DMS-1	0.7095	PPM
T2-C4=	DMS-1	0.0255	PPM
M-XYL	10'C-600	0.0734	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 PUROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-499
MINI-SURROGATE
1982 MAY 14

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 815	-105	-----	0.024	0.044	0.068	-----	-----	-----	-----	-----	-----	-----
1 830	-90	0.031	0.024	0.046	0.069	-----	-----	-----	-----	-----	-----	-----
1 835	-85	-----	-----	-----	-----	0.0013	0.0018	-----	-----	0.000	-----	-----
1 845	-75	0.000	0.010	0.009	0.020	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.000	0.011	0.007	0.018	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.076	0.021	0.097	-----	-----	-----	-----	-----	-----	-----
1 922	-38	-----	-----	-----	-----	0.1613	0.7006	0.0253	0.0725	-----	-----	-----
1 930	-30	0.000	0.075	0.021	0.096	-----	-----	-----	-----	-----	-----	-----
1 936	-24	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----
1 938	-22	-----	-----	-----	-----	0.1629	0.7095	0.0256	0.0737	-----	-----	-----
1 945	-15	0.000	0.074	0.020	0.094	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.005	0.074	0.021	0.094	0.1632	0.7095	0.0255	0.0734	0.000	-----	-----
1 1015	15	0.000	0.050	0.042	0.091	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.028	0.024	0.061	0.085	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.078	0.016	0.065	0.080	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.121	0.013	0.063	0.075	0.1023	0.6897	0.0030	0.0506	0.013	0.048	0.0377
1 1115	75	0.158	0.011	0.061	0.072	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.188	0.010	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.213	0.010	0.058	0.068	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.233	0.009	0.058	0.067	0.0579	0.6611	0.0000	0.0380	0.036	0.073	0.0462
1 1215	135	0.254	0.009	0.057	0.066	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.265	0.009	0.056	0.065	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.277	0.009	0.055	0.064	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.284	0.009	0.055	0.063	0.0337	0.6463	0.0000	0.0310	0.050	0.084	0.0498
1 1315	195	0.290	0.009	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.299	0.008	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.305	0.009	0.054	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.307	0.008	0.054	0.062	0.0204	0.6364	0.0000	0.0268	0.052	0.075	0.0436
1 1415	255	0.311	0.008	0.054	0.062	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.314	0.009	0.054	0.062	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.316	0.008	0.054	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.317	0.008	0.054	0.062	0.0126	0.6315	0.0000	0.0246	0.056	-----	0.0445
1 1515	315	0.321	0.008	0.054	0.062	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.323	0.008	0.054	0.062	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.323	0.008	0.053	0.061	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.071	-----
1 1600	360	0.328	0.009	0.054	0.062	0.0074	0.6107	0.0000	0.0223	0.053	-----	0.0476

----- NO DATA TAKEN

ITC-499
MINI-SURROGATE
1982 MAY 14

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	0.0080	0.0138
1 1200	120	0.0138	0.0241
1 1300	180	0.0142	0.0302
1 1400	240	0.0105	0.0297
1 1500	300	0.0121	0.0290
1 1600	360	0.0201	0.0402

----- NO DATA TAKEN

ITC-500
MINI-SURR. + 59 PPB ADDED TRANS-2-BUTENE
1982 MAY 17

29-APR-83
PAGE 1

0840: THIRD AND FINAL FILL AT 50% R.H.
0920: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.58 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.1	1.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.076	PPM
NO2-UNC	T 14B-1	0.020	PPM
PROPENE	DMS-1	0.1596	PPM
N-C4	DMS-1	0.6808	PPM
T2-C4=	DMS-1	0.0842	PPM
M-XYL	10'C-600	0.0719	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

JTC-500
 MINI-SURR. + 59 PPB ADDED TRANS-2-BUTENE
 1982 MAY 17

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T2-C4= PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 845	-75	0.004	0.012	0.009	0.020	0.0022	0.0007	-----	-----	0.000	-----	-----
1 900	-60	0.000	0.010	0.007	0.017	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.010	0.007	0.016	-----	-----	-----	-----	-----	-----	-----
1 928	-32	-----	-----	-----	-----	0.1582	0.6749	0.0835	0.0709	-----	-----	-----
1 930	-30	0.000	0.076	0.020	0.095	-----	-----	-----	-----	-----	-----	-----
1 940	-20	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.013	-----
1 945	-15	0.000	0.075	0.020	0.095	0.1572	0.6739	0.0839	0.0711	-----	-----	-----
1 1000	0	0.000	0.076	0.020	0.096	0.1596	0.6808	0.0842	0.0719	0.000	-----	-----
1 1015	15	0.011	0.033	0.058	0.090	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.111	0.013	0.067	0.080	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.178	0.012	0.065	0.076	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.211	0.011	0.065	0.075	0.0810	0.6413	0.0020	0.0442	0.034	0.067	0.0843
1 1115	75	0.233	0.011	0.064	0.074	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.250	0.011	0.062	0.073	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.262	0.011	0.063	0.073	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.271	0.011	0.062	0.073	0.0482	0.6295	0.0001	0.0366	0.056	0.090	0.0844
1 1215	135	0.278	0.011	0.062	0.073	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.286	0.011	0.062	0.072	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.290	0.011	0.062	0.073	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.294	0.011	0.062	0.073	0.0254 A	0.5099 A	0.0000	0.0326	0.057	0.094	0.0817
1 1315	195	0.299	0.011	0.062	0.072	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.303	0.011	0.061	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.304	0.011	0.061	0.071	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.235	0.010	0.061	0.071	0.0186	0.6008	0.0000	0.0300	0.060	0.094	0.0846
1 1415	255	0.311	0.010	0.061	0.070	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.311	0.008	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.315	0.008	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1500	300	-----	0.008	0.059	0.067	0.0121	0.6344	0.0000	0.0276	0.060	0.098	0.0825
1 1515	315	-----	0.008	0.060	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	330	-----	0.008	0.061	0.069	-----	-----	-----	-----	-----	-----	-----
1 1545	345	-----	0.009	0.060	0.068	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.326	0.009	0.060	0.069	-----	0.6146	0.0000	0.0256	0.058	-----	0.0651

----- NO DATA TAKEN

ITC-500
MINI-SURR. + 59 PPB ADDED TRANS-2-BUTENE
1982 MAY 17

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	0.0143	0.0171
1 1200	120	0.0169	0.0232
1 1300	180	0.0259	0.0258
1 1400	240	0.0215	0.0294
1 1500	300	0.0249	0.0346
1 1600	360	0.0216	0.0359

----- NO DATA TAKEN

NOTES

A STRANGE RESULTS-->POSSIBLY THE ROOM IS TOO HOT (85 DEGREES F).

ITC-501
MINI-SURROGATE
1982 MAY 18

29-APR-83
PAGE 1

0837: THIRD AND FINAL FILL AT 50% R.H.
0918: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN⁻¹

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	82.6	2.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO2-UNC	T 14B-1	0.015	PPM
PROPENE	DMS-1	0.1624	PPM
N-C4	DMS-1	0.6967	PPM
T2-C4=	DMS-1	0.0253	PPM
M-XYL	10'C-600	0.0731	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PM-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1413	D-1413	DASIBI 1413 OZONE MONITOR

ITC-501
MINI-SURROGATE
1982 MAY 18

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1413	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 845	-75	-----	-----	-----	-----	-----	0.0020	0.0004	-----	-----	0.000	-----
1 915	-45	0.000	0.000	0.005	0.004	0.009	-----	-----	-----	-----	-----	-----
1 928	-32	-----	-----	-----	-----	-----	0.1639	0.7036	0.0255	0.0733	-----	-----
1 930	-30	0.000	0.000	0.074	0.017	0.090	-----	-----	-----	-----	-----	-----
1 944	-16	-----	-----	-----	-----	-----	0.1615	0.6947	0.0252	0.0722	-----	-----
1 945	-15	0.000	0.000	0.073	0.015	0.088	-----	-----	-----	-----	-----	-----
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004
1 1000	0	0.000	0.000	0.073	0.015	0.089	0.1624	0.6967	0.0253	0.0731	0.000	-----
1 1015	15	0.000	0.004	0.053	0.033	0.086	-----	-----	-----	-----	-----	-----
1 1030	30	0.032	0.025	0.025	0.056	0.081	-----	-----	-----	-----	-----	-----
1 1045	45	0.074	0.069	0.014	0.061	0.075	-----	-----	-----	-----	-----	-----
1 1100	60	0.106	0.108	0.010	0.061	0.071	0.1061	0.6838	0.0038	0.0522	0.011	0.040
1 1115	75	0.136	0.151	0.010	0.059	0.069	-----	-----	-----	-----	-----	-----
1 1130	90	0.161	0.183	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----
1 1145	105	0.179	0.210	0.009	0.057	0.066	-----	-----	-----	-----	-----	-----
1 1200	120	0.199	0.227	0.009	0.056	0.064	0.0612	0.6561	0.0000	0.0385	0.034	0.063
1 1215	135	0.213	0.240	0.009	0.055	0.063	-----	-----	-----	-----	-----	-----
1 1230	150	0.226	0.252	0.008	0.054	0.062	-----	-----	-----	-----	-----	-----
1 1245	165	0.234	0.269	0.009	0.053	0.062	-----	-----	-----	-----	-----	-----
1 1300	180	0.242	0.269	0.008	0.053	0.062	0.0368	0.6453	0.0000	0.0309	0.048	0.075
1 1315	195	0.247	0.273	0.008	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1330	210	0.269	0.288	0.009	0.053	0.061	-----	-----	-----	-----	-----	-----
1 1345	225	0.272	0.290	0.009	0.053	0.061	-----	-----	-----	-----	-----	-----
1 1400	240	0.275	0.299	0.009	0.052	0.061	0.0230	0.6443	0.0000	0.0280	0.050	0.084
1 1415	255	0.277	0.292	0.009	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1430	270	0.280	0.293	0.009	0.052	0.062	-----	-----	-----	-----	-----	-----
1 1445	285	0.283	0.299	0.009	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1500	300	0.284	0.306	0.009	0.052	0.061	0.0143	0.6305	0.0000	0.0253	0.051	0.075
1 1515	315	0.285	0.305	0.009	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1530	330	0.290	0.312	0.010	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1545	345	0.289	0.320	0.010	0.052	0.061	-----	-----	-----	-----	-----	-----
1 1555	355	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.071
1 1600	360	0.293	0.320	0.010	0.052	0.062	0.0089	0.6166	0.0000	0.0226	0.053	-----

----- NO DATA TAKEN

ITC-501
MINI-SURROGATE
1982 MAY 18

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	0.0345	0.0173	0.0125
1 1200	120	0.0577	0.0232	0.0210
1 1300	180	0.0446	0.0307	0.0279
1 1400	240	0.0556	0.0137	0.0325
1 1500	300	0.0485	0.0366	0.0369
1 1600	360	0.0449	0.0500	0.0405

----- NO DATA TAKEN

ITC-502
MINI-SURR + 163 PPB ADDED TRANS-2-BUTENE
1982 MAY 19

29-APR-83
PAGE 1

0837: THIRD AND FINAL FILL AT 50% R.H.
INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML PROPENE, 1.2 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.7	1.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.076	PPM
NO2-UNC	T 14B-1	0.017	PPM
PROPENE	DMS-1	0.1617	PPM
N-C4	DMS-1	0.6947	PPM
T2-C4=	DMS-1	0.1886	PPM
M-XYL	10'C-600	0.0725	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-502
 MINI-SURR + 163 PPB ADDED TRANS-2-BUTENE
 1982 MAY 19

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 843	-77	-----	-----	-----	-----	-----	0.0019	0.0013	-----	-----	0.000	-----
1 900	-60	0.000	0.000	0.007	0.006	0.013	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.000	0.076	0.000	0.026	-----	-----	-----	-----	-----	-----
1 929	-31	-----	-----	-----	-----	-----	0.1665	0.7144	0.1905	0.0717	-----	-----
1 930	-30	0.000	0.000	0.077	0.017	0.094	-----	-----	-----	-----	-----	-----
1 945	-15	0.000	0.000	0.077	0.019	0.095	0.1655	0.7105	0.1901	0.0719	-----	-----
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002
1 1000	0	0.000	0.000	0.076	0.017	0.093	0.1617	0.6947	0.1886	0.0725	0.000	-----
1 1015	15	0.060	0.046	0.015	0.066	0.081	-----	-----	-----	-----	-----	-----
1 1030	30	0.179	0.168	0.008	0.070	0.078	-----	-----	-----	-----	-----	-----
1 1045	45	0.221	0.204	0.007	0.069	0.076	-----	-----	-----	-----	-----	-----
1 1100	60	0.212	0.227	0.007	0.069	0.076	0.0826	0.6739	0.0026	0.0452	0.053	0.044
1 1115	75	0.251	0.240	0.008	0.069	0.076	-----	-----	-----	-----	-----	-----
1 1130	90	0.262	0.244	0.008	0.069	0.076	-----	-----	-----	-----	-----	-----
1 1145	105	0.270	0.252	0.008	0.068	0.076	-----	-----	-----	-----	-----	-----
1 1200	120	0.271	0.256	0.008	0.068	0.076	0.0540	0.6631	0.0001	0.0409	0.066	0.048
1 1215	135	0.280	0.261	0.008	0.068	0.076	-----	-----	-----	-----	-----	-----
1 1230	150	0.282	0.263	0.009	0.068	0.077	-----	-----	-----	-----	-----	-----
1 1245	165	0.284	0.266	0.009	0.068	0.077	-----	-----	-----	-----	-----	-----
1 1300	180	0.283	0.271	0.008	0.067	0.075	0.0358	0.6601	0.0002	0.0368	0.064	0.061
1 1315	195	-----	0.278	0.008	0.067	0.074	-----	-----	-----	-----	-----	-----
1 1330	210	-----	0.280	0.007	0.066	0.074	-----	-----	-----	-----	-----	-----
1 1345	225	-----	0.282	0.007	0.066	0.073	-----	-----	-----	-----	-----	-----
1 1400	240	-----	0.285	0.007	0.066	0.073	0.0233	0.6502	0.0001	0.0346	0.060	0.061
1 1415	255	-----	0.288	0.007	0.066	0.073	-----	-----	-----	-----	-----	-----
1 1430	270	-----	0.290	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----
1 1445	285	-----	0.295	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----
1 1500	300	-----	0.297	0.006	0.065	0.072	0.0155	0.6433	0.0002	0.0322	0.064	0.048
1 1515	315	-----	0.300	0.006	0.065	0.071	-----	-----	-----	-----	-----	-----
1 1530	330	-----	0.303	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----
1 1545	345	-----	0.306	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.048
1 1600	360	-----	0.308	0.006	0.065	0.070	0.0102	0.6502	0.0002	0.0300	0.062	-----

----- NO DATA TAKEN

ITC-502
MINI-SURR + 163 PPB ADDED TRANS-2-BUTENE
1982 MAY 19

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	-----	0.0202	0.0166
1 1200	120	0.1242	0.0205	0.0200
1 1300	180	0.1109	0.0183	0.0200
1 1400	240	0.1230	0.0183	0.0248
1 1500	300	0.1060	0.0168	0.0260
1 1600	360	0.1143	0.0176	0.0300

----- NO DATA TAKEN

ITC-503
MINI-SURROGATE
1982 MAY 20

29-APR-83
PAGE 1

0833: THIRD AND FINAL FILL AT 50% R.H.
0911: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYL, 0.64 ML. NO, AND 0.13 ML. NO2.
1000: T=0. 70% LIGHTS.

