SURROGATE RUN 86-G
GLASS CHAMBER
1974 JUNE 13

CLOCK TIME	830	905	1015	1045	1115	1145	1215	1245	1315	1345	1415	1515	1615
ELAPSED TIME(MIN)	-105	-70	0	30	60	90	120	150	180	210	240	300	360
3P CCL., 22 MIN 00 SEC	****	0.0	0.0	****	1.0	****	2.0	****	2.0	****	2.0	3.0	4.0
3P CCL., 23 MIN 00 SEC	****	0.0	2.0	****	1.0	****	1.0	****	2.0	****	2.0	1.0	0.0
3P CCL., 49 MIN 00 SEC	****	0.0	0.0	****	0.0	****	2.0	****	6.0	****	8.0	7.0	4.0
TOTAL HC PPBC	****	1147.1	5009.9	****	4906.1	****	4853.1	****	4799.8	****	4774.0	4761.2	4143.6
TOTAL NON-METHANE HC	92.4	87.1	2179.9	1508.3	2156.1	1370.9	2133.1	0.0	2099.8	1209.4	2034.0	2041.2	1423.6
TOTAL SURROGATE	92.4	52.9	2025.9	1503.2	1945.7	1360.5	1753.4	****	1618.4	1192.4	1525.2	1436.9	821.6

SURROGATE RUN 101-G
GLASS CHAMBER
1974 SEPT 12

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		940	950	1045	1045	1115	1115	1145	1200	1215	1215	1245	1245	1315	1315
ELAPSED TIME(MIN)		-95	-85	-30	-30	0	0	30	45	60	60	90	90	120	120
		CONCENTRATIONS (PPB)													
METHANE		704	****	2740	****	2720	****	****	****	2720	****	****	****	2720	****
	PPBC	704	****	2740	****	2720	****	****	****	2720	****	****	****	2720	****
ETHENE		1.6	****	40.0	****	40.0	****	****	****	36.8	****	****	****	32.0	****
	PPBC	3.2	****	80.0	****	80.0	****	****	****	73.6	****	****	****	64.0	****
ETHANE		7.1	****	72.0	****	76.8	****	****	****	76.0	****	****	****	72.8	****
	PPBC	14.2	****	144	****	154	****	****	****	152	****	****	****	146	****
ACETYLENE (POROPAK N)		2.0	****	47.6	****	46.4	****	****	****	45.6	****	****	****	44.8	****
	PPBC	4.0	****	95.2	****	92.8	****	****	****	91.2	****	****	****	89.6	****
PROPANE		11.2	****	25.6	****	25.6	****	24.4	24.0	****	24.4	23.2	****	****	23.8
	PPBC	33.6	****	76.8	****	76.8	****	73.2	72.0	****	73.2	69.6	****	****	71.4
PROPENE		0.5	****	9.6	****	9.4	****	8.7	7.8	****	7.6	6.4	****	****	5.9
	PPBC	1.5	****	28.8	****	28.2	****	26.1	23.4	****	22.8	19.2	****	****	17.7
ISOBUTANE		0.2	****	0.4	****	0.4	****	1.0	0.4	****	1.0	0.4	****	****	0.6
	PPBC	0.8	****	1.6	****	1.6	****	4.0	1.6	****	4.0	1.6	****	****	2.4
N-BUTANE		0.3	****	****	****	163	****	166	162	****	166	157	****	****	158
	PPBC	1.2	****	****	****	652	****	664	648	****	664	628	****	****	632
ACETYLENE (DMS)		2.0	****	48.0	****	47.2	****	47.1	48.0	****	42.6	47.2	****	****	47.5
	PPBC	4.0	****	96.0	****	94.4	****	94.2	96.0	****	85.2	94.4	****	****	95.0
TRANS-2-BUTENE		0.0	****	1.0	****	0.8	****	0.4	0.5	****	0.3	0.0	****	****	0.0
	PPBC	0.0	****	4.0	****	3.2	****	1.6	2.0	****	1.2	0.0	****	****	0.0
ISOPENTANE		0.2	****	0.8	****	0.8	****	0.0	0.8	****	0.0	0.8	****	****	0.0
	PPBC	1.0	****	4.0	****	4.0	****	0.0	4.0	****	0.0	4.0	****	****	0.0
CIS-2-BUTENE		0.0	****	12.0	****	12.0	12.1	9.9	8.4	****	7.8	5.0	****	****	3.7
	PPBC	0.0	****	48.0	****	48.0	48.4	39.6	33.6	****	31.2	20.0	****	****	14.8
N-PENTANE		0.2	****	0.4	****	0.4	****	0.0	0.4	****	0.0	0.4	****	****	0.0
	PPBC	1.0	****	2.0	****	2.0	****	0.0	2.0	****	0.0	2.0	****	****	0.0
2,3-DIMETHYL BUTANE		0.0	****	98.4	****	98.4	95.4	91.6	96.0	****	90.2	90.4	****	****	83.0
	PPBC	0.0	****	590	****	590	572	550	576	****	541	542	****	****	498

SURROGATE RUN 101-G
GLASS CHAMBER
1974 SEPT 12

CLOCK TIME		940	950	1045	1045	1115	1115	1145	1200	1215	1215	1245	1245	1315	1315
ELAPSED TIME(MIN)		-95	-85	-30	-30	0	0	30	45	60	60	90	90	120	120
2-METHYL BUTENE-2	PPBC	0.0 0.0	**** ****	16.0 80.0	**** ****	14.0 70.0	11.6 58.0	9.1 45.5	7.0 35.0	**** ****	4.7 23.5	2.0 10.0	**** ****	**** ****	0.5 2.5
ACETALDEHYDE	PPBC	2.0 4.0	2.0 4.0	**** ****	4.6 9.2	**** ****	3.6 7.2	**** ****	**** ****	20.0 40.0	8.6 17.2	20.0 40.0	**** ****	24.0 48.0	14.6 29.2
PROPIONALDEHYDE	PPBC	0.8 2.4	0.6 1.8	**** ****	0.4 1.2	0.7 2.1	0.4 1.2	0.8 2.4	**** ****	1.0 3.0	0.6 1.8	1.0 3.0	**** ****	1.0 3.0	0.5 1.5
ACETONE	PPBC	1.4 4.2	1.1 3.3	**** ****	3.9 11.7	5.0 15.0	6.0 18.0	9.2 27.6	**** ****	16.8 50.4	13.0 39.0	19.8 59.4	**** ****	22.0 66.0	20.2 60.6
METHYL ETHYL KETONE	PPBC	0.4 1.6	**** ****	**** ****	0.2 0.8	1.4 5.6	0.3 1.2	2.4 9.6	**** ****	3.2 12.8	1.4 5.6	3.6 14.4	**** ****	4.0 16.0	3.2 12.8
TOLUENE	PPBC	**** ****	0.6 4.2	**** ****	16.0 112	**** ****	19.3 135	**** ****	**** ****	**** ****	16.8 118	**** ****	**** ****	**** ****	16.0 112
ETHYL BENZENE	PPBC	**** ****	0.0 0.0	**** ****	2.4 19.2	**** ****	2.4 19.2	**** ****	**** ****	**** ****	3.2 25.6	**** ****	**** ****	**** ****	1.2 9.6
PARA-XYLENE	PPBC	**** ****	6.6 52.8	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****	**** ****	**** ****	0.0 0.0	**** ****	**** ****	**** ****	0.0 0.0
META-XYLENE	PPBC	**** ****	0.4 3.2	**** ****	37.6 301	**** ****	42.4 339	**** ****	**** ****	**** ****	32.0 256	**** ****	**** ****	**** ****	26.4 211
PARA-ETHYL TOLUENE	PPBC	**** ****	**** ****	**** ****	2.6 23.4	**** ****	4.0 36.0	**** ****	**** ****	**** ****	2.6 23.4	**** ****	**** ****	**** ****	1.0 9.0
1,2,3 TRIMETHYL BENZENE	PPBC	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****	**** ****
PAN	PPBC	**** ****	**** ****	**** ****	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****	1.0 2.0	**** ****	1.0 2.0	**** ****	2.0 4.0	**** ****
FORMALDEHYDE	PPBC	**** ****	**** ****	**** ****	**** ****	65.0 65.0	**** ****	**** ****	**** ****	98.0 98.0	**** ****	**** ****	**** ****	140 140	**** ****
PROPYLENE OXIDE	PPBC	0.0 0.0	**** ****	**** ****	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****	0.0 0.0	**** ****
BUTYRALDEHYDE	PPBC	2.5 10.0	**** ****	**** ****	**** ****	2.0 8.0	**** ****	2.0 8.0	**** ****	1.5 6.0	**** ****	2.0 8.0	**** ****	2.0 8.0	**** ****
TOTAL HC PPBC		786.7	****	3895.2	****	4619.1	****	****	****	3249.0	****	****	****	3304.2	****
TOTAL NON-METHANE HC		82.7	69.3	1155.2	478.3	1899.1	1235.9	1545.4	1493.6	529.0	1932.5	1518.0	0.0	584.2	1779.7
TOTAL SURROGATE		57.7	7.4	1147.6	412.8	1795.8	1153.1	1493.8	1486.0	316.8	1815.9	1383.6	****	299.2	1654.6

SURROGATE RUN 101-G
GLASS CHAMBER
1974 SEPT 12

CLOCK TIME		1330	1345	1415	1415	1445	1515	1515	1545	1615	1615	1645	1715	1715
ELAPSED TIME(MIN)		135	150	180	180	210	240	240	270	300	300	330	360	360
		CONCENTRATIONS (PPB)												
METHANE		****	****	2720	****	****	2700	****	****	2640	****	****	2610	****
	PPBC	****	****	2720	****	****	2700	****	****	2640	****	****	2610	****
ETHENE		****	****	30.4	****	****	28.8	****	****	27.2	****	****	25.6	****
	PPBC	****	****	60.8	****	****	57.6	****	****	54.4	****	****	51.2	****
ETHANE		****	****	72.8	****	****	72.0	****	****	72.0	****	****	72.0	****
	PPBC	****	****	146	****	****	144	****	****	144	****	****	144	****
ACETYLENE (POROPAK N)		****	****	41.6	****	****	40.8	****	****	40.0	****	****	40.0	****
	PPBC	****	****	83.2	****	****	81.6	****	****	80.0	****	****	80.0	****
PROPANE		****	****	22.8	23.0	22.8	22.8	22.8	22.8	22.0	22.2	22.8	23.2	18.6
	PPBC	****	****	68.4	69.0	68.4	68.4	68.4	68.4	66.0	66.6	68.4	69.6	55.8
PROPENE		5.6	****	4.8	4.5	4.0	3.2	3.5	3.2	2.8	2.7	2.0	2.0	1.4
	PPBC	16.8	****	14.4	13.5	12.0	9.6	10.5	9.6	8.4	8.1	6.0	6.0	4.2
ISOBUTANE		0.4	****	0.4	1.0	0.4	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.5
	PPBC	1.6	****	1.6	4.0	1.6	1.6	2.4	2.0	2.0	2.0	2.0	2.0	2.0
N-BUTANE		152	****	147	150	144	141	147	141	****	141	136	134	124
	PPBC	608	****	588	600	576	564	588	564	****	564	544	536	496
ACETYLENE (DMS)		46.4	****	46.0	42.6	45.6	45.2	44.8	44.8	43.6	44.4	43.6	43.6	39.1
	PPBC	92.8	****	92.0	85.2	91.2	90.4	89.6	89.6	87.2	88.8	87.2	87.2	78.2
TRANS-2-BUTENE		****	****	****	****	****	****	****	****	****	****	****	****	****
	PPBC	****	****	****	****	****	****	****	****	****	****	****	****	****
ISOPENTANE		0.8	****	0.8	0.2	1.0	1.0	0.6	1.0	0.9	0.9	0.8	1.6	1.0
	PPBC	4.0	****	4.0	1.0	5.0	5.0	3.0	5.0	4.5	4.5	4.0	8.0	5.0
CIS-2-BUTENE		3.0	****	1.5	1.7	1.0	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0
	PPBC	12.0	****	6.0	6.8	4.0	2.0	1.6	1.2	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.4	****	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.4
	PPBC	2.0	****	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.5	2.0
2,3-DIMETHYL BUTANE		88.0	****	82.8	76.8	80.0	78.0	74.9	76.8	75.2	70.6	73.2	71.2	64.9
	PPBC	528	****	497	461	480	468	449	461	451	424	439	427	389
2-METHYL BUTENE-2		1.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	5.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		****	28.0	32.0	14.8	28.0	32.0	19.2	24.0	32.0	19.2	28.0	20.0	20.6
	PPBC	****	56.0	64.0	29.6	56.0	64.0	38.4	48.0	64.0	38.4	56.0	40.0	41.2
PROPIONALDEHYDE		****	1.2	2.0	1.5	2.0	2.0	1.6	2.0	2.0	2.2	2.0	1.6	****
	PPBC	****	3.6	6.0	4.5	6.0	6.0	4.8	6.0	6.0	6.6	6.0	4.8	****

SURROGATE RUN 101-G
GLASS CHAMBER
1974 SEPT 12

CLOCK TIME		1330	1345	1415	1415	1445	1515	1515	1545	1615	1615	1645	1715	1715
ELAPSED TIME(MIN)		135	150	180	180	210	240	240	270	300	300	330	360	360
ACETONE		****	25.6	28.8	20.6	30.0	34.4	28.4	32.8	40.0	34.0	37.6	27.2	33.0
	PPBC	****	76.8	86.4	61.8	90.0	103	85.2	98.4	120	102	113	81.6	99.0
METHYL ETHYL KETONE		****	5.2	5.6	2.4	6.4	8.0	5.6	6.4	8.0	6.4	8.4	****	6.4
	PPBC	****	20.8	22.4	9.6	25.6	32.0	22.4	25.6	32.0	25.6	33.6	****	25.6
TOLUENE		****	****	****	17.2	****	****	14.8	****	****	15.0	****	****	15.0
	PPBC	****	****	****	120	****	****	104	****	****	105	****	****	105
ETHYL BENZENE		****	****	****	2.0	****	****	1.6	****	****	2.0	****	****	1.8
	PPBC	****	****	****	16.0	****	****	12.8	****	****	16.0	****	****	14.4
PARA-XYLENE		****	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0
	PPBC	****	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0
META-XYLENE		****	****	****	20.0	****	****	17.6	****	****	15.0	****	****	11.6
	PPBC	****	****	****	160	****	****	141	****	****	120	****	****	92.8
PARA-ETHYL TOLUENE		****	****	****	3.0	****	****	1.4	****	****	2.0	****	****	2.4
	PPBC	****	****	****	27.0	****	****	12.6	****	****	18.0	****	****	21.6
1,2,3 TRIMETHYL BENZENE		****	****	****	9.4	****	****	6.0	****	****	3.5	****	****	8.0
	PPBC	****	****	****	84.6	****	****	54.0	****	****	31.5	****	****	72.0
PAN		****	4.0	5.0	****	6.0	7.0	****	8.0	10.0	****	12.0	14.0	****
	PPBC	****	8.0	10.0	****	12.0	14.0	****	16.0	20.0	****	24.0	28.0	****
FORMALDEHYDE		****	****	162	****	****	176	****	****	213	****	****	206	****
	PPBC	****	****	162	****	****	176	****	****	213	****	****	206	****
PROPYLENE OXIDE		****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
BUTYRALDEHYDE		****	1.6	1.0	****	1.0	1.2	****	2.0	2.0	****	2.4	1.0	****
	PPBC	****	6.4	4.0	****	4.0	4.8	****	8.0	8.0	****	9.6	4.0	****
TOTAL HC PPBC		****	****	5704.2	****	****	5744.1	****	****	4448.1	****	****	4304.5	****
TOTAL NON-METHANE HC		1352.9	240.9	2984.2	2234.1	3332.9	3044.1	3234.9	2898.2	1808.1	3555.7	2912.8	1694.5	2088.4
TOTAL SURROGATE		1320.3	7.4	2615.2	1928.5	3027.4	2552.7	2945.7	2679.6	1124.4	3192.0	2528.4	1317.6	1520.6

SURROGATE RUN 102-G
GLASS CHAMBER
1974 SEPT 13

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)
1345 (SECOND 3-PART) SAMPLE QUESTIONABLE

CLOCK TIME		955	1000	1045	1045	1115	1130	1145	1145	1215	1245	1245	1300	1315	1345
ELAPSED TIME(MIN)		-50	-45	0	0	30	45	60	60	90	120	120	135	150	180
		CONCENTRATIONS (PPB)													
METHANE		784	****	2880	****	****	****	2850	****	****	2820	****	****	****	2820
	PPBC	784	****	2880	****	****	****	2850	****	****	2820	****	****	****	2820
ETHENE		2.0	****	40.0	****	****	****	38.4	****	****	33.6	****	****	****	32.0
	PPBC	4.0	****	80.0	****	****	****	76.8	****	****	67.2	****	****	****	64.0
ETHANE		7.0	****	78.4	****	****	****	76.8	****	****	75.2	****	****	****	75.2
	PPBC	14.0	****	157	****	****	****	154	****	****	150	****	****	****	150
ACETYLENE (POROPAK N)		2.4	****	47.2	****	****	****	46.6	****	****	45.0	****	****	****	44.2
	PPBC	4.8	****	94.4	****	****	****	93.2	****	****	90.0	****	****	****	88.4
PROPANE		9.0	11.4	28.0	24.6	****	26.4	****	24.0	24.8	****	23.6	23.2	****	24.0
	PPBC	27.0	34.2	84.0	73.8	****	79.2	****	72.0	74.4	****	70.8	69.6	****	72.0
PROPENE		0.5	0.3	9.6	9.7	****	7.2	****	7.6	6.4	****	6.0	5.4	****	4.8
	PPBC	1.5	0.9	28.8	29.1	****	21.6	****	22.8	19.2	****	18.0	16.2	****	14.4
ISOBUTANE		****	0.2	****	0.4	****	0.4	****	0.6	0.4	****	0.5	0.5	****	0.5
	PPBC	****	0.8	****	1.6	****	1.6	****	2.4	1.6	****	2.0	2.0	****	2.0
N-BUTANE		0.2	0.0	166	173	****	166	****	163	158	****	158	147	****	147
	PPBC	0.8	0.0	664	692	****	664	****	652	632	****	632	588	****	588
ACETYLENE (DMS)		2.3	1.8	48.0	51.1	****	48.0	****	49.3	47.2	****	48.8	45.6	****	45.6
	PPBC	4.6	3.6	96.0	102	****	96.0	****	98.6	94.4	****	97.6	91.2	****	91.2
TRANS-2-BUTENE		0.0	0.0	0.9	0.5	****	0.6	****	0.2	0.2	****	0.0	0.0	****	0.0
	PPBC	0.0	0.0	3.6	2.0	****	2.4	****	0.8	0.8	****	0.0	0.0	****	0.0
ISOPENTANE		1.0	0.0	0.7	0.0	****	0.8	****	0.0	1.0	****	0.2	1.0	****	1.0
	PPBC	5.0	0.0	3.5	0.0	****	4.0	****	0.0	5.0	****	1.0	5.0	****	5.0
CIS-2-BUTENE		0.0	0.0	12.1	12.5	****	9.0	****	8.0	5.4	****	4.1	3.1	****	1.9
	PPBC	0.0	0.0	48.4	50.0	****	36.0	****	32.0	21.6	****	16.4	12.4	****	7.6
N-PENTANE		0.2	0.0	0.3	0.2	****	0.2	****	0.4	0.4	****	0.2	0.4	****	0.4
	PPBC	1.0	0.0	1.5	1.0	****	1.0	****	2.0	2.0	****	1.0	2.0	****	2.0
2,3-DIMETHYL BUTANE		0.0	0.0	100	95.4	****	97.6	****	89.2	90.4	****	83.0	87.2	****	83.6
	PPBC	0.0	0.0	600	572	****	586	****	535	542	****	498	523	****	502
2-METHYL BUTENE-2		0.0	0.0	14.0	14.0	****	8.2	****	6.3	3.0	****	2.0	1.0	****	0.0
	PPBC	0.0	0.0	70.0	70.0	****	41.0	****	31.5	15.0	****	10.0	5.0	****	0.0

SURROGATE RUN 102-G
GLASS CHAMBER
1974 SEPT 13

CLOCK TIME		955	1000	1045	1045	1115	1130	1145	1145	1215	1245	1245	1300	1315	1345
ELAPSED TIME(MIN)		-50	-45	0	0	30	45	60	60	90	120	120	135	150	180
ACETALDEHYDE		****	0.3	****	1.0	****	****	****	7.1	****	****	14.0	****	****	****
	PPBC	****	0.6	****	2.0	****	****	****	14.2	****	****	28.0	****	****	****
PROPIONALDEHYDE		0.5	0.3	0.8	0.2	0.6	****	1.0	0.5	1.2	1.2	0.7	****	1.0	2.0
	PPBC	1.5	0.9	2.4	0.6	1.8	****	3.0	1.5	3.6	3.6	2.1	****	4.8	6.0
ACETONE		3.0	1.6	4.6	4.8	8.0	****	12.0	13.1	20.4	22.4	20.4	****	24.4	28.0
	PPBC	9.0	4.8	13.8	14.4	24.0	****	36.0	39.3	61.2	67.2	61.2	****	73.2	84.0
METHYL ETHYL KETONE		0.2	0.2	0.5	0.2	1.2	****	2.4	1.6	4.0	4.4	3.3	****	4.8	5.6
	PPBC	0.8	0.8	2.0	0.8	4.8	****	9.6	6.4	16.0	17.6	13.2	****	19.2	22.4
TOLUENE		****	0.1	****	17.4	****	****	****	16.8	****	****	15.8	****	****	****
	PPBC	****	0.7	****	122	****	****	****	118	****	****	111	****	****	****
ETHYL BENZENE		****	****	****	1.6	****	****	****	1.6	****	****	1.6	****	****	****
	PPBC	****	****	****	12.8	****	****	****	12.8	****	****	12.8	****	****	****
META-XYLENE		****	3.5	****	38.0	****	****	****	31.6	****	****	24.4	****	****	****
	PPBC	****	28.0	****	304	****	****	****	253	****	****	195	****	****	****
META-ETHYL TOLUENE		****	4.6	****	1.0	****	****	****	1.0	****	****	1.0	****	****	****
	PPBC	****	41.4	****	9.0	****	****	****	9.0	****	****	9.0	****	****	****
1,2,3 TRIMETHYL BENZENE		****	17.9	****	4.2	****	****	****	4.2	****	****	3.6	****	****	****
	PPBC	****	161	****	37.8	****	****	****	37.8	****	****	32.4	****	****	****
PAN		****	****	0.0	****	0.0	****	1.0	****	2.0	2.0	****	****	2.0	4.0
	PPBC	****	****	0.0	****	0.0	****	2.0	****	4.0	4.0	****	****	4.0	8.0
FORMALDEHYDE		****	****	28.0	****	****	****	103	****	****	131	****	****	****	154
	PPBC	****	****	28.0	****	****	****	103	****	****	131	****	****	****	154
PROPYLENE OXIDE		0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	0.0
	PPBC	0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	0.0
BUTYRALDEHYDE		2.0	****	1.0	****	0.9	****	1.0	****	1.0	1.0	****	****	1.0	1.5
	PPBC	8.0	****	4.0	****	3.6	****	4.0	****	4.0	4.0	****	****	4.0	6.0
TOTAL HC PPBC		861.3	****	4766.0	****	****	****	3331.2	****	****	3355.0	****	****	****	4597.2
TOTAL NON-METHANE HC		77.3	277.8	1886.0	2097.3	34.2	1532.4	481.2	1940.7	1497.2	535.0	1811.3	1314.6	105.2	1777.2
TOTAL SURROGATE		52.0	67.4	1830.8	2017.3	****	1525.8	323.6	1815.3	1399.8	307.6	1648.6	1305.6	****	1487.8

SURROGATE RUN 102-G
GLASS CHAMBER
1974 SEPT 13

CLOCK TIME		1345	1415	1445	1445	1515	1545	1545	1615	1645	1645
ELAPSED TIME(MIN)		180	210	240	240	270	300	300	330	360	360
		CONCENTRATIONS (PPB)									
METHANE		****	****.	2820	****	****	2770	****	****	2720	****
	PPBC	****	****	2820	****	****	2770	****	****	2720	****
ETHENE		****	****	29.8	****	****	28.2	****	****	24.0	****
	PPBC	****	****	59.6	****	****	56.4	****	****	48.0	****
ETHANE		****	****	72.0	****	****	72.0	****	****	68.8	****
	PPBC	****	****	144	****	****	144	****	****	138	****
ACETYLENE (PORAPAK N)		****	****	43.4	****	****	41.8	****	****	40.0	****
	PPBC	****	****	86.8	****	****	83.6	****	****	80.0	****
PROPANE		23.2	23.6	23.2	22.7	20.8	20.4	22.0	21.6	18.4	21.6
	PPBC	69.6	70.8	69.6	68.1	62.4	61.2	66.0	64.8	55.2	64.8
PROPENE		4.7	4.0	3.6	3.6	3.0	2.6	2.9	2.4	1.8	2.2
	PPBC	14.1	12.0	10.8	10.8	9.0	7.8	8.7	7.2	5.4	6.6
ISOBUTANE		0.6	0.5	0.6	0.7	0.6	0.6	0.7	0.6	0.7	0.7
	PPBC	2.4	2.0	2.4	2.8	2.4	2.4	2.8	2.4	2.8	2.8
N-BUTANE		152	144	141	148	136	131	145	****	130	140
	PPBC	608	576	564	592	544	524	580	****	520	560
ACETYLENE (DMS)		47.5	45.2	44.4	45.7	42.0	41.2	45.5	41.6	41.6	43.5
	PPBC	95.0	90.4	88.8	91.4	84.0	82.4	91.0	83.2	83.2	87.0
TRANS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.5	1.0	1.6	1.2	1.5	1.6	1.1	1.6	1.6	1.3
	PPBC	2.5	5.0	8.0	6.0	7.5	8.0	5.5	8.0	8.0	6.5
CIS-2-BUTENE		1.9	1.0	0.5	0.2	0.4	0.1	0.0	0.0	0.0	0.0
	PPBC	7.6	4.0	2.0	0.8	1.6	0.4	0.0	0.0	0.0	0.0
N-PENTANE		0.4	0.5	0.6	0.5	0.6	0.7	0.6	0.8	0.8	0.7
	PPBC	2.0	2.5	3.0	2.5	3.0	3.5	3.0	4.0	4.0	3.5
2,3-DIMETHYL BUTANE		79.7	80.0	76.8	73.5	75.6	72.0	70.6	72.0	72.0	67.3
	PPBC	478	480	461	441	454	432	424	432	432	404
2-METHYL BUTENE-2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		12.5	****	****	19.6	****	****	17.8	****	****	21.0
	PPBC	25.0	****	****	39.2	****	****	35.6	****	****	42.0
PROPIONALDEHYDE		0.8	2.0	2.0	1.4	2.4	3.2	1.8	3.2	3.2	2.0
	PPBC	2.4	6.0	6.0	4.2	7.2	9.6	5.4	9.6	9.6	6.0