T=0 AT 1000 PST

K1 = 0.900 MIN-1

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.5	1.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.069	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.1620	PPM
N-C4	DMS-1	0.7135	PPM
T2-C4=	DMS-1	0.0260	PPM
M-XYL	10'C-600	0.0733	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121 POROPAK-N GC; FID
2000	ECD-1	RM-121; 12% 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-503
 MINI-SURROGATE
 1982 MAY 20

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-1070	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 839	-81	-----	-----	-----	-----	0.0013	0.0006	-----	-----	0.000	-----	-----
1 900	-60	0.000	0.005	0.006	0.010	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.068	0.009	0.077	-----	-----	-----	-----	-----	-----	-----
1 923	-37	-----	-----	-----	-----	0.1594	0.6957	0.0255	0.0731	-----	-----	-----
1 930	-30	0.000	0.069	0.020	0.088	-----	-----	-----	-----	-----	-----	-----
1 940	-20	-----	-----	-----	-----	0.1596	0.6996	0.0257	0.0731	-----	-----	-----
1 945	-15	0.000	0.070	0.020	0.089	-----	-----	-----	-----	-----	-----	-----
1 950	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006	-----
1 1000	0	0.000	0.069	0.019	0.088	0.1620	0.7135	0.0260	0.0733	0.000	-----	-----
1 1015	15	0.000	0.048	0.038	0.086	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.024	0.020	0.061	0.081	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.076	0.013	0.064	0.076	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.119	0.009	0.062	0.072	0.1014	0.6907	0.0030	0.0506	0.013	0.017	0.0380
1 1115	75	0.153	0.009	0.062	0.071	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.182	0.009	0.060	0.069	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.207	0.008	0.058	0.066	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.229	0.009	0.058	0.066	0.0566	0.6443	0.0000	0.0386	0.032	0.036	0.0522
1 1215	135	0.249	0.009	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.263	0.008	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.272	0.008	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.280	0.009	0.055	0.064	0.0336	0.6453	0.0000	0.0309	0.043	0.042	0.0478
1 1315	195	0.289	0.008	0.053	0.062	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.294	0.009	0.053	0.062	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.300	0.010	0.054	0.063	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.303	0.009	0.054	0.062	0.0194	0.6146	0.0000	0.0267	0.049	0.042	0.0454
1 1415	255	0.307	0.009	0.053	0.062	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.310	0.009	0.052	0.062	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.313	0.009	0.052	0.062	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.316	0.009	0.052	0.061	0.0124	0.6305	0.0000	0.0236	0.049	0.042	0.0434
1 1515	315	0.318	0.010	0.052	0.062	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.320	0.009	0.052	0.061	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.324	0.010	0.053	0.063	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.015	-----
1 1600	360	0.325	0.010	0.052	0.062	0.0075	0.6206	0.0000	0.0216	0.048	-----	0.0408

----- NO DATA TAKEN

ITC-503
MINI-SURROGATE
1982 MAY 20

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600
1 1100	60	0.0106	0.0101
1 1200	120	0.0358	0.0245
1 1300	180	0.0351	0.0294
1 1400	240	0.0335	0.0326
1 1500	300	0.0221	-----
1 1600	360	0.0128	0.0349

----- NO DATA TAKEN

ITC-578
MINI-SURROGATE
1982 JAN. 31

19-APR-83
PAGE 1

0841: THIRD AND FINAL FILL.
0910: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.68 ML. NO₂ AND 0.13 ML. NO₂.
1015: T=0. 70% LIGHTS.
1625: DUMP AND REFILL.

T=0 AT 1015 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	25.0	3.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-1	0.067	PPM
NO	I 14B-3	0.072	PPM
NO2-UNC	I 14B-1	0.022	PPM
NO2-UNC	I 14B-3	0.015	PPM
PROPENE	DMS-1	0.1375	PPM
N-C4	DMS-1	0.6489	PPM
T2-C4=	DMS-1	0.0231	PPM
M-XYL	10'C-600	0.0687	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	I 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	MASIRI 3378 OZONE MONITOR
1530	I 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-578
MINI-SURROGATE
1982 JAN. 31

19-APR-83
PAGE 2

CLOCK TIME	ELAPSED TIME	UZONE PPH	NO PPH	NO PPH	NO2-UNC PPH	NO2-UNC PPH	NOX-UNC PPH	NOX-UNC PPH	PROPENE PPH	N-C4 PPH	I2-C4= PPH	H-XYL PPH
DAY HR.	(MIN)	0-3378	1 14B-1	1 14B-3	1 14B-1	1 14B-3	1 14B-1	1 14B-3	0MS-1	0MS-1	0MS-1	10°C-600
1 845	-90	0.000	0.014	-----	0.004	-----	0.018	-----	-----	-----	-----	-----
1 850	-85	-----	-----	-----	-----	-----	-----	-----	0.0006	0.0006	-----	0.0005
1 900	-75	0.000	0.046	-----	0.007	-----	0.052	-----	-----	-----	-----	-----
1 915	-60	0.000	0.094	-----	0.022	-----	0.116	-----	-----	-----	-----	-----
1 922	-53	-----	-----	-----	-----	-----	-----	-----	0.1383	0.6561	0.0231	0.0687
1 930	-45	0.000	0.090	-----	0.023	-----	0.113	-----	-----	-----	-----	-----
1 940	-35	-----	-----	-----	-----	-----	-----	-----	0.1404	0.6614	0.0232	0.0687
1 945	-30	0.000	0.082	-----	0.020	-----	0.101	-----	-----	-----	-----	-----
1 1000	-15	0.000	0.069	0.069	0.022	0.017	0.090	0.086	-----	-----	-----	-----
1 1015	0	0.000	0.067	0.072	0.022	0.015	0.088	0.087	0.1375	0.6489	0.0231	0.0687
1 1030	15	0.008	0.052	0.058	0.035	0.032	0.086	0.090	-----	-----	-----	-----
1 1045	30	0.019	0.104	0.035	0.000	0.054	0.047	0.089	-----	-----	-----	-----
1 1100	45	0.055	0.016	0.021	0.065	0.066	0.081	0.087	-----	-----	-----	-----
1 1115	60	0.110	0.012	0.017	0.065	0.066	0.077	0.083	0.0965	0.6407	0.0048	0.0502
1 1130	75	0.146	0.012	0.015	0.064	0.065	0.075	0.079	-----	-----	-----	-----
1 1145	90	0.186	0.010	0.014	0.063	0.063	0.073	0.077	-----	-----	-----	-----
1 1200	105	0.222	0.009	0.013	0.061	0.062	0.070	0.074	-----	-----	-----	-----
1 1215	120	0.235	0.009	0.012	0.061	0.060	0.069	0.073	0.0557	0.6071	0.0002	0.0379
1 1230	135	0.252	0.008	0.011	0.058	0.059	0.066	0.071	-----	-----	-----	-----
1 1245	150	0.262	0.008	0.011	0.058	0.058	0.065	0.069	-----	-----	-----	-----
1 1300	165	0.281	0.008	0.010	0.057	0.058	0.064	0.069	-----	-----	-----	-----
1 1315	180	0.292	0.008	0.010	0.057	0.056	0.065	0.067	0.0339	0.6135	0.0000	0.0315
1 1330	195	0.293	0.008	0.010	0.057	0.056	0.064	0.066	-----	-----	-----	-----
1 1345	210	0.297	0.007	0.010	0.055	0.055	0.062	0.065	-----	-----	-----	-----
1 1400	225	0.313	0.007	0.009	0.055	0.057	0.062	0.066	-----	-----	-----	-----
1 1415	240	0.315	0.008	0.009	0.055	0.055	0.062	0.064	0.0196	0.5873	-----	0.0280
1 1430	255	0.317	0.008	0.008	0.056	0.056	0.063	0.064	-----	-----	-----	-----
1 1445	270	0.324	0.008	0.008	0.057	0.055	0.064	0.064	-----	-----	-----	-----
1 1500	285	0.330	0.007	0.008	0.056	0.055	0.063	0.064	-----	-----	-----	-----
1 1515	300	0.333	0.007	0.008	0.056	0.054	0.063	0.063	0.0122	0.5800	-----	0.0250
1 1530	315	0.342	0.012	0.008	0.055	0.054	0.062	0.062	-----	-----	-----	-----
1 1545	330	0.343	0.013	0.008	0.055	0.055	0.062	0.063	-----	-----	-----	-----
1 1600	345	0.351	0.014	0.008	0.056	0.055	0.063	0.062	-----	-----	-----	-----
1 1615	360	0.351	0.013	0.007	0.056	0.054	0.062	0.062	0.0081	0.5664 A	-----	0.0233

----- NO DATA TAKEN

ITC-578
MINI-SURROGATE
1982 JAN. 31

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	FAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	C4-N-2 PPH 10'C-600
1 850	-85	0.000	-----	0.0003	0.0006	0.0002	-----
1 934	-41	-----	0.040	-----	-----	-----	-----
1 1015	0	0.000	-----	-----	-----	-----	-----
1 1115	60	0.012	0.021	0.0514	0.0034	0.0053	0.0014
1 1215	120	0.037	0.040	0.0700	0.0059	0.0146	0.0031
1 1315	180	0.055	0.033	0.0682	0.0146	0.0190	0.0036
1 1415	240	0.056	-----	0.0836	0.0092	0.0268	0.0045
1 1515	300	0.060	0.031	0.0904	0.0100	0.0296	0.0047
1 1615	360	0.064	-----	0.0897	0.0105	0.0336	0.0044
1 1620	365	-----	0.038	-----	-----	-----	-----

----- NO DATA TAKEN

NOTES

A THIS PEAK WAS OFFSCALE AND NOT ATTENUATED IN THO GET AN ACCURATE VALUE.

ITC-579
MINI-SURROGATE WITHOUT PROPENE
1983 FEB. 1

29-APR-83
PAGE 1

0834: THIRD AND FINAL FILL.
0920: INJECTIONS: 4.2 ML. N-BUTANE, 0.228 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.78 ML. NO,
AND 0.13 ML. NO2.
1030: 1=0, 70% LIGHTS.
1635: DUMP AND REFILL TWICE.

T=0 AT 1030 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	25.2	3.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.076	PPM
NO	T 14B-3	0.086	PPM
NO2-UNC	T 14B-1	0.023	PPM
NO2-UNC	T 14B-3	0.014	PPM
N-C4	DMS-1	0.6915	PPM
T2-C4=	DMS-1	0.0266	PPM
M-XYL	10'C-600	0.0691	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECU 14B-1 NO-NOX ANALYZER
3378	D-3378	MASIBI 3378 OZONE MONITOR
1530	T 14B-3	TECU 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-579
 MINI-SURROGATE WITHOUT PROPENE
 1983 FEB. 1

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH 0-5378	NO PPH 14B-1	NO PPH 14B-3	NO2-UNC PPH 14B-1	NO2-UNC PPH 14B-3	NOX-UNC PPH 14B-1	NOX-UNC PPH 14B-3	N-C4 PPH DMS-1	12-C4= PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1
1 844	-106	-----	-----	-----	-----	-----	-----	-----	0.0115	-----	-----	-----
1 845	-105	0.000	0.017	0.002	0.002	0.000	0.018	0.003	-----	-----	-----	-----
1 900	-90	0.000	0.011	0.005	0.008	0.002	0.019	0.007	-----	-----	-----	-----
1 915	-75	0.000	0.071	0.076	0.011	0.004	0.081	0.080	-----	-----	-----	-----
1 930	-60	0.000	0.087	0.091	0.128	0.112	0.200	0.200	-----	-----	-----	-----
1 935	-55	-----	-----	-----	-----	-----	-----	-----	0.6779	0.0174	0.0690	-----
1 945	-45	0.000	0.081	0.086	0.022	0.015	0.103	0.101	-----	-----	-----	-----
1 958	-32	-----	-----	-----	-----	-----	-----	-----	0.6878	0.0260	0.0689	-----
1 1000	-30	0.000	0.083	0.086	0.022	0.015	0.105	0.101	-----	-----	-----	-----
1 1013	-17	-----	-----	-----	-----	-----	-----	-----	0.6788	0.0260	-----	-----
1 1015	-15	0.000	0.078	0.087	0.024	0.013	0.101	0.101	-----	-----	-----	-----
1 1030	0	0.000	0.076	0.086	0.023	0.014	0.097	0.100	0.6915	0.0266	0.0691	0.000
1 1045	15	0.002	0.067	0.076	0.028	0.025	0.095	0.102	-----	-----	-----	-----
1 1100	30	0.011	0.048	0.058	0.045	0.041	0.093	0.099	-----	-----	-----	-----
1 1115	45	0.020	0.031	0.035	0.060	0.061	0.090	0.096	-----	-----	-----	-----
1 1130	60	0.045	0.019	0.020	0.069	0.073	0.087	0.093	0.6688	0.0093	0.0511	0.004
1 1145	75	0.072	0.012	0.014	0.071	0.076	0.083	0.090	-----	-----	-----	-----
1 1200	90	0.099	0.009	0.011	0.071	0.075	0.079	0.086	-----	-----	-----	-----
1 1215	105	0.116	0.007	0.008	0.071	0.075	0.078	0.083	-----	-----	-----	-----
1 1230	120	0.138	0.006	0.007	0.070	0.073	0.076	0.080	0.6480	0.0008	0.0373	0.020
1 1245	135	0.151	0.019	0.006	0.069	0.073	0.075	0.079	-----	-----	-----	-----
1 1300	150	0.171	0.018	0.005	0.068	0.072	0.072	0.077	-----	-----	-----	-----
1 1315	165	0.182	0.016	0.005	0.067	0.071	0.071	0.075	-----	-----	-----	-----
1 1330	180	0.195	0.017	0.004	0.066	0.070	0.070	0.074	0.6316	0.0000	0.0293	0.036
1 1345	195	0.219	0.018	0.004	0.065	0.069	0.069	0.072	-----	-----	-----	-----
1 1400	210	0.231	0.004	0.003	0.064	0.067	0.068	0.070	-----	-----	-----	-----
1 1415	225	0.245	0.003	0.003	0.063	0.066	0.066	0.069	-----	-----	-----	-----
1 1430	240	0.257	0.004	0.003	0.063	0.065	0.065	0.068	0.6190	-----	0.0233	0.046
1 1445	255	0.273	0.003	0.002	0.062	0.064	0.064	0.067	-----	-----	-----	-----
1 1500	270	0.290	0.003	0.002	0.061	0.064	0.064	0.066	-----	-----	-----	-----
1 1515	285	0.302	0.002	0.002	0.060	0.063	0.063	0.065	-----	-----	-----	-----
1 1530	300	0.307	0.003	0.002	0.062	0.062	0.064	0.064	0.5918	-----	0.0195	0.056
1 1545	315	0.335	0.003	0.002	0.060	0.062	0.063	0.063	-----	-----	-----	-----
1 1600	330	0.336	0.003	0.001	0.061	0.061	0.064	0.062	-----	-----	-----	-----
1 1615	345	0.353	0.004	0.001	0.061	0.060	0.063	0.061	-----	-----	-----	-----
1 1630	360	0.355	0.002	0.001	0.058	0.059	0.060	0.060	0.5881	-----	0.0163	0.058

----- NO DATA TAKEN

ITC-579
 MINI-SURROGATE WITHOUT PROPENE
 1983 FEB. 1

29-APR-83
 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 844	-106	-----	0.0011	0.0014	-----	-----
1 944	-46	0.044	-----	-----	-----	-----
1 1130	60	0.006	0.0252	0.0023	0.0068	0.0013
1 1230	120	0.023	0.0345	0.0032	0.0127	0.0029
1 1330	180	0.025	0.0357	0.0048	0.0280	0.0038
1 1430	240	-----	0.0355	0.0086	0.0323	0.0047
1 1530	300	0.021	0.0352	0.0070	0.0346	0.0061
1 1620	350	0.017	-----	-----	-----	-----
1 1630	360	-----	0.0334	0.0087	0.0389	0.0069

----- NO DATA TAKEN

ITC-580
MINI-SURROGATE
1982 FEB. 2

29-APR-83
PAGE 1

0834: THIRD AND FINAL FILL.
0926: INJECTIONS: 4.2 ML. N-BUTANE, 1.0 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.68 ML. NO,
AND 0.2 ML. NO2.
1015: T=0. 70% LIGHTS.
1620: DUMP AND FILL.

T=0 AT 1015 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	25.4	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.069	PPM
NO	T 14B-3	0.082	PPM
NO2-UNC	T 14B-1	0.021	PPM
NO2-UNC	T 14B-3	0.018	PPM
PROPENE	DMS-1	0.1442	PPM
N-C4	DMS-1	0.6824	PPM
T2-C4=	DMS-1	0.0239	PPM
M-XYL	10'C-600	0.0678	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECU
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-580
MINI-SURROGATE
1982 FEB. 2

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM I 14B-1	NO PPM I 14B-3	NO2-UNC PPM I 14B-1	NO2-UNC PPM I 14B-3	NOX-UNC PPM I 14B-1	NOX-UNC PPM I 14B-3	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10°C-600
1 840	-95	-----	-----	-----	-----	-----	-----	-----	0.0004	-----	-----	-----
1 853	-82	-----	-----	-----	-----	-----	-----	-----	0.0004	0.0006	-----	-----
1 900	-75	0.000	0.003	0.007	0.007	0.004	0.011	0.011	-----	-----	-----	-----
1 915	-60	0.000	0.066	0.080	0.009	0.004	0.074	0.085	-----	-----	-----	-----
1 930	-45	0.000	0.066	0.081	0.018	0.014	0.084	0.096	-----	-----	-----	-----
1 940	-35	-----	-----	-----	-----	-----	-----	-----	0.1414	0.6579	0.0229	0.0674
1 945	-30	0.000	0.068	0.083	0.022	0.018	0.089	0.100	-----	-----	-----	-----
1 958	-17	-----	-----	-----	-----	-----	-----	-----	0.1442	0.6770	0.0238	0.0673
1 1000	-15	0.000	0.069	0.082	0.021	0.020	0.090	0.100	-----	-----	-----	-----
1 1015	0	0.000	0.069	0.082	0.021	0.018	0.090	0.100	0.1442	0.6824	0.0239	0.0678
1 1030	15	0.010	0.056	0.067	0.033	0.033	0.089	0.100	-----	-----	-----	-----
1 1045	30	0.020	0.033	0.042	0.054	0.056	0.087	0.099	-----	-----	-----	-----
1 1100	45	0.044	0.017	0.021	0.068	0.073	0.084	0.095	-----	-----	-----	-----
1 1115	60	0.093	0.010	0.013	0.069	0.077	0.079	0.090	0.1035	0.6597	0.0064	0.0511
1 1130	75	0.131	0.007	0.010	0.069	0.076	0.076	0.086	-----	-----	-----	-----
1 1145	90	0.170	0.006	0.008	0.067	0.074	0.073	0.083	-----	-----	-----	-----
1 1200	105	0.202	0.005	0.008	0.065	0.072	0.070	0.080	-----	-----	-----	-----
1 1215	120	0.227	0.005	0.007	0.064	0.070	0.068	0.078	0.0596	0.6371	0.0003	0.0372
1 1230	135	0.249	0.004	0.007	0.064	0.069	0.067	0.076	-----	-----	-----	-----
1 1245	150	0.263	0.004	0.006	0.061	0.067	0.064	0.074	-----	-----	-----	-----
1 1300	165	0.275	0.004	0.006	0.061	0.067	0.064	0.074	-----	-----	-----	-----
1 1315	180	0.302	0.004	0.006	0.060	0.065	0.063	0.071	0.0343	0.6217	0.0001	0.0295
1 1330	195	0.313	0.004	0.006	0.059	0.066	0.062	0.072	-----	-----	-----	-----
1 1345	210	0.323	0.004	0.006	0.059	0.064	0.062	0.070	-----	-----	-----	-----
1 1400	225	0.327	0.004	0.006	0.059	0.065	0.062	0.071	-----	-----	-----	-----
1 1415	240	0.335	0.004	0.006	0.058	0.064	0.061	0.069	0.0203	0.6135	0.0000	0.0253
1 1430	255	0.343	0.003	0.005	0.058	0.064	0.061	0.070	-----	-----	-----	-----
1 1445	270	0.345	0.004	0.005	0.056	0.063	0.059	0.069	-----	-----	-----	-----
1 1500	285	0.339	0.004	0.005	0.057	0.064	0.060	0.069	-----	-----	-----	-----
1 1515	300	0.345	0.003	0.005	0.056	0.063	0.059	0.069	0.0121	0.6017	-----	0.0226
1 1530	315	0.342	0.003	0.005	0.055	0.063	0.058	0.068	-----	-----	-----	-----
1 1545	330	0.345	0.003	0.005	0.056	0.062	0.059	0.068	-----	-----	-----	-----
1 1600	345	0.350	0.003	0.005	0.055	0.062	0.058	0.068	-----	-----	-----	-----
1 1615	360	0.354	0.003	0.005	0.054	0.062	0.057	0.067	0.0073	0.5927	-----	0.0205

----- NO DATA TAKEN

ITC-580
MINI-SURROGATE
1982 FEB. 2

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 840	-95	0.000	-----	-----	0.0006	-----	-----
1 942	-33	-----	0.002	-----	-----	-----	-----
1 1015	0	0.000	-----	-----	-----	-----	-----
1 1115	60	0.009	0.013	0.0469	0.0036	0.0077	0.0013
1 1215	120	0.040	0.036	0.0754	0.0032	0.0110	0.0023
1 1315	180	0.066	-----	0.0708	0.0049	0.0195	0.0036
1 1320	185	-----	0.031	-----	-----	-----	-----
1 1415	240	0.080	0.025	0.0729	0.0064	0.0268	0.0042
1 1515	300	0.076	0.052	0.0790	0.0077	0.0319	0.0044
1 1605	350	-----	0.040	-----	-----	-----	-----
1 1615	360	0.084	-----	0.0605	0.0048	0.0265	0.0046

----- NO DATA TAKEN

NOTES

A OFFSCALE; SOMETHING IS AMISS HERE--NOTE HOW SMALL N-C4 IS IN NEXT
SAMPLE, BUT OFFSCALE HERE AT x8 !

ITC-581
MINI-SURROGATE + 126 PPB ADDED PROPENE
1982 FEB. 3

30-APR-83
PAGE 1

0844: THIRD AND FINAL FILL.
0909: INJECTIONS: 4.2 ML. N-BUTANE, 1.9 ML. PROPENE,
0.17 ML. 12-C4=, 1.9 MICROLITERS M-XYLENE,
0.68 ML. NO, AND 0.13 ML. NO2.
1015: T=0. 70% LIGHTS.
1620: DUMP AND FILL.

T=0 AT 1015 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	25.5	3.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.062	PPM
NO	T 14B-3	0.077	PPM
NO2-UNC	T 14B-1	0.023	PPM
NO2-UNC	T 14B-3	0.021	PPM
PROPENE	DMS-1	0.2884	PPM
N-C4	DMS-1	0.6906	PPM
T2-C4=	DMS-1	0.0246	PPM
M-XYL	10'C-600	0.0665	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
3378	B-3378	BASINI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	FN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-581
 MINI-SURROGATE + 126 PPB ADDED PROPENE
 1982 FEB. 3

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM O-3378	NO PPM I 14B-1	NO PPM I 14B-3	NO2-UNC PPM I 14B-1	NO2-UNC PPM I 14B-3	NOX-UNC PPM I 14B-1	NOX-UNC PPM I 14B-3	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM RMS-1	M-XYL PPM 10'C-600
1 845	-90	0.000	0.003	0.005	0.007	0.000	0.010	0.004	-----	-----	-----	-----
1 851	-84	-----	-----	-----	-----	-----	-----	-----	0.0005	0.0117	-----	-----
1 900	-75	0.000	0.003	0.009	0.006	0.000	0.010	0.009	-----	-----	-----	-----
1 915	-60	0.000	0.060	0.079	0.010	0.000	0.069	0.079	-----	-----	-----	-----
1 930	-45	0.000	0.061	0.081	0.019	0.016	0.079	0.097	-----	-----	-----	-----
1 938	-37	-----	-----	-----	-----	-----	-----	-----	0.2694	0.6688	0.0240	0.0650
1 945	-30	0.000	0.060	0.079	0.025	0.021	0.084	0.100	-----	-----	-----	-----
1 955	-20	-----	-----	-----	-----	-----	-----	-----	0.2880	0.6915	0.0246	0.0665
1 1000	-15	0.000	0.060	0.078	0.023	0.021	0.082	0.100	-----	-----	-----	-----
1 1015	0	0.000	0.062	0.077	0.023	0.021	0.084	0.098	0.2884	0.6906	0.0246	0.0665
1 1030	15	0.010	0.040	0.055	0.042	0.042	0.082	0.097	-----	-----	-----	-----
1 1045	30	0.049	0.018	0.023	0.063	0.071	0.079	0.094	-----	-----	-----	-----
1 1100	45	0.111	0.008	0.013	0.066	0.076	0.074	0.089	-----	-----	-----	-----
1 1115	60	0.171	0.007	0.009	0.064	0.074	0.070	0.083	0.1933	0.6688	0.0035	0.0492
1 1130	75	0.214	0.005	0.008	0.063	0.071	0.068	0.079	-----	-----	-----	-----
1 1145	90	0.251	0.005	0.007	0.061	0.070	0.066	0.077	-----	-----	-----	-----
1 1200	105	0.276	0.004	0.007	0.059	0.068	0.064	0.075	-----	-----	-----	-----
1 1215	120	0.295	0.004	0.007	0.058	0.067	0.062	0.074	0.1066	0.6471	0.0000	0.0371
1 1230	135	0.305	0.005	0.006	0.059	0.066	0.063	0.072	-----	-----	-----	-----
1 1245	150	0.312	0.005	0.006	0.058	0.066	0.062	0.072	-----	-----	-----	-----
1 1300	165	0.328	0.005	0.006	0.058	0.066	0.062	0.072	-----	-----	-----	-----
1 1315	180	0.341	0.004	0.006	0.058	0.064	0.061	0.071	0.0620	0.6425	-----	0.0317
1 1330	195	0.335	0.004	0.006	0.058	0.064	0.062	0.070	-----	-----	-----	-----
1 1345	210	0.343	0.004	0.006	0.056	0.064	0.059	0.071	-----	-----	-----	-----
1 1400	225	0.342	0.005	0.006	0.056	0.064	0.060	0.071	-----	-----	-----	-----
1 1415	240	0.333	0.004	0.006	0.057	0.064	0.061	0.071	0.0386	0.6326	-----	0.0289
1 1430	255	0.332	0.004	0.006	0.056	0.064	0.060	0.070	-----	-----	-----	-----
1 1445	270	0.334	0.004	0.006	0.056	0.064	0.060	0.070	-----	-----	-----	-----
1 1500	285	0.335	0.004	0.006	0.056	0.064	0.060	0.070	-----	-----	-----	-----
1 1515	300	0.342	0.004	0.005	0.056	0.064	0.060	0.070	0.0232	0.6271	-----	0.0261
1 1530	315	0.336	0.004	0.005	0.056	0.064	0.060	0.070	-----	-----	-----	-----
1 1545	330	0.339	0.005	0.005	0.057	0.063	0.061	0.069	-----	-----	-----	-----
1 1600	345	0.351	0.005	0.005	0.056	0.064	0.061	0.069	-----	-----	-----	-----
1 1615	360	0.351	0.004	0.005	0.055	0.064	0.059	0.069	0.0148	0.6280	-----	0.0244

----- NO DATA TAKEN

ITC-581
 MINI-SURROGATE + 126 PPB ADDED PROPENE
 1982 FEB. 3

30-APR-83
 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 851	-84	0.000	-----	0.0006	0.0005	-----	-----
1 948	-27	-----	0.019	-----	-----	-----	-----
1 1015	0	0.000	-----	-----	-----	-----	-----
1 1115	60	0.020	0.046	0.0759	0.0034	0.0083	0.0011
1 1215	120	0.060	0.056	0.1113	0.0046	0.0152	0.0027
1 1315	180	0.085	0.075	0.1118	0.0032	0.0154	0.0032
1 1415	240	0.090	0.092	0.1129	0.0042	0.0217	0.0034
1 1515	300	0.085	0.063	0.1158	0.0040	0.0248	0.0035
1 1605	350	-----	0.103	-----	-----	-----	-----
1 1615	360	0.080	-----	0.0997	0.0039	0.0254	0.0037

----- NO DATA TAKEN

ITC-584
MINI-SURROGATE
1982 FEB. 7

29-APR-83
PAGE 1

0845: THIRD AND FINAL FILL.

0940: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. I2-C4=,
1.9 MICROLITERS M-XYLENE, 0.76 ML. NO,
AND 0.16 ML. NO2.

1630: RUN OVER.

T=0 AT 1030 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	25.4	3.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	I 14B-3	0.080	PPM
NO2-UNC	I 14B-3	0.018	PPM
PROPENE	DMS-1	0.1656	PPM
N-C4	DMS-1	0.7177	PPM
I2-C4=	DMS-1	0.0243	PPM
M-XYL	10'C-600	0.0693	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1530	I 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	EC0-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-584
MINI-SURROGATE
1982 FEB. 7

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM U-1212	NO PPM I 14B-3	NO2-UNC PPM I 14B-3	NOX-UNC PPM I 14B-3	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 856	-94	-----	-----	-----	-----	0.0005	0.0005	-----	-----	0.000	-----	0.0006
1 915	-75	0.000	0.001	0.003	0.004	-----	-----	-----	-----	-----	-----	-----
1 930	-60	0.000	0.074	0.011	0.084	-----	-----	-----	-----	-----	-----	-----
1 945	-45	0.000	0.082	0.020	0.100	-----	-----	-----	-----	-----	-----	-----
1 955	-35	-----	-----	-----	-----	0.1602	0.6987	0.0236	0.0685	-----	-----	-----
1 1000	-30	0.000	0.084	0.020	0.103	-----	-----	-----	-----	-----	-----	-----
1 1010	-20	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1013	-17	-----	-----	-----	-----	0.1644	0.7186	0.0243	0.0683	-----	-----	-----
1 1015	-15	0.000	0.085	0.019	0.104	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.000	0.080	0.018	0.099	0.1656	0.7177	0.0243	0.0693	0.000	-----	-----
1 1045	15	0.009	0.061	0.036	0.097	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.014	0.036	0.064	0.099	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.061	0.014	0.081	0.095	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.104	0.008	0.085	0.091	0.1131	0.6915	0.0056	0.0513	0.011	0.021	0.0519
1 1145	75	0.153	0.005	0.082	0.085	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.186	0.005	0.080	0.083	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.230	0.003	0.084	0.085	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.262	0.002	0.078	0.079	0.0647	0.6697	0.0002	0.0376	0.040	0.040	0.0832
1 1245	135	0.276	0.002	0.077	0.078	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.302	0.001	0.075	0.075	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.307	0.002	0.075	0.075	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.323	0.001	0.074	0.074	0.0366	0.6534	0.0000	0.0304	0.062	0.042	0.0794
1 1345	195	0.327	0.001	0.073	0.073	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.343	0.000	0.072	0.072	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.344	0.002	0.073	0.073	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.352	0.000	0.072	0.072	0.0214	0.6452	-----	0.0266	0.076	0.046	0.0808
1 1445	255	0.346	0.002	0.073	0.073	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.353	0.000	0.071	0.070	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.357	0.000	0.072	0.071	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.357	0.001	0.072	0.071	0.0126	0.6380	-----	0.0240	0.080	0.031	0.0828
1 1545	315	0.366	0.001	0.073	0.072	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.371	0.001	0.072	0.071	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.367	0.001	0.072	0.071	-----	-----	-----	-----	-----	-----	-----
1 1630	360	0.374	0.001	0.072	0.071	0.0072	0.6353	-----	0.0213	0.072	-----	0.0778

----- NO DATA TAKEN

ITC-584
MINI-SURROGATE
1982 FEB. 7

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 854	-94	0.0008	-----	-----
1 1130	60	0.0012	0.0086	0.0015
1 1230	120	0.0022	0.0188	0.0029
1 1330	180	0.0016	0.0220	0.0038
1 1430	240	0.0023	0.0271	0.0044
1 1530	300	0.0024	0.0329	0.0046
1 1630	360	0.0035	0.0088	0.0048

----- NO DATA TAKEN

ITC-585
MINI-SURROGATE + 306 PPB ADDED PROPENE
1983 FEB. 8

30-APR-83
PAGE 1

0846: THIRD AND FINAL FILL.
0945: INJECTIONS: 4.2 ML. N-BUTANE, 3.2 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.68 ML. NO, AND 0.18 ML. NO2.
1630: RUN OVER.

T=0 AT 1045 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
1	DORIC-1	26.5	3.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-3	0.081	PPM
NO2-UNC	T 14B-3	0.014	PPM
PROPENE	DMS-1	0.4683	PPM
N-C4	DMS-1	0.6986	PPM
T2-C4=	DMS-1	0.0251	PPM
M-XYL	10'C-600	0.0674	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	FN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12° 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-585
 MINI-SURROGATE + 306 PPB ADDED PROPENE
 1983 FEB. 8

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	UZONE PPM D-1212	NO PPM T 14B-3	NO2-UNC PPM T 14B-3	NOX-UNC PPM T 14B-3	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 850	-115	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0007
1 910	-95	-----	-----	-----	-----	0.0006	0.0006	-----	-----	0.000	-----	-----
1 915	-90	0.000	0.011	0.012	0.022	-----	-----	-----	-----	-----	-----	-----
1 930	-75	0.000	0.011	0.011	0.022	-----	-----	-----	-----	-----	-----	-----
1 945	-60	0.000	0.085	0.016	0.100	-----	-----	-----	-----	-----	-----	-----
1 1000	-45	0.000	0.084	0.015	0.099	-----	-----	-----	-----	-----	-----	-----
1 1012	-33	-----	-----	-----	-----	-----	-----	-----	0.0675	-----	-----	-----
1 1015	-30	0.000	0.082	0.014	0.096	-----	-----	-----	-----	-----	-----	-----
1 1020	-25	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 1025	-20	-----	-----	-----	-----	0.4732	0.6933	0.0250	-----	-----	-----	-----
1 1030	-15	0.000	0.082	0.016	0.097	-----	-----	-----	-----	-----	-----	-----
1 1045	0	0.000	0.081	0.014	0.095	0.4683	0.6986	0.0251	0.0674	0.000	-----	-----
1 1100	15	0.011	0.047	0.049	0.095	-----	-----	-----	-----	-----	-----	-----
1 1115	30	0.069	0.015	0.075	0.088	-----	-----	-----	-----	-----	-----	-----
1 1130	45	0.174	0.009	0.074	0.082	-----	-----	-----	-----	-----	-----	-----
1 1145	60	0.239	0.009	0.073	0.080	0.2920	0.6652	0.0016	0.0506	0.027	0.050	0.1160
1 1200	75	0.272	0.007	0.069	0.075	-----	-----	-----	-----	-----	-----	-----
1 1215	90	0.291	0.007	0.069	0.074	-----	-----	-----	-----	-----	-----	-----
1 1230	105	0.303	0.006	0.069	0.074	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.303	0.006	0.069	0.073	0.1812	0.6698	0.0000	0.0411	0.058	0.077	0.1450
1 1300	135	0.303	0.006	0.068	0.072	-----	-----	-----	-----	-----	-----	-----
1 1315	150	0.297	0.005	0.067	0.071	-----	-----	-----	-----	-----	-----	-----
1 1330	165	0.301	0.005	0.068	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	180	0.300	0.006	0.068	0.072	0.1159	0.6616	-----	0.0367	0.066	0.069	0.1869
1 1400	195	0.295	0.005	0.067	0.071	-----	-----	-----	-----	-----	-----	-----
1 1415	210	0.294	0.005	0.067	0.070	-----	-----	-----	-----	-----	-----	-----
1 1430	225	0.293	0.006	0.067	0.071	-----	-----	-----	-----	-----	-----	-----
1 1445	240	0.295	0.005	0.067	0.070	0.0708	0.6471	-----	0.0324	0.064	-----	0.1392
1 1500	255	0.300	0.004	0.066	0.069	-----	-----	-----	-----	-----	-----	-----
1 1515	270	0.300	0.004	0.065	0.069	-----	-----	-----	-----	-----	-----	-----
1 1530	285	0.300	0.004	0.066	0.069	-----	-----	-----	-----	-----	-----	-----
1 1545	300	0.303	0.004	0.064	0.067	0.0464	0.6370	-----	0.0309	0.062	-----	0.1564
1 1600	315	0.297	0.004	0.064	0.067	-----	-----	-----	-----	-----	-----	-----
1 1615	330	0.303	0.004	0.066	0.068	-----	-----	-----	-----	-----	-----	-----
1 1630	345	0.310	0.004	0.064	0.067	-----	-----	-----	-----	-----	-----	-----
1 1635	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.094	-----
1 1645	360	0.311	0.004	0.064	0.066	0.0293	0.6225	-----	0.0424 A	0.062	-----	0.1637

----- NO DATA TAKEN

ITC-585
MINI-SURROGATE + 306 PFB ADDED PROPENE
1983 FEB. 8

30-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	MEK PPH 10'C-600	C4-H-2 PPH 10'C-600
1 850	-115	0.0006	-----	-----
1 1145	60	0.0022	0.0058	0.0011
1 1245	120	0.0032	0.0117	0.0018
1 1345	180	0.0075	0.0154	0.0022
1 1445	240	0.0036	0.0142	0.0024
1 1545	300	0.0036	0.0163	0.0024
1 1645	360	0.0040	0.0180	0.0024

----- NO DATA TAKEN

NOTES

- A LARGE QUANTITY OF ANOTHER COMPOUND WITH SIMILAR RETENTION TIME AS
M-XYLENE INJECTED JUST BEFORE T=6.