5.56

12.24

SURROGATE RUN 102-G
GLASS CHAMBER
1974 SEPT 13

CLOCK TIME		1345	1415	1445	1445	1515	1545	1545	1615	1645	1645
ELAPSED TIME(MIN)		180	210	240	240	270	300	300	330	360	360
ACETONE		17.6	32.0	33.6	27.6	33.6	37.2	40.0	39.2	40.0	49.3
	PPBC	52.8	96.0	101	82.8	101	112	120	118	120	148
METHYL ETHYL KETONE		1.6	6.0	6.4	4.3	7.0	7.8	6.4	8.8	9.0	8.0
	PPBC	6.4	24.0	25.6	17.2	28.0	31.2	25.6	35.2	36.0	32.0
TOLUENE		15.0	****	****	15.0	****	****	15.8	****	****	15.1
	PPBC	105	****	****	105	****	****	111	****	****	106
ETHYL BENZENE		1.6	****	****	2.4	****	****	2.8	****	****	2.8
	PPBC	12.8	****	****	19.2	****	****	22.4	****	****	22.4
META-XYLENE		18.4	****	****	17.4	****	****	16.4	****	****	15.0
	PPBC	147	****	****	139	****	****	131	****	****	120
META-ETHYL TOLUENE		1.0	****	****	1.0	****	****	1.0	****	****	1.0
	PPBC	9.0	****	****	9.0	****	****	9.0	****	****	9.0
1,2,3 TRIMETHYL BENZENE		4.0	****	****	6.0	****	****	8.0	****	****	8.6
	PPBC	36.0	****	****	54.0	****	****	72.0	****	****	77.4
PAN		****	4.0	6.0	****	7.0	9.0	****	10.0	11.0	****
	PPBC	****	8.0	12.0	****	14.0	18.0	****	20.0	22.0	****
FORMALDEHYDE		****	****	174	****	****	176	****	****	209	****
	PPBC	****	****	174	****	****	176	****	****	209	****
PROPYLENE OXIDE		****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
BUTYRALDEHYDE		****	1.6	1.8	****	1.8	2.0	****	2.0	2.0	****
	PPBC	****	6.4	7.2	****	7.2	8.0	****	8.0	8.0	****
TOTAL HC PPBC		****	****	4557.6	****	****	4447.1	****	****	4419.2	****
TOTAL NON-METHANE HC		1676.0	1383.1	1737.6	1665.2	1324.7	1677.1	1712.4	792.0	1699.2	1697.4
TOTAL SURROGATE		1524.7	1232.2	1398.6	1448.3	1154.6	1308.8	1411.1	587.2	1279.8	1347.9

SURROGATE RUN 107-G
GLASS CHAMBER
1974 OCT 16

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)
HCHO REPORTED AT 1315 TAKEN 1231-1301

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME ELAPSED TIME(MIN)		905 -70	905 -70	1015 0	1015 0	1115 60	1115 60	1215 120	1215 120	1315 180	1415 240	1515 300	1515 300	1615 360	1615 360
		CONCENTRATIONS (PPB)													
METHANE		640	****	2830	****	2820	****	2770	****	2720	2720	2720	****	2620	****
	PPBC	640	****	2830	****	2820	****	2770	****	2720	2720	2720	****	2620	****
ETHENE		2.0	****	****	****	34.4	****	31.2	****	28.8	25.6	24.0	****	21.6	****
	PPBC	4.0	****	****	****	68.8	****	62.4	****	57.6	51.2	48.0	****	43.2	****
ETHANE		12.8	****	77.2	****	79.2	****	76.8	****	75.2	73.6	72.8	****	67.2	****
	PPBC	25.6	****	154	****	158	****	154	****	150	147	146	****	134	****
ACETYLENE (POROPAK N)		1.3	****	42.4	****	42.4	****	41.6	****	40.0	40.0	39.2	****	33.6	****
	PPBC	2.6	****	84.8	****	84.8	****	83.2	****	80.0	80.0	78.4	****	67.2	****
PROPANE		7.6	****	20.8	****	20.4	****	20.2	****	18.8	19.2	19.2	****	16.8	****
	PPBC	22.8	****	62.4	****	61.2	****	60.6	****	56.4	57.6	57.6	****	50.4	****
PROPENE		0.3	****	8.6	****	6.8	****	4.8	****	3.6	2.8	2.0	****	1.0	****
	PPBC	0.9	****	25.8	****	20.4	****	14.4	****	10.8	8.4	6.0	****	3.0	****
ISOBUTANE		0.2	****	0.4	****	0.4	****	0.4	****	0.4	0.4	0.4	****	0.6	****
	PPBC	0.8	****	1.6	****	1.6	****	1.6	****	1.6	1.6	1.6	****	2.4	****
N-BUTANE		0.5	****	158	****	155	****	150	****	138	136	134	****	****	****
	PPBC	2.0	****	632	****	620	****	600	****	552	544	536	****	****	****
ACETYLENE (DMS)		1.3	****	42.4	****	42.0	****	41.6	****	40.0	40.0	39.2	****	36.8	****
	PPBC	2.6	****	84.8	****	84.0	****	83.2	****	80.0	80.0	78.4	****	73.6	****
TRANS-2-BUTENE		0.0	****	0.9	****	0.5	****	0.0	****	0.0	0.0	0.0	****	0.0	****
	PPBC	0.0	****	3.6	****	2.0	****	0.0	****	0.0	0.0	0.0	****	0.0	****
ISOPENTANE		1.0	****	1.0	****	1.0	****	1.0	****	1.1	1.2	1.6	****	1.8	****
	PPBC	5.0	****	5.0	****	5.0	****	5.0	****	5.5	6.0	8.0	****	9.0	****
CIS-2-BUTENE		0.0	****	11.1	****	6.5	****	2.9	****	1.0	0.0	0.0	****	0.0	****
	PPBC	0.0	****	44.4	****	26.0	****	11.6	****	4.0	0.0	0.0	****	0.0	****
N-PENTANE		0.4	****	0.4	****	0.4	****	0.4	****	0.4	0.5	0.8	****	0.8	****
	PPBC	2.0	****	2.0	****	2.0	****	2.0	****	2.0	2.5	4.0	****	4.0	****
2,3-DIMETHYL BUTANE		0.0	****	91.2	****	86.4	****	80.0	****	72.0	69.6	65.6	****	62.0	****
	PPBC	0.0	****	547	****	518	****	480	****	432	418	394	****	372	****

SURROGATE RUN 107-G
GLASS CHAMBER
1974 OCT 16

CLOCK TIME		905	905	1015	1015	1115	1115	1215	1215	1315	1415	1515	1515	1615	1615
ELAPSED TIME(MIN)		-70	-70	0	0	60	60	120	120	180	240	300	300	360	360
2-METHYL BUTENE-2		0.0	0.0	13.9	****	6.4	****	0.5	****	0.0	0.0	0.0	****	0.0	****
	PPBC	0.0	0.0	69.5	****	32.0	****	2.5	****	0.0	0.0	0.0	****	0.0	****
ACETALDEHYDE		****	3.7	****	5.6	****	16.0	****	32.6	****	****	****	21.0	****	44.0
	PPBC	****	7.4	****	11.2	****	32.0	****	65.2	****	****	****	42.0	****	88.0
PROPIONALDEHYDE		1.0	0.9	0.8	0.6	1.9	0.3	2.0	1.4	2.0	2.8	3.8	3.6	4.4	3.4
	PPBC	3.0	2.7	2.4	1.8	5.7	0.9	6.0	4.2	6.0	8.4	11.4	10.8	13.2	10.2
ACETONE		5.7	4.0	8.4	9.2	22.4	8.4	37.6	30.0	39.6	52.0	53.6	38.8	56.8	59.3
	PPBC	17.1	12.0	25.2	27.6	67.2	25.2	113	90.0	119	156	161	116	170	178
BENZENE		****	0.0	****	0.2	****	0.1	****	0.0	****	****	****	0.0	****	0.0
	PPBC	****	0.0	****	1.2	****	0.6	****	0.0	****	****	****	0.0	****	0.0
METHYL ETHYL KETONE		0.9	0.3	1.8	4.1	5.1	2.6	8.0	6.8	11.1	13.6	31.6	4.8	36.0	10.4
	PPBC	3.6	1.2	7.2	16.4	20.4	10.4	32.0	27.2	44.4	54.4	126	19.2	144	41.6
TOLUENE		****	0.3	****	16.8	****	15.2	****	15.2	****	****	****	12.0	****	11.4
	PPBC	****	2.1	****	118	****	106	****	106	****	****	****	84.0	****	79.8
PARA-XYLENE		****	0.7	****	2.0	****	1.2	****	1.6	****	****	****	2.4	****	2.8
	PPBC	****	5.6	****	16.0	****	9.6	****	12.8	****	****	****	19.2	****	22.4
META-XYLENE		****	0.4	****	41.6	****	31.2	****	24.8	****	****	****	13.6	****	12.0
	PPBC	****	3.2	****	333	****	250	****	198	****	****	****	109	****	96.0
N-PROPYL BENZENE		****	0.2	****	0.0	****	0.0	****	0.0	****	****	****	0.0	****	0.0
	PPBC	****	1.8	****	0.0	****	0.0	****	0.0	****	****	****	0.0	****	0.0
META-ETHYL TOLUENE		****	0.3	****	1.2	****	0.4	****	1.4	****	****	****	1.6	****	1.8
	PPBC	****	2.7	****	10.8	****	3.6	****	12.6	****	****	****	14.4	****	16.2
ORTHO-ETHYL TOLUENE		****	0.0	****	0.0	****	0.0	****	0.0	****	****	****	0.2	****	0.8
	PPBC	****	0.0	****	0.0	****	0.0	****	0.0	****	****	****	1.8	****	7.2
1,3,5 TRIMETHYL BENZENE		****	1.0	****	0.8	****	0.3	****	0.5	****	****	****	1.6	****	1.0
	PPBC	****	9.0	****	7.2	****	2.7	****	4.5	****	****	****	14.4	****	9.0
1,2,3 TRIMETHYL BENZENE		****	3.2	****	3.0	****	1.8	****	3.0	****	****	****	8.0	****	8.0
	PPBC	****	28.8	****	27.0	****	16.2	****	27.0	****	****	****	72.0	****	72.0
PAN		****	****	0.0	****	1.0	****	3.0	****	5.0	9.0	13.0	****	17.0	****
	PPBC	****	****	0.0	****	2.0	****	6.0	****	10.0	18.0	26.0	****	34.0	****
FORMALDEHYDE		****	****	73.0	****	100	****	0.0	****	137	169	193	****	204	****
	PPBC	****	****	73.0	****	100	****	0.0	****	137	169	193	****	204	****
PROPYLENE OXIDE		0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	****
	PPBC	0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	****
BUTYRALDEHYDE		0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	****

SURROGATE RUN 107-G
GLASS CHAMBER
1974 OCT 16

CLOCK TIME		905	905	1015	1015	1115	1115	1215	1215	1315	1415	1515	1515	1615	1615
ELAPSED TIME(MIN)		-70	-70	0	0	60	60	120	120	180	240	300	300	360	360
	PPBC	0.0	****	0.0	****	0.0	****	0.0	****	0.0	0.0	0.0	****	0.0	****
TOTAL HC PPBC		729.4	****	4570.5	****	4615.5	****	4403.7	****	4388.5	4441.9	4516.4	****	3874.4	****
TOTAL NON-METHANE HC		89.4	76.5	1740.5	569.6	1795.5	457.2	1633.7	548.3	1668.5	1721.9	1796.4	503.0	1254.4	620.3
TOTAL SURROGATE		57.9	5.3	1624.1	450.4	1591.6	356.0	1468.3	304.8	1343.2	1306.0	1265.2	192.8	673.4	175.8

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME ELAPSED TIME(MIN)		830 -45	830 -45	915 0	915 0	1000 45	1015 60	1015 60	1045 90	1115 120	1115 120	1130 135	1215 180	1215 180	1245 210
		CONCENTRATIONS (PPB)													
METHANE		560	****	2880	****	****	2880	****	****	2850	****	****	2820	****	****
	PPBC	560	****	2880	****	****	2880	****	****	2850	****	****	2820	****	****
ETHENE		7.6	****	47.2	****	****	40.0	****	****	36.8	****	****	32.0	****	****
	PPBC	15.2	****	94.4	****	****	80.0	****	****	73.6	****	****	64.0	****	****
ETHANE		10.4	****	84.8	****	****	80.0	****	****	80.0	****	****	76.8	****	****
	PPBC	20.8	****	170	****	****	160	****	****	160	****	****	154	****	****
ACETYLENE (POROPAK N)		3.2	****	51.2	****	****	48.0	****	****	48.0	****	****	44.8	****	****
	PPBC	6.4	****	102	****	****	96.0	****	****	96.0	****	****	89.6	****	****
PROPANE		6.5	****	21.2	****	21.6	****	****	21.2	****	****	20.0	18.8	****	20.0
	PPBC	19.5	****	63.6	****	64.8	****	****	63.6	****	****	60.0	56.4	****	60.0
PROPENE		0.2	****	9.4	****	7.2	****	****	5.2	****	****	3.8	2.4	****	4.0
	PPBC	0.6	****	28.2	****	21.6	****	****	15.6	****	****	11.4	7.2	****	12.0
ISOBUTANE		0.1	****	0.4	****	0.4	****	****	0.4	****	****	0.4	0.4	****	0.4
	PPBC	0.4	****	1.6	****	1.6	****	****	1.6	****	****	1.6	1.6	****	1.6
N-BUTANE		0.1	****	170	****	168	****	****	160	****	****	150	141	****	144
	PPBC	0.4	****	680	****	672	****	****	640	****	****	600	564	****	576
ACETYLENE (DMS)		3.2	****	51.2	****	51.2	****	****	48.8	****	****	48.0	44.8	****	44.4
	PPBC	6.4	****	102	****	102	****	****	97.6	****	****	96.0	89.6	****	88.8
TRANS-2-BUTENE		0.0	****	0.7	****	0.3	****	****	0.0	****	****	0.0	0.0	****	0.0
	PPBC	0.0	****	2.8	****	1.2	****	****	0.0	****	****	0.0	0.0	****	0.0
ISOPENTANE		0.0	****	0.0	****	0.2	****	****	0.3	****	****	0.5	0.4	****	0.5
	PPBC	0.0	****	0.0	****	1.0	****	****	1.5	****	****	2.5	2.0	****	2.5
CIS-2-BUTENE		0.0	****	13.0	****	6.4	****	****	2.7	****	****	0.8	0.0	****	0.0
	PPBC	0.0	****	52.0	****	25.6	****	****	10.8	****	****	3.2	0.0	****	0.0
N-PENTANE		0.0	****	0.0	****	0.0	****	****	0.1	****	****	0.2	0.4	****	0.3
	PPBC	0.0	****	0.0	****	0.0	****	****	0.5	****	****	1.0	2.0	****	1.5
2,3-DIMETHYL BUTANE		0.0	****	88.0	****	83.2	****	****	76.0	****	****	71.6	65.2	****	65.6
	PPBC	0.0	****	528	****	499	****	****	456	****	****	430	391	****	394

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

CLOCK TIME		830	830	915	915	1000	1015	1015	1045	1115	1115	1130	1215	1215	1245
ELAPSED TIME(MIN)		-45	-45	0	0	45	60	60	90	120	120	135	180	180	210
2-METHYL BUTENE-2		0.0	****	14.0	****	4.0	****	****	0.0	****	****	0.0	0.0	****	0.0
	PPBC	0.0	****	70.0	****	20.0	****	****	0.0	****	****	0.0	0.0	****	0.0
ACETALDEHYDE		4.0	1.2	****	2.0	****	****	6.8	****	****	17.4	****	****	28.0	****
	PPBC	8.0	2.4	****	4.0	****	****	13.6	****	****	34.8	****	****	56.0	****
PROPIONALDEHYDE		1.0	0.4	1.2	0.4	****	1.3	0.6	****	3.2	1.2	****	3.2	1.9	****
	PPBC	3.0	1.2	3.6	1.2	****	3.9	1.8	****	9.6	3.6	****	9.6	5.7	****
ACETONE		3.8	1.8	7.2	8.0	****	17.0	18.8	****	31.2	36.8	****	41.6	52.8	****
	PPBC	11.4	5.4	21.6	24.0	****	51.0	56.4	****	93.6	110	****	125	158	****
METHYL ETHYL KETONE		0.8	0.0	1.1	0.2	****	4.4	1.9	****	6.8	4.6	****	9.4	5.2	****
	PPBC	3.2	0.0	4.4	0.8	****	17.6	7.6	****	27.2	18.4	****	37.6	20.8	****
TOLUENE		****	0.2	****	16.4	****	****	11.2	****	****	9.9	****	****	13.8	****
	PPBC	****	1.4	****	115	****	****	78.4	****	****	69.3	****	****	96.6	****
ETHYL BENZENE		****	0.5	****	0.4	****	****	0.4	****	****	0.8	****	****	1.6	****
	PPBC	****	4.0	****	3.2	****	****	3.2	****	****	6.4	****	****	12.8	****
META-XYLENE		****	0.0	****	32.0	****	****	21.0	****	****	14.8	****	****	15.6	****
	PPBC	****	0.0	****	256	****	****	168	****	****	118	****	****	125	****
PAN		****	****	0.0	****	****	2.0	****	5.0	7.0	****	****	10.0	****	13.0
	PPBC	****	****	0.0	****	****	4.0	****	10.0	14.0	****	****	20.0	****	26.0
FORMALDEHYDE		****	****	53.0	****	****	77.0	****	****	104	****	****	126	****	****
	PPBC	****	****	53.0	****	****	77.0	****	****	104	****	****	126	****	****
PROPYLENE OXIDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
BUTYRALDEHYDE		1.0	****	0.9	****	****	0.5	****	****	0.5	****	****	0.8	****	****
	PPBC	4.0	****	3.6	****	****	2.0	****	****	2.0	****	****	3.2	****	****
TOTAL HC PPBC		652.9	****	4758.8	****	****	3371.5	****	****	3430.0	****	****	4472.8	****	****
TOTAL NON-METHANE HC		92.9	14.4	1878.8	404.0	1409.4	491.5	329.0	1297.2	580.0	361.3	1205.3	1652.8	475.1	1162.0
TOTAL SURROGATE		62.9	1.4	1791.0	370.8	1406.8	336.0	246.4	1283.6	329.6	187.7	1200.2	1326.0	221.4	1130.4

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

CLOCK TIME		1315	1315	1345	1415	1415	1445	1515	1515	1545	1615	1615	1645	1715	1715
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360	390	420	420	450	480	480
		CONCENTRATIONS (PPB)													
METHANE	PPBC	2770 2770	**** ****	**** ****	2750 2750	**** ****	**** ****	2720 2720	**** ****	**** ****	2720 2720	**** ****	**** ****	2720 2720	**** ****
ETHENE	PPBC	28.0 56.0	**** ****	**** ****	24.0 48.0	**** ****	**** ****	21.6 43.2	**** ****	**** ****	13.4 26.8	**** ****	**** ****	16.0 32.0	**** ****
ETHANE	PPBC	75.2 150	**** ****	**** ****	75.2 150	**** ****	**** ****	73.6 147	**** ****	**** ****	67.2 134	**** ****	**** ****	70.4 141	**** ****
ACETYLENE (POROPAK N)	PPBC	44.0 88.0	**** ****	**** ****	44.0 88.0	**** ****	**** ****	43.2 86.4	**** ****	**** ****	40.0 80.0	**** ****	**** ****	41.6 83.2	**** ****
PROPANE	PPBC	18.8 56.4	**** ****	18.2 54.6	18.4 55.2	**** ****	17.2 51.6	17.2 51.6	**** ****	17.6 52.8	17.8 53.4	**** ****	**** ****	17.6 52.8	**** ****
PROPENE	PPBC	1.4 4.2	**** ****	1.0 3.0	0.2 0.6	**** ****	0.5 1.5	0.4 1.2	**** ****	0.4 1.2	0.4 1.2	**** ****	**** ****	0.3 0.9	**** ****
ISOBUTANE	PPBC	0.3 1.2	**** ****	0.4 1.6	0.3 1.2	**** ****	0.4 1.6	0.4 1.6	**** ****	0.4 1.6	0.4 1.6	**** ****	**** ****	0.5 2.0	**** ****
N-BUTANE	PPBC	142 568	**** ****	134 536	133 532	**** ****	125 500	123 492	**** ****	123 492	118 472	**** ****	**** ****	115 460	**** ****
ACETYLENE (DMS)	PPBC	45.6 91.2	**** ****	44.0 88.0	44.0 88.0	**** ****	43.2 86.4	43.2 86.4	**** ****	42.4 84.8	41.6 83.2	**** ****	**** ****	42.0 84.0	**** ****
TRANS-2-BUTENE	PPBC	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	**** ****	0.0 0.0	8.0 32.0
ISOPENTANE	PPBC	0.5 2.5	**** ****	0.6 3.0	0.6 3.0	**** ****	0.8 4.0	1.0 5.0	**** ****	0.9 4.5	1.0 5.0	**** ****	**** ****	1.6 8.0	**** ****
CIS-2-BUTENE	PPBC	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	**** ****	0.0 0.0	**** ****
N-PENTANE	PPBC	0.4 2.0	**** ****	0.4 2.0	0.4 2.0	**** ****	0.4 2.0	0.4 2.0	**** ****	0.4 2.0	0.4 2.0	**** ****	**** ****	0.0 0.0	**** ****
2,3-DIMETHYL BUTANE	PPBC	64.0 384	**** ****	60.0 360	58.4 350	**** ****	54.0 324	51.6 310	**** ****	50.0 300	46.4 278	**** ****	**** ****	42.8 257	**** ****
2-METHYL BUTENE-2	PPBC	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	0.0 0.0	0.0 0.0	**** ****	**** ****	0.0 0.0	**** ****
ACETALDEHYDE	PPBC	**** ****	25.8 51.6	**** ****	**** ****	22.8 45.6	**** ****	**** ****	27.2 54.4	**** ****	**** ****	24.0 48.0	**** ****	**** ****	25.6 51.2
PROPIONALDEHYDE	PPBC	3.2 9.6	2.4 7.2	**** ****	3.6 10.8	2.0 6.0	**** ****	4.0 12.0	2.8 8.4	**** ****	4.4 13.2	3.6 10.8	**** ****	4.8 14.4	4.0 12.0

5.56

5.56 %

13.2

17 %

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

CLOCK TIME		1315	1315	1345	1415	1415	1445	1515	1515	1545	1615	1615	1645	1715	1715
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360	390	420	420	450	480	480
ACETONE		49.6	67.2	****	57.6	56.8	****	60.0	75.2	****	67.2	66.9	****	72.0	83.2
	PPBC	149	202	****	173	170	****	180	226	****	202	201	****	216	250
METHYL ETHYL KETONE		11.2	8.3	****	13.4	6.2	****	14.8	6.0	****	17.6	8.4	****	17.8	****
	PPBC	44.8	33.2	****	53.6	24.8	****	59.2	24.0	****	70.4	33.6	****	71.2	****
TOLUENE		****	12.6	****	****	8.0	****	****	9.6	****	****	8.4	****	****	8.1
	PPBC	****	88.2	****	****	56.0	****	****	67.2	****	****	58.8	****	****	56.7
ETHYL BENZENE		****	1.8	****	****	1.8	****	****	2.8	****	****	2.2	****	****	3.4
	PPBC	****	14.4	****	****	14.4	****	****	22.4	****	****	17.6	****	****	27.2
META-XYLENE		****	11.2	****	****	7.3	****	****	7.0	****	****	4.4	****	****	3.6
	PPBC	****	89.6	****	****	58.4	****	****	56.0	****	****	35.2	****	****	28.8
PAN		****	****	20.0	22.0	****	25.0	26.0	****	27.0	32.0	****	34.0	35.0	****
	PPBC	****	****	40.0	44.0	****	50.0	52.0	****	54.0	64.0	****	68.0	70.0	****
FORMALDEHYDE		****	****	****	126	****	****	145	****	****	141	****	****	160	****
	PPBC	****	****	****	126	****	****	145	****	****	141	****	****	160	****
PROPYLENE OXIDE		0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		1.0	****	****	1.2	****	****	1.5	****	****	1.5	****	****	3.0	****
	PPBC	4.0	****	****	4.8	****	****	6.0	****	****	6.0	****	****	12.0	****
TOTAL HC PPBC		4384.4	****	****	4796.8	****	****	4643.0	****	****	4633.9	****	****	4775.6	****
TOTAL NON-METHANE HC		1614.4	500.2	2967.0	2046.8	1785.0	1512.6	1923.0	1755.2	1572.9	1913.9	1610.0	1720.8	2055.6	1619.5
TOTAL SURROGATE		1371.5	179.2	2832.6	1595.4	1521.2	1299.5	1377.6	1406.8	1260.4	1235.5	1294.2	1326.0	1248.3	1247.9

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

CLOCK TIME		1745	1815	1815	1845	1915	1915
ELAPSED TIME(MIN)		510	540	540	570	600	600
		CONCENTRATIONS (PPB)					
METHANE		****	2690	****	****	2640	****
	PPBC	****	2690	****	****	2640	****
ETHENE		****	12.8	****	****	11.2	****
	PPBC	****	25.6	****	****	22.4	****
ETHANE		****	68.0	****	****	67.2	****
	PPBC	****	136	****	****	134	****
ACETYLENE (POROPAK N)		****	40.0	****	****	40.0	****
	PPBC	****	80.0	****	****	80.0	****
PROPANE		15.6	17.0	****	15.6	16.0	****
	PPBC	46.8	51.0	****	46.8	48.0	****
PROPENE		0.2	0.2	****	0.1	0.1	****
	PPBC	0.6	0.6	****	0.3	0.3	****
ISOBUTANE		0.5	0.6	****	0.6	0.6	****
	PPBC	2.0	2.4	****	2.4	2.4	****
N-BUTANE		109	106	****	104	101	****
	PPBC	436	424	****	416	404	****
ACETYLENE (DMS)		39.2	40.1	****	39.6	39.6	****
	PPBC	78.4	80.2	****	79.2	79.2	****
TRANS-2-BUTENE		0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	0.0	****	0.0	0.0	****
ISOPENTANE		1.5	1.5	****	1.9	2.0	****
	PPBC	7.5	7.5	****	9.5	10.0	****
CIS-2-BUTENE		0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	0.0	****	0.0	0.0	****
N-PENTANE		0.8	0.9	****	0.9	0.9	****
	PPBC	4.0	4.5	****	4.5	4.5	****
2,3-DIMETHYL BUTANE		40.8	38.0	****	37.0	****	****
	PPBC	245	228	****	222	****	****
2-METHYL BUTENE-2		0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	0.0	****	0.0	0.0	****
ACETALDEHYDE		****	****	20.4	****	****	26.6
	PPBC	****	****	40.8	****	****	53.2
PROPIONALDEHYDE		****	6.4	4.4	****	8.0	4.0
	PPBC	****	19.2	13.2	****	24.0	12.0

8.3 %

20.7 5

SURROGATE RUN 111-G
GLASS CHAMBER
1974 OCT 30

CLOCK TIME		1745	1815	1815	1845	1915	1915
ELAPSED TIME(MIN)		510	540	540	570	600	600
ACETONE		****	81.6	77.6	****	83.2	100
	PPBC	****	245	233	****	250	300
METHYL ETHYL KETONE		****	21.2	****	****	22.8	12.8
	PPBC	****	84.8	****	****	91.2	51.2
TOLUENE		****	****	8.2	****	****	8.0
	PPBC	****	****	57.4	****	****	56.0
ETHYL BENZENE		****	****	3.4	****	****	3.6
	PPBC	****	****	27.2	****	****	28.8
META-XYLENE		****	****	3.1	****	****	2.7
	PPBC	****	****	24.8	****	****	21.6
PAN		37.0	37.0	****	38.0	38.0	****
	PPBC	74.0	74.0	****	76.0	76.0	****
FORMALDEHYDE		****	152	****	****	152	****
	PPBC	****	152	****	****	152	****
PROPYLENE OXIDE		****	0.0	****	****	0.0	****
	PPBC	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		****	3.2	****	****	3.8	****
	PPBC	****	12.8	****	****	15.2	****
TOTAL HC PPBC		****	4737.5	****	****	5738.6	****
TOTAL NON-METHANE HC		2508.5	2047.5	3363.2	2903.5	3098.6	2035.4
TOTAL SURROGATE		2178.1	1124.5	2914.8	2359.7	2209.9	1377.1