ITC-586
MINI-SURROGATE
1983 FEB. 9

29-APR-83
PAGE 1

0840: THIRD AND FINAL FILL.
0935: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.68 ML. NO, 0.18 ML. NO2.
1015: T=0. 70% LIGHTS.
1625: DUMP AND FILL.

T=0 AT 1015 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.3	3.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-3	0.083	PPM
NO2-UNC	T 14B-3	0.014	PPM
PROPENE	DMS-1	0.1567	PPM
N-C4	DMS-1	0.6915	PPM
T2-C4=	DMS-1	0.0243	PPM
M-XYL	10'C-600	0.0658	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIB1 1212 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECU
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-586
MINI-SURROGATE
1983 FEB. 9

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH U-1212	NO PPH I 14B-3	NO2-UNC PPH I 14B-3	NOX-UNC PPH T 14B-3	PROPENE PPH DMS-1	N-C4 PPH DMS-1	I2-C4= PPH DMS-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 850	-85	-----	-----	-----	-----	-----	-----	-----	0.0006	0.000	-----	0.0014
1 905	-70	-----	-----	-----	-----	0.0005	0.0009	-----	-----	-----	-----	-----
1 915	-60	0.000	0.011	0.017	0.028	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.087	0.018	0.100	-----	-----	-----	-----	-----	-----	-----
1 945	-30	0.000	0.085	0.014	0.100	-----	-----	-----	-----	-----	-----	-----
1 950	-25	-----	-----	-----	-----	0.1480	0.6679	0.0248	0.0671	-----	-----	-----
1 1000	-15	0.000	0.084	0.014	0.098	-----	-----	-----	-----	-----	-----	-----
1 1005	-10	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.013	-----
1 1015	0	0.000	0.083	0.014	0.096	0.1567	0.6915	0.0243	0.0658	0.000	-----	-----
1 1030	15	0.003	0.065	0.032	0.096	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.020	0.031	0.063	0.092	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.072	0.013	0.075	0.087	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.132	0.010	0.087	0.095	0.1128	0.6969	0.0056	0.0505	0.013	0.038	0.0552
1 1130	75	0.174	0.006	0.075	0.080	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.211	0.005	0.071	0.075	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.233	0.005	0.069	0.072	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.260	0.004	0.068	0.071	0.0654	0.6797	0.0002	0.0381	0.039	0.036	0.0881
1 1230	135	0.266	0.004	0.067	0.069	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.283	0.004	0.066	0.068	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.293	0.004	0.064	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.304	0.003	0.064	0.066	0.0389	0.6679	0.0000	0.0323	0.058	0.056	0.0889
1 1330	195	0.312	0.003	0.063	0.065	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.315	0.003	0.062	0.064	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.323	0.003	0.063	0.064	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.323	0.003	0.063	0.064	0.0236	0.6507	-----	0.0292	0.068	0.046	0.0802
1 1430	255	0.331	0.003	0.063	0.064	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.326	0.003	0.062	0.063	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.332	0.002	0.061	0.062	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.340	0.002	0.062	0.063	0.0145	0.6507	-----	0.0266	0.060	-----	0.0816
1 1530	315	0.336	0.002	0.062	0.062	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.342	0.001	0.061	0.061	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.350	0.002	0.061	0.061	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.059	-----
1 1615	360	0.352	0.002	0.061	0.061	0.0086	0.6380	-----	0.0244	0.060	-----	0.0868

----- NO DATA TAKEN

ITC-586
MINI-SURROGATE
1983 FEB. 9

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 850	-85	0.0003	0.0001	0.0007
1 1115	60	0.0031	0.0080	0.0010
1 1215	120	0.0071	0.0186	0.0028
1 1315	180	0.0096	0.0228	0.0034
1 1415	240	0.0092	0.0234	0.0037
1 1515	300	0.0085	0.0263	0.0040
1 1615	360	0.0085	0.0335	0.0043

----- NO DATA TAKEN

ITC-587
MINI-SURROGATE WITH 888 PPB ETHANOL
1983 FEB. 10

29-APR-83
PAGE 1

0847: THIRD AND FINAL FILL.
0945: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. 12-C4=,
1.9 MICROLITERS M-XYLENE, 15.2 MICROLITERS ETHANOL,
0.68 ML. NO₂ AND 0.18 ML. NO₂.
1030: T=0. 70% LIGHTS.
1636: DUMP AND FILL.

T=0 AT 1030 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.2	3.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.076	PPM
NO2-UNC	T 14B-1	0.020	PPM
PROPENE	DMS-1	0.1387	PPM
N-C4	DMS-1	0.6933	PPM
M-XYL	10'C-600	0.0650	PPM
ETHANOL	10'C-600	0.8882	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	VASIRI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-587
 MINI-SURROGATE WITH 888 PPB ETHANOL
 1983 FEB. 10

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	I2-C4= PPH DMS-1	M-XYL PPH 10'C-600	ETHANOL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA
1 900	-90	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 915	-75	0.000	0.008	0.021	0.028	0.0005	0.0008	-----	-----	-----	-----	-----
1 930	-60	0.000	0.072	0.025	0.097	-----	-----	-----	-----	-----	-----	-----
1 945	-45	0.000	0.078	0.022	0.100	-----	-----	-----	-----	-----	-----	-----
1 1000	-30	0.000	0.078	0.023	0.100	0.1345	0.6698	0.0236	0.0648	0.8223	-----	-----
1 1010	-20	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.013
1 1015	-15	0.000	0.076	0.022	0.098	0.1395	0.7041	0.0249	0.0659	0.9053	-----	-----
1 1030	0	0.000	0.076	0.020	0.096	0.1387	0.6933	0.0246	0.0650	0.8882	0.000	-----
1 1045	15	0.004	0.048	0.049	0.096	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.040	0.018	0.077	0.093	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.108	0.010	0.078	0.087	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.153	0.007	0.075	0.082	0.0876	0.6524	0.0003	0.0482	0.4815 A	0.019	0.038
1 1145	75	0.193	0.006	0.074	0.079	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.217	0.006	0.073	0.077	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.249	0.004	0.071	0.075	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.265	0.004	0.071	0.074	0.0542	0.6344	0.0000	0.0383	0.7491	0.042	0.059
1 1245	135	0.277	0.004	0.070	0.072	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.292	0.004	0.070	0.072	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.303	0.004	0.068	0.070	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.307	0.003	0.067	0.069	0.0357	0.6561	-----	0.0345	0.8349	0.058	0.065
1 1345	195	0.320	0.003	0.068	0.070	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.322	0.003	0.068	0.070	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.325	0.003	0.067	0.069	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.332	0.003	0.067	0.068	0.0218	0.6443	-----	0.0309	0.7953	0.062	0.054
1 1445	255	0.335	0.003	0.067	0.069	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.337	0.003	0.067	0.068	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.342	0.003	0.066	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.351	0.003	0.065	0.067	0.0125	0.6308	-----	0.0288	0.5940	0.060	-----
1 1545	315	0.353	0.003	0.066	0.067	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.362	0.003	0.065	0.066	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.363	0.003	0.065	0.066	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.063
1 1630	360	0.373	0.003	0.064	0.066	0.0076	0.6326	-----	0.0267	0.6858	0.058	-----

----- NO DATA TAKEN

ITC-587
MINI-SURROGATE WITH 888 PPM ETHANOL
1983 FEB. 10

29-APR-83
PAGE 3

CLOCK TIME	ELAPSED TIME	ACETALD PPM	ACETONE PPM	MEK PPM	C4-N-2 PPM
DAY HR.	(MIN)	10'C-600	10'C-600	10'C-600	10'C-600
1 900	-90	0.0009	0.0004	0.0001	0.0007
1 1030	0	0.0026	0.0027	-----	-----
1 1130	60	0.0759	0.0046	-----	0.0011
1 1230	120	0.1303	0.0066	-----	0.0023
1 1330	180	0.1545	0.0086	-----	0.0029
1 1430	240	0.1429	0.0086	-----	0.0031
1 1530	300	0.1284	0.0077	-----	0.0031
1 1630	360	0.1432	0.0102	-----	0.0032

----- NO DATA TAKEN

NOTES

- A FROM 1130 TO 1630 THIS CHANNEL IS A COMBINED VALUE FOR ETHANOL AND MEK WHICH HAVE SIMILAR RETENTION TIMES.

ITC-590
MINI-SURROGATE
1983 FEB. 14

29-APR-83
PAGE 1

0812: THIRD AND FINAL FILL.
0935: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE,
0.17 ML. I2-C4=, 1.9 MICROLITERS M-XYLENE,
0.68 ML. NO, AND 0.18 ML. NO2.
1030: I=0. 70% LIGHTS.
1635: DUMP AND FILL.

T=0 AT 1030 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.1	3.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-3	0.072	PPM
NO2-UNC	T 14B-3	0.015	PPM
PROPENE	DMS-1	0.1491	PPM
N-C4	DMS-1	0.6905	PPM
I2-C4=	DMS-1	0.0222	PPM
M-XYL	10'C-600	0.0659	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
3378	D-3378	DASI81 3378 OZONE MONITOR
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-590
 MINI-SURROGATE
 1983 FEB. 14

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM U-3378	NO PPM T 14B-3	NO2-UNC PPM T 14B-3	NOX-UNC PPM T 14B-3	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECB-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 855	-95	-----	-----	-----	-----	0.0006	0.0006	-----	-----	0.000	-----	0.0006
1 930	-60	0.000	0.009	0.016	0.025	-----	-----	-----	-----	-----	-----	-----
1 945	-45	0.000	0.072	0.016	0.082	-----	-----	-----	-----	-----	-----	-----
1 953	-37	-----	-----	-----	-----	0.1468	0.6770	0.0212	0.0656	-----	-----	-----
1 1000	-30	0.000	0.072	0.015	0.086	-----	-----	-----	-----	-----	0.004	-----
1 1010	-20	-----	-----	-----	-----	0.1452	0.6924	0.0222	0.0656	-----	-----	-----
1 1015	-15	0.000	0.071	0.015	0.086	-----	-----	-----	-----	-----	-----	-----
1 1030	0	0.001	0.072	0.015	0.086	0.1491	0.6905	0.0222	0.0659	0.000	-----	0.0013
1 1045	15	0.002	0.059	0.027	0.085	-----	-----	-----	-----	-----	-----	-----
1 1100	30	0.020	0.034	0.051	0.084	-----	-----	-----	-----	-----	-----	-----
1 1115	45	0.062	0.018	0.064	0.081	-----	-----	-----	-----	-----	-----	-----
1 1130	60	0.111	0.013	0.065	0.078	0.1046	0.6851	0.0048	0.0473	0.010	0.004	0.0543
1 1145	75	0.157	0.011	0.064	0.074	-----	-----	-----	-----	-----	-----	-----
1 1200	90	0.191	0.011	0.062	0.073	-----	-----	-----	-----	-----	-----	-----
1 1215	105	0.219	0.010	0.061	0.071	-----	-----	-----	-----	-----	-----	-----
1 1230	120	0.236	0.009	0.061	0.069	0.0603	0.6552	0.0002	0.0359	0.040	0.010	0.0786
1 1245	135	0.264	0.009	0.059	0.068	-----	-----	-----	-----	-----	-----	-----
1 1300	150	0.283	0.010	0.058	0.067	-----	-----	-----	-----	-----	-----	-----
1 1315	165	0.293	0.009	0.058	0.067	-----	-----	-----	-----	-----	-----	-----
1 1330	180	0.305	0.015	0.052	0.066	0.0378	0.7074	0.0000	0.0299	0.057	0.015	0.0862
1 1345	195	0.314	0.009	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1400	210	0.321	0.010	0.057	0.066	-----	-----	-----	-----	-----	-----	-----
1 1415	225	0.323	0.008	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1430	240	0.328	0.009	0.057	0.065	0.0217	0.6597	-----	0.0267	0.063	0.021	0.0882
1 1445	255	0.340	0.008	0.056	0.064	-----	-----	-----	-----	-----	-----	-----
1 1500	270	0.337	0.008	0.057	0.065	-----	-----	-----	-----	-----	-----	-----
1 1515	285	0.352	0.008	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1530	300	0.349	0.008	0.056	0.064	0.0133	0.6625	-----	0.0239	0.057	0.017	0.0833
1 1545	315	0.361	0.008	0.056	0.063	-----	-----	-----	-----	-----	-----	-----
1 1600	330	0.363	0.008	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1615	345	0.364	0.008	0.055	0.063	-----	-----	-----	-----	-----	-----	-----
1 1620	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.023	-----
1 1630	360	0.370	0.008	0.054	0.062	0.0079	0.6652	-----	0.0215	0.063	-----	0.0849

----- NO DATA TAKEN

ITC-590
MINI-SURROGATE
1983 FEB. 14

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 855	-95	0.0005	0.0001	0.0007
1 1030	0	0.0014	0.0003	0.0003
1 1130	60	0.0057	0.0089	0.0013
1 1230	120	0.0092	0.0171	0.0027
1 1330	180	0.0117	0.0242	0.0036
1 1430	240	0.0135	0.0285	0.0041
1 1530	300	0.0131	0.0313	0.0043
1 1630	360	0.0140	0.0360	0.0045

----- NO DATA TAKEN

ITC-591
MINI-SURROGATE WITH 986 PPM ETHANOL
1983 FEB. 15

29-APR-83
PAGE 1

0841: THIRD AND FINAL FILL.
0924: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. 12-C4=,
1.9 MICROLITERS M-XYLENE, 30.4 MICROLITERS ETHANOL,
0.68 ML. NO, AND 0.18 ML. NO2.
1015: T=0, 70% LIGHTS.
1620: DUMP AND FILL.