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME ELAPSED TIME(MIN)		750 -40	755 -35	830 0	832 2	915 45	930 60	930 60	1000 90	1030 120	1030 120	1100 150	1130 180	1130 180	1200 210
		CONCENTRATIONS (PPB)													
METHANE		2560	****	4130	****	****	4130	****	****	4130	****	****	4100	****	****
	PPBC	2560	****	4130	****	****	4130	****	****	4130	****	****	4100	****	****
ETHENE		6.4	****	64.0	****	****	35.2	****	****	28.8	****	****	22.4	****	****
	PPBC	12.8	****	128	****	****	70.4	****	****	57.6	****	****	44.8	****	****
ETHANE		59.2	****	128	****	****	128	****	****	125	****	****	122	****	****
	PPBC	118	****	256	****	****	256	****	****	250	****	****	244	****	****
ACETYLENE (POROPAK N)		36.0	****	81.6	****	****	80.0	****	****	80.0	****	****	78.4	****	****
	PPBC	72.0	****	163	****	****	160	****	****	160	****	****	157	****	****
PROPANE		13.0	****	26.4	****	26.4	****	****	25.6	24.8	****	24.0	23.2	****	23.2
	PPBC	39.0	****	79.2	****	79.2	****	****	76.8	74.4	****	72.0	69.6	****	69.6
PROPENE		0.0	****	9.4	****	5.4	****	****	2.4	1.2	****	0.8	0.5	****	0.2
	PPBC	0.0	****	28.2	****	16.2	****	****	7.2	3.6	****	2.4	1.5	****	0.6
ISOBUTANE		0.8	****	1.0	****	1.0	****	****	0.8	0.8	****	0.8	0.9	****	1.0
	PPBC	3.2	****	4.0	****	4.0	****	****	3.2	3.2	****	3.2	3.6	****	4.0
N-BUTANE		89.6	****	262	****	262	****	****	243	234	****	230	222	****	221
	PPBC	358	****	1050	****	1050	****	****	972	936	****	920	888	****	884
ACETYLENE (DMS)		36.0	****	83.2	****	84.0	****	****	80.8	80.4	****	79.6	77.6	****	77.6
	PPBC	72.0	****	166	****	168	****	****	162	161	****	159	155	****	155
TRANS-2-BUTENE		0.0	****	0.4	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	1.6	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****	0.0
ISOPENTANE		2.9	****	3.0	****	3.0	****	****	3.0	2.9	****	2.8	2.6	****	2.6
	PPBC	14.5	****	15.0	****	15.0	****	****	15.0	14.5	****	14.0	13.0	****	13.0
CIS-2-BUTENE		0.0	****	9.0	****	0.5	****	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	36.0	****	2.0	****	****	0.0	0.0	****	0.0	0.0	****	0.0
N-PENTANE		1.3	****	1.3	****	1.2	****	****	1.2	1.2	****	1.2	1.1	****	1.0
	PPBC	6.5	****	6.5	****	6.0	****	****	6.0	6.0	****	6.0	5.5	****	5.0
2,3-DIMETHYL BUTANE		28.8	****	124	****	118	****	****	106	100	****	93.6	88.0	****	84.0
	PPBC	173	****	744	****	708	****	****	636	600	****	562	528	****	504

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

CLOCK TIME		750	755	830	832	915	930	930	1000	1030	1030	1100	1130	1130	1200
ELAPSED TIME(MIN)		-40	-35	0	2	45	60	60	90	120	120	150	180	180	210
2-METHYL BUTENE-2		0.0	****	2.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	10.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****	0.0
ACETALDEHYDE		****	2.0	****	33.2	****	****	40.8	****	****	41.6	****	****	40.0	****
	PPBC	****	4.0	****	66.4	****	****	81.6	****	****	83.2	****	****	80.0	****
PROPIONALDEHYDE		6.4	2.8	6.4	2.4	****	6.4	2.4	****	7.2	4.8	****	8.0	3.2	****
	PPBC	19.2	8.4	19.2	7.2	****	19.2	7.2	****	21.6	14.4	****	24.0	9.6	****
ACETONE		72.0	40.0	76.8	84.8	****	107	122	****	120	110	****	138	134	****
	PPBC	216	120	230	254	****	321	366	****	360	330	****	414	402	****
METHYL ETHYL KETONE		21.6	5.2	24.0	13.6	****	31.2	18.4	****	33.2	28.0	****	37.6	20.8	****
	PPBC	86.4	20.8	96.0	54.4	****	125	73.6	****	133	112	****	150	83.2	****
TOLUENE		****	7.6	****	24.8	****	****	19.2	****	****	16.8	****	****	15.6	****
	PPBC	****	53.2	****	174	****	****	134	****	****	118	****	****	109	****
ETHYL BENZENE		****	0.0	****	2.0	****	****	2.4	****	****	2.0	****	****	3.2	****
	PPBC	****	0.0	****	16.0	****	****	19.2	****	****	16.0	****	****	25.6	****
META-XYLENE		****	1.6	****	34.0	****	****	26.4	****	****	17.6	****	****	11.2	****
	PPBC	****	12.8	****	272	****	****	211	****	****	141	****	****	89.6	****
ORTHO-XYLENE		****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.3	****
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	2.4	****
PARA-ETHYL TOLUENE		****	0.0	****	0.0	****	****	0.8	****	****	1.4	****	****	1.4	****
	PPBC	****	0.0	****	0.0	****	****	7.2	****	****	12.6	****	****	12.6	****
1,2,3 TRIMETHYL BENZENE		****	0.0	****	1.0	****	****	4.2	****	****	4.4	****	****	8.6	****
	PPBC	****	0.0	****	9.0	****	****	37.8	****	****	39.6	****	****	77.4	****
PAN		****	****	8.0	****	24.0	****	****	****	****	****	****	****	****	56.0
	PPBC	****	****	16.0	****	48.0	****	****	****	****	****	****	****	****	112
FORMALDEHYDE		****	****	286	****	****	257	****	****	217	****	****	190	****	****
	PPBC	****	****	286	****	****	257	****	****	217	****	****	190	****	****
PROPYLENE OXIDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
BUTYRALDEHYDE		4.0	****	4.0	****	****	4.8	****	****	4.4	****	****	4.8	****	****
	PPBC	16.0	****	16.0	****	****	19.2	****	****	17.6	****	****	19.2	****	****
TOTAL HC PPBC		3695.2	****	7316.9	****	****	5357.6	****	****	6984.7	****	****	6851.6	****	****
TOTAL NON-METHANE HC		1135.2	219.2	3186.9	853.0	2096.4	1227.6	938.2	1877.8	2854.7	866.2	1738.4	2751.6	891.6	1747.4
TOTAL SURROGATE		773.4	66.0	2497.8	445.6	2023.4	486.4	345.6	1853.6	2082.0	258.4	1715.2	1931.9	198.8	1613.4

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

CLOCK TIME		1230	1230	1300	1330	1330	1400	1430	1430	1500	1530	1530	1600	1630	1630
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360	390	420	420	450	480	480
		CONCENTRATIONS (PPB)						4.6						9.4	
METHANE		4000	****	****	4000	****	****	3940	****	****	3840	****	****	3740	****
	PPBC	4000	****	****	4000	****	****	3940	****	****	3840	****	****	3740	****
ETHENE		16.0	****	****	14.4	****	****	12.8	****	****	8.0	****	****	8.0	****
	PPBC	32.0	****	****	28.8	****	****	25.6	****	****	16.0	****	****	16.0	****
ETHANE		115	****	****	110	****	****	109 (14.5)	****	****	107	****	****	104 (18.75)	****
	PPBC	230	****	****	220	****	****	218	****	****	214	****	****	208	****
ACETYLENE (PORAPAK N)		72.0	****	****	64.0	****	****	64.0	****	****	68.0	****	****	62.4	****
	PPBC	144	****	****	128	****	****	128	****	****	136	****	****	125	****
PROPANE		22.8	****	22.4	22.4	****	20.8	20.8	****	20.8	20.4	****	18.4	21.2	****
	PPBC	68.4	****	67.2	67.2	****	62.4	62.4	****	62.4	61.2	****	55.2	63.6	****
PROPENE		0.1	****	0.1	0.1	****	0.1	0.1	****	0.2	0.2	****	0.1	0.1	****
	PPBC	0.3	****	0.3	0.3	****	0.3	0.3	****	0.6	0.6	****	0.3	0.3	****
ISOBUTANE		1.0	****	1.0	0.9	****	0.8	0.8	****	0.8	0.8	****	0.8	0.8	****
	PPBC	4.0	****	4.0	3.6	****	3.2	3.2	****	3.2	3.2	****	3.2	3.2	****
N-BUTANE		208	****	202	197	****	192	182	****	182	****	****	166	173	****
	PPBC	832	****	808	788	****	768	728	****	728	****	****	664	692	****
ACETYLENE (DMS)		76.0	****	75.2	74.0	****	72.0	68.8	****	70.4	70.8	****	66.4	68.0	****
	PPBC	152	****	150	148	****	144	138	****	141	142	****	133	136	****
TRANS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
ISOPENTANE		2.5	****	2.6	2.8	****	2.9	2.6	****	2.0	2.4	****	2.7	2.9	****
	PPBC	12.5	****	13.0	14.0	****	14.5	13.0	****	10.0	12.0	****	13.5	14.5	****
CIS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
N-PENTANE		1.0	****	1.0	1.0	****	1.0	1.0	****	1.0	1.2	****	1.0	1.0	****
	PPBC	5.0	****	5.0	5.0	****	5.0	5.0	****	5.0	6.0	****	5.0	5.0	****
2,3-DIMETHYL BUTANE		76.8	****	73.6	71.6	****	67.6	64.0	****	****	60.0	****	57.2	56.4	****
	PPBC	461	****	442	430	****	406	384	****	****	360	****	343	338	****
2-METHYL BUTENE-2		0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
ACETALDEHYDE		****	40.8	****	****	43.2	****	****	44.8	****	****	35.2	****	****	41.6
	PPBC	****	81.6	****	****	86.4	****	****	89.6	****	****	70.4	****	****	83.2
PROPIONALDEHYDE		9.6	2.0	****	12.8	4.8	****	12.8	4.8	****	12.8	4.0	****	12.8	3.2
	PPBC	28.8	6.0	****	38.4	14.4	****	38.4	14.4	****	38.4	12.0	****	38.4	9.6

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

CLOCK TIME		1230	1230	1300	1330	1330	1400	1430	1430	1500	1530	1530	1600	1630	1630
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360	390	420	420	450	480	480
ACETONE		141	149	****	157	174	****	157	176	****	171	112	****	166	168
	PPBC	423	447	****	471	522	****	471	528	****	513	336	****	498	504
METHYL ETHYL KETONE		38.0	41.6	****	41.6	48.0	****	44.0	54.4	****	62.4	16.8	****	76.8	60.8
	PPBC	152	166	****	166	192	****	176	218	****	250	67.2	****	307	243
TOLUENE		****	13.6	****	****	14.0	****	****	13.2	****	****	13.0	****	****	11.2
	PPBC	****	95.2	****	****	98.0	****	****	92.4	****	****	91.0	****	****	78.4
ETHYL BENZENE		****	3.2	****	****	4.0	****	****	4.4	****	****	3.0	****	****	3.6
	PPBC	****	25.6	****	****	32.0	****	****	35.2	****	****	24.0	****	****	28.8
META-XYLENE		****	8.0	****	****	6.6	****	****	5.4	****	****	4.0	****	****	3.6
	PPBC	****	64.0	****	****	52.8	****	****	43.2	****	****	32.0	****	****	28.8
ORTHO-XYLENE		****	0.0	****	****	0.3	****	****	0.3	****	****	0.0	****	****	0.4
	PPBC	****	0.0	****	****	2.4	****	****	2.4	****	****	0.0	****	****	3.2
PARA-ETHYL TOLUENE		****	2.0	****	****	5.0	****	****	5.0	****	****	4.6	****	****	4.8
	PPBC	****	18.0	****	****	45.0	****	****	45.0	****	****	41.4	****	****	43.2
1,2,3 TRIMETHYL BENZENE		****	12.6	****	****	12.8	****	****	12.2	****	****	14.2	****	****	12.6
	PPBC	****	113	****	****	115	****	****	110	****	****	128	****	****	113
PAN		56.0	****	57.0	56.0	****	54.0	52.0	****	50.0	43.0	0.0	45.0	43.0	****
	PPBC	112	****	114	112	****	108	104	****	100	86.0	0.0	90.0	86.0	****
FORMALDEHYDE		185	****	****	194	****	****	187	****	****	177	0.0	****	170	****
	PPBC	185	****	****	194	****	****	187	****	****	177	0.0	****	170	****
PROPYLENE OXIDE		0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		5.6	****	****	6.4	****	****	7.2	****	****	7.2	****	****	6.4	****
	PPBC	22.4	****	****	25.6	****	****	28.8	****	****	28.8	****	****	25.6	****
TOTAL HC PPBC		7851.4	****	****	7554.9	****	****	7455.7	****	****	6610.8	****	****	7228.2	****
TOTAL NON-METHANE HC		3851.4	1236.4	4790.4	3554.9	3256.6	2738.6	3515.7	3055.4	3904.7	2770.8	2540.2	4058.8	3488.2	2883.2
TOTAL SURROGATE		2544.9	225.2	3965.3	2117.5	2174.2	1866.7	1896.7	1989.2	3013.8	1049.0	1838.2	3127.4	1647.5	1720.6

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

CLOCK TIME		1700	1730	1730
ELAPSED TIME(MIN)		510	540	540
		CONCENTRATIONS (PPB)		
METHANE		****	3740	****
	PPBC	****	3740	****
ETHENE		****	6.4	****
	PPBC	****	12.8	****
ETHANE		****	104	****
	PPBC	****	208	****
ACETYLENE (POROPAK N)		****	64.0	****
	PPBC	****	128	****
PROPANE		21.2	20.2	****
	PPBC	63.6	60.6	****
PROPENE		0.1	0.1	****
	PPBC	0.3	0.3	****
ISOBUTANE		0.8	0.8	****
	PPBC	3.2	3.2	****
N-BUTANE		173	166	****
	PPBC	692	664	****
ACETYLENE (DMS)		68.0	66.4	****
	PPBC	136	133	****
TRANS-2-BUTENE		0.0	0.0	****
	PPBC	0.0	0.0	****
ISOPENTANE		2.8	2.8	****
	PPBC	14.0	14.0	****
CIS-2-BUTENE		0.0	0.0	****
	PPBC	0.0	0.0	****
N-PENTANE		1.0	1.0	****
	PPBC	5.0	5.0	****
2,3-DIMETHYL BUTANE		56.0	53.6	****
	PPBC	336	322	****
2-METHYL BUTENE-2		0.0	0.0	****
	PPBC	0.0	0.0	****
ACETALDEHYDE		****	****	39.2
	PPBC	****	****	78.4
PROPIONALDEHYDE		****	12.8	3.6
	PPBC	****	38.4	10.8

9.4

18.75

SURROGATE RUN 112-G AGED
GLASS CHAMBER
1974 OCT 31

CLOCK TIME		1700	1730	1730
ELAPSED TIME(MIN)		510	540	540
ACETONE		****	166	166
	PPBC	****	498	498
METHYL ETHYL KETONE		****	52.0	33.8
	PPBC	****	208	135
TOLUENE		****	****	10.4
	PPBC	****	****	72.8
ETHYL BENZENE		****	****	3.8
	PPBC	****	****	30.4
META-XYLENE		****	****	3.0
	PPBC	****	****	24.0
ORTHO-XYLENE		****	****	0.3
	PPBC	****	****	2.4
PARA-ETHYL TOLUENE		****	****	0.5
	PPBC	****	****	4.5
1,2,3 TRIMETHYL BENZENE		****	****	12.4
	PPBC	****	****	112
PAN		41.0	39.0	****
	PPBC	82.0	78.0	****
FORMALDEHYDE		****	177	****
	PPBC	****	177	****
PROPYLENE OXIDE		****	0.0	****
	PPBC	****	0.0	****
BUTYRALDEHYDE		****	5.8	****
	PPBC	****	23.2	****
TOTAL HC PPBC		****	7418.9	****
TOTAL NON-METHANE HC		5183.5	3678.9	5758.5
TOTAL SURROGATE		3772.8	1622.9	4062.1

SURROGATE RUN 113-G
GLASS CHAMBER
1974 NOV 1-2

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1405	1405	1500	1500	1545	1600	1600	1630	905	935
ELAPSED TIME(MIN)		-55	-55	0	0	45	60	60	90	1085	1115
		CONCENTRATIONS (PPB)									
METHANE		560	****	2900	****	****	2880	****	****	2560	****
	PPBC	560	****	2900	****	****	2880	****	****	2560	****
ETHENE		****	****	48.0	****	****	36.8	****	****	4.0	****
	PPBC	****	****	96.0	****	****	73.6	****	****	8.0	****
ETHANE		6.0	****	72.0	****	****	67.2	****	****	50.0	****
	PPBC	12.0	****	144	****	****	134	****	****	100	****
ACETYLENE (POROPAK N)		3.0	****	51.2	****	****	46.4	****	****	31.2	****
	PPBC	6.0	****	102	****	****	92.8	****	****	62.4	****
PROPANE		6.8	****	18.4	****	18.0	****	****	17.2	10.1	****
	PPBC	20.4	****	55.2	****	54.0	****	****	51.6	30.3	****
PROPENE		0.2	****	9.4	****	5.5	****	****	3.6	0.0	****
	PPBC	0.6	****	28.2	****	16.5	****	****	10.8	0.0	****
ISOBUTANE		0.2	****	0.4	****	0.4	****	****	0.4	0.5	****
	PPBC	0.8	****	1.6	****	1.6	****	****	1.6	2.0	****
N-BUTANE		0.3	****	166	****	157	****	****	154	60.8	****
	PPBC	1.2	****	664	****	628	****	****	616	243	****
ACETYLENE (DMS)		3.0	****	51.2	****	49.6	****	****	48.0	30.8	****
	PPBC	6.0	****	102	****	99.2	****	****	96.0	61.6	****
TRANS-2-BUTENE		0.0	****	0.9	****	0.0	****	****	0.0	0.0	****
	PPBC	0.0	****	3.6	****	0.0	****	****	0.0	0.0	****
ISOPENTANE		0.2	****	0.6	****	0.3	****	****	0.3	0.8	****
	PPBC	1.0	****	3.0	****	1.5	****	****	1.5	4.0	****
CIS-2-BUTENE		0.0	****	12.6	****	3.6	****	****	0.5	0.0	****
	PPBC	0.0	****	50.4	****	14.4	****	****	2.0	0.0	****
N-PENTANE		0.0	****	0.1	****	0.1	****	****	0.2	0.5	****
	PPBC	0.0	****	0.5	****	0.5	****	****	1.0	2.5	****
2,3-DIMETHYL BUTANE		0.0	****	90.4	****	80.8	****	****	74.0	14.0	****
	PPBC	0.0	****	542	****	485	****	****	444	84.0	****

11.7~

30.56

63.4

SURROGATE RUN 113-G
GLASS CHAMBER
1974 NOV 1-2

CLOCK TIME		1405	1405	1500	1500	1545	1600	1600	1630	905	935
ELAPSED TIME(MIN)		-55	-55	0	0	45	60	60	90	1085	1115
2-METHYL BUTENE-2		0.0	****	14.0	****	2.0	****	****	0.0	0.0	****
	PPBC	0.0	****	70.0	****	10.0	****	****	0.0	0.0	****
ACETALDEHYDE		9.0	3.2	****	5.4	****	****	25.6	****	****	14.0
	PPBC	18.0	6.4	****	10.8	****	****	51.2	****	****	28.0
PROPIONALDEHYDE		1.7	1.4	1.2	0.7	****	2.0	1.2	****	8.8	5.4
	PPBC	5.1	4.2	3.6	2.1	****	6.0	3.6	****	26.4	16.2
ACETONE		9.8	2.2	10.4	11.6	****	36.0	38.4	****	102	160
	PPBC	29.4	6.6	31.2	34.8	****	108	115	****	306	480
METHYL ETHYL KETONE		1.2	0.0	1.6	1.4	****	8.5	4.8	****	31.2	****
	PPBC	4.8	0.0	6.4	5.6	****	34.0	19.2	****	125	****
TOLUENE		****	0.2	****	17.6	****	****	13.2	****	****	3.2
	PPBC	****	1.4	****	123	****	****	92.4	****	****	22.4
ETHYL BENZENE		****	0.0	****	1.6	****	****	1.6	****	****	****
	PPBC	****	0.0	****	12.8	****	****	12.8	****	****	****
PARA-XYLENE		****	0.0	****	1.2	****	****	1.2	****	****	****
	PPBC	****	0.0	****	9.6	****	****	9.6	****	****	****
META-XYLENE		****	0.0	****	42.4	****	****	22.0	****	****	5.7
	PPBC	****	0.0	****	339	****	****	176	****	****	45.6
PARA-ETHYL TOLUENE		****	0.0	****	0.5	****	****	0.8	****	****	0.0
	PPBC	****	0.0	****	4.5	****	****	7.2	****	****	0.0
META-ETHYL TOLUENE		****	0.0	****	0.0	****	****	0.0	****	****	5.6
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	50.4
1,2,3 TRIMETHYL BENZENE		****	0.0	****	3.6	****	****	4.0	****	****	14.0
	PPBC	****	0.0	****	32.4	****	****	36.0	****	****	126
PAN		****	****	0.0	****	****	7.0	****	11.0	18.0	****
	PPBC	****	****	0.0	****	****	14.0	****	22.0	36.0	****
FORMALDEHYDE		****	****	55.0	****	****	55.0	****	****	93.0	****
	PPBC	****	****	55.0	****	****	55.0	****	****	93.0	****
PROPYLENE OXIDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		0.0	****	0.0	****	****	****	****	****	****	****
	PPBC	0.0	****	0.0	****	****	****	****	****	****	****
3P COL., 48 MIN 00 SEC		****	6.0	****	6.0	****	****	9.0	****	****	144
TOTAL HC PPBC		659.3	****	4757.5	****	****	3397.8	****	****	3682.2	****
TOTAL NON-METHANE HC		99.3	18.6	1857.5	575.0	1310.5	517.8	523.2	1246.5	1122.2	768.6

SURROGATE RUN 113-G
GLASS CHAMBER
1974 NOV 1-2

CLOCK TIME	1405	1405	1500	1500	1545	1600	1600	1630	905	935
ELAPSED TIME(MIN)	-55	-55	0	0	45	60	60	90	1085	1115
TOTAL SURROGATE	40.2	1.4	1756.2	462.4	1306.9	300.8	268.4	1220.4	527.5	68.0

SURROGATE RUN 116-G
GLASS CHAMBER
1974 NOV 6

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		830	830	915	915	945	1015	1015	1045	1115	1115	1145	1215	1215	1245
ELAPSED TIME(MIN)		-45	-45	0	0	30	60	60	90	120	120	150	180	180	210
		CONCENTRATIONS (PPB)													
METHANE		720	****	2910	****	****	2850	****	****	2860	****	****	2880	****	****
	PPBC	720	****	2910	****	****	2850	****	****	2860	****	****	2880	****	****
ETHENE		2.1	****	38.4	****	****	32.0	****	****	28.0	****	****	24.8	****	****
	PPBC	4.2	****	76.8	****	****	64.0	****	****	56.0	****	****	49.6	****	****
ETHANE		4.9	****	70.4	****	****	72.0	****	****	70.4	****	****	70.4	****	****
	PPBC	9.8	****	141	****	****	144	****	****	141	****	****	141	****	****
ACETYLENE (POROPAK N)		6.5	****	55.2	****	****	54.4	****	****	52.8	****	****	50.2	****	****
	PPBC	13.0	****	110	****	****	109	****	****	106	****	****	100	****	****
PROPANE		7.5	****	18.6	****	17.6	18.0	****	17.6	17.2	****	17.2	16.6	****	16.8
	PPBC	22.5	****	55.8	****	52.8	54.0	****	52.8	51.6	****	51.6	49.8	****	50.4
PROPENE		0.3	****	9.4	****	7.2	5.2	****	3.6	3.2	****	2.5	1.9	****	1.4
	PPBC	0.9	****	28.2	****	21.6	15.6	****	10.8	9.6	****	7.5	5.7	****	4.2
ISOBUTANE		0.2	****	0.3	****	0.3	0.3	****	0.4	0.4	****	0.4	0.4	****	0.4
	PPBC	0.8	****	1.2	****	1.2	1.2	****	1.6	1.6	****	1.6	1.6	****	1.6
N-BUTANE		0.2	****	170	****	167	157	****	154	150	****	147	142	****	141
	PPBC	0.8	****	680	****	668	628	****	616	600	****	588	568	****	564
ACETYLENE (DMS)		6.5	****	55.2	****	53.6	53.6	****	52.8	52.0	****	52.0	49.2	****	49.2
	PPBC	13.0	****	110	****	107	107	****	106	104	****	104	98.4	****	98.4
TRANS-2-BUTENE		0.0	****	0.5	****	0.2	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	2.0	****	0.8	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0
ISOPENTANE		0.0	****	0.4	****	0.1	0.2	****	0.4	0.4	****	0.4	0.4	****	0.4
	PPBC	0.0	****	2.0	****	0.5	1.0	****	2.0	2.0	****	2.0	2.0	****	2.0
CIS-2-BUTENE		0.0	****	12.4	****	6.5	2.6	****	1.0	0.5	****	0.0	0.0	****	0.0
	PPBC	0.0	****	49.6	****	26.0	10.4	****	4.0	2.0	****	0.0	0.0	****	0.0
N-PENTANE		0.0	****	0.2	****	0.0	0.1	****	0.2	0.2	****	0.1	0.2	****	0.2
	PPBC	0.0	****	1.0	****	0.0	0.5	****	1.0	1.0	****	0.5	1.0	****	1.0
2,3-DIMETHYL BUTANE		0.0	****	90.4	****	84.8	78.8	****	75.6	72.0	****	69.6	66.0	****	64.0
	PPBC	0.0	****	542	****	509	473	****	454	432	****	418	396	****	384

SURROGATE RUN 116-G
GLASS CHAMBER
1974 NOV 6

CLOCK TIME		830	830	915	915	945	1015	1015	1045	1115	1115	1145	1215	1215	1245
ELAPSED TIME(MIN)		-45	-45	0	0	30	60	60	90	120	120	150	180	180	210
2-METHYL BUTENE-2		0.0	****	14.0	****	4.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	70.0	****	20.0	0.0	****	0.0	0.0	****	0.0	0.0	****	0.0
ACETALDEHYDE		4.7	0.8	****	2.0	****	****	24.0	****	****	30.4	****	****	31.2	****
	PPBC	9.4	1.6	****	4.0	****	****	48.0	****	****	60.8	****	****	62.4	****
PROPIONALDEHYDE		1.0	0.4	1.9	0.2	****	2.0	0.4	****	2.4	1.2	****	3.8	2.4	****
	PPBC	3.0	1.2	5.7	0.6	****	6.0	1.2	****	7.2	3.6	****	11.4	7.2	****
ACETONE		3.4	2.2	14.0	5.2	****	35.2	33.6	****	46.4	56.0	****	52.4	71.2	****
	PPBC	10.2	6.6	42.0	15.6	****	106	101	****	139	168	****	157	214	****
METHYL ETHYL KETONE		0.5	0.0	1.0	0.2	****	3.6	1.8	****	13.0	5.6	****	16.0	10.4	****
	PPBC	2.0	0.0	4.0	0.8	****	14.4	7.2	****	52.0	22.4	****	64.0	41.6	****
TOLUENE		****	0.0	****	16.4	****	****	13.2	****	****	12.4	****	****	10.8	****
	PPBC	****	0.0	****	115	****	****	92.4	****	****	86.8	****	****	75.6	****
ETHYL BENZENE		****	0.5	****	1.2	****	****	0.8	****	****	1.6	****	****	1.6	****
	PPBC	****	4.0	****	9.6	****	****	6.4	****	****	12.8	****	****	12.8	****
META-XYLENE		****	0.0	****	37.6	****	****	23.2	****	****	16.8	****	****	12.0	****
	PPBC	****	0.0	****	301	****	****	186	****	****	134	****	****	96.0	****
PARA-ETHYL TOLUENE		****	0.0	****	0.0	****	****	0.0	****	****	0.6	****	****	1.0	****
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	5.4	****	****	9.0	****
ORTHO-ETHYL TOLUENE		****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.5	****
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	4.5	****
1,2,3 TRIMETHYL BENZENE		****	0.0	****	0.0	****	****	1.8	****	****	3.0	****	****	5.2	****
	PPBC	****	0.0	****	0.0	****	****	16.2	****	****	27.0	****	****	46.8	****
PAN		****	****	0.0	****	1.0	4.0	****	7.0	10.0	****	12.0	14.0	****	16.0
	PPBC	****	****	0.0	****	2.0	8.0	****	14.0	20.0	****	24.0	28.0	****	32.0
FORMALDEHYDE		****	****	139	****	****	31.0	****	****	39.0	****	****	79.0	****	****
	PPBC	****	****	139	****	****	31.0	****	****	39.0	****	****	79.0	****	****
PROPYLENE OXIDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
BUTYRALDEHYDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
TOTAL HC PPBC		796.6	****	4860.9	****	****	4514.5	****	****	4518.8	****	****	4533.5	****	****
TOTAL NON-METHANE HC		76.6	13.4	1950.9	446.2	1408.9	1664.5	457.8	1261.4	1658.8	521.2	1196.8	1653.5	569.5	1137.6
TOTAL SURROGATE		51.2	****	1756.0	415.6	1405.2	1496.8	278.0	1242.8	1396.8	221.2	1168.7	1309.3	171.6	1101.0