T=0 AT 1015 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.8	3.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.083	PPM
NO2-UNC	T 14B-1	0.020	PPM
PROPENE	DMS-1	0.1450	PPM
N-C4	DMS-1	0.7023	PPM
12-C4=	DMS-1	0.0242	PPM
M-XYL	10'C-600	0.0659	PPM
ETHANOL	10'C-600	0.9856	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	0-3378	BAIPI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID; HCHO ANALYSIS

ITC-591
 MINI-SURROGATE WITH 986 PPB ETHANOL
 1983 FEB. 15

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	ETHANOL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 847	-88	-----	-----	-----	-----	0.0005	0.0007	-----	0.0000	0.0000	0.000	-----
1 900	-75	0.000	0.008	0.010	0.018	-----	-----	-----	-----	-----	-----	-----
1 915	-60	0.000	0.082	0.010	0.082	-----	-----	-----	-----	-----	-----	-----
1 930	-45	0.000	0.082	0.019	0.100	-----	-----	-----	-----	-----	-----	-----
1 933	-42	-----	-----	-----	-----	0.1430	0.6860	0.0234	0.0648	1.302	-----	-----
1 940	-35	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.002
1 945	-30	0.000	0.082	0.020	0.101	-----	-----	-----	-----	-----	-----	-----
1 950	-25	-----	-----	-----	-----	0.1430	0.6887	0.0235	0.0657	1.233	-----	-----
1 1000	-15	0.000	0.083	0.019	0.101	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.000	0.083	0.020	0.102	0.1450	0.7023	0.0242	0.0659	0.9856	0.000	-----
1 1030	15	0.008	0.060	0.041	0.101	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.027	0.026	0.074	0.099	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.082	0.011	0.085	0.095	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.136	0.007	0.084	0.090	-----	-----	-----	-----	-----	-----	0.004
1 1130	75	0.189	0.005	0.082	0.087	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.223	0.005	0.081	0.085	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.247	0.004	0.079	0.082	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.280	0.004	0.079	0.082	0.0653	0.6824	0.0003	0.0416	0.9011 A	0.049	0.010
1 1230	135	0.302	0.004	0.077	0.080	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.317	0.004	0.076	0.079	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.334	0.004	0.075	0.079	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.345	0.004	0.075	0.078	-----	-----	-----	-----	-----	-----	0.017
1 1330	195	0.361	0.004	0.074	0.077	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.366	0.004	0.074	0.077	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.368	0.004	0.074	0.077	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.381	0.004	0.072	0.075	-----	-----	-----	-----	-----	-----	-----
1 1430	255	0.378	0.004	0.073	0.077	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.383	0.005	0.073	0.077	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.392	0.006	0.074	0.079	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.388	0.004	0.071	0.074	0.0144	0.6588	0.0000	0.0325	0.7526 A	0.073	0.019
1 1530	315	0.390	0.003	0.071	0.074	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.396	0.004	0.070	0.073	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.402	0.004	0.070	0.073	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.031
1 1615	360	0.398	0.003	0.069	0.071	0.0089	0.6652	-----	0.0309	0.7744	0.073	-----

----- NO DATA TAKEN

ITC-591
MINI-SURRUGATE WITH 986 PPB ETHANOL
1983 FEB. 15

29-APR-83
PAGE 3

CLOCK TIME	ELAPSED TIME	ACETALD PPM	ACETONE PPM	MEK PPM	C4-N-2 PPM
DAY HR.	(MIN)	10'C-600	10'C-600	10'C-600	10'C-600
1 847	-88	-----	0.0011	0.0000	-----
1 1215	120	0.1751	0.0080	-----	0.0233
1 1515	300	0.2057	0.0075	-----	0.0083
1 1615	360	0.1730	0.0161	-----	0.0050

----- NO DATA TAKEN

NOTES

A ETHANOL AND MEK ELUTING AT THE SAME TIME.

ITC-592
MINI-SURROGATE
1983 FEB. 16

29-APR-83
PAGE 1

0827: THIRD AND FINAL FILL.
0846: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.64 ML. NO, 0.065 ML. NO2.
0930: T=0. 70% LIGHTS.
1547: DUMP AND FILL.

T=0 AT 930 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.7	2.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.080	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1308	PPM
N-C4	DMS-1	0.6045	PPM
T2-C4=	DMS-1	0.0249	PPM
M-XYL	10'C-600	0.0661	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-592
MINI-SURROGATE
1983 FEB. 16

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	N-XYL PPM 10'C-600	PAN PPM ECT-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 835	-55	-----	-----	-----	-----	0.0004	0.0003	-----	0.0000	0.000	-----	0.0021
1 845	-45	0.000	0.005	0.010	0.014	-----	-----	-----	-----	-----	-----	-----
1 900	-30	0.000	0.079	0.018	0.097	0.1316	0.5981	0.0250	0.0649	-----	-----	0.0003
1 910	-20	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.013	-----
1 915	-15	0.000	0.079	0.018	0.096	-----	-----	-----	-----	-----	-----	-----
1 917	-13	-----	-----	-----	-----	0.1375	0.6362	0.0255	0.0649	-----	-----	0.0005
1 930	0	0.000	0.080	0.018	0.098	0.1308	0.6045	0.0249	0.0661	0.000	-----	0.0025
1 945	15	0.001	0.069	0.030	0.098	-----	-----	-----	-----	-----	-----	-----
1 1000	30	0.018	0.040	0.056	0.095	-----	-----	-----	-----	-----	-----	-----
1 1015	45	0.052	0.017	0.075	0.091	-----	-----	-----	-----	-----	-----	-----
1 1030	60	0.110	0.010	0.078	0.087	-----	-----	-----	-----	-----	0.013	-----
1 1045	75	0.150	0.008	0.076	0.083	-----	-----	-----	-----	-----	-----	-----
1 1100	90	0.190	0.007	0.073	0.079	-----	-----	-----	-----	-----	-----	-----
1 1115	105	0.219	0.007	0.072	0.078	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.241	0.006	0.070	0.075	-----	-----	-----	-----	-----	0.015	-----
1 1145	135	0.259	0.006	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1200	150	0.266	0.005	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1215	165	0.283	0.006	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1230	180	0.293	0.005	0.067	0.072	0.0305	-----	0.0000	0.0303	0.056	-----	0.0748
1 1245	195	0.302	0.005	0.066	0.071	0.0285	0.5983	-----	-----	-----	-----	-----
1 1300	210	0.304	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1315	225	0.313	0.006	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1330	240	0.322	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1345	255	0.326	0.005	0.065	0.069	-----	-----	-----	-----	-----	-----	-----
1 1400	270	0.335	0.005	0.066	0.070	-----	-----	-----	-----	-----	-----	-----
1 1415	285	0.341	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1430	300	0.349	0.005	0.066	0.071	-----	-----	-----	-----	-----	0.042	-----
1 1445	315	0.353	0.005	0.064	0.069	-----	-----	-----	-----	-----	-----	-----
1 1500	330	0.354	0.005	0.065	0.069	-----	-----	-----	-----	-----	-----	-----
1 1515	345	0.361	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1530	360	0.356	0.005	0.064	0.069	0.0073	0.5800	-----	0.0221	0.057	0.015	0.0646

----- NO DATA TAKEN

ITC-592
MINI-SURROGATE
1983 FEB. 16

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10°C-600	MEK PPM 10°C-600
1 835	-55	0.0019	-----
1 900	-30	0.0008	-----
1 917	-13	0.0006	-----
1 930	0	0.0024	0.0000
1 1230	180	0.0129	0.0129
1 1530	360	0.0106	0.0157

----- NO DATA TAKEN

ITC-593
MINI-SURROGATE WITH 1963 PFB ETHANOL
1983 FEB. 17

29-APR-83
PAGE 1

0823: THIRD AND FINAL FILL.
0850: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 40 MICROLITERS ETHANOL,
0.64 ML. NO, AND 0.13 ML. NO2.
0945: T=0. 70% LIGHTS.
1555: DUMP AND FILL.

T=0 AT 945 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.5	3.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.073	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1917	PPM
N-C4	DMS-1	0.7177	PPM
T2-C4=	DMS-1	0.0283	PPM
M-XYL	10'C-600	0.0673	PPM
ETHANOL	10'C-600	1.9628	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECU-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-593
 MINI-SURROGATE WITH 196J PFB ETHANOL
 1983 FEB. 17

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	UZONE PPM U-3378	NO PPM I 14B-1	NO2-UNC PPM I 14B-1	NOX-UNC PPM I 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	ETHANOL PPM 10'C-600	FAN PPM ECR-1	HCHO PPM CA
1 837	-68	-----	-----	-----	-----	0.0005	0.0003	-----	-----	-----	0.000	-----
1 845	-60	0.000	0.004	0.010	0.014	-----	-----	-----	-----	-----	-----	-----
1 900	-45	0.000	0.134	0.000	0.096	-----	-----	-----	-----	-----	-----	-----
1 907	-38	-----	-----	-----	-----	0.1913	0.7186	0.0279	0.0663	1.766	-----	-----
1 915	-30	0.000	0.074	0.018	0.091	-----	-----	-----	-----	-----	-----	0.017
1 925	-20	-----	-----	-----	-----	0.1764	0.6416	0.0266	0.0671	1.921	-----	-----
1 930	-15	0.000	0.072	0.018	0.090	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.000	0.073	0.018	0.090	0.1917	0.7177	0.0283	0.0673	1.963	0.000	-----
1 1000	15	0.010	0.047	0.042	0.089	-----	-----	-----	-----	-----	-----	-----
1 1015	30	0.048	0.017	0.070	0.086	-----	-----	-----	-----	-----	-----	-----
1 1030	45	0.118	0.009	0.074	0.083	-----	-----	-----	-----	-----	-----	-----
1 1045	60	0.181	0.007	0.072	0.079	-----	-----	-----	-----	-----	-----	0.040
1 1100	75	0.222	0.007	0.071	0.077	-----	-----	-----	-----	-----	-----	-----
1 1115	90	0.243	0.007	0.068	0.074	-----	-----	-----	-----	-----	-----	-----
1 1130	105	0.262	0.006	0.068	0.074	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.280	0.007	0.067	0.073	0.0882	0.6962	0.0002	0.0455	1.864 A	0.046	0.082
1 1200	135	0.292	0.007	0.067	0.073	-----	-----	-----	-----	-----	-----	-----
1 1215	150	0.304	0.007	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1230	165	0.317	0.006	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1245	180	0.316	0.006	0.066	0.071	0.0517	0.6289	0.0000	0.0411	1.892 A	0.062	0.056
1 1300	195	0.323	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1315	210	0.332	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1330	225	0.339	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	240	0.343	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1400	255	0.343	0.006	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1415	270	0.343	0.007	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1430	285	0.352	0.006	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1445	300	0.353	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----	0.069
1 1500	315	0.346	0.007	0.065	0.071	-----	-----	-----	-----	-----	-----	-----
1 1515	330	0.352	0.007	0.064	0.071	-----	-----	-----	-----	-----	-----	-----
1 1530	345	0.352	0.007	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1535	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.063
1 1545	360	0.354	0.007	0.064	0.070	0.0137	0.6570	-----	0.0364	1.084 A	0.058	-----

----- NO DATA TAKEN

ITC-593
MINI-SURROGATE WITH 1963 PPB ETHANOL
1983 FEB. 17

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	C4-N-2 PPM 10'C-600
1 837	-68	0.0022	0.0016	-----
1 945	0	0.0007	0.0007	-----
1 1145	120	0.1940	0.0140	0.0017
1 1245	180	0.2173	0.0155	0.0019
1 1545	360	0.1756	0.0106	0.0017

----- NO DATA TAKEN

NOTES

A SAME ELUTION TIME FOR ETHANOL AND MEK.

ITC-597
MINI-SURROGATE
1983 FEB. 24

29-APR-83
PAGE 1

0829: THIRD AND FINAL FILL.
0915: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.64 ML. NO, AND 0.03 ML. NO2.
1000: T=0. 70% LIGHTS.
1608: DUMP AND FILL.

T=0 AT 1000 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	26.6	3.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.079	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1571	PPM
N-C4	DMS-1	0.6461	PPM
T2-C4=	DMS-1	0.0244	PPM
M-XYL	10'C-600	0.0674	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-597
MINI-SURROGATE
1983 FEB. 24

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	UZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 837	-83	-----	-----	-----	-----	0.0004	0.0002	-----	-----	0.000	-----	0.0004
1 845	-75	0.000	0.003	0.011	0.013	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.000	0.012	0.078	0.087	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.079	0.015	0.093	-----	-----	-----	-----	-----	-----	-----
1 925	-35	-----	-----	-----	-----	0.1642	0.6588	0.0243	-----	-----	-----	-----
1 926	-34	-----	-----	-----	-----	-----	-----	-----	0.0659	-----	-----	-----
1 930	-30	0.000	0.079	0.018	0.095	-----	-----	-----	-----	-----	-----	-----
1 934	-26	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 944	-16	-----	-----	-----	-----	0.1664	0.6697	0.0245	0.0656	-----	-----	-----
1 945	-15	0.000	0.079	0.017	0.094	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.079	0.018	0.095	0.1571	0.6461	0.0244	0.0674	0.000	-----	-----
1 1015	15	0.001	0.063	0.033	0.095	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.020	0.033	0.061	0.094	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.061	0.014	0.075	0.089	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.112	0.009	0.076	0.085	0.1511	0.6724	0.0058	0.0542	0.013	0.017	0.0508
1 1115	75	0.152	0.007	0.074	0.080	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.191	0.006	0.072	0.078	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.215	0.005	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.240	0.005	0.070	0.075	0.0684	0.6452	0.0002	0.0375	0.047	0.004	0.0790
1 1215	135	0.256	0.005	0.070	0.074	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.266	0.005	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.280	0.005	0.068	0.072	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.290	0.005	0.068	0.072	0.0417	0.6344	0.0000	0.0317	0.068	-----	0.0820
1 1315	195	0.293	0.005	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.303	0.005	0.068	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.272	0.005	0.067	0.071	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.312	0.005	0.066	0.071	0.0267	0.6371	-----	0.0281	0.076	0.021	0.0806
1 1415	255	0.321	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.323	0.005	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.322	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.331	0.006	0.066	0.071	0.0166	0.6307	-----	0.0251	0.063	0.029	0.0728
1 1515	315	0.333	0.005	0.064	0.069	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.332	0.005	0.064	0.069	-----	-----	-----	-----	-----	-----	-----
1 1535	335	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.025	-----
1 1545	345	0.335	0.005	0.064	0.068	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.342	0.006	0.064	0.069	0.0093	0.5836	-----	0.0227	0.066	-----	0.0802

----- NO DATA TAKEN

ITC-597
MINI-SURROGATE
1983 FEB. 24

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600
1 837	-83	0.0008	-----	-----
1 1000	0	0.0005	-----	-----
1 1100	60	0.0037	0.0077	0.0015
1 1200	120	0.0062	0.0157	0.0026
1 1300	180	0.0089	0.0204	0.0030
1 1400	240	0.0070	0.0238	0.0038
1 1500	300	0.0053	0.0235	0.0038
1 1600	360	0.0064	0.0309	0.0041

----- NO DATA TAKEN

ITC-598
MINI-SURROGATE
1983 FEB. 25

29-APR-83
PAGE 1

0814: SECOND FILL.
0855: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE,
0.17 ML. T2-C4=, 1.9 MICROLITERS M-XYLENE,
0.72 ML. NO, AND 0.05 ML. NO2.
1000: T=0. 70% LIGHTS.
1614: DUMP AND FILL.

T=0 AT 1000 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	26.6	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.084	PPM
NO2-UNC	T 14B-1	0.021	PPM
PROPENE	DMS-1	0.1764	PPM
N-C4	DMS-1	0.7005	PPM
T2-C4=	DMS-1	0.0259	PPM
M-XYL	10'C-600	0.0677	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD

ITC-598
MINI-SURROGATE
1983 FEB. 25

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM I 14B-1	NOX-UNC PPM I 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	I2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECB-1	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
1 826	-94	-----	-----	-----	-----	0.0004	0.0003	-----	-----	0.000	-----	0.0006
1 845	-75	0.000	0.000	0.011	0.011	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.001	0.076	0.014	0.088	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.083	0.020	0.100	-----	-----	-----	-----	-----	-----	-----
1 920	-40	-----	-----	-----	-----	0.1602	0.6425	0.0239	0.0686	-----	-----	-----
1 930	-30	0.000	0.082	0.021	0.100	-----	-----	-----	-----	-----	-----	-----
1 937	-23	-----	-----	-----	-----	0.1721	0.6824	0.0252	0.0691	-----	-----	-----
1 945	-15	0.000	0.082	0.021	0.100	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.084	0.021	0.102	0.1764	0.7005	0.0259	0.0677	0.000	-----	0.0007
1 1015	15	0.002	0.067	0.036	0.102	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.020	0.034	0.067	0.100	0.1513	0.6643	0.0185	0.0619	0.001	0.0182	0.0011
1 1045	45	0.062	0.014	0.083	0.096	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.115	0.009	0.087	0.092	-----	-----	-----	-----	-----	-----	-----
1 1115	75	0.165	0.007	0.084	0.087	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.205	0.006	0.081	0.084	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.242	0.006	0.079	0.082	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.262	0.005	0.078	0.081	-----	-----	-----	-----	-----	-----	-----
1 1215	135	0.283	0.005	0.077	0.079	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.291	0.005	0.077	0.078	0.0512	0.6335	0.0000	0.0332	0.058	0.0737	0.0034
1 1245	165	0.304	0.005	0.075	0.078	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.314	0.005	0.075	0.078	0.0393	0.6452	-----	0.0312	0.068	0.0947	0.0057
1 1315	195	0.316	0.005	0.075	0.077	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.330	0.005	0.074	0.076	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.327	0.005	0.073	0.076	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.341	0.005	0.073	0.076	0.0241	0.6371	-----	0.0278	0.072	0.0828	0.0040
1 1415	255	0.342	0.005	0.074	0.076	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.343	0.005	0.073	0.075	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.352	0.005	0.073	0.075	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.348	0.005	0.075	0.076	0.0140	0.6026	-----	0.0249	0.070	0.0865	0.0044
1 1515	315	0.355	0.005	0.074	0.076	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.363	0.005	0.075	0.076	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.358	0.005	0.075	0.076	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.366	0.004	0.074	0.075	0.0091	0.6362	-----	0.0226	0.070	0.0828	0.0054

----- NO DATA TAKEN

ITC-598
MINI-SURROGATE
1983 FEB. 25

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	MEK PPH 10'C-600	C4-N-2 PPH 10'C-600
1 1030	30	0.0026	0.0007
1 1230	150	0.0187	0.0033
1 1300	180	0.0237	0.0035
1 1400	240	0.0254	0.0039
1 1500	300	0.0316	0.0042
1 1600	360	0.0325	0.0043

----- NO DATA TAKEN

ITC-602
MINI-SURR. + 965 PPB BUTYLMETHYLETHER
1983 MARCH 2

29-APR-83
PAGE 1

0842: THIRD AND FINAL FILL. 50% R.H.
0910: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 30.3 MICROLITERS
TERI-BUTYLMETHYLETHER, 0.68 ML. NO₂, AND 0.07 ML. NO₂.
1000: T=0. 70% LIGHTS (56 LAMPS).
1620: DUMP AND FILL.

T=0 AT 1000 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	26.8	2.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.081	PPM
NO2-UNC	T 14B-1	0.021	PPM
TBME	C-20M	0.9651	PPM
PROPENE	DMS-1	0.1654	PPM
N-C4	DMS-1	0.6897	PPM
T2-C4=	DMS-1	0.0260	PPM
M-XYL	10'C-600	0.0722	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIRI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-602
 MINI-SURR. + 965 PPB BUTYLMETHYLETHER
 1983 MARCH 2

29-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	1BME PPM C-20M	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 845	-75	0.000	0.003	0.008	0.010	0.0000	0.0005	0.0005	-----	-----	0.000	-----
1 900	-60	0.000	0.004	0.010	0.011	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.079	0.013	0.091	-----	-----	-----	-----	-----	-----	-----
1 930	-30	0.001	0.080	0.021	0.100	0.9651	0.1664	0.6779	0.0253	0.0715	-----	-----
1 940	-20	-----	-----	-----	-----	0.9390	-----	-----	-----	-----	-----	-----
1 944	-16	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010
1 945	-15	0.000	0.081	0.020	0.099	-----	0.1804	0.7259	0.0265	0.0714	-----	-----
1 1000	0	0.000	0.081	0.021	0.101	0.9651	0.1654	0.6897	0.0260	0.0722	0.000	-----
1 1015	15	0.010	0.062	0.040	0.101	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.029	0.027	0.072	0.098	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.091	0.012	0.085	0.095	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.158	0.008	0.081	0.088	0.1812 B	0.1037 A	0.6045 A	0.0028 A	0.0555	0.014	0.000
1 1115	75	0.203	0.007	0.078	0.085	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.242	0.007	0.075	0.081	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.270	0.007	0.073	0.078	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.293	0.006	0.071	0.076	0.8978	0.0726	0.6779	0.0000	0.0438	0.047	0.000
1 1215	135	0.310	0.006	0.070	0.075	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.323	0.006	0.069	0.074	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.333	0.006	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.342	0.006	0.066	0.071	0.8951	0.0414	0.6534	-----	0.0388	0.056	-----
1 1315	195	0.343	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.354	0.006	0.063	0.069	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.353	0.006	0.063	0.068	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.361	0.005	0.063	0.067	0.8827	0.0262	0.6788	-----	0.0356	0.060	0.010
1 1415	255	0.362	0.005	0.062	0.066	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.363	0.005	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.359	0.006	0.061	0.065	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.364	0.008	0.154	0.161	0.8223	0.0149	0.6344	-----	0.0327	0.068	0.008
1 1515	315	0.363	0.005	0.062	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.365	0.006	0.061	0.066	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.371	0.006	0.060	0.065	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.372	0.005	0.060	0.065	0.8676 C	0.0089	0.6289	-----	0.0305	0.058	-----

----- NO DATA TAKEN

ITC-602
 MINI-SURR. + 965 PPB BUTYLMETHYLETHER
 1983 MARCH 2

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C DORIC-1
1 845	-75	0.0004	0.0008	-----	-----	20.8
1 900	-60	-----	-----	-----	-----	20.9
1 915	-45	-----	-----	-----	-----	21.0
1 930	-30	-----	-----	-----	-----	21.5
1 945	-15	-----	-----	-----	-----	21.3
1 1000	0	0.0009	-----	-----	-----	21.7
1 1015	15	-----	-----	-----	-----	25.9
1 1030	30	-----	-----	-----	-----	27.0
1 1045	45	-----	-----	-----	-----	27.5
1 1100	60	0.0523	-----	0.0638	-----	28.1
1 1115	75	-----	-----	-----	-----	28.3
1 1130	90	-----	-----	-----	-----	28.5
1 1145	105	-----	-----	-----	-----	28.5
1 1200	120	0.0709	-----	0.0967	0.0033	28.6
1 1215	135	-----	-----	-----	-----	28.6
1 1230	150	-----	-----	-----	-----	28.8
1 1245	165	-----	-----	-----	-----	28.7
1 1300	180	0.0722	-----	0.1174	0.0038	28.6
1 1315	195	-----	-----	-----	-----	28.7
1 1330	210	-----	-----	-----	-----	28.5
1 1345	225	-----	-----	-----	-----	28.4
1 1400	240	0.0691	-----	0.1280	0.0040	28.2
1 1415	255	-----	-----	-----	-----	28.3
1 1430	270	-----	-----	-----	-----	28.3
1 1445	285	-----	-----	-----	-----	28.4
1 1500	300	0.0628	-----	0.1413	0.0040	28.3
1 1515	315	-----	-----	-----	-----	28.4
1 1530	330	-----	-----	-----	-----	28.3
1 1545	345	-----	-----	-----	-----	28.4
1 1600	360	0.0738	-----	0.1653	0.0042	28.3

----- NO DATA TAKEN

NOTES

- A BASELINE KEEPS SHIFTING
- B WHOLE CHROMATAGRAM LOOKS AS IF ATTEN. WAS WRONG--BUT IT WASN'T. UNKNOWN CAUSE.
- C UNKNOWN CAUSE FOR INCREASE.

ITC-603
MINI-SURROGATE
1983 MARCH 3

29-APR-83
PAGE 1

0841: THIRD AND FINAL FILL. 50% R.H.
0920: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.68 ML. NO₂ AND
0.07 ML. NO₂.
1015: T=0. 70% LIGHTS (56 LAMPS).
1620: DUMP AND FILL.

T=0 AT 1015 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	26.2	3.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.081	PPM
NO2-UNC	T 14B-1	0.018	PPM
PROPENE	DMS-1	0.1608	PPM
N-C4	DMS-1	0.6516	PPM
T2-C4=	DMS-1	0.0240	PPM
M-XYL	10'C-600	0.0686	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	BAEIRI 3378 OZONE MONITOR
2200	DMS-1	CHAMP DIMETHYLSULFOLANE GC FID
2920	10'C-600	RM-121 10' 10% CARBOWAX-600 GC FID
2100	FN-1	RM-121 POROPAK-N GC FID
2000	ECD-1	RM-121 12' 5% CARBOWAX-400 GC ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-603
MINI-SURROGATE
1983 MARCH 3

29-APR-83
PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T2-C4= PPH DMS-1	M-XYL PPH 10'C-600	FAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
1 830	-105	-0.001	0.001	0.000	0.000	-----	-----	-----	-----	-----	-----	-----
1 845	-90	-0.001	0.004	0.012	0.016	-----	-----	-----	-----	-----	-----	-----
1 849	-86	-----	-----	-----	-----	0.0005	0.0004	-----	-----	0.000	-----	0.0006
1 900	-75	-0.001	0.003	0.009	0.012	-----	-----	-----	-----	-----	-----	-----
1 915	-60	-0.001	0.080	0.006	0.086	-----	-----	-----	-----	-----	-----	-----
1 930	-45	-0.001	0.081	0.018	0.097	-----	-----	-----	-----	-----	-----	-----
1 932	-43	-----	-----	-----	-----	-----	-----	-----	0.0683	-----	-----	-----
1 933	-42	-----	-----	-----	-----	0.1545	0.6271	0.0232	-----	-----	-----	-----
1 943	-32	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 945	-30	-0.001	0.080	0.018	0.098	-----	-----	-----	-----	-----	-----	-----
1 950	-25	-----	-----	-----	-----	0.1614	0.6480	0.0240	0.0683	-----	-----	-----
1 1000	-15	-0.001	0.080	0.019	0.098	-----	-----	-----	-----	-----	-----	-----
1 1015	0	-0.001	0.081	0.018	0.098	0.1608	0.6516	0.0240	0.0686	0.000	-----	-----
1 1030	15	0.002	0.065	0.034	0.098	-----	-----	-----	-----	-----	-----	-----
1 1045	30	0.021	0.035	0.062	0.096	-----	-----	-----	-----	-----	-----	-----
1 1100	45	0.062	0.016	0.078	0.093	-----	-----	-----	-----	-----	-----	-----
1 1115	60	0.111	0.010	0.078	0.087	0.1128	0.6335	0.0052	0.0501	0.015	0.004	0.0502
1 1130	75	0.146	0.008	0.077	0.084	-----	-----	-----	-----	-----	-----	-----
1 1145	90	0.189	0.007	0.074	0.081	-----	-----	-----	-----	-----	-----	-----
1 1200	105	0.206	0.007	0.073	0.079	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.233	0.006	0.071	0.077	0.0675	0.6507	0.0002	0.0359	0.047	0.027	0.0769
1 1230	135	0.254	0.006	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1245	150	0.270	0.005	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1300	165	0.281	0.005	0.069	0.073	-----	-----	-----	-----	-----	-----	-----
1 1315	180	0.291	0.005	0.067	0.072	0.0366	0.5909	0.0000	0.0313	0.070	0.021	0.0744
1 1330	195	0.294	0.005	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	210	0.302	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1400	225	0.304	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1415	240	0.312	0.005	0.066	0.071	0.0246	0.6280	-----	0.0277	0.074	0.033	0.0763
1 1430	255	0.313	0.005	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1445	270	0.315	0.005	0.066	0.070	-----	-----	-----	-----	-----	-----	-----
1 1500	285	0.323	0.005	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1515	300	0.324	0.005	0.065	0.069	0.0156	0.6452	-----	0.0247	0.074	0.017	0.0767
1 1530	315	0.324	0.006	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1545	330	0.323	0.005	0.063	0.068	-----	-----	-----	-----	-----	-----	-----
1 1600	345	0.332	0.006	0.064	0.069	-----	-----	-----	-----	-----	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.017	-----
1 1615	360	0.332	0.005	0.064	0.069	0.0091	0.6054	-----	0.0227	0.074	-----	0.0709

----- NO DATA TAKEN

ITC-603
MINI-SURROGATE
1983 MARCH 3

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM. 10'C-600	HEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C BORIC-1
1 830	-105	-----	-----	-----	20.2
1 845	-90	-----	-----	-----	20.5
1 849	-86	0.0006	-----	-----	-----
1 900	-75	-----	-----	-----	21.1
1 915	-60	-----	-----	-----	21.0
1 930	-45	-----	-----	-----	21.2
1 945	-30	-----	-----	-----	21.3
1 1000	-15	-----	-----	-----	21.4
1 1015	0	0.0005	-----	-----	21.3
1 1030	15	-----	-----	-----	25.9
1 1045	30	-----	-----	-----	26.8
1 1100	45	-----	-----	-----	27.5
1 1115	60	0.0007	0.0074	0.0015	27.7
1 1130	75	-----	-----	-----	28.0
1 1145	90	-----	-----	-----	28.0
1 1200	105	-----	-----	-----	28.2
1 1215	120	0.0014	0.0168	0.0031	28.2
1 1230	135	-----	-----	-----	28.1
1 1245	150	-----	-----	-----	28.2
1 1300	165	-----	-----	-----	28.1
1 1315	180	0.0014	0.0184	0.0034	28.1
1 1330	195	-----	-----	-----	28.0
1 1345	210	-----	-----	-----	28.0
1 1400	225	-----	-----	-----	28.0
1 1415	240	0.0017	0.0234	0.0038	27.9
1 1430	255	-----	-----	-----	27.9
1 1445	270	-----	-----	-----	27.9
1 1500	285	-----	-----	-----	28.0
1 1515	300	0.0014	0.0245	0.0039	28.0
1 1530	315	-----	-----	-----	28.2
1 1545	330	-----	-----	-----	28.1
1 1600	345	-----	-----	-----	28.2
1 1615	360	0.0019	0.0294	0.0042	28.1

----- NO DATA TAKEN

ITC-606
MINI-SURR. + 1.84 PPM BUTYLMETHYLETHER
1983 MARCH 8

30-APR-83
PAGE 1

0812: SECOND FILL. 50% R.H.
0905: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. I2-C4=,
1.9 MICROLITERS N-XYLENE, 60.6 MICROLITERS
TERT-BUTYLMETHYLETHER, 0.68 ML. NO, AND
0.08 ML. NO2.
1000: T=0. 70% LIGHTS (56 LAMPS).
1615: DUMP AND FILL.

T=0 AT 1000 PSI

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.4	3.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.084	PPM
NO2-UNC	T 14B-1	0.021	PPM
IBME	C-20M	1.8396	PPM
PROPENE	DMS-1	0.1840	PPM
N-C4	DMS-1	0.7504	PPM
I2-C4=	DMS-1	0.0279	PPM
M-XYL	10'C-600	0.0724	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-606
 MINI-SURR. + 1.84 PPM BUTYLMETHYLETHER
 1983 MARCH 8

30-APR-83
 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM I 14B-1	NOX-UNC PPM I 14B-1	IRME PPM C-20M	PROPENE PPM DMS-1	N-C4 PPM DMS-1	12-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECB-1	HCHO PPM CA
1 823	-97	-----	-----	-----	-----	0.0000	0.0006	0.0004	0.0008	-----	-----	-----
1 830	-90	0.000	0.004	0.011	0.014	-----	-----	-----	-----	-----	-----	-----
1 832	-88	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----
1 845	-75	0.000	0.004	0.010	0.014	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.001	0.071	0.021	0.091	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.083	0.018	0.100	-----	-----	-----	-----	-----	-----	-----
1 921	-39	-----	-----	-----	-----	1.944	0.1855	0.7549	0.0279	0.0731	-----	-----
1 930	-30	0.000	0.083	0.021	0.103	-----	-----	-----	-----	-----	-----	-----
1 935	-25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.015
1 937	-23	-----	-----	-----	-----	1.875	0.1818	0.7449	0.0278	0.0735	-----	-----
1 945	-15	0.000	0.083	0.020	0.102	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.084	0.021	0.104	1.840	0.1840	0.7504	0.0279	0.0724	0.000	-----
1 1015	15	0.001	0.066	0.038	0.103	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.021	0.033	0.069	0.101	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.089	0.012	0.084	0.095	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.163	0.008	0.082	0.089	1.807	0.1343 A	0.7205 A	0.0051	0.0555	0.011	0.029
1 1115	75	0.222	0.007	0.080	0.086	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.264	0.007	0.075	0.082	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.295	0.007	0.074	0.080	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.316	0.007	0.071	0.077	1.768	0.0773	0.7150	0.0006	0.0461	0.034	0.025
1 1215	135	0.343	0.007	0.070	0.074	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.363	0.006	0.068	0.074	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.374	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.385	0.006	0.066	0.072	-----	0.0439	0.7051	0.0012 B	0.0406	0.046	-----
1 1311	191	-----	-----	-----	-----	1.727	-----	-----	-----	-----	-----	-----
1 1315	195	0.391	0.006	0.065	0.071	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.402	0.007	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.404	0.008	0.064	0.070	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.414	0.007	0.062	0.069	-----	0.0259	0.7141	0.0000	0.0375	0.052	0.073
1 1415	255	0.414	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.417	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.418	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.425	0.014	0.061	0.067	-----	0.0146	0.6951	-----	0.0373	0.046	0.054
1 1515	315	0.426	0.015	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.426	0.011	0.060	0.066	-----	-----	-----	-----	-----	-----	-----
1 1533	333	-----	-----	-----	-----	1.694	-----	-----	-----	-----	-----	-----
1 1539	339	-----	-----	-----	-----	1.694	-----	-----	-----	-----	-----	-----
1 1545	345	0.432	0.008	0.061	0.068	-----	-----	-----	-----	-----	-----	-----
1 1600	360	0.429	0.007	0.060	0.066	1.669	0.0083	0.6887	-----	0.0329	0.048	0.073

----- NO DATA TAKEN

ITC-606
 MINI-SURR. + 1.84 PPM BUTYLMETHYLETHER
 1983 MARCH 8

30-APR-83
 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C DORIC-1
1 830	-90	-----	-----	-----	21.4
1 845	-75	-----	-----	-----	21.1
1 900	-60	-----	-----	-----	21.4
1 915	-45	-----	-----	-----	21.4
1 930	-30	-----	-----	-----	21.7
1 945	-15	-----	-----	-----	21.6
1 1000	0	-----	0.0138	-----	21.7
1 1015	15	-----	-----	-----	26.0
1 1030	30	-----	-----	-----	27.5
1 1045	45	-----	-----	-----	28.1
1 1100	60	0.0390	0.0847	0.0024	28.7
1 1115	75	-----	-----	-----	28.8
1 1130	90	-----	-----	-----	28.8
1 1145	105	-----	-----	-----	28.5
1 1200	120	0.0709	0.1650	0.0040	28.8
1 1215	135	-----	-----	-----	28.7
1 1230	150	-----	-----	-----	28.9
1 1245	165	-----	-----	-----	28.9
1 1300	180	0.0722	0.1943	0.0045	29.1
1 1315	195	-----	-----	-----	29.0
1 1330	210	-----	-----	-----	29.4
1 1345	225	-----	-----	-----	29.3
1 1400	240	0.0643	0.2093	0.0046	29.7
1 1415	255	-----	-----	-----	29.5
1 1430	270	-----	-----	-----	29.9
1 1445	285	-----	-----	-----	29.7
1 1500	300	0.0839	0.2525	0.0047	30.1
1 1515	315	-----	-----	-----	30.1
1 1530	330	-----	-----	-----	30.2
1 1545	345	-----	-----	-----	30.3
1 1600	360	0.0786	0.2700	0.0048	30.3

----- NO DATA TAKEN

NOTES

- A BASELINE WAS DRIFTING DUE TO PEAKS FROM PREVIOUS INJECTIONS.
- B SAMPLE TAKEN IMMEDIATELY AFTER SAMPLING FROM EC-807.