SURROGATE RUN 116-G
GLASS CHAMBER
1974 NOV 6

CLOCK TIME		1315	1315	1345	1415	1415	1445	1515	1515
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
		CONCENTRATIONS (PPB)							
METHANE		2800	****	****	2720	****	****	2720	****
	PPBC	2800	****	****	2720	****	****	2720	****
ETHENE		22.4	****	****	19.2	****	****	16.0	****
	PPBC	44.8	****	****	38.4	****	****	32.0	****
ETHANE		70.4	****	****	69.6	****	****	67.2	****
	PPBC	141	****	****	139	****	****	134	****
ACETYLENE (POROPAK N)		49.6	****	****	48.0	****	****	46.4	****
	PPBC	99.2	****	****	96.0	****	****	92.8	****
PROPANE		16.4	****	14.4	14.0	****	15.6	15.6	****
	PPBC	49.2	****	43.2	42.0	****	46.8	46.8	****
PROPENE		1.0	****	0.6	0.5	****	0.4	0.3	****
	PPBC	3.0	****	1.8	1.5	****	1.2	0.9	****
ISOBUTANE		0.4	****	0.4	0.3	****	0.3	0.3	****
	PPBC	1.6	****	1.6	1.2	****	1.2	1.2	****
N-BUTANE		138	****	128	125	****	125	123	****
	PPBC	552	****	512	500	****	500	492	****
ACETYLENE (DMS)		48.8	****	45.6	46.0	****	47.2	46.2	****
	PPBC	97.6	****	91.2	92.0	****	94.4	92.4	****
TRANS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ISOPENTANE		0.4	****	0.4	0.4	****	0.4	0.4	****
	PPBC	2.0	****	2.0	2.0	****	2.0	2.0	****
CIS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
N-PENTANE		0.2	****	0.1	0.1	****	0.1	0.2	****
	PPBC	1.0	****	0.5	0.5	****	0.5	1.0	****
2,3-DIMETHYL BUTANE		61.2	****	57.6	54.8	****	52.8	50.0	****
	PPBC	367	****	346	329	****	317	300	****
2-METHYL BUTENE-2		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ACETALDEHYDE		****	28.8	****	****	32.8	****	****	29.6
	PPBC	****	57.6	****	****	65.6	****	****	59.2
PROPIONALDEHYDE		4.0	4.0	****	4.4	4.8	****	5.6	5.6
	PPBC	12.0	12.0	****	13.2	14.4	****	16.8	16.8

6.53

1.54

27.64

SURROGATE RUN 116-G
GLASS CHAMBER
1974 NOV 6

CLOCK TIME		1315	1315	1345	1415	1415	1445	1515	1515
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
ACETONE		56.0	84.8	****	65.6	131	****	73.6	106
	PPBC	168	254	****	197	393	****	221	318
METHYL ETHYL KETONE		20.0	10.4	****	22.0	12.8	****	26.8	15.2
	PPBC	80.0	41.6	****	88.0	51.2	****	107	60.8
TOLUENE		****	10.4	****	****	10.0	****	****	8.8
	PPBC	****	72.8	****	****	70.0	****	****	61.6
ETHYL BENZENE		****	1.2	****	****	1.6	****	****	2.0
	PPBC	****	9.6	****	****	12.8	****	****	16.0
META-XYLENE		****	9.0	****	****	7.2	****	****	6.0
	PPBC	****	72.0	****	****	57.6	****	****	48.0
PARA-ETHYL TOLUENE		****	1.4	****	****	1.8	****	****	2.5
	PPBC	****	12.6	****	****	16.2	****	****	22.5
ORTHO-ETHYL TOLUENE		****	0.4	****	****	1.0	****	****	1.0
	PPBC	****	3.6	****	****	9.0	****	****	9.0
1,2,3 TRIMETHYL BENZENE		****	7.6	****	****	9.6	****	****	14.0
	PPBC	****	68.4	****	****	86.4	****	****	126
PAN		17.0	****	20.0	22.0	****	24.0	26.0	****
	PPBC	34.0	****	40.0	44.0	****	48.0	52.0	****
FORMALDEHYDE		81.0	****	****	82.0	****	****	91.0	****
	PPBC	81.0	****	****	82.0	****	****	91.0	****
PROPYLENE OXIDE		0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****
TOTAL HC PPBC		4511.6	****	****	4737.8	****	****	4768.5	****
TOTAL NON-METHANE HC		1711.6	618.0	2988.8	2017.8	2185.1	2675.4	2048.5	1999.3
TOTAL SURROGATE		1306.6	144.8	2749.8	1559.5	1532.8	2456.0	1376.7	1352.4

SURROGATE RUN 117-G
GLASS CHAMBER
1974 NOV 7

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
2,3-DIMETHYLBUTANE INTERFERES WITH ACETALDEHYDE ON CARBOWAX 600 COLUMN (RM 121)
GAS SURROGATE INJECTION SLIGHTLY LOW; LPO BOTTLE PRESSURE DOWN TO 1 ATMOSPHERE

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		800	800	845	845	915	945	945	1015	1045	1045	1115	1145	1145	1215
ELAPSED TIME(MIN)		-45	-45	0	0	30	60	60	90	120	120	150	180	180	210
		CONCENTRATIONS (PPB)													
METHANE		720	****	2720	****	****	2720	****	****	2720	****	****	2720	****	****
	PPBC	720	****	2720	****	****	2720	****	****	2720	****	****	2720	****	****
ETHENE		4.4	****	32.0	****	****	28.8	****	****	24.8	****	****	24.0	****	****
	PPBC	8.8	****	64.0	****	****	57.6	****	****	49.6	****	****	48.0	****	****
ETHANE		10.0	****	60.8	****	****	60.4	****	****	59.2	****	****	58.4	****	****
	PPBC	20.0	****	122	****	****	121	****	****	118	****	****	117	****	****
ACETYLENE (POROPAK N)		6.8	****	41.6	****	****	40.0	****	****	37.6	****	****	40.0	****	****
	PPBC	13.6	****	83.2	****	****	80.0	****	****	75.2	****	****	80.0	****	****
PROPANE		7.4	****	15.6	****	15.6	15.6	****	****	15.4	****	15.2	15.6	****	14.8
	PPBC	22.2	****	46.8	****	46.8	46.8	****	****	46.2	****	45.6	46.8	****	44.4
PROPENE		0.3	****	7.2	****	6.4	5.2	****	4.3	3.6	****	3.2	2.8	****	2.2
	PPBC	0.9	****	21.6	****	19.2	15.6	****	12.9	10.8	****	9.6	8.4	****	6.6
ISOBUTANE		0.2	****	0.3	****	0.3	0.4	****	0.4	0.4	****	0.4	0.4	****	0.4
	PPBC	0.8	****	1.2	****	1.2	1.6	****	1.6	1.6	****	1.6	1.6	****	1.6
N-BUTANE		0.2	****	128	****	125	123	****	122	121	****	117	115	****	110
	PPBC	0.8	****	512	****	500	492	****	488	484	****	468	460	****	440
ACETYLENE (DMS)		6.6	****	41.6	****	41.6	42.0	****	42.0	41.8	****	40.8	41.2	****	39.6
	PPBC	13.2	****	83.2	****	83.2	84.0	****	84.0	83.6	****	81.6	82.4	****	79.2
TRANS-2-BUTENE		0.0	****	0.5	****	0.4	0.3	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	2.0	****	1.6	1.2	****	0.0	0.0	****	0.0	0.0	****	0.0
ISOPENTANE		0.0	****	1.0	****	0.9	0.9	****	0.9	0.9	****	0.9	1.0	****	0.9
	PPBC	0.0	****	5.0	****	4.5	4.5	****	4.5	4.5	****	4.5	5.0	****	4.5
CIS-2-BUTENE		0.0	****	9.5	****	7.2	4.5	****	2.9	1.8	****	1.0	0.4	****	0.1
	PPBC	0.0	****	38.0	****	28.8	18.0	****	11.6	7.2	****	4.0	1.6	****	0.4
N-PENTANE		0.0	****	0.6	****	0.2	0.4	****	0.4	0.3	****	0.4	0.4	****	0.3
	PPBC	0.0	****	3.0	****	1.0	2.0	****	2.0	1.5	****	2.0	2.0	****	1.5
2,3-DIMETHYL BUTANE		0.0	****	89.6	****	86.4	84.4	****	80.8	79.6	****	76.0	73.6	****	70.0
	PPBC	0.0	****	538	****	518	506	****	485	478	****	456	442	****	420

SURROGATE RUN 117-G
GLASS CHAMBER
1974 NOV 7

CLOCK TIME		800	800	845	845	915	945	945	1015	1045	1045	1115	1145	1145	1215
ELAPSED TIME(MIN)		-45	-45	0	0	30	60	60	90	120	120	150	180	180	210
2-METHYL BUTENE-2		0.0	****	14.0	****	8.0	4.0	****	2.0	1.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	70.0	****	40.0	20.0	****	10.0	5.0	****	0.0	0.0	****	0.0
ACETALDEHYDE		11.0	0.4	****	1.2	****	****	15.2	****	****	22.4	****	****	25.2	****
	PPBC	22.0	0.8	****	2.4	****	****	30.4	****	****	44.8	****	****	50.4	****
PROPIONALDEHYDE		1.8	0.3	1.8	0.2	****	2.0	0.4	****	2.4	0.8	****	2.8	0.8	****
	PPBC	5.4	0.9	5.4	0.6	****	6.0	1.2	****	7.2	2.4	****	8.4	2.4	****
ACETONE		8.0	2.4	8.8	4.2	****	24.0	16.0	****	33.6	33.2	****	40.8	52.0	****
	PPBC	24.0	7.2	26.4	12.6	****	72.0	48.0	****	101	99.6	****	122	156	****
METHYL ETHYL KETONE		0.6	0.0	0.8	0.1	****	3.9	1.4	****	9.0	3.2	****	12.8	4.8	****
	PPBC	2.4	0.0	3.2	0.4	****	15.6	5.6	****	36.0	12.8	****	51.2	19.2	****
TOLUENE		****	0.1	****	16.4	****	****	13.6	****	****	13.2	****	****	12.4	****
	PPBC	****	0.7	****	115	****	****	95.2	****	****	92.4	****	****	86.8	****
ETHYL BENZENE		****	0.4	****	0.8	****	****	0.8	****	****	1.2	****	****	2.0	****
	PPBC	****	3.2	****	6.4	****	****	6.4	****	****	9.6	****	****	16.0	****
META-XYLENE		****	0.0	****	38.0	****	****	27.2	****	****	21.6	****	****	18.0	****
	PPBC	****	0.0	****	304	****	****	218	****	****	173	****	****	144	****
ORTHO-XYLENE		****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****
PARA-ETHYL TOLUENE		****	0.3	****	0.1	****	****	0.3	****	****	0.4	****	****	0.4	****
	PPBC	****	2.7	****	0.9	****	****	2.7	****	****	3.6	****	****	3.6	****
ORTHO-ETHYL TOLUENE		****	0.0	****	0.2	****	****	0.2	****	****	0.3	****	****	0.4	****
	PPBC	****	0.0	****	1.8	****	****	1.8	****	****	2.7	****	****	3.6	****
1,2,3 TRIMETHYL BENZENE		****	0.0	****	0.0	****	****	0.0	****	****	1.4	****	****	1.8	****
	PPBC	****	0.0	****	0.0	****	****	0.0	****	****	12.6	****	****	16.2	****
PAN		****	****	0.0	****	0.0	1.0	****	4.0	5.0	****	****	7.0	****	8.0
	PPBC	****	****	0.0	****	0.0	2.0	****	8.0	10.0	****	****	14.0	****	16.0
FORMALDEHYDE		****	****	4.0	****	****	5.0	****	****	26.0	****	****	58.0	****	****
	PPBC	****	****	4.0	****	****	5.0	****	****	26.0	****	****	58.0	****	****
PROPYLENE OXIDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
BUTYRALDEHYDE		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
	PPBC	0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
TOTAL HC PPBC		840.7	****	4265.0	****	****	4189.1	****	****	4185.8	****	****	4187.0	****	****
TOTAL NON-METHANE HC		120.7	15.5	1545.0	443.9	1244.7	1469.1	408.9	1107.4	1465.8	453.3	1072.9	1467.0	498.2	1014.2
TOTAL SURROGATE		66.1	0.7	1496.8	418.8	1238.0	1360.4	312.8	1091.3	1278.2	265.2	1064.8	1204.4	230.8	990.6

SURROGATE RUN 117-G
GLASS CHAMBER
1974 NOV 7

CLOCK TIME		1245	1245	1315	1345	1345	1415	1445	1445
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
		CONCENTRATIONS (PPB)							
METHANE		2690	****	****	2640	****	****	2640	****
	PPBC	2690	****	****	2640	****	****	2640	****
ETHENE		20.8	****	****	20.0	****	****	16.0	****
	PPBC	41.6	****	****	40.0	****	****	32.0	****
ETHANE		56.0	****	****	57.6	****	****	51.2	****
	PPBC	112	****	****	115	****	****	102	****
ACETYLENE (POROPAK N)		39.6	****	****	38.0	****	****	32.0	****
	PPBC	79.2	****	****	76.0	****	****	64.0	****
PROPANE		14.4	****	14.4	14.2	****	14.0	14.0	****
	PPBC	43.2	****	43.2	42.6	****	42.0	42.0	****
PROPENE		1.9	****	1.7	1.3	****	1.1	0.9	****
	PPBC	5.7	****	5.1	3.9	****	3.3	2.7	****
ISOBUTANE		0.4	****	0.4	0.4	****	0.4	0.4	****
	PPBC	1.6	****	1.6	1.6	****	1.6	1.6	****
N-BUTANE		110	****	108	106	****	102	100	****
	PPBC	440	****	432	424	****	408	400	****
ACETYLENE (DMS)		39.6	****	39.3	38.4	****	38.0	37.6	****
	PPBC	79.2	****	78.6	76.8	****	76.0	75.2	****
TRANS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ISOPENTANE		1.0	****	1.0	1.0	****	1.0	1.0	****
	PPBC	5.0	****	5.0	5.0	****	5.0	5.0	****
CIS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
N-PENTANE		0.4	****	0.5	0.5	****	0.5	0.5	****
	PPBC	2.0	****	2.5	2.5	****	2.5	2.5	****
2,3-DIMETHYL BUTANE		68.8	****	67.2	64.4	****	62.0	60.4	****
	PPBC	413	****	403	386	****	372	362	****
2-METHYL BUTENE-2		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ACETALDEHYDE		****	24.0	****	****	24.8	****	****	27.2
	PPBC	****	48.0	****	****	49.6	****	****	54.4
PROPIONALDEHYDE		3.2	1.2	****	3.6	1.6	****	4.0	1.8
	PPBC	9.6	3.6	****	10.8	4.8	****	12.0	5.4

2.94

15.79

21.87

SURROGATE RUN 117-G
GLASS CHAMBER
1974 NOV 7

CLOCK TIME		1245	1245	1315	1345	1345	1415	1445	1445
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
ACETONE		43.2	50.4	****	44.8	65.6	****	50.4	88.0
	PPBC	130	151	****	134	197	****	151	264
METHYL ETHYL KETONE		14.4	6.4	****	16.8	8.8	****	18.8	9.6
	PPBC	57.6	25.6	****	67.2	35.2	****	75.2	38.4
TOLUENE		****	11.6	****	****	10.8	****	****	10.8
	PPBC	****	81.2	****	****	75.6	****	****	75.6
ETHYL BENZENE		****	2.0	****	****	2.0	****	****	3.2
	PPBC	****	16.0	****	****	16.0	****	****	25.6
META-XYLENE		****	14.0	****	****	12.0	****	****	10.4
	PPBC	****	112	****	****	96.0	****	****	83.2
ORTHO-XYLENE		****	0.0	****	****	0.2	****	****	0.0
	PPBC	****	0.0	****	****	1.6	****	****	0.0
PARA-ETHYL TOLUENE		****	0.6	****	****	1.0	****	****	1.4
	PPBC	****	5.4	****	****	9.0	****	****	12.6
ORTHO-ETHYL TOLUENE		****	0.4	****	****	1.0	****	****	1.2
	PPBC	****	3.6	****	****	9.0	****	****	10.8
1,2,3 TRIMETHYL BENZENE		****	2.8	****	****	5.8	****	****	7.2
	PPBC	****	25.2	****	****	52.2	****	****	64.8
PAN		10.0	****	11.0	12.0	****	13.0	25.0	****
	PPBC	20.0	****	22.0	24.0	****	26.0	50.0	****
FORMALDEHYDE		66.0	****	****	42.0	****	****	62.0	****
	PPBC	66.0	****	****	42.0	****	****	62.0	****
PROPYLENE OXIDE		0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****
BUTYRALDEHYDE		0.0	****	****	0.0	****	****	0.0	****
	PPBC	0.0	****	****	0.0	****	****	0.0	****
TOTAL HC PPBC		4236.6	****	****	4459.9	****	****	4419.5	****
TOTAL NON-METHANE HC		1546.6	487.3	2538.2	1819.9	1790.5	2405.5	1779.5	1742.2
TOTAL SURROGATE		1200.6	193.9	2458.9	1507.3	1409.6	2261.7	1323.9	1250.1

SURROGATE RUN 118-J
GLASS CHAMBER
1974 NOV 22

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		900	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-60	0	30	60	90	120	150	180	210	240	270	300	330	360
						CONCENTRATIONS (PPB)									
METHANE		872	2880	****	2860	****	2850	****	2830	****	2820	****	2770	****	2740
	PPBC	872	2880	****	2860	****	2850	****	2830	****	2820	****	2770	****	2740
ETHENE		10.0	48.0	****	43.2	****	36.8	****	32.0	****	30.4	****	27.2	****	24.0
	PPBC	20.0	96.0	****	86.4	****	73.6	****	64.0	****	60.8	****	54.4	****	48.0
ETHANE		10.9	80.0	****	79.2	****	75.2	****	72.0	****	72.0	****	72.0	****	70.4
	PPBC	21.8	160	****	158	****	150	****	144	****	144	****	144	****	141
ACETYLENE (POROPAK N)		4.1	46.4	****	45.6	****	41.6	****	40.0	****	38.4	****	36.8	****	35.2
	PPBC	8.2	92.8	****	91.2	****	83.2	****	80.0	****	76.8	****	73.6	****	70.4
PROPANE		8.4	19.2	18.4	18.4	18.4	18.0	17.2	18.0	18.0	16.8	16.4	15.8	16.8	16.4
	PPBC	25.2	57.6	55.2	55.2	55.2	54.0	51.6	54.0	54.0	50.4	49.2	47.4	50.4	49.2
PROPENE		0.4	11.0	9.0	7.3	6.0	4.8	4.0	3.4	2.8	2.3	1.8	1.4	1.2	0.8
	PPBC	1.2	33.0	27.0	21.9	18.0	14.4	12.0	10.2	8.4	6.9	5.4	4.2	3.6	2.4
ISOBUTANE		0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8
	PPBC	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.4	2.8	3.2
N-BUTANE		0.4	170	166	163	160	154	150	150	149	144	138	134	134	131
	PPBC	1.6	680	664	652	640	616	600	600	596	576	552	536	536	524
ACETYLENE (OHS)		4.1	46.4	45.6	45.6	45.6	43.2	42.8	42.8	42.8	41.8	40.8	39.6	41.6	40.0
	PPBC	8.2	92.8	91.2	91.2	91.2	86.4	85.6	85.6	85.6	83.6	81.6	79.2	83.2	80.0
TRANS-2-BUTENE		0.0	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.5	0.7	0.7	0.7	0.7	0.8	0.7	0.9	0.9	0.9	1.0	1.2	1.2	1.4
	PPBC	2.5	3.5	3.5	3.5	3.5	4.0	3.5	4.5	4.5	4.5	5.0	6.0	6.0	7.0
CIS-2-BUTENE		0.0	13.0	8.8	5.0	2.6	1.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	52.0	35.2	20.0	10.4	4.8	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8
	PPBC	0.0	1.0	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.5	3.0	3.5	4.0
2,3-DIMETHYL BUTANE		0.0	96.0	92.0	88.0	84.0	80.0	78.0	76.0	74.4	71.6	68.8	66.0	64.0	62.0
	PPBC	0.0	576	552	528	504	480	468	456	446	430	413	396	384	372

SURROGATE RUN 118-J
GLASS CHAMBER
1974 NOV 22

CLOCK TIME		900	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-60	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	15.0	7.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	75.0	39.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		4.8	14.0	****	30.0	****	35.6	****	33.6	****	56.0	****	35.2	****	51.2
	PPBC	9.6	28.0	****	60.0	****	71.2	****	67.2	****	112	****	70.4	****	102
PROPIONALDEHYDE		3.1	3.4	****	4.4	****	6.4	****	8.8	****	10.4	****	12.0	****	14.4
	PPBC	9.3	10.2	****	13.2	****	19.2	****	26.4	****	31.2	****	36.0	****	43.2
ACETONE		5.4	25.2	****	35.2	****	44.0	****	48.8	****	23.6	****	60.8	****	81.6
	PPBC	16.2	75.6	****	106	****	132	****	146	****	70.8	****	182	****	245
BENZENE		0.2	1.6	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6
	PPBC	1.2	9.6	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		0.3	0.6	****	3.2	****	4.4	****	5.6	****	7.2	****	7.2	****	8.0
	PPBC	1.2	2.4	****	12.8	****	17.6	****	22.4	****	28.8	****	28.8	****	32.0
TOLUENE		0.2	17.2	****	15.6	****	14.4	****	13.6	****	13.6	****	10.4	****	11.4
	PPBC	1.4	120	****	109	****	101	****	95.2	****	95.2	****	72.8	****	79.8
ETHYL BENZENE		2.2	3.2	****	1.6	****	1.6	****	1.6	****	2.4	****	2.0	****	3.2
	PPBC	17.6	25.6	****	12.8	****	12.8	****	12.8	****	19.2	****	16.0	****	25.6
META-XYLENE		0.2	42.4	****	31.2	****	23.2	****	20.0	****	16.0	****	11.0	****	10.4
	PPBC	1.6	339	****	250	****	186	****	160	****	128	****	88.0	****	83.2
ISOPROPYL BENZENE		1.0	0.3	****	0.2	****	0.2	****	0.3	****	0.2	****	0.2	****	0.2
	PPBC	9.0	2.7	****	1.8	****	1.8	****	2.7	****	1.8	****	1.8	****	1.8
META-ETHYL TOLUENE		****	3.2	****	1.4	****	1.5	****	2.0	****	3.0	****	3.0	****	4.0
	PPBC	****	28.8	****	12.6	****	13.5	****	18.0	****	27.0	****	27.0	****	36.0
1,3,5 TRIMETHYL BENZENE		0.5	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	4.5	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,2,4 TRIMETHYL BENZENE		1.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	9.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,2,3 TRIMETHYL BENZENE		1.9	2.1	****	1.0	****	1.0	****	1.0	****	1.0	****	0.5	****	1.0
	PPBC	17.1	18.9	****	9.0	****	9.0	****	9.0	****	9.0	****	4.5	****	9.0
PAN		****	0.0	1.0	2.0	5.0	7.0	11.0	12.0	15.0	19.0	21.0	24.0	27.0	28.0
	PPBC	****	0.0	2.0	4.0	10.0	14.0	22.0	24.0	30.0	38.0	42.0	48.0	54.0	56.0
FORMALDEHYDE		****	110	****	86.0	****	131	****	136	****	159	****	168	****	188
	PPBC	****	110	****	86.0	****	131	****	136	****	159	****	168	****	188
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		25.0	29.0	****	20.0	****	18.0	****	22.0	****	25.0	****	23.0	****	27.0

SURROGATE RUN 118-J
GLASS CHAMBER
1974 NOV 22

CLOCK TIME	900	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)	-60	0	30	60	90	120	150	180	210	240	270	300	330	360
TOTAL HC PPBC	1051.0	5483.1	****	5176.2	****	5053.2	****	4979.2	****	4906.5	****	4793.1	****	4877.2
TOTAL NON-METHANE HC	179.0	2603.1	1473.3	2316.2	1334.9	2203.2	1248.3	2149.2	1228.5	2086.5	1152.5	2023.1	1123.5	2137.2
TOTAL SURROGATE	81.0	2285.2	1465.2	1982.7	1318.8	1764.4	1219.2	1666.6	1190.4	1571.1	1101.0	1419.2	1057.2	1374.6

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN ROOM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		935	950	1030	1030	1100	1130	1130	1200	1230	1230	1300	1330	1330	1400
ELAPSED TIME(MIN)		-55	-40	0	0	30	60	60	90	120	120	150	180	180	210
		CONCENTRATIONS (PPB)													
METHANE		600	****	2740	****	****	2720	****	****	2720	****	****	2690	****	****
	PPBC	600	****	2740	****	****	2720	****	****	2720	****	****	2690	****	****
ETHENE		4.0	****	43.2	****	****	36.8	****	****	33.6	****	****	30.4	****	****
	PPBC	8.0	****	86.4	****	****	73.6	****	****	67.2	****	****	60.8	****	****
ETHANE		6.6	****	76.8	****	****	75.2	****	****	73.6	****	****	72.0	****	****
	PPBC	13.2	****	154	****	****	150	****	****	147	****	****	144	****	****
ACETYLENE (POROPAK N)		5.2	****	46.4	****	****	46.4	****	****	45.6	****	****	40.0	****	****
	PPBC	10.4	****	92.8	****	****	92.8	****	****	91.2	****	****	80.0	****	****
PROPANE		7.2	****	17.0	****	17.6	17.6	****	****	17.6	****	16.0	16.4	****	15.8
	PPBC	21.6	****	51.0	****	52.8	52.8	****	****	52.8	****	48.0	49.2	****	47.4
PROPENE		0.4	****	10.6	****	9.0	7.2	****	5.6	5.0	****	****	3.6	****	2.8
	PPBC	1.2	****	31.8	****	27.0	21.6	****	16.8	15.0	****	****	10.8	****	8.4
ISOBUTANE		0.2	****	0.2	****	0.3	0.3	****	0.4	0.4	****	0.4	0.4	****	0.4
	PPBC	0.8	****	0.8	****	1.2	1.2	****	1.6	1.6	****	1.6	1.6	****	1.6
N-BUTANE		0.2	****	166	****	166	163	****	158	157	****	154	147	****	144
	PPBC	0.8	****	664	****	664	652	****	632	628	****	616	588	****	576
ACETYLENE (DMS)		5.4	****	46.0	****	45.6	46.0	****	46.0	45.6	****	43.6	43.2	****	42.4
	PPBC	10.8	****	92.0	****	91.2	92.0	****	92.0	91.2	****	87.2	86.4	****	84.8
TRANS-2-BUTENE		0.0	****	0.7	****	0.5	0.2	****	0.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	2.8	****	2.0	0.8	****	0.0	0.0	****	0.0	0.0	****	0.0
ISOPENTANE		0.0	****	0.0	****	0.2	0.2	****	0.3	0.3	****	0.4	0.5	****	0.5
	PPBC	0.0	****	0.0	****	1.0	1.0	****	1.5	1.5	****	2.0	2.5	****	2.5
CIS-2-BUTENE		0.0	****	13.0	****	8.8	5.0	****	2.9	1.4	****	1.0	0.4	****	0.0
	PPBC	0.0	****	52.0	****	35.2	20.0	****	11.6	5.6	****	4.0	1.6	****	0.0
N-PENTANE		0.0	****	0.0	****	0.0	0.0	****	0.0	0.1	****	0.1	0.1	****	0.2
	PPBC	0.0	****	0.0	****	0.0	0.0	****	0.0	0.5	****	0.5	0.5	****	1.0
2,3-DIMETHYL BUTANE		0.0	****	97.6	****	92.0	88.0	****	84.0	81.6	****	78.0	76.0	****	74.0
	PPBC	0.0	****	586	****	552	528	****	504	490	****	468	456	****	444

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

CLOCK TIME		935	950	1030	1030	1100	1130	1130	1200	1230	1230	1300	1330	1330	1400
ELAPSED TIME(MIN)		-55	-40	0	0	30	60	60	90	120	120	150	180	180	210
2-METHYL BUTENE-2		0.0	****	14.8	****	8.4	3.0	****	1.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	****	74.0	****	42.0	15.0	****	5.0	0.0	****	0.0	0.0	****	0.0
ACETALDEHYDE		6.4	4.5	20.0	4.3	****	42.4	****	****	42.4	37.6	****	44.0	34.7	****
	PPBC	12.8	9.0	40.0	8.6	****	84.8	****	****	84.8	75.2	****	88.0	69.4	****
PROPIONALDEHYDE		2.2	0.1	3.2	0.2	****	4.0	****	****	5.6	0.6	****	7.2	1.3	****
	PPBC	6.6	0.3	9.6	0.6	****	12.0	****	****	16.8	1.8	****	21.6	3.9	****
ACETONE		4.5	7.4	35.2	18.2	****	46.4	****	****	52.0	50.9	****	56.8	56.7	****
	PPBC	13.5	22.2	106	54.6	****	139	****	****	156	153	****	170	170	****
BENZENE		0.2	0.0	1.6	0.6	****	1.6	****	****	1.6	0.8	****	1.6	0.8	****
	PPBC	1.2	0.0	9.6	3.6	****	9.6	****	****	9.6	4.8	****	9.6	4.8	****
METHYL ETHYL KETONE		0.2	0.0	0.2	0.3	****	2.4	****	****	4.8	5.9	****	5.6	5.9	****
	PPBC	0.8	0.0	0.8	1.2	****	9.6	****	****	19.2	23.6	****	22.4	23.6	****
TOLUENE		0.1	1.3	16.8	14.4	****	15.2	****	****	14.4	12.8	****	13.6	12.0	****
	PPBC	0.7	9.1	118	101	****	106	****	****	101	89.6	****	95.2	84.0	****
ETHYL BENZENE		3.0	0.0	6.4	1.2	****	6.0	****	****	5.2	1.0	****	3.6	0.0	****
	PPBC	24.0	0.0	51.2	9.6	****	48.0	****	****	41.6	8.0	****	28.8	0.0	****
PARA-XYLENE		0.0	0.4	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	1.6	****
	PPBC	0.0	3.2	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	12.8	****
META-XYLENE		0.2	0.0	42.4	34.2	****	31.2	****	****	24.0	19.6	****	19.8	16.0	****
	PPBC	1.6	0.0	339	274	****	250	****	****	192	157	****	158	128	****
ISOPROPYL BENZENE		0.6	0.0	0.4	0.0	****	0.8	****	****	0.6	0.0	****	0.4	0.0	****
	PPBC	5.4	0.0	3.6	0.0	****	7.2	****	****	5.4	0.0	****	3.6	0.0	****
ORTHO-XYLENE		0.0	0.0	0.0	0.0	****	0.0	****	****	0.0	0.6	****	0.0	0.0	****
	PPBC	0.0	0.0	0.0	0.0	****	0.0	****	****	0.0	4.8	****	0.0	0.0	****
N-PROPYL BENZENE		0.2	0.0	0.1	0.0	****	0.1	****	****	0.1	0.0	****	0.1	0.0	****
	PPBC	1.8	0.0	0.9	0.0	****	0.9	****	****	0.9	0.0	****	0.9	0.0	****
PARA-ETHYL TOLUENE		0.6	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****
	PPBC	5.4	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****
META-ETHYL TOLUENE		0.2	0.3	1.0	0.2	****	0.8	****	****	0.9	0.4	****	0.9	1.0	****
	PPBC	1.8	2.7	9.0	1.8	****	7.2	****	****	8.1	3.6	****	8.1	9.0	****
ORTHO-ETHYL TOLUENE		0.0	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	0.2	****
	PPBC	0.0	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	1.8	****
1,3,5 TRIMETHYL BENZENE		0.1	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.9	0.0	0.0	0.0	****	0.0	****	****	0.0	0.0	****	0.0	0.0	****
1,2,3 TRIMETHYL BENZENE		1.8	0.0	1.6	0.0	****	3.2	****	****	2.0	0.0	****	1.9	0.0	****

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

CLOCK TIME		935	950	1030	1030	1100	1130	1130	1200	1230	1230	1300	1330	1330	1400
ELAPSED TIME(MIN)		-55	-40	0	0	30	60	60	90	120	120	150	180	180	210
	PPBC	16.2	0.0	14.4	0.0	****	28.8	****	****	18.0	0.0	****	17.1	0.0	****
PAN		****	****	0.0	0.0	0.0	1.0	****	4.0	6.0	0.0	7.0	9.0	0.0	11.0
	PPBC	****	****	0.0	0.0	0.0	2.0	****	8.0	12.0	0.0	14.0	18.0	0.0	22.0
FORMALDEHYDE		0.0	0.0	38.0	0.0	****	35.0	****	****	72.0	0.0	****	90.0	0.0	****
	PPBC	0.0	0.0	38.0	0.0	****	35.0	****	****	72.0	0.0	****	90.0	0.0	****
3P COL., 2 MIN 40 SEC		0.0	****	0.0	****	****	0.0	****	****	0.0	****	****	0.0	****	****
3P COL., 45 MIN 00 SEC		16.0	****	36.0	****	****	30.0	****	****	30.0	****	****	24.0	****	****
TOTAL HC PPBC		748.9	****	5273.9	****	****	5069.1	****	****	4957.4	****	****	4820.3	****	****
TOTAL NON-METHANE HC		148.9	46.5	2533.9	454.4	1468.4	2349.1	0.0	1272.5	2237.4	520.9	1241.3	2130.3	507.4	1187.7
TOTAL SURROGATE		57.7	9.1	2250.4	374.4	1466.2	1962.6	****	1261.4	1789.4	246.4	1223.2	1647.2	212.0	1160.6

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

CLOCK TIME		1430	1430	1500	1530	1530	1600	1630	1630
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
		CONCENTRATIONS (PPB)							
METHANE		2660	****	****	2690	****	****	2610	****
	PPBC	2660	****	****	2690	****	****	2610	****
ETHENE		27.2	****	****	24.0	****	****	22.4	****
	PPBC	54.4	****	****	48.0	****	****	44.8	****
ETHANE		72.0	****	****	70.4	****	****	68.0	****
	PPBC	144	****	****	141	****	****	136	****
ACETYLENE (POROPAK N)		41.6	****	****	40.8	****	****	40.0	****
	PPBC	83.2	****	****	81.6	****	****	80.0	****
PROPANE		15.6	****	16.0	16.0	****	16.0	15.2	****
	PPBC	46.8	****	48.0	48.0	****	48.0	45.6	****
PROPENE		2.4	****	2.0	1.6	****	1.4	1.2	****
	PPBC	7.2	****	6.0	4.8	****	4.2	3.6	****
ISOBUTANE		0.4	****	0.4	0.4	****	0.4	0.4	****
	PPBC	1.6	****	1.6	1.6	****	1.6	1.6	****
N-BUTANE		138	****	140	138	****	138	131	****
	PPBC	552	****	560	552	****	552	524	****
ACETYLENE (DMS)		41.6	****	42.0	42.0	****	42.0	40.0	****
	PPBC	83.2	****	84.0	84.0	****	84.0	80.0	****
TRANS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ISOPENTANE		0.7	****	0.7	0.8	****	0.8	0.8	****
	PPBC	3.5	****	3.5	4.0	****	4.0	4.0	****
CIS-2-BUTENE		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
N-PENTANE		0.3	****	0.3	0.4	****	0.4	0.4	****
	PPBC	1.5	****	1.5	2.0	****	2.0	2.0	****
2,3-DIMETHYL BUTANE		70.8	****	68.4	66.4	****	66.0	62.0	****
	PPBC	425	****	410	398	****	396	372	****
2-METHYL BUTENE-2		0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	****	0.0	0.0	****	0.0	0.0	****
ACETALDEHYDE		44.8	38.2	****	43.2	36.7	****	44.8	****
	PPBC	89.6	76.4	****	86.4	73.4	****	89.6	****
PROPIONALDEHYDE		9.6	1.7	****	11.6	1.9	****	13.6	****
	PPBC	28.8	5.1	****	34.8	5.7	****	40.8	****

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

CLOCK TIME		1430	1430	1500	1530	1530	1600	1630	1630
ELAPSED TIME(MIN)		240	240	270	300	300	330	360	360
ACETONE		60.0	72.4	****	70.4	77.1	****	68.8	95.5
	PPBC	180	217	****	211	231	****	206	287
BENZENE		1.6	1.6	****	1.6	0.8	****	1.6	0.8
	PPBC	9.6	9.6	****	9.6	4.8	****	9.6	4.8
METHYL ETHYL KETONE		6.4	10.5	****	7.2	9.2	****	8.4	14.4
	PPBC	25.6	42.0	****	28.8	36.8	****	33.6	57.6
TOLUENE		12.8	12.8	****	12.0	10.4	****	11.2	10.2
	PPBC	89.6	89.6	****	84.0	72.8	****	78.4	71.4
ETHYL BENZENE		3.4	1.2	****	5.2	1.0	****	3.5	1.2
	PPBC	27.2	9.6	****	41.6	8.0	****	28.0	9.6
PARA-XYLENE		0.0	0.0	****	0.0	0.0	****	0.0	0.0
	PPBC	0.0	0.0	****	0.0	0.0	****	0.0	0.0
META-XYLENE		16.4	14.4	****	13.8	11.2	****	10.8	9.6
	PPBC	131	115	****	110	89.6	****	86.4	76.8
ISOPROPYL BENZENE		0.4	0.0	****	0.2	0.0	****	0.3	0.0
	PPBC	3.6	0.0	****	1.8	0.0	****	2.7	0.0
ORTHO-XYLENE		0.0	0.0	****	0.0	0.0	****	0.0	0.0
	PPBC	0.0	0.0	****	0.0	0.0	****	0.0	0.0
N-PROPYL BENZENE		0.1	0.0	****	0.1	0.0	****	0.1	0.0
	PPBC	0.9	0.0	****	0.9	0.0	****	0.9	0.0
PARA-ETHYL TOLUENE		0.0	0.0	****	0.0	0.0	****	0.0	0.0
	PPBC	0.0	0.0	****	0.0	0.0	****	0.0	0.0
META-ETHYL TOLUENE		0.8	1.2	****	1.0	2.0	****	1.0	1.2
	PPBC	7.2	10.8	****	9.0	18.0	****	9.0	10.8
ORTHO-ETHYL TOLUENE		0.0	0.2	****	0.0	0.4	****	0.0	0.0
	PPBC	0.0	1.8	****	0.0	3.6	****	0.0	0.0
1,3,5 TRIMETHYL BENZENE		0.0	0.0	****	0.0	0.0	****	0.0	0.0
	PPBC	0.0	0.0	****	0.0	0.0	****	0.0	0.0
1,2,3 TRIMETHYL BENZENE		1.8	0.0	****	1.1	0.0	****	1.0	0.0
	PPBC	16.2	0.0	****	9.9	0.0	****	9.0	0.0
PAN		13.0	0.0	14.0	16.0	0.0	18.0	18.0	0.0
	PPBC	26.0	0.0	28.0	32.0	0.0	36.0	36.0	0.0
FORMALDEHYDE		89.0	0.0	****	101	0.0	****	131	0.0
	PPBC	89.0	0.0	****	101	0.0	****	131	0.0
3P COL., 2 MIN 40 SEC		0.0	****	****	0.0	****	****	0.0	****

SURROGATE RUN 119-J
GLASS CHAMBER
1974 DEC 5

CLOCK TIME	1430	1430	1500	1530	1530	1600	1630	1630
ELAPSED TIME(MIN)	240	240	270	300	300	330	360	360
3P COL., 45 MIN 00 SEC	21.0	****	****	40.0	****	****	25.0	****
TOTAL HC PPBC	4852.4	****	****	5188.2	****	****	4585.0	****
TOTAL NON-METHANE HC	2192.4	623.8	3676.9	2498.2	2012.4	3476.9	1975.0	1790.0
TOTAL SURROGATE	1590.9	213.9	3358.8	1843.6	1628.6	3046.8	1370.8	1409.6

SURROGATE RUN 120-J
GLASS CHAMBER
1974 DEC 6

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN ROOM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		840	945	945	1015	1045	1045	1115	1145	1145	1215
ELAPSED TIME(MIN)		-65	0	0	30	60	60	90	120	120	150
		CONCENTRATIONS (PPB)									
METHANE		640	2860	****	****	2830	****	****	2800	****	****
	PPBC	640	2860	****	****	2830	****	****	2800	****	****
ETHENE		5.5	43.2	****	****	38.4	****	****	32.0	****	****
	PPBC	11.0	86.4	****	****	76.8	****	****	64.0	****	****
ETHANE		6.0	72.8	****	****	72.8	****	****	72.8	****	****
	PPBC	12.0	146	****	****	146	****	****	146	****	****
ACETYLENE (PORAPAK N)		6.9	49.6	****	****	48.0	****	****	48.0	****	****
	PPBC	13.8	99.2	****	****	96.0	****	****	96.0	****	****
PROPANE		7.6	19.2	****	18.8	18.8	****	17.6	17.6	****	17.6
	PPBC	22.8	57.6	****	56.4	56.4	****	52.8	52.8	****	52.8
PROPENE		0.5	11.2	****	8.6	6.4	****	4.8	3.8	****	3.2
	PPBC	1.5	33.6	****	25.8	19.2	****	14.4	11.4	****	9.6
ISOBUTANE		0.3	0.6	****	0.5	0.7	****	0.8	0.8	****	0.8
	PPBC	1.2	2.4	****	2.0	2.8	****	3.2	3.2	****	3.2
N-BUTANE		0.6	173	****	170	166	****	158	154	****	150
	PPBC	2.4	692	****	680	664	****	632	616	****	600
ACETYLENE (DMS)		6.4	50.0	****	50.0	49.6	****	48.0	48.0	****	48.0
	PPBC	12.8	100	****	100	99.2	****	96.0	96.0	****	96.0
TRANS-2-BUTENE		0.0	0.8	****	0.4	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	3.2	****	1.6	0.0	****	0.0	0.0	****	0.0
ISOPENTANE		0.6	1.6	****	1.2	1.5	****	1.4	1.4	****	1.6
	PPBC	3.0	8.0	****	6.0	7.5	****	7.0	7.0	****	8.0
CIS-2-BUTENE		0.0	13.1	****	6.2	2.0	****	0.6	0.0	****	0.0
	PPBC	0.0	52.4	****	24.8	8.0	****	2.4	0.0	****	0.0
N-PENTANE		0.2	0.8	****	0.5	0.8	****	0.8	0.8	****	0.8
	PPBC	1.0	4.0	****	2.5	4.0	****	4.0	4.0	****	4.0
2,3-DIMETHYL BUTANE		0.0	97.6	****	92.0	88.0	****	83.2	82.0	****	76.4
	PPBC	0.0	586	****	552	528	****	499	492	****	458

SURROGATE RUN 120-J
GLASS CHAMBER
1974 DEC 6

CLOCK TIME		840	945	945	1015	1045	1045	1115	1145	1145	1215
ELAPSED TIME(MIN)		-65	0	0	30	60	60	90	120	120	150
2-METHYL BUTENE-2		0.0	16.0	****	4.0	0.0	****	0.0	0.0	****	0.0
	PPBC	0.0	80.0	****	20.0	0.0	****	0.0	0.0	****	0.0
ACETALDEHYDE		1.6	7.6	4.1	****	31.2	38.4	****	43.2	30.3	****
	PPBC	3.2	15.2	8.2	****	62.4	76.8	****	86.4	60.6	****
PROPIONALDEHYDE		0.1	2.8	0.2	****	3.6	1.2	****	7.2	1.5	****
	PPBC	0.3	8.4	0.6	****	10.8	3.6	****	21.6	4.5	****
ACETONE		3.8	14.0	12.3	****	34.0	56.0	****	54.4	55.1	****
	PPBC	11.4	42.0	36.9	****	102	168	****	163	165	****
BENZENE		0.0	2.4	1.4	****	1.8	1.1	****	1.6	0.8	****
	PPBC	0.0	14.4	8.4	****	10.8	6.6	****	9.6	4.8	****
METHYL ETHYL KETONE		0.0	0.0	0.0	****	2.8	6.6	****	5.6	4.6	****
	PPBC	0.0	0.0	0.0	****	11.2	26.4	****	22.4	18.4	****
TOLUENE		0.1	18.2	16.4	****	15.2	15.0	****	14.4	12.8	****
	PPBC	0.7	127	115	****	106	105	****	101	89.6	****
ETHYL BENZENE		0.4	4.8	0.8	****	3.2	0.8	****	4.8	0.5	****
	PPBC	3.2	38.4	6.4	****	25.6	6.4	****	38.4	4.0	****
META-XYLENE		0.2	44.8	34.0	****	29.6	****	****	22.4	12.0	****
	PPBC	1.6	358	272	****	237	****	****	179	96.0	****
ISOPROPYL BENZENE		0.0	1.8	0.0	****	0.4	0.0	****	0.2	0.0	****
	PPBC	0.0	16.2	0.0	****	3.6	0.0	****	1.8	0.0	****
ORTHO-XYLENE		0.1	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.8	0.0	0.0	****	0.0	0.0	****	0.0	0.0	****
N-PROPYL BENZENE		0.0	2.4	0.0	****	0.7	0.0	****	0.6	0.0	****
	PPBC	0.0	21.6	0.0	****	6.3	0.0	****	5.4	0.0	****
META-ETHYL TOLUENE		0.0	3.7	0.2	****	1.6	1.0	****	1.4	0.0	****
	PPBC	0.0	33.3	1.8	****	14.4	9.0	****	12.6	0.0	****
1,3,5 TRIMETHYL BENZENE		0.0	3.5	0.0	****	1.4	0.0	****	0.8	0.0	****
	PPBC	0.0	31.5	0.0	****	12.6	0.0	****	7.2	0.0	****
1,2,4 TRIMETHYL BENZENE		0.0	0.4	0.0	****	0.0	0.0	****	0.0	0.0	****
	PPBC	0.0	3.6	0.0	****	0.0	0.0	****	0.0	0.0	****
1,2,3 TRIMETHYL BENZENE		0.0	3.0	0.0	****	1.2	0.0	****	0.0	0.0	****
	PPBC	0.0	27.0	0.0	****	10.8	0.0	****	0.0	0.0	****
PAN		****	0.0	0.0	****	****	0.0	****	19.0	0.0	20.0
	PPBC	****	0.0	0.0	****	****	0.0	****	38.0	0.0	40.0
FORMALDEHYDE		****	****	****	****	13.0	0.0	****	44.0	0.0	****

SURROGATE RUN 120-J
GLASS CHAMBER
1974 DEC 6

CLOCK TIME		840	945	945	1015	1045	1045	1115	1145	1145	1215
ELAPSED TIME(MIN)		-65	0	0	30	60	60	90	120	120	150
	PPBC	****	****	****	****	13.0	0.0	****	44.0	0.0	****
3P COL., 2 MIN 40 SEC		****	0.0	****	****	0.0	****	****	0.0	****	****
3P COL., 45 MIN 00 SEC		****	****	****	****	13.0	****	****	21.0	****	****
TOTAL HC PPBC		729.4	5447.8	****	****	5066.6	****	****	5022.6	****	****
TOTAL NON-METHANE HC		89.4	2587.8	449.1	1471.1	2236.6	401.8	1311.0	2222.6	443.2	1272.0
TOTAL SURROGATE		65.3	2321.8	386.8	1460.6	1938.8	105.0	1296.8	1757.8	185.6	1216.8

SURROGATE RUN 121-J
GLASS CHAMBER
1974 DEC 13

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		805	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		896	2880	****	2850	****	2820	****	2820	****	2800	****	2740	****	2740
	PPBC	896	2880	****	2850	****	2820	****	2820	****	2800	****	2740	****	2740
ETHENE		3.0	41.6	****	33.6	****	32.0	****	28.8	****	24.8	****	22.4	****	20.8
	PPBC	6.0	83.2	****	67.2	****	64.0	****	57.6	****	49.6	****	44.8	****	41.6
ETHANE		8.5	80.0	****	76.8	****	75.2	****	73.6	****	72.0	****	70.4	****	70.4
	PPBC	17.0	160	****	154	****	150	****	147	****	144	****	141	****	141
ACETYLENE (POROPAK N)		6.3	48.0	****	46.4	****	45.6	****	45.6	****	41.6	****	41.6	****	41.6
	PPBC	12.6	96.0	****	92.8	****	91.2	****	91.2	****	83.2	****	83.2	****	83.2
PROPANE		7.8	19.2	17.6	18.4	17.6	17.8	18.0	18.0	18.0	17.6	15.2	16.8	16.0	15.2
	PPBC	23.4	57.6	52.8	55.2	52.8	53.4	54.0	54.0	54.0	52.8	45.6	50.4	48.0	45.6
PROPENE		0.5	11.2	8.0	6.0	4.6	3.8	3.2	2.6	2.2	1.8	1.2	1.1	0.8	0.6
	PPBC	1.5	33.6	24.0	18.0	13.8	11.4	9.6	7.8	6.6	5.4	3.6	3.3	2.4	1.8
ISOBUTANE		0.5	0.6	0.6	0.6	0.6	0.7	1.0	1.0	1.0	0.9	0.8	0.9	0.9	0.9
	PPBC	2.0	2.4	2.4	2.4	2.4	2.8	4.0	4.0	4.0	3.6	3.2	3.6	3.6	3.6
N-BUTANE		0.9	173	166	160	157	154	150	147	146	142	138	136	134	131
	PPBC	3.6	692	664	640	628	616	600	588	584	568	552	544	536	524
ACETYLENE (DMS)		6.2	48.0	46.4	46.4	45.6	45.6	45.6	45.6	44.8	43.6	41.2	42.8	40.8	40.0
	PPBC	12.4	96.0	92.8	92.8	91.2	91.2	91.2	91.2	89.6	87.2	82.4	85.6	81.6	80.0
TRANS-2-BUTENE		0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		1.0	1.0	1.0	1.0	1.0	1.1	1.8	2.0	1.8	1.7	1.5	1.8	1.6	1.7
	PPBC	5.0	5.0	5.0	5.0	5.0	5.5	9.0	10.0	9.0	8.5	7.5	9.0	8.0	8.5
CIS-2-BUTENE		0.0	13.0	6.1	1.8	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	52.0	24.4	7.2	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.3	0.5	0.4	0.4	****	0.6	0.8	1.0	0.8	0.7	0.8	0.9	0.9	0.9
	PPBC	1.5	2.5	2.0	2.0	****	3.0	4.0	5.0	4.0	3.5	4.0	4.5	4.5	4.5
2,3-DIMETHYL BUTANE		0.0	96.0	91.2	84.8	81.2	78.4	77.2	74.0	72.8	70.0	68.0	66.8	66.0	62.0
	PPBC	0.0	576	547	509	487	470	463	444	437	420	408	401	396	372

SURROGATE RUN 121-J
GLASS CHAMBER
1974 DEC 13

CLOCK TIME ELAPSED TIME(MIN)		805 -55	900 0	930 30	1000 60	1030 90	1100 120	1130 150	1200 180	1230 210	1300 240	1330 270	1400 300	1430 330	1500 360
2-METHYL BUTENE-2		0.0	15.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	75.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		7.0	9.0	****	38.4	****	28.0	****	36.0	****	44.0	****	35.2	****	40.0
	PPBC	14.0	18.0	****	76.8	****	56.0	****	72.0	****	88.0	****	70.4	****	80.0
PROPIONALDEHYDE		3.9	2.4	****	4.4	****	6.4	****	8.8	****	10.4	****	12.8	****	13.6
	PPBC	11.7	7.2	****	13.2	****	19.2	****	26.4	****	31.2	****	38.4	****	40.8
ACETONE		12.0	16.4	****	46.4	****	52.8	****	67.2	****	73.6	****	70.4	****	75.2
	PPBC	36.0	49.2	****	139	****	158	****	202	****	221	****	211	****	226
BENZENE		0.2	1.8	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6
	PPBC	1.2	10.8	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		0.4	0.4	****	4.0	****	4.8	****	5.6	****	6.4	****	7.2	****	8.0
	PPBC	1.6	1.6	****	16.0	****	19.2	****	22.4	****	25.6	****	28.8	****	32.0
TOLUENE		0.3	16.8	****	15.5	****	14.0	****	13.6	****	12.8	****	12.4	****	12.2
	PPBC	2.1	118	****	109	****	98.0	****	95.2	****	89.6	****	86.8	****	85.4
ETHYL BENZENE		0.0	0.6	****	2.4	****	1.2	****	1.8	****	1.8	****	2.2	****	1.6
	PPBC	0.0	4.8	****	19.2	****	9.6	****	14.4	****	14.4	****	17.6	****	12.8
PARA-XYLENE		3.9	0.4	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	31.2	3.2	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-XYLENE		0.2	42.4	****	28.4	****	21.6	****	18.8	****	16.0	****	14.4	****	12.4
	PPBC	1.6	339	****	227	****	173	****	150	****	128	****	115	****	99.2
ISOPROPYL BENZENE		0.9	0.2	****	0.2	****	0.2	****	0.2	****	0.2	****	0.2	****	0.2
	PPBC	8.1	1.8	****	1.8	****	1.8	****	1.8	****	1.8	****	1.8	****	1.8
ORTHO-XYLENE		0.2	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.1
	PPBC	1.6	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.8
N-PROPYL BENZENE		0.1	0.1	****	0.1	****	0.1	****	0.2	****	0.1	****	0.0	****	0.1
	PPBC	0.9	0.9	****	0.9	****	0.9	****	1.8	****	0.9	****	0.0	****	0.9
META-ETHYL TOLUENE		1.8	0.4	****	0.7	****	1.1	****	2.0	****	1.1	****	1.2	****	1.5
	PPBC	16.2	3.6	****	6.3	****	9.9	****	18.0	****	9.9	****	10.8	****	13.5
ORTHO-ETHYL TOLUENE		0.0	0.2	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.0	1.8	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,3,5 TRIMETHYL BENZENE		0.5	0.2	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	4.5	1.8	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,2,4 TRIMETHYL BENZENE		0.4	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	3.6	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,2,3 TRIMETHYL BENZENE		2.1	3.0	****	2.0	****	1.0	****	0.6	****	0.6	****	1.0	****	1.0

SURROGATE RUN 121-J
GLASS CHAMBER
1974 DEC 13

CLOCK TIME		805	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180	210	240	270	300	330	360
	PPBC	18.9	27.0	****	18.0	****	9.0	****	5.4	****	5.4	****	9.0	****	9.0
PAN		****	0.0	4.0	12.0	17.0	22.0	23.0	25.0	26.0	25.0	26.0	25.0	25.0	25.0
	PPBC	****	0.0	8.0	24.0	34.0	44.0	46.0	50.0	52.0	50.0	52.0	50.0	50.0	50.0
FORMALDEHYDE		****	****	****	77.0	****	91.0	****	107	****	105	****	128	****	126
	PPBC	****	****	****	77.0	****	91.0	****	107	****	105	****	128	****	126
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		20.0	4.0	****	13.0	****	10.0	****	15.0	****	20.0	****	24.0	****	22.0
TOTAL HC PPBC		1121.7	5307.0	****	5139.9	****	4987.5	****	5004.8	****	4920.8	****	4803.2	****	4751.4
TOTAL NON-METHANE HC		225.7	2427.0	1441.8	2289.9	1314.4	2167.5	1281.0	2184.8	1240.0	2120.8	1158.3	2063.2	1130.1	2011.4
TOTAL SURROGATE		67.7	2285.4	1424.4	1878.5	1273.0	1727.6	1218.0	1635.4	1171.0	1542.6	1091.6	1470.5	1064.0	1392.0