ITC-607
MINI-SURROGATE
1983 MARCH 9

29-APR-83
PAGE 1

0828: THIRD AND FINAL FILL. 50% R.H.
0900: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.7 ML. NO, AND
0.04 ML. NO2.
0945: T=0. 70% LIGHTS (56 LAMPS).
1615: DUMP AND FILL.

T=0 AT 945 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.2	3.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.085	PPM
NO2-UNC	T 14B-1	0.023	PPM
PROPENE	DMS-1	0.1737	PPM
N-C4	DMS-1	0.7295	PPM
T2-C4=	DMS-1	0.0269	PPM
M-XYL	10'C-600	0.0706	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP, DIMETHYLSULFOLANE GC, FID
2920	10'C-600	RM-121, 10' 10% CARBOWAX-600 GC, FID
2100	PN-1	RM-121, POROPAK-N GC, FID
2000	ECD-1	RM-121, 12% 5% CARBOWAX-400 GC, ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-607
MINI-SURROGATE
1983 MARCH 9

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PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM O-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 831	-74	-----	-----	-----	-----	-----	-----	-----	-----	0.000	-----	0.0016
1 844	-61	-----	-----	-----	-----	0.0006	0.0007	-----	-----	-----	-----	-----
1 845	-60	0.000	0.004	0.015	0.019	-----	-----	-----	-----	-----	-----	-----
1 900	-45	0.002	0.004	0.041	0.044	-----	-----	-----	-----	-----	-----	-----
1 914	-31	-----	-----	-----	-----	0.1749	0.7322	0.0268	0.0698	-----	-----	-----
1 915	-30	0.000	0.084	0.021	0.100	-----	-----	-----	-----	-----	-----	-----
1 922	-23	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 928	-17	-----	-----	-----	-----	-----	-----	-----	0.0703	-----	-----	-----
1 929	-16	-----	-----	-----	-----	0.1764	0.7331	0.0268	-----	-----	-----	-----
1 930	-15	0.000	0.084	0.022	0.105	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.001	0.085	0.023	0.106	0.1737	0.7295	0.0269	0.0706	0.000	-----	-----
1 1000	15	0.002	0.075	0.034	0.108	-----	-----	-----	-----	-----	-----	-----
1 1015	30	0.011	0.047	0.058	0.106	-----	-----	-----	-----	-----	-----	-----
1 1030	45	0.043	0.024	0.086	0.104	-----	-----	-----	-----	-----	-----	-----
1 1045	60	0.110	0.018	0.090	0.100	0.1280	0.7241	0.0073	0.0533	0.010	0.027	0.0480
1 1100	75	0.162	0.011	0.091	0.098	-----	-----	-----	-----	-----	-----	-----
1 1115	90	0.201	0.008	0.089	0.096	-----	-----	-----	-----	-----	-----	-----
1 1130	105	0.236	0.007	0.089	0.096	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.265	0.007	0.089	0.096	0.0721	0.7041	0.0002	0.0393	0.045	0.031	0.0737
1 1200	135	0.284	0.007	0.091	0.097	-----	-----	-----	-----	-----	-----	-----
1 1215	150	0.302	0.007	0.093	0.099	-----	-----	-----	-----	-----	-----	-----
1 1230	165	0.322	0.007	0.094	0.100	-----	-----	-----	-----	-----	-----	-----
1 1245	180	0.331	0.008	0.096	0.102	0.0414	0.6915	0.0000	0.0324	0.064	0.036	0.0856
1 1300	195	0.341	0.008	0.099	0.106	-----	-----	-----	-----	-----	-----	-----
1 1315	210	0.343	0.008	0.100	0.107	-----	-----	-----	-----	-----	-----	-----
1 1330	225	0.348	0.008	0.102	0.110	-----	-----	-----	-----	-----	-----	-----
1 1345	240	0.356	0.009	0.103	0.111	0.0230	0.6606	-----	0.0274 A	0.066	0.054	0.0691 A
1 1400	255	0.357	0.009	0.104	0.112	-----	-----	-----	-----	-----	-----	-----
1 1404	259	-----	-----	-----	-----	-----	-----	-----	0.0277	-----	-----	0.1019
1 1415	270	0.363	0.009	0.104	0.113	-----	-----	-----	-----	-----	-----	-----
1 1430	285	0.363	0.009	0.105	0.113	-----	-----	-----	-----	-----	-----	-----
1 1445	300	0.363	0.009	0.106	0.114	0.0135	0.6597	-----	0.0259	0.064	0.013	0.0902
1 1500	315	0.364	0.009	0.111	0.120	-----	-----	-----	-----	-----	-----	-----
1 1515	330	0.374	0.010	0.107	0.115	-----	-----	-----	-----	-----	-----	-----
1 1530	345	0.374	0.010	0.106	0.115	-----	-----	-----	-----	-----	-----	-----
1 1545	360	0.382	0.010	0.106	0.115	0.0078	0.6589	-----	0.0231	0.064	-----	0.0777

----- NO DATA TAKEN

ITC-607
 MINI-SURROGATE
 1983 MARCH 9

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C MORIC-1
1 831	-74	0.0006	0.0002	-----	-----
1 845	-60	-----	-----	-----	21.4
1 900	-45	-----	-----	-----	21.4
1 915	-30	-----	-----	-----	21.8
1 930	-15	-----	-----	-----	21.9
1 945	0	0.0004	0.0002	-----	22.0
1 1000	15	-----	-----	-----	26.3
1 1015	30	-----	-----	-----	27.5
1 1030	45	-----	-----	-----	28.2
1 1045	60	0.0007	0.0074	0.0015	28.7
1 1100	75	-----	-----	-----	29.1
1 1115	90	-----	-----	-----	29.3
1 1130	105	-----	-----	-----	29.7
1 1145	120	0.0009	0.0143	0.0028	29.8
1 1200	135	-----	-----	-----	30.1
1 1215	150	-----	-----	-----	29.6
1 1230	165	-----	-----	-----	27.6
1 1245	180	0.0019	0.0221	0.0036	29.6
1 1300	195	-----	-----	-----	30.2
1 1315	210	-----	-----	-----	30.4
1 1330	225	-----	-----	-----	30.1
1 1345	240	0.0007 A	0.0118 A	0.0031 A	30.2
1 1400	255	-----	-----	-----	30.1
1 1404	259	0.0022	0.0288	0.0039	-----
1 1415	270	-----	-----	-----	30.1
1 1430	285	-----	-----	-----	30.1
1 1445	300	0.0027	0.0295	0.0040	30.2
1 1500	315	-----	-----	-----	30.1
1 1515	330	-----	-----	-----	30.3
1 1530	345	-----	-----	-----	30.3
1 1545	360	0.0029	0.0296	0.0045	30.3

----- NO DATA TAKEN

NOTES

A CHROMATAGRAM LOOKED STRANGE, SO REPEAT SAMPLE AT 1404.

ITC-608
MINI-SURR. + 2.69 PPM BUTYLMETHYLETHER
1983 MARCH 10

30-APR-83
PAGE 1

0830: THIRD AND FINAL FILL. 50% R.H.
0900: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.7 ML. NO, 0.04 ML. NO2,
AND 90.9 MICROLITERS TERT-BUTYLMETHYLETHER.
1000: T=0. 70% LIGHTS (56 LAMPS).
1620: DUMP AND FILL.

T=0 AT 1000 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	28.1	3.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.078	PPM
NO2-UNC	T 14B-1	0.022	PPM
TRME	C-20M	2.6852	PPM
PROPENE	DMS-1	0.1729	PPM
N-C4	DMS-1	0.7186	PPM
T2-C4=	DMS-1	0.0266	PPM
M-XYL	10'C-600	0.0678	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2100	PN-1	RM-121; PDROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-608
 MINI-SURR. + 2.69 PPM BUTYLMETHYLETHER
 1983 MARCH 10

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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	FBME PPM C-20H	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA
1 834	-86	-----	-----	-----	-----	0.0000	0.0007	0.0013	-----	-----	0.000	-----
1 845	-75	0.000	0.003	0.015	0.018	-----	-----	-----	-----	-----	-----	-----
1 900	-60	0.000	0.004	0.014	0.017	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.078	0.021	0.099	-----	-----	-----	-----	-----	-----	-----
1 918	-42	-----	-----	-----	-----	2.685	-----	-----	-----	0.0678	-----	-----
1 920	-40	-----	-----	-----	-----	-----	0.1675	0.6960	0.0255	-----	-----	-----
1 927	-33	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.006
1 930	-30	0.001	0.078	0.022	0.100	-----	-----	-----	-----	-----	-----	-----
1 936	-24	-----	-----	-----	-----	-----	0.1757	0.7241	0.0266	0.0687	-----	-----
1 942	-18	-----	-----	-----	-----	2.707	-----	-----	-----	-----	-----	-----
1 945	-15	0.000	0.079	0.022	0.100	-----	-----	-----	-----	-----	-----	-----
1 952	-8	-----	-----	-----	-----	2.696	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.078	0.022	0.100	2.685	0.1729	0.7186	0.0266	0.0678	0.000	-----
1 1015	15	0.001	0.041	0.058	0.100	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.020	0.031	0.071	0.100	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.085	0.021	0.086	0.096	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.172	0.018	0.083	0.090	-----	0.1313	-----	-----	A 0.0555	0.009	0.025
1 1115	75	0.240	0.008	0.080	0.086	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.282	0.012	0.077	0.083	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.323	0.007	0.075	0.081	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.337	0.007	0.074	0.080	-----	0.0781	0.6906	0.0001	0.0471	0.026	0.040
1 1215	135	0.357	0.007	0.072	0.078	-----	-----	-----	-----	-----	-----	-----
1 1230	150	0.383	0.007	0.070	0.076	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.388	0.007	0.069	0.075	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.404	0.006	0.067	0.073	-----	0.0448	0.6878	0.0000	0.0432	0.038	0.052
1 1315	195	0.412	0.006	0.067	0.073	2.575	-----	-----	-----	-----	-----	-----
1 1330	210	0.420	0.007	0.065	0.072	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.416	0.007	0.066	0.072	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.426	0.012	0.066	0.072	2.526	0.0255	0.6851	-----	0.0400	0.039	0.052
1 1415	255	0.425	0.008	0.064	0.071	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.433	0.008	0.062	0.069	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.427	0.007	0.062	0.068	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.423	0.007	0.061	0.068	-----	0.0146	0.6869	-----	0.0375	0.039	0.031
1 1515	315	0.425	0.007	0.061	0.067	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.431	0.008	0.063	0.070	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.418	0.008	0.069	0.076	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.046
1 1600	360	0.417	0.008	0.059	0.066	-----	0.0084	0.6779	-----	0.0359	0.035	-----

----- NO DATA TAKEN

ITC-608
 MINI-SURR. + 2.69 PPM BUTYLMETHYLETHER
 1983 MARCH 10

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CLOCK TIME	ELAPSED TIME	ACETALD PPM	ACETONE PPM	MEK PPM	C4-N-2 PPM	T DEG C
DAY HR.	(MIN)	10'C-600	10'C-600	10'C-600	10'C-600	DORIC-1
1 834	-86	0.0011	0.0011	-----	-----	-----
1 845	-75	-----	-----	-----	-----	21.6
1 900	-60	-----	-----	-----	-----	21.7
1 915	-45	-----	-----	-----	-----	21.8
1 930	-30	-----	-----	-----	-----	22.2
1 945	-15	-----	-----	-----	-----	22.1
1 1000	0	-----	-----	0.0209	-----	22.3
1 1015	15	-----	-----	-----	-----	26.3
1 1030	30	-----	-----	-----	-----	27.6
1 1045	45	-----	-----	-----	-----	28.1
1 1100	60	0.0380	-----	0.1107	0.0027	28.7
1 1115	75	-----	-----	-----	-----	29.1
1 1130	90	-----	-----	-----	-----	29.3
1 1145	105	-----	-----	-----	-----	29.4
1 1200	120	0.0622	-----	0.2067	0.0044	29.8
1 1215	135	-----	-----	-----	-----	30.1
1 1230	150	-----	-----	-----	-----	30.2
1 1245	165	-----	-----	-----	-----	30.4
1 1300	180	0.0659	-----	0.2463	0.0048	30.5
1 1315	195	-----	-----	-----	-----	30.5
1 1330	210	-----	-----	-----	-----	30.3
1 1345	225	-----	-----	-----	-----	30.3
1 1400	240	0.0754	-----	0.2992	0.0050	30.4
1 1415	255	-----	-----	-----	-----	30.5
1 1430	270	-----	-----	-----	-----	30.6
1 1445	285	-----	-----	-----	-----	30.7
1 1500	300	0.0680	-----	0.2927	0.0052	30.0
1 1515	315	-----	-----	-----	-----	30.0
1 1530	330	-----	-----	-----	-----	29.8
1 1545	345	-----	-----	-----	-----	29.7
1 1600	360	0.0762	-----	0.3406	0.0051	29.7

----- NO DATA TAKEN

NOTES

A THIS PEAK OBLITERATED BY HIGH BACKGROUND PEAK (POSSIBLY FROM THE
 TME FROM PREVIOUS SAMPLE).

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ITC-609
MINI-SURROGATE
1983 MARCH 11

29-APR-83
PAGE 1

0824: THIRD AND FINAL FILL, 50% R.H.
0855: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.7 ML. NO₂ AND
0.04 ML. NO₂.
0945: T=0. 70% LIGHTS (56 LAMPS).
1600: DUMP AND REFILL.