SURROGATE RUN 122-J
AGC
1974 DEC 16

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		800	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-60	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		776	2080	****	2080	****	2080	****	2060	****	2060	****	2060	****	2060
	PPBC	776	2080	****	2080	****	2080	****	2060	****	2060	****	2060	****	2060
ETHENE		1.0	24.0	****	20.8	****	18.4	****	16.0	****	12.3	****	12.0	****	11.2
	PPBC	2.0	48.0	****	41.6	****	36.8	****	32.0	****	24.6	****	24.0	****	22.4
ETHANE		5.2	48.0	****	48.0	****	46.4	****	44.4	****	44.0	****	44.0	****	44.0
	PPBC	10.4	96.0	****	96.0	****	92.8	****	88.8	****	88.0	****	88.0	****	88.0
ACETYLENE (POROPAK N)		1.1	25.6	****	25.6	****	24.8	****	23.2	****	23.2	****	20.8	****	23.2
	PPBC	2.2	51.2	****	51.2	****	49.6	****	46.4	****	46.4	****	41.6	****	46.4
PROPANE		8.8	15.6	15.2	15.2	14.8	14.0	14.0	14.0	14.0	13.6	13.2	10.4	12.2	11.2
	PPBC	26.4	46.8	45.6	45.6	44.4	42.0	42.0	42.0	42.0	40.8	39.6	31.2	36.6	33.6
PROPENE		0.6	6.8	5.8	4.4	3.3	2.6	2.0	1.6	1.2	1.0	0.6	0.4	0.4	0.3
	PPBC	1.8	20.4	17.4	13.2	9.9	7.8	6.0	4.8	3.6	3.0	1.8	1.2	1.2	0.9
ISOBUTANE		0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	PPBC	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
N-BUTANE		0.2	101	100	97.6	94.4	****	88.0	88.0	84.8	84.0	81.6	73.6	76.8	72.0
	PPBC	0.8	404	400	390	378	****	352	352	339	336	326	294	307	288
ACETYLENE (DMS)		1.0	25.6	25.6	25.4	25.0	24.0	24.0	24.0	24.8	24.1	24.0	20.4	22.8	22.4
	PPBC	2.0	51.2	51.2	50.8	50.0	48.0	48.0	48.0	49.6	48.2	48.0	40.8	45.6	44.8
ISOBUTENE		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRANS-2-BUTENE		0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.2	0.5	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	PPBC	1.0	2.5	1.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CIS-2-BUTENE		0.0	7.8	5.1	2.5	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	31.2	20.4	10.0	4.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2
	PPBC	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.0	1.0

0.96 %

8.33 %

28.7

SURROGATE RUN 122-J
AGC
1974 DEC 16

CLOCK TIME		800	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-60	0	30	60	90	120	150	180	210	240	270	300	330	360
2,3-DIMETHYL BUTANE		0.0	59.6	58.0	56.0	52.0	49.2	46.0	44.8	42.0	41.6	40.0	36.0	35.4	34.0
	PPBC	0.0	358	348	336	312	295	276	269	252	250	240	216	212	204
2-METHYL BUTENE-2		0.0	9.0	5.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	45.0	25.0	10.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		10.0	10.0	****	22.0	****	26.8	****	25.6	****	25.6	****	26.4	****	25.6
	PPBC	20.0	20.0	****	44.0	****	53.6	****	51.2	****	51.2	****	52.8	****	51.2
PROPIONALCEHYDE		3.8	3.0	****	4.4	****	6.4	****	8.8	****	10.4	****	12.8	****	15.2
	PPBC	11.4	9.0	****	13.2	****	19.2	****	26.4	****	31.2	****	38.4	****	45.6
ACETONE		10.4	11.6	****	24.0	****	34.0	****	39.2	****	44.0	****	52.0	****	24.4
	PPBC	31.2	34.8	****	72.0	****	102	****	118	****	132	****	156	****	73.2
BENZENE		0.1	1.2	****	1.0	****	1.0	****	0.8	****	1.0	****	0.8	****	0.8
	PPBC	0.6	7.2	****	6.0	****	6.0	****	4.8	****	6.0	****	4.8	****	4.8
METHYL ETHYL KETONE		0.1	0.0	****	1.8	****	3.6	****	4.0	****	5.2	****	6.0	****	6.4
	PPBC	0.4	0.0	****	7.2	****	14.4	****	16.0	****	20.8	****	24.0	****	25.6
TOLUENE		0.2	10.4	****	10.0	****	9.2	****	8.2	****	7.8	****	6.8	****	6.8
	PPBC	1.4	72.8	****	70.0	****	64.4	****	57.4	****	54.6	****	47.6	****	47.6
ETHYL BENZENE		0.0	2.4	****	1.6	****	1.0	****	2.0	****	2.0	****	2.8	****	3.1
	PPBC	0.0	19.2	****	12.8	****	8.0	****	16.0	****	16.0	****	22.4	****	24.8
META-XYLENE		0.2	28.0	****	20.0	****	14.0	****	10.4	****	8.0	****	6.0	****	5.0
	PPBC	1.6	224	****	160	****	112	****	83.2	****	64.0	****	48.0	****	40.0
ISOPROPYL BENZENE		0.8	0.6	****	0.6	****	0.4	****	0.4	****	0.3	****	0.2	****	0.2
	PPBC	7.2	5.4	****	5.4	****	3.6	****	3.6	****	2.7	****	1.8	****	1.8
ORTHO-XYLENE		0.2	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	1.6	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
N-PROPYL BENZENE		0.1	0.4	****	0.3	****	0.0	****	0.0	****	0.1	****	0.0	****	0.0
	PPBC	0.9	3.6	****	2.7	****	0.0	****	0.0	****	0.9	****	0.0	****	0.0
META-ETHYL TOLUENE		1.4	1.8	****	1.2	****	2.0	****	2.0	****	2.5	****	2.6	****	2.9
	PPBC	12.6	16.2	****	10.8	****	18.0	****	18.0	****	22.5	****	23.4	****	26.1
1,3,5 TRIMETHYL BENZENE		0.3	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	2.7	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
1,2,3 TRIMETHYL BENZENE		4.0	3.0	****	2.0	****	2.0	****	1.5	****	1.1	****	1.0	****	0.9
	PPBC	36.0	27.0	****	18.0	****	18.0	****	13.5	****	9.9	****	9.0	****	8.1
PAN		****	0.0	1.0	3.0	7.0	11.0	15.0	18.0	22.0	23.0	26.0	28.0	28.0	29.0
	PPBC	****	0.0	2.0	6.0	14.0	22.0	30.0	36.0	44.0	46.0	52.0	56.0	56.0	58.0
FORMALDEHYDE		****	94.0	****	48.0	****	****	****	68.0	****	70.0	****	81.0	****	87.0

SURROGATE RUN 122-J
AGC
1974 DEC 16

CLOCK TIME	800	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)	-60	0	30	60	90	120	150	180	210	240	270	300	330	360
PPBC	****	94.0	****	48.0	****	****	****	68.0	****	70.0	****	81.0	****	87.0
3P COL., 2 MIN 40 SEC	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 30 SEC	28.0	20.0	****	18.0	****	16.0	****	18.0	****	18.0	****	24.0	****	25.0
TOTAL HC PPBC	949.7	3719.1	****	3553.6	****	3049.9	****	3411.5	****	3381.8	****	3325.9	****	3241.0
TOTAL NON-METHANE HC	173.7	1639.1	912.6	1473.6	818.1	969.9	757.7	1351.5	734.6	1321.8	712.0	1265.9	663.7	1181.0
TOTAL SURROGATE	46.5	1399.0	908.4	1223.8	800.4	701.4	724.0	976.2	686.4	907.9	655.8	791.6	603.0	770.1

SURROGATE RUN 123-J
GLASS CHAMBER
1974 DEC 18

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		835	915	945	1015	1045
ELAPSED TIME(MIN)		-40	0	30	60	90
		CONCENTRATIONS (PPB)				
METHANE		904	2160	****	2130	****
	PPBC	904	2160	****	2130	****
ETHENE		2.6	24.8	****	21.6	****
	PPBC	5.2	49.6	****	43.2	****
ETHANE		2.5	45.6	****	44.8	****
	PPBC	5.0	91.2	****	89.6	****
ACETYLENE (POROPAK N)		3.8	28.8	****	28.0	****
	PPBC	7.6	57.6	****	56.0	****
PROPANE		8.0	14.2	14.0	14.4	14.2
	PPBC	24.0	42.6	42.0	43.2	42.6
PROPENE		0.6	7.0	5.8	4.6	3.6
	PPBC	1.8	21.0	17.4	13.8	10.8
ISOBUTANE		0.3	0.3	0.3	0.3	0.3
	PPBC	1.2	1.2	1.2	1.2	1.2
N-BUTANE		0.6	106	104	101	98.4
	PPBC	2.4	424	416	404	394
ACETYLENE (DMS)		3.6	28.8	28.8	28.4	28.0
	PPBC	7.2	57.6	57.6	56.8	56.0
TRANS-2-BUTENE		0.0	0.4	0.3	0.1	0.0
	PPBC	0.0	1.6	1.2	0.4	0.0
ISOPENTANE		0.8	0.6	0.6	0.4	0.4
	PPBC	4.0	3.0	3.0	2.0	2.0
CIS-2-BUTENE		0.0	8.0	5.6	2.8	1.2
	PPBC	0.0	32.0	22.4	11.2	4.8
N-PENTANE		0.3	0.2	0.2	0.1	0.0
	PPBC	1.5	1.0	1.0	0.5	0.0
2,3-DIMETHYL BUTANE		0.0	58.0	56.4	52.4	50.0
	PPBC	0.0	348	338	314	300

SURROGATE RUN 123-J
GLASS CHAMBER
1974 DEC 18

CLOCK TIME		835	915	945	1015	1045
ELAPSED TIME(MIN)		-40	0	30	60	90
2-METHYL BUTENE-2		0.0	8.0	3.9	1.0	0.0
	PPBC	0.0	40.0	19.5	5.0	0.0
ACETALDEHYDE		7.0	6.4	****	14.0	****
	PPBC	14.0	12.8	****	28.0	****
PROPIONALDEHYDE		3.0	1.6	****	3.2	****
	PPBC	9.0	4.8	****	9.6	****
ACETONE		12.2	11.2	****	21.2	****
	PPBC	36.6	33.6	****	63.6	****
BENZENE		0.1	1.0	****	1.2	****
	PPBC	0.6	6.0	****	7.2	****
METHYL ETHYL KETONE		0.2	0.0	****	1.6	****
	PPBC	0.8	0.0	****	6.4	****
TOLUENE		2.7	9.9	****	9.8	****
	PPBC	18.9	69.3	****	68.6	****
ETHYL BENZENE		4.6	3.2	****	3.2	****
	PPBC	36.8	25.6	****	25.6	****
META-XYLENE		0.0	25.6	****	20.0	****
	PPBC	0.0	205	****	160	****
ISOPROPYL BENZENE		0.8	0.3	****	0.3	****
	PPBC	7.2	2.7	****	2.7	****
N-PROPYL BENZENE		0.0	0.0	****	0.2	****
	PPBC	0.0	0.0	****	1.8	****
PARA-ETHYL TOLUENE		0.0	2.0	****	1.3	****
	PPBC	0.0	18.0	****	11.7	****
META-ETHYL TOLUENE		1.2	0.6	****	0.2	****
	PPBC	10.8	5.4	****	1.8	****
1,2,4 TRIMETHYL BENZENE		0.2	0.4	****	0.0	****
	PPBC	1.8	3.6	****	0.0	****
1,2,3 TRIMETHYL BENZENE		1.0	1.5	****	1.6	****
	PPBC	9.0	13.5	****	14.4	****
PAN		****	0.0	0.0	3.0	6.0
	PPBC	****	0.0	0.0	6.0	12.0
FORMALDEHYDE		****	49.0	****	35.0	****
	PPBC	****	49.0	****	35.0	****
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****

SURROGATE RUN 123-J
GLASS CHAMBER
1974 DEC 18

CLOCK TIME	835	915	945	1015	1045
ELAPSED TIME(MIN)	-40	0	30	60	90
3P COL., 45 MIN 00 SEC	****	12.0	****	19.0	****
TOTAL HC PPBC	1102.0	3721.9	****	3557.3	****
TOTAL NON-METHANE HC	198.0	1561.9	919.7	1427.3	823.0
TOTAL SURROGATE	64.7	1381.7	914.5	1209.8	807.8

SURROGATE RUN 124-J
GLASS CHAMBER
1974 DEC 18

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1355	1430	1500	1530	1600	1630	1700	1730	1800	1830	1900	1930	2000	2030
ELAPSED TIME(MIN)		-35	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		944	2040	****	2040	****	2040	****	2080	****	2080	****	2080	****	2080
	PPBC	944	2040	****	2040	****	2040	****	2080	****	2080	****	2080	****	2080
ETHENE		2.4	27.2	****	24.8	****	20.8	****	20.0	****	16.8	****	15.2	****	12.8
	PPBC	4.8	54.4	****	49.6	****	41.6	****	40.0	****	33.6	****	30.4	****	25.6
ETHANE		4.0	48.4	****	48.4	****	47.6	****	48.0	****	47.2	****	46.4	****	44.0
	PPBC	8.0	96.8	****	96.8	****	95.2	****	96.0	****	94.4	****	92.8	****	88.0
ACETYLENE (POROPAK N)		4.5	31.2	****	31.2	****	28.0	****	31.2	****	29.6	****	29.6	****	24.0
	PPBC	9.0	62.4	****	62.4	****	56.0	****	62.4	****	59.2	****	59.2	****	48.0
PROPANE		9.6	16.8	15.8	16.0	14.8	15.6	14.4	14.6	14.6	14.8	14.8	14.8	****	14.6
	PPBC	28.8	50.4	47.4	48.0	44.4	46.8	43.2	43.8	43.8	44.4	44.4	44.4	****	43.8
PROPENE		0.5	7.4	5.8	4.6	3.6	2.8	2.2	2.0	1.4	1.2	0.8	0.8	****	0.5
	PPBC	1.5	22.2	17.4	13.8	10.8	8.4	6.6	6.0	4.2	3.6	2.4	2.4	****	1.5
ISOBUTANE		0.2	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.8	****	0.9
	PPBC	0.8	1.6	1.6	1.6	1.6	2.0	2.4	2.4	2.4	2.8	3.2	3.2	****	3.6
N-BUTANE		0.6	****	107	106	101	101	94.4	94.4	92.8	91.2	89.6	88.0	****	83.2
	PPBC	2.4	****	428	424	404	404	378	378	371	365	358	352	****	333
ACETYLENE (DMS)		4.4	31.0	30.8	30.8	29.6	30.4	29.6	30.0	30.4	29.6	29.6	29.6	****	29.2
	PPBC	8.8	62.0	61.6	61.6	59.2	60.8	59.2	60.0	60.8	59.2	59.2	59.2	****	58.4
TRANS-2-BUTENE		0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	2.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ISOPENTANE		0.3	0.4	0.4	0.5	0.6	1.0	1.2	1.7	1.3	1.6	1.9	2.0	****	2.2
	PPBC	1.5	2.0	2.0	2.5	3.0	5.0	6.0	8.5	6.5	8.0	9.5	10.0	****	11.0
CIS-2-BUTENE		0.0	8.4	5.8	2.5	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	33.6	23.2	10.0	4.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
N-PENTANE		0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.5	0.6	0.8	0.9	0.9	****	1.0
	PPBC	0.5	0.5	0.5	0.5	0.5	2.0	2.5	2.5	3.0	4.0	4.5	4.5	****	5.0
2,3-DIMETHYL BUTANE		0.0	59.2	56.0	54.0	50.0	48.4	44.8	44.0	42.0	40.0	38.8	37.0	****	34.0
	PPBC	0.0	355	336	324	300	290	269	264	252	240	233	222	****	204

[E 1.9%]

9.09

17.76

SURROGATE RUN 124-J
GLASS CHAMBER
1974 DEC 18

CLOCK TIME		1355	1430	1500	1530	1600	1630	1700	1730	1800	1830	1900	1930	2000	2030
ELAPSED TIME(MIN)		-35	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	9.0	4.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	45.0	24.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ACETALDEHYDE		3.2	5.2	****	16.8	****	22.4	****	24.0	****	21.6	****	22.4	****	20.8
	PPBC	6.4	10.4	****	33.6	****	44.8	****	48.0	****	43.2	****	44.8	****	41.6
PROPIONALDEHYDE		3.0	2.0	****	3.6	****	5.6	****	7.2	****	10.4	****	12.0	****	14.0
	PPBC	9.0	6.0	****	10.8	****	16.8	****	21.6	****	31.2	****	36.0	****	42.0
ACETONE		5.0	11.6	****	21.6	****	29.6	****	35.2	****	39.2	****	44.8	****	48.4
	PPBC	15.0	34.8	****	64.8	****	88.8	****	106	****	118	****	134	****	145
BENZENE		1.8	1.2	****	1.0	****	1.2	****	1.2	****	1.2	****	1.2	****	1.2
	PPBC	10.8	7.2	****	6.0	****	7.2	****	7.2	****	7.2	****	7.2	****	7.2
METHYL ETHYL KETONE		0.1	0.2	****	1.6	****	3.2	****	4.0	****	5.6	****	6.4	****	7.2
	PPBC	0.4	0.8	****	6.4	****	12.8	****	16.0	****	22.4	****	25.6	****	28.8
TOLUENE		0.2	10.0	****	9.6	****	8.8	****	8.4	****	8.2	****	7.5	****	7.2
	PPBC	1.4	70.0	****	67.2	****	61.6	****	58.8	****	57.4	****	52.5	****	50.4
ETHYL BENZENE		2.1	3.6	****	3.2	****	3.6	****	3.2	****	3.2	****	3.4	****	3.6
	PPBC	16.8	28.8	****	25.6	****	28.8	****	25.6	****	25.6	****	27.2	****	28.8
META-XYLENE		0.8	26.4	****	20.0	****	14.4	****	11.0	****	8.8	****	6.8	****	5.6
	PPBC	6.4	211	****	160	****	115	****	88.0	****	70.4	****	54.4	****	44.8
ISOPROPYL BENZENE		0.4	0.2	****	0.2	****	0.2	****	0.2	****	0.2	****	0.1	****	0.1
	PPBC	3.6	1.8	****	1.8	****	1.8	****	1.8	****	1.8	****	0.9	****	0.9
N-PROPYL BENZENE		0.0	0.2	****	0.0	****	0.0	****	0.0	****	0.1	****	0.1	****	0.2
	PPBC	0.0	1.8	****	0.0	****	0.0	****	0.0	****	0.9	****	0.9	****	1.8
PARA-ETHYL TOLUENE		1.0	1.2	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	9.0	10.8	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		0.4	0.4	****	1.4	****	2.0	****	2.5	****	2.3	****	2.8	****	2.9
	PPBC	3.6	3.6	****	12.6	****	18.0	****	22.5	****	20.7	****	25.2	****	26.1
1,2,3 TRIMETHYL BENZENE		2.0	1.2	****	1.9	****	1.0	****	0.6	****	0.6	****	0.5	****	0.6
	PPBC	18.0	10.8	****	17.1	****	9.0	****	5.4	****	5.4	****	4.5	****	5.4
PAN		****	0.0	1.0	3.0	7.0	11.0	14.0	16.0	20.0	23.0	26.0	29.0	30.0	31.0
	PPBC	****	0.0	2.0	6.0	14.0	22.0	28.0	32.0	40.0	46.0	52.0	58.0	60.0	62.0
FORMALDEHYDE		****	39.0	****	38.0	****	62.0	****	64.0	****	83.0	****	83.0	****	88.0
	PPBC	****	39.0	****	38.0	****	62.0	****	64.0	****	83.0	****	83.0	****	88.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		****	0.0	****	19.0	****	16.0	****	15.0	****	22.0	****	25.0	****	****

SURROGATE RUN 124-J
GLASS CHAMBER
1974 DEC 18

CLOCK TIME	1355	1430	1500	1530	1600	1630	1700	1730	1800	1830	1900	1930	2000	2030
ELAPSED TIME(MIN)	-35	0	30	60	90	120	150	180	210	240	270	300	330	360
TOTAL HC PPBC	1101.6	3202.9	****	3525.2	****	3484.2	****	3478.5	****	3467.6	****	3455.5	****	3421.5
TOTAL NON-METHANE HC	157.6	1162.9	945.3	1485.2	841.5	1444.2	794.3	1398.5	783.9	1387.6	766.4	1375.5	60.0	1341.5
TOTAL SURROGATE	62.2	1003.0	939.2	1257.9	822.4	1123.2	755.4	1035.4	732.0	967.8	697.2	910.1	****	844.1

SURROGATE RUN 125-J
GLASS CHAMBER
1974 DEC 19

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		755	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-65	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		1100	2090	****	2100	****	2100	****	2020	****	2080	****	2070	****	2050
	PPBC	1100	2090	****	2100	****	2100	****	2020	****	2080	****	2070	****	2050
ETHENE		2.5	27.2	****	24.0	****	21.6	****	19.2	****	17.6	****	16.0	****	13.6
	PPBC	5.0	54.4	****	48.0	****	43.2	****	38.4	****	35.2	****	32.0	****	27.2
ETHANE		3.4	46.0	****	46.4	****	45.6	****	44.0	****	44.8	****	44.0	****	43.2
	PPBC	6.8	92.0	****	92.8	****	91.2	****	88.0	****	89.6	****	88.0	****	86.4
ACETYLENE (POROPAK N)		5.5	32.8	****	32.8	****	30.4	****	30.4	****	32.0	****	31.2	****	30.4
	PPBC	11.0	65.6	****	65.6	****	60.8	****	60.8	****	64.0	****	62.4	****	60.8
PROPANE		6.8	14.4	14.4	13.2	14.4	13.6	13.6	13.6	13.6	12.8	12.2	13.6	13.2	12.8
	PPBC	20.4	43.2	43.2	39.6	43.2	40.8	40.8	40.8	40.8	38.4	36.6	40.8	39.6	38.4
PROPENE		0.4	7.6	6.4	4.8	4.6	3.6	3.0	2.4	2.0	1.6	1.4	1.0	1.0	0.6
	PPBC	1.2	22.8	19.2	14.4	13.8	10.8	9.0	7.2	6.0	4.8	4.2	3.0	3.0	1.8
ISOBUTANE		0.0	0.3	0.3	0.4	0.3	0.4	0.4	0.8	0.5	0.5	0.6	0.8	0.8	0.8
	PPBC	0.0	1.2	1.2	1.6	1.2	1.6	1.6	3.2	2.0	2.0	2.4	3.2	3.2	3.2
N-BUTANE		0.2	112	112	99.2	109	102	101	****	97.6	****	****	92.8	89.6	86.4
	PPBC	0.8	448	448	397	436	408	404	****	390	****	****	371	358	346
ACETYLENE (DHS)		5.0	32.8	83.0	30.4	33.6	32.0	32.0	****	32.0	****	30.8	31.6	30.4	30.0
	PPBC	10.0	65.6	166	60.8	67.2	64.0	64.0	****	64.0	****	61.6	63.2	60.8	60.0
TRANS-2-BUTENE		0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.6	0.5	0.6	0.6	0.8	1.0	1.2	1.4	1.4	1.8	2.0	1.6	2.0
	PPBC	0.0	3.0	2.5	3.0	3.0	4.0	5.0	6.0	7.0	7.0	9.0	10.0	8.0	10.0
CIS-2-BUTENE		0.0	8.6	6.4	3.4	2.4	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	34.4	25.6	13.6	9.6	4.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.4	0.0	0.4	0.2	0.4	0.6	0.5	0.8	0.6	0.8	1.0
	PPBC	0.0	0.0	0.0	2.0	0.0	2.0	1.0	2.0	3.0	2.5	4.0	3.0	4.0	5.0
2,3-DIMETHYL BUTANE		0.0	****	61.0	54.4	56.8	52.0	52.8	48.6	****	42.8	42.0	42.8	40.0	38.0
	PPBC	0.0	****	366	326	341	312	317	292	****	257	252	257	240	228

SURROGATE RUN 125-J
GLASS CHAMBER
1974 DEC 19

CLOCK TIME		755	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-65	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	9.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	45.0	25.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		1.4	4.0	****	20.0	****	24.0	****	28.0	****	28.0	****	33.6	****	32.8
	PPBC	2.8	8.0	****	40.0	****	48.0	****	56.0	****	56.0	****	67.2	****	65.6
PROPIONALDEHYDE		1.4	1.0	****	3.6	****	4.8	****	7.2	****	9.2	****	12.4	****	13.6
	PPBC	4.2	3.0	****	10.8	****	14.4	****	21.6	****	27.6	****	37.2	****	40.8
ACETONE		6.0	17.2	****	25.2	****	34.4	****	42.4	****	47.2	****	52.0	****	56.0
	PPBC	18.0	51.6	****	75.6	****	103	****	127	****	142	****	156	****	168
BENZENE		0.0	1.0	****	1.0	****	0.9	****	1.2	****	0.8	****	0.8	****	0.8
	PPBC	0.0	6.0	****	6.0	****	5.4	****	7.2	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		0.2	0.4	****	1.6	****	2.8	****	3.2	****	4.8	****	4.8	****	7.2
	PPBC	0.8	1.6	****	6.4	****	11.2	****	12.8	****	19.2	****	19.2	****	28.8
TOLUENE		0.1	10.2	****	10.4	****	9.2	****	9.2	****	8.8	****	8.0	****	7.6
	PPBC	0.7	71.4	****	72.8	****	64.4	****	64.4	****	61.6	****	56.0	****	53.2
ETHYL BENZENE		4.1	3.2	****	2.8	****	2.0	****	2.8	****	3.2	****	3.6	****	3.6
	PPBC	32.8	25.6	****	22.4	****	16.0	****	22.4	****	25.6	****	28.8	****	28.8
META-XYLENE		0.0	28.0	****	21.6	****	16.0	****	13.2	****	8.8	****	8.0	****	6.4
	PPBC	0.0	224	****	173	****	128	****	106	****	70.4	****	64.0	****	51.2
ISOPROPYL BENZENE		0.0	0.0	****	0.0	****	2.0	****	1.0	****	1.4	****	1.4	****	0.6
	PPBC	0.0	0.0	****	0.0	****	18.0	****	9.0	****	12.6	****	12.6	****	5.4
PARA-ETHYL TOLUENE		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.4	****	0.0	****	0.0
	PPBC	0.0	0.0	****	0.0	****	0.0	****	0.0	****	3.6	****	0.0	****	0.0
META-ETHYL TOLUENE		0.0	1.0	****	0.0	****	0.6	****	0.5	****	0.4	****	1.0	****	3.0
	PPBC	0.0	9.0	****	0.0	****	5.4	****	4.5	****	3.6	****	9.0	****	27.0
1,2,3 TRIMETHYL BENZENE		0.0	0.8	****	1.5	****	1.4	****	4.0	****	1.6	****	2.8	****	****
	PPBC	0.0	7.2	****	13.5	****	12.6	****	36.0	****	14.4	****	25.2	****	****
PAN		****	0.0	****	1.0	4.0	5.0	7.0	9.0	10.0	13.0	13.0	13.0	14.0	16.0
	PPBC	****	0.0	****	2.0	8.0	10.0	14.0	18.0	20.0	26.0	26.0	26.0	28.0	32.0
FORMALDEHYDE		****	34.0	****	27.0	****	39.0	****	41.0	****	69.0	****	82.0	****	85.0
	PPBC	****	34.0	****	27.0	****	39.0	****	41.0	****	69.0	****	82.0	****	85.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		0.0	17.0	****	10.0	****	10.0	****	10.0	****	12.0	****	13.0	****	****
TOTAL HC PPBC		1204.0	3343.0	****	3560.7	****	3555.6	****	3083.7	****	3116.3	****	3528.8	****	3446.6
TOTAL NON-METHANE HC		104.0	1253.0	1097.5	1460.7	922.8	1455.6	857.0	1063.7	533.2	1036.3	395.8	1458.8	745.0	1396.6
TOTAL SURROGATE		45.4	1102.8	1093.8	1250.4	910.6	1164.8	835.4	696.8	501.2	620.8	354.4	974.6	701.8	692.2

SURROGATE RUN 126-J
GLASS CHAMBER
1974 DEC 20

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		805	900	930	1000	1030	1100	1130	1200
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180
		CONCENTRATIONS (PPB)							
METHANE		960	4720	****	4830	****	4800	****	48.0
	PPBC	960	4720	****	4830	****	4800	****	48.0
ETHENE		8.8	46.4	****	43.2	****	40.0	****	36.8
	PPBC	17.6	92.8	****	86.4	****	80.0	****	73.6
ETHANE		9.3	78.4	****	78.4	****	75.2	****	76.8
	PPBC	18.6	157	****	157	****	150	****	154
ACETYLENE (POROPAK N)		8.0	51.2	****	48.0	****	48.0	****	48.0
	PPBC	16.0	102	****	96.0	****	96.0	****	96.0
PROPANE		7.9	19.6	18.8	19.6	18.8	18.6	18.8	18.0
	PPBC	23.7	58.8	56.4	58.8	56.4	55.8	56.4	54.0
PROPENE		0.6	11.4	10.2	9.2	7.6	6.6	6.0	5.2
	PPBC	1.8	34.2	30.6	27.6	22.8	19.8	18.0	15.6
ISOBUTANE		0.3	0.4	0.4	0.6	0.6	0.6	0.6	0.8
	PPBC	1.2	1.6	1.6	2.4	2.4	2.4	2.4	3.2
N-BUTANE		0.6	176	****	170	163	160	****	154
	PPBC	2.4	704	****	680	652	640	****	616
ACETYLENE (DHS)		8.0	51.2	50.4	50.0	49.2	48.4	48.4	47.2
	PPBC	16.0	102	101	100	98.4	96.8	96.8	94.4
TRANS-2-BUTENE		0.0	0.8	0.5	0.4	0.3	0.1	0.0	0.0
	PPBC	0.0	3.2	2.0	1.6	1.2	0.4	0.0	0.0
ISOPENTANE		0.9	0.5	0.8	1.0	1.0	1.2	1.4	1.8
	PPBC	4.5	2.5	4.0	5.0	5.0	6.0	7.0	9.0
CIS-2-BUTENE		0.0	13.2	11.0	7.9	5.3	3.4	2.4	1.3
	PPBC	0.0	52.8	44.0	31.6	21.2	13.6	9.6	5.2
N-PENTANE		0.4	0.4	0.3	0.4	0.5	0.6	0.8	0.9
	PPBC	2.0	2.0	1.5	2.0	2.5	3.0	4.0	4.5
2,3-DIMETHYL BUTANE		0.0	96.8	96.0	91.2	87.2	83.2	82.0	78.0
	PPBC	0.0	581	576	547	523	499	492	468

SURROGATE RUN 126-J
GLASS CHAMBER
1974 DEC 20

CLOCK TIME		805	900	930	1000	1030	1100	1130	1200
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180
2-METHYL BUTENE-2		0.0	14.0	10.0	6.0	4.0	2.0	2.0	1.0
	PPBC	0.0	70.0	50.0	30.0	20.0	10.0	10.0	5.0
ACETALDEHYDE		4.2	5.6	****	21.6	****	40.0	****	48.0
	PPBC	8.4	11.2	****	43.2	****	80.0	****	96.0
PROPIONALDEHYDE		2.8	1.6	****	3.2	****	4.8	****	5.6
	PPBC	8.4	4.8	****	9.6	****	14.4	****	16.8
ACETONE		8.0	20.0	****	20.0	****	40.8	****	42.4
	PPBC	24.0	60.0	****	60.0	****	122	****	127
BENZENE		0.1	1.6	****	1.6	****	1.6	****	1.6
	PPBC	0.6	9.6	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		0.2	0.4	****	1.6	****	4.0	****	4.4
	PPBC	0.8	1.6	****	6.4	****	16.0	****	17.6
TOLUENE		0.1	16.4	****	16.0	****	15.2	****	14.0
	PPBC	0.7	115	****	112	****	106	****	98.0
ETHYL BENZENE		4.6	5.4	****	****	****	2.4	****	2.4
	PPBC	36.8	43.2	****	****	****	19.2	****	19.2
META-XYLENE		0.2	41.6	****	33.6	****	28.0	****	24.0
	PPBC	1.6	333	****	269	****	224	****	192
ISOPROPYL BENZENE		4.7	1.2	****	0.5	****	0.4	****	0.0
	PPBC	42.3	10.8	****	4.5	****	3.6	****	0.0
N-PROPYL BENZENE		0.2	0.2	****	0.1	****	0.3	****	0.0
	PPBC	1.8	1.8	****	0.9	****	2.7	****	0.0
META-ETHYL TOLUENE		1.9	2.8	****	1.0	****	1.4	****	2.0
	PPBC	17.1	25.2	****	9.0	****	12.6	****	18.0
1,3,5 TRIMETHYL BENZENE		0.4	0.2	****	0.0	****	0.0	****	0.0
	PPBC	3.6	1.8	****	0.0	****	0.0	****	0.0
1,2,4 TRIMETHYL BENZENE		0.4	0.4	****	0.0	****	0.0	****	0.0
	PPBC	3.6	3.6	****	0.0	****	0.0	****	0.0
1,2,3 TRIMETHYL BENZENE		11.4	5.2	****	3.0	****	2.1	****	1.0
	PPBC	103	46.8	****	27.0	****	18.9	****	9.0
PAN		****	0.0	0.0	1.0	2.0	2.0	3.0	5.0
	PPBC	****	0.0	0.0	2.0	4.0	4.0	6.0	10.0
FORMALDEHYDE		****	43.0	****	37.0	****	52.0	****	76.0
	PPBC	****	43.0	****	37.0	****	52.0	****	76.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0

SURROGATE RUN 126-J
GLASS CHAMBER
1974 DEC 20

CLOCK TIME	805	900	930	1000	1030	1100	1130	1200
ELAPSED TIME(MIN)	-55	0	30	60	90	120	150	180
3P COL., 45 MIN 00 SEC	24.0	24.0	****	14.0	****	6.0	****	11.0
TOTAL HC PPBC	1300.1	7292.8	****	7147.4	****	7062.8	****	2240.3
TOTAL NON-METHANE HC	340.1	2572.8	866.9	2317.4	1409.1	2262.8	702.2	2192.3
TOTAL SURROGATE	82.4	2303.4	859.8	2098.8	1395.2	1896.0	682.8	1776.2

SURROGATE RUN 127-J
GLASS CHAMBER
1974 DEC 30

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1047	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-73	0	30	60	90	120	150	180
		CONCENTRATIONS (PPB)							
METHANE		1280	2480	****	2400	****	2420	****	2380
	PPBC	1280	2480	****	2400	****	2420	****	2380
ETHENE		2.5	47.2	****	40.0	****	33.6	****	32.8
	PPBC	5.0	94.4	****	80.0	****	67.2	****	65.6
ETHANE		6.5	79.2	****	72.0	****	70.4	****	68.8
	PPBC	13.0	158	****	144	****	141	****	138
ACETYLENE (PORAPAK N)		3.0	50.4	****	46.4	****	46.4	****	44.0
	PPBC	6.0	101	****	92.8	****	92.8	****	88.0
PROPANE		6.2	18.4	17.6	18.0	****	****	17.2	15.6
	PPBC	18.6	55.2	52.8	54.0	****	****	51.6	46.8
PROPENE		0.6	12.0	10.4	9.2	7.4	6.6	5.6	4.4
	PPBC	1.8	36.0	31.2	27.6	22.2	19.8	16.8	13.2
ISOBUTANE		0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	PPBC	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6
N-BUTANE		0.0	179	179	173	163	****	160	141
	PPBC	0.0	716	716	692	652	****	640	564
ACETYLENE (DMS)		3.0	52.0	49.0	51.2	48.0	48.8	48.0	44.0
	PPBC	6.0	104	98.0	102	96.0	97.6	96.0	88.0
TRANS-2-BUTENE		0.0	0.6	0.4	0.2	0.0	0.0	0.0	0.0
	PPBC	0.0	2.4	1.6	0.8	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.6	0.6	0.8	0.8	1.0	1.0	1.0
	PPBC	0.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0
CIS-2-BUTENE		0.0	13.4	10.2	6.8	4.2	2.6	1.5	0.6
	PPBC	0.0	53.6	40.8	27.2	16.8	10.4	6.0	2.4
N-PENTANE		0.0	0.4	0.4	0.4	0.4	0.6	0.6	0.4
	PPBC	0.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0
2,3-DIMETHYL BUTANE		0.0	95.2	89.6	88.0	82.4	82.8	78.4	70.4
	PPBC	0.0	571	538	528	494	497	470	422

SURROGATE RUN 127-J
GLASS CHAMBER
1974 DEC 30

CLOCK TIME		1047	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-73	0	30	60	90	120	150	180
2-METHYL BUTENE-2		0.0	13.2	9.6	4.0	2.0	0.0	0.0	0.0
	PPBC	0.0	66.0	48.0	20.0	10.0	0.0	0.0	0.0
ACETALDEHYDE		10.0	10.8	****	32.8	****	42.4	****	42.0
	PPBC	20.0	21.6	****	65.6	****	84.8	****	84.0
PROPIONALDEHYDE		2.8	4.0	****	2.8	****	7.2	****	9.6
	PPBC	8.4	12.0	****	8.4	****	21.6	****	28.8
ACETONE		5.0	16.8	****	****	****	45.6	****	48.8
	PPBC	15.0	50.4	****	****	****	137	****	146
BENZENE		0.1	2.0	****	1.6	****	1.6	****	1.6
	PPBC	0.6	12.0	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		0.0	0.4	****	2.0	****	4.0	****	4.8
	PPBC	0.0	1.6	****	8.0	****	16.0	****	19.2
TOLUENE		1.8	16.0	****	****	****	14.4	****	14.4
	PPBC	12.6	112	****	****	****	101	****	101
ETHYL BENZENE		3.0	1.6	****	2.4	****	2.4	****	0.8
	PPBC	24.0	12.8	****	19.2	****	19.2	****	6.4
META-XYLENE		0.0	41.6	****	32.8	****	27.2	8.0	22.4
	PPBC	0.0	333	****	262	****	218	64.0	179
ISOPROPYL BENZENE		1.1	0.8	****	0.4	****	0.4	****	0.4
	PPBC	9.9	7.2	****	3.6	****	3.6	****	3.6
ORTHO-XYLENE		0.3	0.0	****	0.0	****	0.0	****	0.0
	PPBC	2.4	0.0	****	0.0	****	0.0	****	0.0
N-PROPYL BENZENE		0.1	0.3	****	0.0	****	0.0	****	0.0
	PPBC	0.9	2.7	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		0.9	2.0	****	2.0	****	2.1	****	****
	PPBC	8.1	18.0	****	18.0	****	18.9	****	****
ORTHO-ETHYL TOLUENE		0.2	0.0	****	0.0	****	0.0	****	****
	PPBC	1.8	0.0	****	0.0	****	0.0	****	****
1,2,3 TRIMETHYL BENZENE		4.8	4.0	****	2.4	****	2.0	****	****
	PPBC	43.2	36.0	****	21.6	****	18.0	****	****
PAN		****	0.0	0.0	1.0	3.0	5.0	7.0	****
	PPBC	****	0.0	0.0	2.0	6.0	10.0	14.0	****
FORMALDEHYDE		****	63.0	****	79.0	****	105	****	****
	PPBC	****	63.0	****	79.0	****	105	****	****
3P COL., 2 MIN 40 SEC		****	0.0	****	0.0	****	0.0	****	0.0

SURROGATE RUN 127-J
GLASS CHAMBER
1974 DEC 30

CLOCK TIME	1047	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)	-73	0	30	60	90	120	150	180
3P COL., 45 MIN 00 SEC	34.0	20.0	****	249	0.0	20.0	****	****
TOTAL HC PPBC	1471.3	5024.3	****	4576.2	****	4021.7	****	4306.6
TOTAL NON-METHANE HC	191.3	2544.3	1532.6	2176.2	1305.0	1601.7	1368.4	1926.6
TOTAL SURROGATE	57.0	2300.4	1526.0	1933.6	1291.4	1148.6	1344.8	1620.0

SURROGATE RUN 128-J
GLASS CHAMBER
1975 JAN 20

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		905	1000	1030	1100	1130	1200	1230	1300	1330
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180	210
		CONCENTRATIONS (PPB)								
METHANE		1140	2860	****	2740	****	2700	****	2700	****
	PPBC	1140	2860	****	2740	****	2700	****	2700	****
ETHENE		1.6	40.0	****	36.8	****	34.0	****	30.4	****
	PPBC	3.2	80.0	****	73.6	****	68.0	****	60.8	****
ETHANE		3.4	72.0	****	72.0	****	72.0	****	68.8	****
	PPBC	6.8	144	****	144	****	144	****	138	****
ACETYLENE (POROPAK N)		1.5	43.2	****	42.4	****	40.0	****	40.0	****
	PPBC	3.0	86.4	****	84.8	****	80.0	****	80.0	****
PROPANE		8.2	18.8	18.0	18.4	16.8	17.2	16.8	17.2	17.2
	PPBC	24.6	56.4	54.0	55.2	50.4	51.6	50.4	51.6	51.6
PROPENE		0.6	11.2	9.6	8.2	6.6	5.8	5.0	4.6	3.8
	PPBC	1.8	33.6	28.8	24.6	19.8	17.4	15.0	13.8	11.4
ISOBUTANE		0.3	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8
	PPBC	1.2	2.4	2.4	2.8	2.8	3.2	3.2	3.2	3.2
N-BUTANE		0.6	166	165	162	157	150	147	147	147
	PPBC	2.4	664	660	648	628	600	588	588	588
ACETYLENE (DMS)		1.4	43.2	42.4	42.4	40.8	40.4	40.0	40.0	40.0
	PPBC	2.8	86.4	84.8	84.8	81.6	80.8	80.0	80.0	80.0
ISOBUTENE		0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
TRANS-2-BUTENE		0.0	0.8	0.5	0.2	0.1	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	2.0	0.8	0.4	0.0	0.0	0.0	0.0
ISOPENTANE		0.6	1.5	1.4	1.6	1.6	2.0	2.0	2.0	2.0
	PPBC	3.0	7.5	7.0	8.0	8.0	10.0	10.0	10.0	10.0
CIS-2-BUTENE		0.0	12.8	9.2	6.0	4.0	2.4	1.5	0.9	0.4
	PPBC	0.0	51.2	36.8	24.0	16.0	9.6	6.0	3.6	1.6
N-PENTANE		0.3	0.9	0.7	0.8	0.9	0.9	0.9	1.0	0.9
	PPBC	1.5	4.5	3.5	4.0	4.5	4.5	4.5	5.0	4.5

SURROGATE RUN 128-J
GLASS CHAMBER
1975 JAN 20

CLOCK TIME		905	1000	1030	1100	1130	1200	1230	1300	1330
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180	210
2,3-DIMETHYL BUTANE		0.0	92.0	90.4	84.8	82.4	76.8	76.0	74.0	73.2
	PPBC	0.0	552	542	509	494	461	456	444	439
2-METHYL PENTANE		0.0	0.0	0.0	0.5	1.0	1.0	0.8	0.5	0.0
	PPBC	0.0	0.0	0.0	3.0	6.0	6.0	4.8	3.0	0.0
2-METHYL BUTENE-2		0.0	16.0	10.0	4.0	3.0	0.5	0.0	0.0	0.0
	PPBC	0.0	80.0	50.0	20.0	15.0	2.5	0.0	0.0	0.0
ACETALDEHYDE		16.0	21.2	****	36.0	****	48.0	****	48.0	****
	PPBC	32.0	42.4	****	72.0	****	96.0	****	96.0	****
PROPIONALDEHYDE		5.4	4.0	****	4.0	****	4.8	****	7.2	****
	PPBC	16.2	12.0	****	12.0	****	14.4	****	21.6	****
ACETONE		8.0	18.0	****	28.0	****	42.4	****	47.2	****
	PPBC	24.0	54.0	****	84.0	****	127	****	142	****
BENZENE		0.3	1.8	****	1.6	****	1.6	****	1.6	****
	PPBC	1.8	10.8	****	9.6	****	9.6	****	9.6	****
METHYL ETHYL KETONE		0.9	0.5	****	2.4	****	4.0	****	4.8	****
	PPBC	3.6	2.0	****	9.6	****	16.0	****	19.2	****
TOLUENE		0.4	15.2	****	14.4	****	14.0	****	13.2	****
	PPBC	2.8	106	****	101	****	98.0	****	92.4	****
ETHYL BENZENE		1.0	1.6	****	1.2	****	1.2	****	1.4	****
	PPBC	8.0	12.8	****	9.6	****	9.6	****	11.2	****
PARA-XYLENE		0.2	0.0	****	0.0	****	0.0	****	0.0	****
	PPBC	1.6	0.0	****	0.0	****	0.0	****	0.0	****
META-XYLENE		0.2	39.2	****	29.0	****	24.0	****	20.4	****
	PPBC	1.6	314	****	232	****	192	****	163	****
ISOPROPYL BENZENE		1.0	0.9	****	0.6	****	0.6	****	0.6	****
	PPBC	9.0	8.1	****	5.4	****	5.4	****	5.4	****
ORTHO-XYLENE		0.2	0.0	****	0.0	****	0.0	****	****	****
	PPBC	1.6	0.0	****	0.0	****	0.0	****	****	****
N-PROPYL BENZENE		0.3	0.1	****	0.1	****	0.0	****	****	****
	PPBC	2.7	0.9	****	0.9	****	0.0	****	****	****
PARA-ETHYL TOLUENE		0.7	0.0	****	0.0	****	0.0	****	****	****
	PPBC	6.3	0.0	****	0.0	****	0.0	****	****	****
META-ETHYL TOLUENE		4.4	2.6	****	2.1	****	2.4	****	****	****
	PPBC	39.6	23.4	****	18.9	****	21.6	****	****	****
1,2,3 TRIMETHYL BENZENE		4.0	4.0	****	3.0	****	2.2	****	****	****

SURROGATE RUN 128-J
GLASS CHAMBER
1975 JAN 20

CLOCK TIME		905	1000	1030	1100	1130	1200	1230	1300	1330
ELAPSED TIME(MIN)		-55	0	30	60	90	120	150	180	210
	PPBC	36.0	36.0	****	27.0	****	19.8	****	****	****
PAN		****	0.0	0.0	1.0	3.0	5.0	6.0	7.0	9.0
	PPBC	****	0.0	0.0	2.0	6.0	10.0	12.0	14.0	18.0
FORMALDEHYDE		****	2.0	****	0.0	****	43.0	****	79.0	****
	PPBC	****	2.0	****	0.0	****	43.0	****	79.0	****
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	****	****
3P COL., 45 MIN 00 SEC		24.0	30.0	****	409	0.0	319	9.0	9.0	0.0
TOTAL HC PPBC		1374.2	5250.8	****	4925.4	****	4820.6	****	4753.8	****
TOTAL NON-METHANE HC		234.2	2390.8	1472.1	2185.4	1332.9	2120.6	1229.9	2053.8	1207.5
TOTAL SURROGATE		46.1	2170.8	1458.8	1916.6	1305.6	1724.3	1195.4	1635.0	1171.8

SURROGATE RUN 129-J
GLASS CHAMBER
1975 JAN 21

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1300	1345	1415	1445	1515	1545	1615	1645
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180
		CONCENTRATIONS (PPB)							
METHANE		1100	2860	****	2860	****	2800	****	2770
	PPBC	1100	2860	****	2860	****	2800	****	2770
ETHENE		1.9	38.4	****	36.0	****	34.0	****	31.2
	PPBC	3.8	76.8	****	72.0	****	68.0	****	62.4
ETHANE		2.8	69.6	****	68.8	****	68.0	****	68.0
	PPBC	5.6	139	****	138	****	136	****	136
ACETYLENE (POROPAK N)		3.0	43.6	****	43.2	****	44.0	****	41.6
	PPBC	6.0	87.2	****	86.4	****	88.0	****	83.2
PROPANE		9.2	20.0	19.8	19.4	19.4	19.2	****	18.0
	PPBC	27.6	60.0	59.4	58.2	58.2	57.6	****	54.0
PROPENE		4.6	11.2	10.2	8.6	7.4	6.4	****	4.8
	PPBC	13.8	33.6	30.6	25.8	22.2	19.2	****	14.4
ISOBUTANE		0.2	0.4	0.4	0.5	0.6	0.6	****	0.6
	PPBC	0.8	1.6	1.6	2.0	2.4	2.4	****	2.4
N-BUTANE		0.5	170	170	163	162	160	****	152
	PPBC	2.0	680	680	652	648	640	****	608
ACETYLENE (DMS)		3.0	44.0	44.0	44.0	44.0	44.0	****	42.4
	PPBC	6.0	88.0	88.0	88.0	88.0	88.0	****	84.8
TRANS-2-BUTENE		0.0	****	0.5	0.4	0.3	0.0	****	0.0
	PPBC	0.0	****	2.0	1.6	1.2	0.0	****	0.0
ISOPENTANE		0.6	0.6	0.9	1.0	1.0	1.2	****	1.6
	PPBC	3.0	3.0	4.5	5.0	5.0	6.0	****	8.0
CIS-2-BUTENE		0.0	13.0	10.6	7.4	4.9	3.0	****	1.6
	PPBC	0.0	52.0	42.4	29.6	19.6	12.0	****	6.4
N-PENTANE		0.2	0.3	0.3	0.4	0.5	0.7	****	0.6
	PPBC	1.0	1.5	1.5	2.0	2.5	3.5	****	3.0
2,3-DIMETHYL BUTANE		0.0	96.0	92.0	88.8	84.0	83.2	****	78.4
	PPBC	0.0	576	552	533	504	499	****	470

SURROGATE RUN 129-J
GLASS CHAMBER
1975 JAN 21

CLOCK TIME		1300	1345	1415	1445	1515	1545	1615	1645
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180
2-METHYL BUTENE-2		0.0	14.0	9.5	6.0	2.0	1.5	****	0.0
	PPBC	0.0	70.0	47.5	30.0	10.0	7.5	****	0.0
ACETALDEHYDE		10.0	14.0	****	18.8	****	36.8	****	47.2
	PPBC	20.0	28.0	****	37.6	****	73.6	****	94.4
PROPIONALDEHYDE		2.4	2.0	****	2.8	****	4.0	****	5.6
	PPBC	7.2	6.0	****	8.4	****	12.0	****	16.8
ACETONE		6.8	16.8	****	19.6	****	34.4	****	44.8
	PPBC	20.4	50.4	****	58.8	****	103	****	134
BENZENE		0.1	1.4	****	1.4	****	1.6	****	1.6
	PPBC	0.6	8.4	****	8.4	****	9.6	****	9.6
METHYL ETHYL KETONE		0.8	0.4	****	1.6	****	3.2	****	4.8
	PPBC	3.2	1.6	****	6.4	****	12.8	****	19.2
TOLUENE		0.3	16.0	****	15.2	****	14.4	****	0.0
	PPBC	2.1	112	****	106	****	101	****	0.0
ETHYL BENZENE		0.2	1.6	****	0.8	****	0.8	****	1.2
	PPBC	1.6	12.8	****	6.4	****	6.4	****	9.6
PARA-XYLENE		2.8	0.0	****	0.0	****	0.0	****	0.0
	PPBC	22.4	0.0	****	0.0	****	0.0	****	0.0
META-XYLENE		0.5	40.0	****	34.0	****	27.2	****	23.2
	PPBC	4.0	320	****	272	****	218	****	186
ISOPROPYL BENZENE		1.0	0.5	****	0.5	****	0.4	****	0.4
	PPBC	9.0	4.5	****	4.5	****	3.6	****	3.6
ORTHO-XYLENE		0.2	0.0	****	0.0	****	0.0	****	0.0
	PPBC	1.6	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		4.4	3.5	****	0.8	****	1.8	****	2.0
	PPBC	39.6	31.5	****	7.2	****	16.2	****	18.0
1,2,3 TRIMETHYL BENZENE		4.0	2.5	****	2.2	****	2.0	****	1.3
	PPBC	36.0	22.5	****	19.8	****	18.0	****	11.7
PAN		****	0.0	0.0	0.0	1.0	4.0	4.0	5.0
	PPBC	****	0.0	0.0	0.0	2.0	8.0	8.0	10.0
FORMALDEHYDE		****	24.0	****	12.0	****	19.0	****	40.0
	PPBC	****	24.0	****	12.0	****	19.0	****	40.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		****	30.0	****	15.0	****	22.0	****	20.0

SURROGATE RUN 129-J
GLASS CHAMBER
1975 JAN 21

CLOCK TIME	1300	1345	1415	1445	1515	1545	1615	1645
ELAPSED TIME(MIN)	-45	0	30	60	90	120	150	180
TOTAL HC PPBC	1331.3	5263.0	****	5043.7	****	4940.2	****	4771.9
TOTAL NON-METHANE HC	231.3	2403.0	1509.5	2183.7	1363.1	2140.2	8.0	2001.9
TOTAL SURROGATE	64.9	2207.2	1501.9	2005.2	1351.2	1845.9	****	1621.2

SURROGATE RUN D-130-J
GLASS CHAMBER
1975 JAN 23

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		917	1000	1300	1600
ELAPSED TIME(MIN)		-43	0	180	360
		CONCENTRATIONS (PPB)			
METHANE		1000	2900	2850	2800
	PPBC	1000	2900	2850	2800
ETHENE		2.6	40.0	27.2	22.4
	PPBC	5.2	80.0	54.4	44.8
ETHANE		3.2	72.0	67.4	64.0
	PPBC	6.4	144	135	128
ACETYLENE (POROPAK N)		2.0	44.8	40.0	38.4
	PPBC	4.0	89.6	80.0	76.8
PROPANE		8.8	21.2	18.8	17.0
	PPBC	26.4	63.6	56.4	51.0
PROPENE		0.7	12.0	4.3	1.4
	PPBC	2.1	36.0	12.9	4.2
ISOBUTANE		0.4	0.5	0.6	0.8
	PPBC	1.6	2.0	2.4	3.2
N-BUTANE		0.8	179	154	133
	PPBC	3.2	716	616	532
ACETYLENE (DMS)		2.0	45.6	42.0	38.0
	PPBC	4.0	91.2	84.0	76.0
TRANS-2-BUTENE		0.0	0.8	0.0	0.0
	PPBC	0.0	3.2	0.0	0.0
ISOPENTANE		1.0	1.0	1.7	2.0
	PPBC	5.0	5.0	8.5	10.0
CIS-2-BUTENE		0.0	13.7	0.4	0.0
	PPBC	0.0	54.8	1.6	0.0
N-PENTANE		0.4	0.5	0.8	1.0
	PPBC	2.0	2.5	4.0	5.0
2,3-DIMETHYL BUTANE		0.0	96.0	72.0	58.8
	PPBC	0.0	576	432	353

SURROGATE RUN D-130-J
GLASS CHAMBER
1975 JAN 23

CLOCK TIME		917	1000	1300	1600
ELAPSED TIME(MIN)		-43	0	180	360
2-METHYL BUTENE-2		0.0	15.0	0.0	0.0
	PPBC	0.0	75.0	0.0	0.0
ACETALDEHYDE		7.8	8.2	28.8	35.2
	PPBC	15.6	16.4	57.6	70.4
PROPIONALDEHYDE		1.8	1.6	3.2	4.0
	PPBC	5.4	4.8	9.6	12.0
ACETONE		5.2	13.6	42.4	50.4
	PPBC	15.6	40.8	127	151
BENZENE		0.2	1.8	1.6	1.6
	PPBC	1.2	10.8	9.6	9.6
METHYL ETHYL KETONE		0.4	0.5	4.8	7.2
	PPBC	1.6	2.0	19.2	28.8
TOLUENE		0.4	16.0	12.8	11.6
	PPBC	2.8	112	89.6	81.2
ETHYL BENZENE		1.1	1.2	1.6	2.0
	PPBC	8.8	9.6	12.8	16.0
META-XYLENE		0.8	40.8	20.0	12.8
	PPBC	6.4	326	160	102
ISOPROPYL BENZENE		0.8	0.4	0.4	0.4
	PPBC	7.2	3.6	3.6	3.6
ORTHO-XYLENE		0.4	0.0	0.0	0.0
	PPBC	3.2	0.0	0.0	0.0
N-PROPYL BENZENE		0.2	0.0	0.0	0.0
	PPBC	1.8	0.0	0.0	0.0
META-ETHYL TOLUENE		2.0	2.4	2.0	3.2
	PPBC	18.0	21.6	18.0	28.8
1,2,3 TRIMETHYL BENZENE		1.5	2.2	2.4	2.5
	PPBC	13.5	19.8	21.6	22.5
PAN		****	0.0	****	17.0
	PPBC	****	0.0	****	34.0
FORMALDEHYDE		****	****	****	****
	PPBC	****	****	****	****
3P COL., 2 MIN 40 SEC		0.0	0.0	0.0	0.0
3P COL., 45 MIN 00 SEC		****	18.0	31.0	40.0