T=0 AT 945 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.8	2.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.082	PPM
NO2-UNC	T 14B-1	0.022	PPM
PROPENE	DMS-1	0.1764	PPM
N-C4	DMS-1	0.7359	PPM
T2-C4=	DMS-1	0.0266	PPM
M-XYL	10'C-600	0.0671	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-609
MINI-SURROGATE
1983 MARCH 11

29-APR-83
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CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	H-XYL PPM 10'C-600	FAN PPM ECB-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 829	-76	-----	-----	-----	-----	0.0007	0.0006	-----	-----	0.000	-----	0.0011
1 845	-60	0.000	0.004	0.015	0.019	-----	-----	-----	-----	-----	-----	-----
1 900	-45	0.000	0.079	0.000	0.018	-----	-----	-----	-----	-----	-----	-----
1 911	-34	-----	-----	-----	-----	0.1691	0.7141	0.0258	0.0674	-----	-----	-----
1 915	-30	0.000	0.163	0.040	0.200	-----	-----	-----	-----	-----	-----	-----
1 921	-24	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.004	-----
1 927	-18	-----	-----	-----	-----	0.1733	0.7277	0.0264	0.0690	-----	-----	-----
1 930	-15	0.000	0.082	0.022	0.103	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.001	0.082	0.022	0.102	0.1764	0.7359	0.0266	0.0671	0.000	-----	0.0002
1 1000	15	0.002	0.069	0.035	0.103	-----	-----	-----	-----	-----	-----	-----
1 1015	30	0.011	0.040	0.063	0.102	-----	-----	-----	-----	-----	-----	-----
1 1030	45	0.053	0.024	0.089	0.111	-----	-----	-----	-----	-----	-----	-----
1 1045	60	0.112	0.010	0.085	0.095	0.1230	0.7177	0.0064	0.0511	0.012	0.019	0.0488
1 1100	75	0.162	0.008	0.083	0.090	-----	-----	-----	-----	-----	-----	-----
1 1115	90	0.193	0.008	0.081	0.088	-----	-----	-----	-----	-----	-----	-----
1 1130	105	0.231	0.007	0.078	0.084	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.247	0.007	0.076	0.082	0.0697	0.6915	0.0002	0.0381	0.044	0.054	0.0708
1 1200	135	0.267	0.006	0.075	0.081	-----	-----	-----	-----	-----	-----	-----
1 1215	150	0.291	0.006	0.074	0.079	-----	-----	-----	-----	-----	-----	-----
1 1230	165	0.300	0.006	0.074	0.079	-----	-----	-----	-----	-----	-----	-----
1 1245	180	0.306	0.006	0.074	0.078	0.0399	0.6733	0.0000	0.0313	0.056	0.046	0.0833
1 1300	195	0.314	0.006	0.073	0.078	-----	-----	-----	-----	-----	-----	-----
1 1315	210	0.324	0.006	0.073	0.078	-----	-----	-----	-----	-----	-----	-----
1 1330	225	0.333	0.006	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1345	240	0.334	0.006	0.071	0.077	-----	0.6697	0.0000	0.0275	0.068	0.048	0.0724
1 1400	255	0.343	0.006	0.072	0.077	0.0203	0.6552	-----	-----	-----	-----	-----
1 1415	270	0.343	0.006	0.072	0.076	-----	-----	-----	-----	-----	-----	-----
1 1430	285	0.346	0.006	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1445	300	0.348	0.006	0.073	0.078	0.0142	0.6516	-----	0.0249	0.064	0.050	0.0821
1 1500	315	0.353	0.005	0.072	0.077	-----	-----	-----	-----	-----	-----	-----
1 1515	330	0.359	0.006	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1530	345	0.361	0.006	0.071	0.076	-----	-----	-----	-----	-----	-----	-----
1 1545	360	0.365	0.006	0.070	0.075	0.0084	0.6507	-----	0.0218	0.064	0.071	0.0782

----- NO DATA TAKEN

ITC-609
 MINI-SURROGATE
 1983 MARCH 11

29-APR-83
 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C MORIC-1
1 829	-74	0.0005	-----	-----	-----
1 845	-60	-----	-----	-----	21.8
1 900	-45	-----	-----	-----	21.7
1 915	-30	-----	-----	-----	22.3
1 930	-15	-----	-----	-----	22.2
1 945	0	0.0006	-----	-----	22.3
1 1000	15	-----	-----	-----	26.6
1 1015	30	-----	-----	-----	27.8
1 1030	45	-----	-----	-----	28.5
1 1045	60	0.0008	0.0073	0.0015	28.8
1 1100	75	-----	-----	-----	29.0
1 1115	90	-----	-----	-----	29.0
1 1130	105	-----	-----	-----	29.0
1 1145	120	0.0016	0.0147	0.0029	29.1
1 1200	135	-----	-----	-----	29.1
1 1215	150	-----	-----	-----	29.1
1 1230	165	-----	-----	-----	29.1
1 1245	180	0.0022	0.0221	0.0036	29.1
1 1300	195	-----	-----	-----	29.1
1 1315	210	-----	-----	-----	29.2
1 1330	225	-----	-----	-----	29.2
1 1345	240	0.0016	0.0203	0.0038	29.3
1 1400	255	-----	-----	-----	29.4
1 1415	270	-----	-----	-----	29.4
1 1430	285	-----	-----	-----	29.5
1 1445	300	0.0016	0.0269	0.0041	29.6
1 1500	315	-----	-----	-----	29.6
1 1515	330	-----	-----	-----	29.6
1 1530	345	-----	-----	-----	29.6
1 1545	360	0.0024	0.0284	0.0044	29.7

----- NO DATA TAKEN

ITC-612
MINI-SURROGATE WITH 1 PPM METHANOL
1983 MARCH 15

29-APR-83
PAGE 1

0832: THIRD AND FINAL FILL, 50% R.H.
0915: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 10.5 MICROLITERS METHANOL,
0.7 ML. NO, AND 0.07 ML. NO2.
1000: T=0. 70% LIGHTS (56 LAMPS).
1600: RUN OVER.

T=0 AT 1000 PST

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	27.8	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.084	PPM
NO	T 14B-3	0.084	PPM
NO2-UNC	T 14B-1	0.022	PPM
METHANOL		1.0000	PPM
PROPENE	DMS-1	0.1794	PPM
N-C4	DMS-1	0.7368	PPM
T2-C4=	DMS-1	0.0268	PPM
M-XYL	10°C-600	0.0694	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR
1530	T 14B-3	TECO 14B-3 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; PUROPAK-N GC; FID
2920	10°C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-612
 MINI-SURROGATE WITH 1 PPM METHANOL
 1983 MARCH 15

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM W-3378	NO PPM T 14B-1	NO PPM T 14B-3	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	METHANOL PPM	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	M-XYL PPM 10'C-600	PAN PPM ECD-1
1 824	-96	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.0698	-----
1 837	-83	-----	-----	-----	-----	-----	-----	0.4930	0.0002	-----	-----	0.000
1 900	-60	0.000	0.005	-----	0.012	0.017	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.048	-----	0.022	0.100	-----	-----	-----	-----	-----	-----
1 924	-36	-----	-----	-----	-----	-----	-----	0.1721	0.7087	0.0259	-----	-----
1 930	-30	0.000	0.085	0.085	0.022	0.105	-----	-----	-----	-----	-----	-----
1 941	-19	-----	-----	-----	-----	-----	-----	0.1786	0.7395	0.0269	0.0699	-----
1 945	-15	0.000	0.084	0.084	0.022	0.105	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.084	0.084	0.022	0.105	1.000	0.1794	0.7368	0.0268	0.0694	0.000
1 1015	15	0.002	0.071	0.071	0.034	0.104	-----	-----	-----	-----	-----	-----
1 1030	30	0.019	0.042	0.042	0.063	0.104	-----	-----	-----	-----	-----	-----
1 1045	45	0.051	0.018	0.018	0.082	0.099	-----	-----	-----	-----	-----	-----
1 1100	60	0.114	0.011	0.011	0.084	0.095	-----	0.1282	0.7277	0.0066	0.0523	0.010
1 1115	75	0.162	0.009	0.009	0.082	0.091	-----	-----	-----	-----	-----	-----
1 1130	90	0.200	0.009	0.009	0.080	0.087	-----	-----	-----	-----	-----	-----
1 1145	105	0.230	0.008	0.008	0.078	0.085	-----	-----	-----	-----	-----	-----
1 1200	120	0.253	0.007	0.007	0.076	0.082	-----	0.0707	0.6896	0.0002	0.0386	0.040
1 1215	135	0.272	0.007	0.007	0.074	0.080	-----	-----	-----	-----	-----	-----
1 1230	150	0.284	0.007	0.007	0.074	0.080	-----	-----	-----	-----	-----	-----
1 1245	165	0.293	0.007	0.007	0.072	0.078	-----	-----	-----	-----	-----	-----
1 1300	180	0.305	0.007	0.007	0.072	0.078	-----	0.0409	0.6779	0.0000	0.0322	0.058
1 1315	195	0.307	0.007	0.007	0.071	0.077	-----	-----	-----	-----	-----	-----
1 1330	210	0.322	0.007	0.007	0.072	0.077	-----	-----	-----	-----	-----	-----
1 1345	225	0.337	0.007	0.007	0.071	0.077	-----	-----	-----	-----	-----	-----
1 1400	240	0.351	0.007	0.007	0.070	0.076	-----	0.0239	0.6606	-----	0.0283	0.058
1 1415	255	0.352	0.007	0.007	0.070	0.076	-----	-----	-----	-----	-----	-----
1 1430	270	0.337	0.007	0.007	0.072	0.076	-----	-----	-----	-----	-----	-----
1 1445	285	0.346	0.007	0.007	0.069	0.076	-----	-----	-----	-----	-----	-----
1 1500	300	0.351	0.007	0.007	0.068	0.075	-----	0.0141	0.6543	-----	0.0243	0.058
1 1515	315	0.353	0.007	0.007	0.069	0.075	-----	-----	-----	-----	-----	-----
1 1530	330	0.351	0.007	0.007	0.069	0.076	-----	-----	-----	-----	-----	-----
1 1545	345	0.353	0.007	0.007	0.068	0.075	-----	-----	-----	-----	-----	-----
1 1600	360	0.361	0.008	0.008	0.068	0.075	-----	0.0078	0.6235	-----	0.0233	0.058

----- NO DATA TAKEN

ITC-612
 MINI-SURROGATE WITH 1 PPM METHANOL
 1983 MARCH 15

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 PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C DORIC-1
1 837	-83	-----	0.0011	0.0009	-----	-----
1 900	-60	-----	-----	-----	-----	21.1
1 915	-45	-----	-----	-----	-----	21.6
1 930	-30	-----	-----	-----	-----	22.0
1 935	-25	0.008	-----	-----	-----	-----
1 945	-15	-----	-----	-----	-----	21.6
1 1000	0	-----	0.0007	0.0009	-----	21.9
1 1015	15	-----	-----	-----	-----	26.2
1 1030	30	-----	-----	-----	-----	27.4
1 1045	45	-----	-----	-----	-----	27.8
1 1100	60	0.021	0.0535	0.0014	0.0012	28.3
1 1115	75	-----	-----	-----	-----	28.8
1 1130	90	-----	-----	-----	-----	28.9
1 1145	105	-----	-----	-----	-----	28.9
1 1200	120	0.061	0.0708	0.0014	0.0023	28.9
1 1215	135	-----	-----	-----	-----	28.9
1 1230	150	-----	-----	-----	-----	28.9
1 1245	165	-----	-----	-----	-----	29.1
1 1300	180	-----	0.0918	0.0031	0.0027	29.0
1 1315	195	-----	-----	-----	-----	29.3
1 1330	210	-----	-----	-----	-----	29.3
1 1345	225	-----	-----	-----	-----	29.2
1 1400	240	0.073	0.0856	0.0022	0.0029	29.3
1 1415	255	-----	-----	-----	-----	29.6
1 1430	270	-----	-----	-----	-----	29.7
1 1445	285	-----	-----	-----	-----	29.6
1 1500	300	0.073	0.0871	0.0034	0.0035	29.9
1 1515	315	-----	-----	-----	-----	30.1
1 1530	330	-----	-----	-----	-----	30.2
1 1545	345	-----	-----	-----	-----	30.2
1 1550	350	0.069	-----	-----	-----	-----
1 1600	360	-----	0.0717	0.0020	0.0036	30.3

----- NO DATA TAKEN

ITC-613
MINI-SURROGATE
1983 MARCH 16

29-APR-83
PAGE 1

0827: THIRD AND FINAL FILL. 50% R.H.
0910: INJECTIONS: 4.2 ML. N-BUTANE, 1.1 ML. PROPENE, 0.17 ML. T2-C4=,
1.9 MICROLITERS M-XYLENE, 0.7 ML. NO₂, AND
0.06 ML. NO₂.
1000: T=0. 70% LIGHTS.
1615: DUMP AND FILL.

T=0 AT 1000 PST

ID	INST.	AVERAGE VALUE	SD DEV	UNITS
T	DORIC-1	27.8	3.0	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.081	PPM
NO2-UNC	T 14B-1	0.019	PPM
PROPENE	DMS-1	0.1776	PPM
N-C4	DMS-1	0.7296	PPM
T2-C4=	DMS-1	0.0268	PPM
M-XYL	10'C-600	0.0686	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIRI 3378 OZONE MONITOR
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-613
 MINI-SURROGATE
 1983 MARCH 16

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 PAGE 2

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T2-C4= PPM DMS-1	H-XYL PPM 10'C-600	FAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
1 830	-90	-----	-----	-----	-----	0.0006	0.0007	-----	-----	0.000	-----	0.0011
1 900	-60	0.000	0.005	0.013	0.016	-----	-----	-----	-----	-----	-----	-----
1 915	-45	0.000	0.081	0.019	0.098	-----	-----	-----	-----	-----	-----	-----
1 918	-42	-----	-----	-----	-----	0.1713	0.7051	0.0259	0.0685	-----	-----	-----
1 927	-33	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.010	-----
1 930	-30	0.000	0.080	0.020	0.097	-----	-----	-----	-----	-----	-----	-----
1 934	-26	-----	-----	-----	-----	0.1751	0.7196	0.0264	0.0686	-----	-----	-----
1 945	-15	0.000	0.081	0.019	0.098	-----	-----	-----	-----	-----	-----	-----
1 1000	0	0.000	0.081	0.019	0.097	0.1776	0.7296 A	0.0268	0.0686	0.000	-----	0.0006
1 1015	15	0.008	0.069	0.031	0.098	-----	-----	-----	-----	-----	-----	-----
1 1030	30	0.011	0.040	0.058	0.096	-----	-----	-----	-----	-----	-----	-----
1 1045	45	0.052	0.017	0.077	0.093	-----	-----	-----	-----	-----	-----	-----
1 1100	60	0.109	0.011	0.079	0.088	0.1199	0.6969	0.0063	-----	0.010	-----	-----
1 1115	75	0.151	0.009	0.077	0.084	-----	-----	-----	-----	-----	-----	-----
1 1130	90	0.181	0.008	0.074	0.080	-----	-----	-----	-----	-----	-----	-----
1 1145	105	0.212	0.008	0.073	0.079	-----	-----	-----	-----	-----	-----	-----
1 1200	120	0.242	0.007	0.076	0.081	0.0653	0.6461	0.0001	-----	0.037	-----	-----
1 1215	135	0.260	0.007	0.071	0.076	-----	-----	-----	0.0369	-----	-----	0.0693
1 1230	150	0.267	0.007	0.070	0.075	-----	-----	-----	-----	-----	-----	-----
1 1245	165	0.283	0.007	0.069	0.074	-----	-----	-----	-----	-----	-----	-----
1 1300	180	0.287	0.007	0.069	0.074	0.0411	0.6625	0.0000	0.0316	0.062	0.021	0.0829
1 1315	195	0.294	0.007	0.069	0.074	-----	-----	-----	-----	-----	-----	-----
1 1330	210	0.296	0.007	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1345	225	0.310	0.007	0.068	0.073	-----	-----	-----	-----	-----	-----	-----
1 1400	240	0.311	0.007	0.068	0.073	0.0248	0.6588	-----	0.0277	0.062	0.029	0.0800
1 1415	255	0.306	0.007	0.067	0.072	-----	-----	-----	-----	-----	-----	-----
1 1430	270	0.322	0.007	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1445	285	0.322	0.007	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1500	300	0.331	0.007	0.066	0.071	0.0145	0.6380	-----	-----	0.062	0.023	-----
1 1515	315	0.327	0.007	0.066	0.071	-----	-----	-----	-----	-----	-----	-----
1 1530	330	0.334	0.007	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1545	345	0.336	0.008	0.065	0.070	-----	-----	-----	-----	-----	-----	-----
1 1550	350	-----	-----	-----	-----	-----	-----	-----	-----	-----	0.036	-----
1 1600	360	0.336	0.008	0.064	0.070	0.0084	0.6244	-----	0.0241	0.058	-----	0.1121 B

----- NO DATA TAKEN

ITC-613
MINI-SURROGATE
1983 MARCH 16

29-APR-83
PAGE 3

CLOCK TIME DAY HR.	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	C4-N-2 PPM 10'C-600	T DEG C DORIC-1
1 830	-90	0.0019	-----	-----	-----
1 900	-60	-----	-----	-----	21.3
1 915	-45	-----	-----	-----	21.6
1 930	-30	-----	-----	-----	21.7
1 945	-15	-----	-----	-----	21.7
1 1000	0	0.0010	-----	-----	21.8
1 1015	15	-----	-----	-----	26.2
1 1030	30	-----	-----	-----	27.2
1 1045	45	-----	-----	-----	27.6
1 1100	60	-----	-----	-----	28.1
1 1115	75	-----	-----	-----	28.5
1 1130	90	-----	-----	-----	28.6
1 1145	105	-----	-----	-----	28.7
1 1200	120	-----	-----	-----	28.9
1 1215	135	0.0024	0.0118	0.0028	29.1
1 1230	150	-----	-----	-----	29.1
1 1245	165	-----	-----	-----	29.4
1 1300	180	0.0034	0.0191	0.0036	29.5
1 1315	195	-----	-----	-----	29.7
1 1330	210	-----	-----	-----	29.7
1 1345	225	-----	-----	-----	29.9
1 1400	240	0.0037	0.0220	0.0041	29.8
1 1415	255	-----	-----	-----	29.8
1 1430	270	-----	-----	-----	29.8
1 1445	285	-----	-----	-----	29.9
1 1500	300	-----	-----	-----	29.8
1 1515	315	-----	-----	-----	29.8
1 1530	330	-----	-----	-----	29.8
1 1545	345	-----	-----	-----	29.9
1 1600	360	0.0150	0.0222	0.0038	29.8

----- NO DATA TAKEN

NOTES

- A MISSED PEAK, BUT PROPENE AND I2-C4= BOTH INCREASED BY 1.3% OVER
SAMPLE AT 0934 (PRE T=0), SO USED THIS FACTOR FOR N-BUTANE RESPONSE.
- B SAMPLE TAKEN IMMEDIATELY AFTER A HIGHLY CONCENTRATED SAMPLE BY S.A.