SURROGATE RUN D-130-J
GLASS CHAMBER
1975 JAN 23

CLOCK TIME	917	1000	1300	1600
ELAPSED TIME(MIN)	-43	0	180	360
TOTAL HC PPBC	1157.0	5316.3	4783.8	4567.9
TOTAL NON-METHANE HC	157.0	2416.3	1933.8	1767.9
TOTAL SURROGATE	56.5	2277.4	1639.7	1372.8

SURROGATE RUN D-131-J
GLASS CHAMBER
1975 JAN 27

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1213	1245	1330	1545
ELAPSED TIME(MIN)		-32	0	45	180
		CONCENTRATIONS (PPB)			
METHANE		920	2860	****	2800
	PPBC	920	2860	****	2800
ETHENE		4.0	40.0	****	27.2
	PPBC	8.0	80.0	****	54.4
ETHANE		5.0	72.0	****	67.2
	PPBC	10.0	144	****	134
ACETYLENE (POROPAK N)		5.9	47.2	****	40.0
	PPBC	11.8	94.4	****	80.0
PROPANE		6.2	16.8	****	14.8
	PPBC	18.6	50.4	****	44.4
PROPENE		0.4	10.6	****	2.6
	PPBC	1.2	31.8	****	7.8
ISOBUTANE		0.2	0.3	****	0.3
	PPBC	0.8	1.2	****	1.2
N-BUTANE		0.2	166	****	136
	PPBC	0.8	664	****	544
ACETYLENE (DMS)		5.9	47.2	****	42.0
	PPBC	11.8	94.4	****	84.0
TRANS-2-BUTENE		0.0	0.8	****	0.0
	PPBC	0.0	3.2	****	0.0
ISOPENTANE		0.0	0.0	****	0.4
	PPBC	0.0	0.0	****	2.0
CIS-2-BUTENE		0.0	12.8	****	0.1
	PPBC	0.0	51.2	****	0.4
2,3-DIMETHYL BUTANE		0.0	95.2	****	66.0
	PPBC	0.0	571	****	396
2-METHYL BUTENE-2		0.0	14.4	****	0.0
	PPBC	0.0	72.0	****	0.0

SURROGATE RUN D-131-J
GLASS CHAMBER
1975 JAN 27

CLOCK TIME		1213	1245	1330	1545
ELAPSED TIME(MIN)		-32	0	45	180
ACETALDEHYDE		****	12.0	28.0	24.0
	PPBC	****	24.0	56.0	48.0
PROPIONALDEHYDE		****	1.6	2.4	7.2
	PPBC	****	4.8	7.2	21.6
ACETONE		8.0	12.8	25.6	36.0
	PPBC	24.0	38.4	76.8	108
BENZENE		0.2	1.6	1.6	1.0
	PPBC	1.2	9.6	9.6	6.0
METHYL ETHYL KETONE		0.2	0.4	1.6	3.6
	PPBC	0.8	1.6	6.4	14.4
TOLUENE		0.2	****	14.0	12.8
	PPBC	1.4	****	98.0	89.6
ETHYL BENZENE		0.0	1.2	0.8	****
	PPBC	0.0	9.6	6.4	****
PARA-XYLENE		2.0	0.0	0.0	0.0
	PPBC	16.0	0.0	0.0	0.0
META-XYLENE		0.2	41.6	29.6	16.4
	PPBC	1.6	333	237	131
ISOPROPYL BENZENE		1.0	0.4	0.4	0.6
	PPBC	9.0	3.6	3.6	5.4
ORTHO-XYLENE		0.4	0.0	0.0	0.0
	PPBC	3.2	0.0	0.0	0.0
N-PROPYL BENZENE		0.3	0.0	0.0	0.0
	PPBC	2.7	0.0	0.0	0.0
META-ETHYL TOLUENE		3.0	3.0	1.0	2.8
	PPBC	27.0	27.0	9.0	25.2
1,2,3 TRIMETHYL BENZENE		****	2.0	2.6	2.7
	PPBC	****	18.0	23.4	24.3
PAN		****	****	****	****
	PPBC	****	****	****	****
FORMALDEHYDE		****	****	****	****
	PPBC	****	****	****	****
3P COL., 2 MIN 40 SEC		0.0	0.0	0.0	0.0
3P COL., 45 MIN 00 SEC		****	****	30.0	****

SURROGATE RUN D-131-J
GLASS CHAMBER
1975 JAN 27

CLOCK TIME	1213	1245	1330	1545
ELAPSED TIME(MIN)	-32	0	45	180
TOTAL HC PPBC	1058.1	5092.8	****	4540.3
TOTAL NON-METHANE HC	138.1	2232.8	533.2	1740.3
TOTAL SURROGATE	53.4	2095.0	334.8	1484.2

SURROGATE RUN 132-J
GLASS CHAMBER
1975 JAN 29

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		823	915	945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
ELAPSED TIME(MIN)		-52	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		1170	2080	****	2080	****	2080	****	2080	****	2080	****	2080	****	2080
	PPBC	1170	2080	****	2080	****	2080	****	2080	****	2080	****	2080	****	2080
ETHENE		5.4	28.8	****	24.0	****	21.6	****	20.0	****	17.6	****	15.2	****	12.8
	PPBC	10.8	57.6	****	48.0	****	43.2	****	40.0	****	35.2	****	30.4	****	25.6
ETHANE		8.8	51.2	****	48.0	****	48.0	****	47.2	****	45.6	****	44.0	****	42.4
	PPBC	17.6	102	****	96.0	****	96.0	****	94.4	****	91.2	****	88.0	****	84.8
ACETYLENE (POROPAK N)		3.2	30.4	****	28.0	****	28.0	****	28.0	****	25.6	****	25.6	****	24.8
	PPBC	6.4	60.8	****	56.0	****	56.0	****	56.0	****	51.2	****	51.2	****	49.6
PROPANE		6.4	13.2	12.8	12.8	12.8	12.4	12.4	12.0	12.0	11.6	11.2	11.2	11.0	10.8
	PPBC	19.2	39.6	38.4	38.4	38.4	37.2	37.2	36.0	36.0	34.8	33.6	33.6	33.0	32.4
PROPENE		0.5	7.2	5.8	4.4	3.8	3.0	2.4	2.0	1.6	1.3	1.0	0.7	0.5	0.4
	PPBC	1.5	21.6	17.4	13.2	11.4	9.0	7.2	6.0	4.8	3.9	3.0	2.1	1.5	1.2
ISOBUTANE		0.2	0.4	1.4	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
	PPBC	0.8	1.6	5.6	3.2	3.2	3.2	3.6	3.6	3.6	4.0	4.0	4.0	4.0	4.0
N-BUTANE		0.4	104	97.6	96.8	93.6	91.2	89.6	85.6	84.8	83.2	78.4	76.8	75.2	72.8
	PPBC	1.6	416	390	387	374	365	358	342	339	333	314	307	301	291
ACETYLENE (DMS)		3.0	30.0	29.6	28.8	28.4	28.0	28.0	27.6	27.6	26.8	26.0	26.0	25.6	24.8
	PPBC	6.0	60.0	59.2	57.6	56.8	56.0	56.0	55.2	55.2	53.6	52.0	52.0	51.2	49.6
TRANS-2-BUTENE		0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.5	1.0	1.2	1.5	1.5	1.6	1.6	1.7	1.7	1.9	2.0	2.0	1.9	2.0
	PPBC	2.5	5.0	6.0	7.5	7.5	8.0	8.0	8.5	8.5	9.5	10.0	10.0	9.5	10.0
CIS-2-BUTENE		0.0	8.0	4.9	2.8	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	32.0	19.6	11.2	5.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.1	0.4	0.5	0.6	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	0.9	1.0
	PPBC	0.5	2.0	2.5	3.0	4.0	4.0	4.0	4.0	4.5	4.5	5.0	5.0	4.5	5.0
2,3-DIMETHYL BUTANE		0.0	53.6	49.6	46.0	44.0	42.0	40.0	38.0	36.8	35.6	33.0	31.4	29.8	28.0
	PPBC	0.0	322	298	276	264	252	240	228	221	214	198	188	179	168

SURROGATE RUN 132-J
GLASS CHAMBER
1975 JAN 29

CLOCK TIME		823	915	945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
ELAPSED TIME(MIN)		-52	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	8.0	4.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	40.0	20.0	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		11.0	12.0	****	28.0	****	29.6	****	32.0	****	30.4	****	28.0	****	32.4
	PPBC	22.0	24.0	****	56.0	****	59.2	****	64.0	****	60.8	****	56.0	****	64.8
PROPIONALDEHYDE		****	2.4	****	4.4	****	5.6	****	7.2	****	8.0	****	9.6	****	11.2
	PPBC	****	7.2	****	13.2	****	16.8	****	21.6	****	24.0	****	28.8	****	33.6
ACETONE		9.2	14.0	****	26.0	****	32.0	****	38.4	****	41.6	****	44.0	****	52.4
	PPBC	27.6	42.0	****	78.0	****	96.0	****	115	****	125	****	132	****	157
BENZENE		0.3	1.2	****	1.2	****	1.2	****	1.2	****	1.2	****	1.2	****	1.2
	PPBC	1.8	7.2	****	7.2	****	7.2	****	7.2	****	7.2	****	7.2	****	7.2
METHYL ETHYL KETONE		0.4	0.4	****	2.0	****	3.2	****	4.0	****	4.8	****	5.6	****	6.4
	PPBC	1.6	1.6	****	8.0	****	12.8	****	16.0	****	19.2	****	22.4	****	25.6
TOLUENE		0.4	9.6	****	8.8	****	8.2	****	7.6	****	7.2	****	6.6	****	6.4
	PPBC	2.8	67.2	****	61.6	****	57.4	****	53.2	****	50.4	****	46.2	****	44.8
ETHYL BENZENE		0.1	2.8	****	2.4	****	2.4	****	2.8	****	2.8	****	3.4	****	3.8
	PPBC	0.8	22.4	****	19.2	****	19.2	****	22.4	****	22.4	****	27.2	****	30.4
PARA-XYLENE		4.1	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	32.8	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-XYLENE		0.3	24.8	****	16.8	****	12.4	****	9.6	****	7.2	****	5.8	****	4.6
	PPBC	2.4	198	****	134	****	99.2	****	76.8	****	57.6	****	46.4	****	36.8
ISOPROPYL BENZENE		1.0	0.4	****	0.3	****	0.5	****	0.4	****	0.4	****	0.4	****	0.4
	PPBC	9.0	3.6	****	2.7	****	4.5	****	3.6	****	3.6	****	3.6	****	3.6
ORTHO-XYLENE		0.4	0.0	****	0.0	****	0.2	****	0.1	****	0.0	****	0.0	****	0.0
	PPBC	3.2	0.0	****	0.0	****	1.6	****	0.8	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		3.1	3.0	****	2.0	****	2.8	****	2.8	****	2.8	****	3.0	****	3.6
	PPBC	27.9	27.0	****	18.0	****	25.2	****	25.2	****	25.2	****	27.0	****	32.4
1,2,3 TRIMETHYL BENZENE		4.2	3.0	****	2.0	****	2.0	****	1.9	****	1.9	****	2.8	****	1.9
	PPBC	37.8	27.0	****	18.0	****	18.0	****	17.1	****	17.1	****	25.2	****	17.1
PAN		****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0
	PPBC	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0
FORMALDEHYDE		****	****	****	8.0	****	69.0	****	70.0	****	81.0	****	90.0	****	87.0
	PPBC	****	****	****	8.0	****	69.0	****	70.0	****	81.0	****	90.0	****	87.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		40.0	26.0	****	30.0	****	21.0	****	22.0	****	21.0	****	32.0	****	28.0

SURROGATE RUN 132-J
GLASS CHAMBER
1975 JAN 29

CLOCK TIME	823	915	945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
ELAPSED TIME(MIN)	-52	0	30	60	90	120	150	180	210	240	270	300	330	360
TOTAL HC PPBC	1400.4	3609.0	****	3449.8	****	3441.9	****	3391.6	****	3355.2	****	3312.3	****	3292.3
TOTAL NON-METHANE HC	230.4	1529.0	857.5	1369.8	767.4	1361.9	714.4	1311.6	672.6	1275.2	619.2	1232.3	583.3	1212.3
TOTAL SURROGATE	62.1	1358.4	843.4	1127.8	752.7	1017.2	698.8	932.4	656.0	871.9	600.2	793.9	565.3	734.4

SURROGATE RUN 133-J
GLASS CHAMBER
1975 JAN 30

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		808	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-52	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		960	2080	****	2080	****	2060	****	2080	****	2060	****	2060	****	2060
	PPBC	960	2080	****	2080	****	2060	****	2080	****	2060	****	2060	****	2060
ETHENE		8.4	31.6	****	26.0	****	21.6	****	19.2	****	16.0	****	14.4	****	12.0
	PPBC	16.8	63.2	****	52.0	****	43.2	****	38.4	****	32.0	****	28.8	****	24.0
ETHANE		7.0	48.2	****	47.0	****	44.8	****	44.4	****	43.2	****	43.2	****	40.0
	PPBC	14.0	96.4	****	94.0	****	89.6	****	88.8	****	86.4	****	86.4	****	80.0
ACETYLENE (POROPAK N)		9.0	35.2	****	33.0	****	31.2	****	29.6	****	29.2	****	28.4	****	27.6
	PPBC	18.0	70.4	****	66.0	****	62.4	****	59.2	****	58.4	****	56.8	****	55.2
PROPANE		7.0	13.6	13.4	13.2	13.0	12.4	12.0	11.2	11.6	10.8	11.4	10.8	10.8	9.1
	PPBC	21.0	40.8	40.2	39.6	39.0	37.2	36.0	33.6	34.8	32.4	34.2	32.4	32.4	27.3
PROPENE		0.5	6.8	5.5	4.2	3.0	2.4	1.8	1.4	1.0	0.7	0.6	0.5	0.4	0.3
	PPBC	1.5	20.4	16.5	12.6	9.0	7.2	5.4	4.2	3.0	2.1	1.8	1.5	1.2	0.9
ISOBUTANE		0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
	PPBC	0.4	1.2	0.8	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
N-BUTANE		0.3	104	101	99.2	94.4	89.6	88.0	84.8	83.2	78.4	78.4	75.2	73.6	66.4
	PPBC	1.2	416	404	397	378	358	352	339	333	314	314	301	294	266
ACETYLENE (DMS)		8.8	34.4	34.0	34.0	33.4	31.6	30.8	30.0	30.0	29.2	29.2	28.2	28.0	25.6
	PPBC	17.6	68.8	68.0	68.0	66.8	63.2	61.6	60.0	60.0	58.4	58.4	56.4	56.0	51.2
TRANS-2-BUTENE		0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.9	0.9	0.9
	PPBC	1.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	3.0	4.0	4.5	4.5	4.5
CIS-2-BUTENE		0.0	8.0	5.0	2.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	32.0	20.0	8.0	3.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4
	PPBC	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.5	2.0	2.0
2,3-DIMETHYL BUTANE		0.0	60.0	56.8	53.2	50.0	45.6	43.6	42.0	40.0	38.0	36.0	33.8	33.0	29.6
	PPBC	0.0	360	341	319	300	274	262	252	240	228	216	203	198	178

.95

17,01

36.15

SURROGATE RUN 133-J
GLASS CHAMBER
1975 JAN 30

CLOCK TIME		808	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-52	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	8.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	40.0	20.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		5.4	9.2	****	27.6	****	36.0	****	32.0	****	29.6	****	28.8	****	31.2
	PPBC	10.8	18.4	****	55.2	****	72.0	****	64.0	****	59.2	****	57.6	****	62.4
PROPIONALDEHYDE		2.4	2.0	****	3.6	****	5.6	****	7.2	****	8.0	****	9.0	****	10.4
	PPBC	7.2	6.0	****	10.8	****	16.8	****	21.6	****	24.0	****	27.0	****	31.2
ACETONE		9.4	15.2	****	29.6	****	43.2	****	43.2	****	48.8	****	52.6	****	56.0
	PPBC	28.2	45.6	****	88.8	****	130	****	130	****	146	****	158	****	168
BENZENE		0.1	1.0	****	0.8	****	0.8	****	0.8	****	0.8	****	0.8	****	0.8
	PPBC	0.6	6.0	****	4.8	****	4.8	****	4.8	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		0.4	0.4	****	1.6	****	0.2	****	4.0	****	4.8	****	5.6	****	6.4
	PPBC	1.6	1.6	****	6.4	****	0.8	****	16.0	****	19.2	****	22.4	****	25.6
TOLUENE		0.2	9.6	****	8.8	****	8.2	****	7.6	****	6.8	****	6.4	****	6.2
	PPBC	1.4	67.2	****	61.6	****	57.4	****	53.2	****	47.6	****	44.8	****	43.4
ETHYL BENZENE		4.6	4.0	****	2.8	****	3.4	****	3.0	****	3.3	****	3.7	****	3.9
	PPBC	36.8	32.0	****	22.4	****	27.2	****	24.0	****	26.4	****	29.6	****	31.2
META-XYLENE		0.2	26.4	****	17.6	****	12.6	****	9.2	****	6.8	****	5.4	****	4.6
	PPBC	1.6	211	****	141	****	101	****	73.6	****	54.4	****	43.2	****	36.8
ISOPROPYL BENZENE		0.6	0.2	****	0.3	****	0.2	****	0.2	****	0.2	****	0.2	****	0.2
	PPBC	5.4	1.8	****	2.7	****	1.8	****	1.8	****	1.8	****	1.8	****	1.8
N-PROPYL BENZENE		0.2	0.1	****	0.2	****	0.1	****	0.1	****	0.1	****	0.2	****	0.1
	PPBC	1.8	0.9	****	1.8	****	0.9	****	0.9	****	0.9	****	1.8	****	0.9
META-ETHYL TOLUENE		3.4	2.4	****	1.8	****	2.8	****	2.9	****	2.7	****	3.6	****	3.4
	PPBC	30.6	21.6	****	16.2	****	25.2	****	26.1	****	24.3	****	32.4	****	30.6
1,2,3 TRIMETHYL BENZENE		3.0	2.2	****	1.8	****	1.2	****	1.4	****	1.3	****	1.0	****	1.0
	PPBC	27.0	19.8	****	16.2	****	10.8	****	12.6	****	11.7	****	9.0	****	9.0
PAN		****	0.0	0.0	0.0	5.0	8.0	10.0	12.0	13.0	14.0	15.0	15.0	15.0	14.0
	PPBC	****	0.0	0.0	0.0	10.0	16.0	20.0	24.0	26.0	28.0	30.0	30.0	30.0	28.0
FORMALDEHYDE		****	5.0	****	56.0	****	71.0	****	81.0	****	82.0	****	109	****	106
	PPBC	****	5.0	****	56.0	****	71.0	****	81.0	****	82.0	****	109	****	106
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		32.0	20.0	****	21.0	****	21.0	****	20.0	****	24.0	****	26.0	****	24.0
TOTAL HC PPBC		1187.2	3660.8	****	3558.2	****	3471.7	****	3433.2	****	3349.2	****	3348.1	****	3276.4
TOTAL NON-METHANE HC		227.2	1580.8	913.6	1478.2	809.4	1411.7	740.8	1353.2	700.8	1289.2	660.6	1288.1	620.1	1216.4
TOTAL SURROGATE		75.3	1418.4	910.3	1194.1	795.6	1031.0	716.6	942.6	670.6	854.9	624.0	797.3	582.0	708.8

SURROGATE RUN 133-J
GLASS CHAMBER
1975 JAN 30

CLOCK TIME		1530	1600	1630	1700	1730	1800
ELAPSED TIME(MIN)		390	420	450	480	510	540
		CONCENTRATIONS (PPB)					
METHANE		****	2060	****	2030	****	2030
	PPBC	****	2060	****	2030	****	2030
ETHENE		****	11.2	****	10.0	****	9.6
	PPBC	****	22.4	****	20.0	****	19.2
ETHANE		****	40.0	****	39.2	****	40.0
	PPBC	****	80.0	****	78.4	****	80.0
ACETYLENE (PORAPAK N)		****	27.6	****	25.6	****	26.4
	PPBC	****	55.2	****	51.2	****	52.8
PROPANE		10.2	8.4	10.1	9.8	9.6	9.7
	PPBC	30.6	25.2	30.3	29.4	28.8	29.1
PROPENE		0.3	0.2	0.2	0.3	0.2	0.2
	PPBC	0.9	0.6	0.6	0.9	0.6	0.6
ISOBUTANE		0.4	0.4	0.4	0.4	0.4	0.4
	PPBC	1.6	1.6	1.6	1.6	1.6	1.6
N-BUTANE		68.8	64.0	67.2	64.0	64.0	62.4
	PPBC	275	256	269	256	256	250
ACETYLENE (DMS)		27.2	23.6	27.2	26.3	26.0	25.8
	PPBC	54.4	47.2	54.4	52.6	52.0	51.6
TRANS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.9	0.9	1.0	1.0	1.0	0.9
	PPBC	4.5	4.5	5.0	5.0	5.0	4.5
CIS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.4	0.4	0.5	0.5	0.5	0.5
	PPBC	2.0	2.0	2.5	2.5	2.5	2.5
2,3-DIMETHYL BUTANE		30.2	28.6	28.2	26.5	26.0	25.0
	PPBC	181	172	169	159	156	150
2-METHYL BUTENE-2		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		****	32.8	****	28.0	****	36.0
	PPBC	****	65.6	****	56.0	****	72.0
PROPIONALDEHYDE		****	12.0	****	12.8	****	13.6
	PPBC	****	36.0	****	38.4	****	40.8

2.4 %

17.01

40.00

SURROGATE RUN 133-J
GLASS CHAMBER
1975 JAN 30

CLOCK TIME		1530	1600	1630	1700	1730	1800
ELAPSED TIME(MIN)		390	420	450	480	510	540
ACETONE		****	62.4	****	57.6	****	71.2
	PPBC	****	187	****	173	****	214
BENZENE		****	0.8	****	0.8	****	0.8
	PPBC	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		****	7.2	****	7.2	****	7.2
	PPBC	****	28.8	****	28.8	****	28.8
TOLUENE		****	6.2	****	5.6	****	5.6
	PPBC	****	43.4	****	39.2	****	39.2
ETHYL BENZENE		****	4.2	****	4.0	****	4.3
	PPBC	****	33.6	****	32.0	****	34.4
META-XYLENE		****	3.8	****	3.4	****	2.9
	PPBC	****	30.4	****	27.2	****	23.2
ISOPROPYL BENZENE		****	0.2	****	0.2	****	0.3
	PPBC	****	1.8	****	1.8	****	2.7
N-PROPYL BENZENE		****	0.2	****	0.1	****	0.1
	PPBC	****	1.8	****	0.9	****	0.9
META-ETHYL TOLUENE		****	3.4	****	3.9	****	3.8
	PPBC	****	30.6	****	35.1	****	34.2
1,2,3 TRIMETHYL BENZENE		****	0.8	****	0.6	****	0.9
	PPBC	****	7.2	****	5.4	****	8.1
PAN		15.0	14.0	14.0	14.0	13.0	12.0
	PPBC	30.0	28.0	28.0	28.0	26.0	24.0
FORMALDEHYDE		****	113	****	113	****	****
	PPBC	****	113	****	113	****	****
3P COL., 2 MIN 40 SEC		****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		****	27.0	****	25.0	****	28.0
TOTAL HC PPBC		****	4868.1	****	4696.3	****	4557.7
TOTAL NON-METHANE HC		807.6	2808.1	1474.0	2666.3	1337.9	2527.7
TOTAL SURROGATE		617.6	2099.2	1433.6	1856.1	1289.0	1674.1

SURROGATE RUN 134-J
GLASS CHAMBER
1975 JAN 31

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		850	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-40	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		720	2860	****	2800	****	2800	****	2720	****	2720	****	2720	****	2640
	PPBC	720	2860	****	2800	****	2800	****	2720	****	2720	****	2720	****	2640
ETHENE		4.5	43.2	****	36.8	****	25.2	****	32.0	****	30.4	****	25.6	****	24.8
	PPBC	9.0	86.4	****	73.6	****	50.4	****	64.0	****	60.8	****	51.2	****	49.6
ETHANE		7.0	76.8	****	72.0	****	72.0	****	70.4	****	68.8	****	64.0	****	64.0
	PPBC	14.0	154	****	144	****	144	****	141	****	138	****	128	****	128
ACETYLENE (POROPAK N)		4.3	46.4	****	43.2	****	43.2	****	41.6	****	40.0	****	39.2	****	39.2
	PPBC	8.6	92.8	****	86.4	****	86.4	****	83.2	****	80.0	****	78.4	****	78.4
PROPANE		7.8	18.4	17.6	18.4	17.6	17.4	17.2	16.8	16.4	16.0	16.0	15.2	15.2	15.2
	PPBC	23.4	55.2	52.8	55.2	52.8	52.2	51.6	50.4	49.2	48.0	48.0	45.6	45.6	45.6
PROPENE		0.6	11.2	8.6	7.2	5.8	5.2	4.6	4.0	2.8	2.8	2.6	2.3	1.6	1.6
	PPBC	1.8	33.6	25.8	21.6	17.4	15.6	13.8	12.0	8.4	8.4	7.8	6.9	4.8	4.8
ISOBUTANE		0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.6	0.6
	PPBC	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.2	2.4	2.4
N-BUTANE		0.8	171	166	163	157	154	152	149	146	142	141	138	131	131
	PPBC	3.2	684	664	652	628	616	608	596	584	568	564	552	524	524
ACETYLENE (DMS)		4.0	45.6	44.0	45.6	42.8	43.6	42.4	42.0	41.6	40.8	40.0	39.8	39.0	39.2
	PPBC	8.0	91.2	88.0	91.2	85.6	87.2	84.8	84.0	83.2	81.6	80.0	79.6	78.0	78.4
TRANS-2-BUTENE		0.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.7	0.7	0.5	0.5	0.5	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.0
	PPBC	3.5	3.5	2.5	2.5	2.5	4.0	4.0	4.0	4.0	4.0	4.5	5.0	5.5	5.0
CIS-2-BUTENE		0.0	13.2	6.9	3.0	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	52.8	27.6	12.0	4.4	2.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5
	PPBC	1.0	1.0	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5
2,3-DIMETHYL BUTANE		0.0	100	92.8	92.0	87.2	86.0	84.0	82.0	80.0	78.4	74.4	74.0	71.6	70.4
	PPBC	0.0	600	557	552	523	516	504	492	480	470	446	444	430	422

7.69

16.67

SURROGATE RUN 134-J
GLASS CHAMBER
1975 JAN 31

CLOCK TIME		850	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-40	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	15.9	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	79.5	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		4.0	10.0	****	32.0	****	44.0	****	44.0	****	43.2	****	46.4	****	44.0
	PPBC	8.0	20.0	****	64.0	****	88.0	****	88.0	****	86.4	****	92.8	****	88.0
PROPIONALDEHYDE		0.8	2.8	****	4.0	****	4.8	****	5.6	****	6.4	****	6.4	****	8.0
	PPBC	2.4	8.4	****	12.0	****	14.4	****	16.8	****	19.2	****	19.2	****	24.0
ACETONE		10.3	21.2	****	36.0	****	44.0	****	52.0	****	51.2	****	55.2	****	57.6
	PPBC	30.9	63.6	****	108	****	132	****	156	****	154	****	166	****	173
BENZENE		0.2	1.6	****	1.2	****	1.6	****	1.6	****	1.4	****	1.4	****	1.4
	PPBC	1.2	9.6	****	7.2	****	9.6	****	9.6	****	8.4	****	8.4	****	8.4
METHYL ETHYL KETONE		0.4	0.4	****	1.6	****	3.2	****	4.0	****	4.0	****	4.8	****	5.2
	PPBC	1.6	1.6	****	6.4	****	12.8	****	16.0	****	16.0	****	19.2	****	20.8
TOLUENE		0.2	16.0	****	15.2	****	14.4	****	13.6	****	13.2	****	12.8	****	12.4
	PPBC	1.4	112	****	106	****	101	****	95.2	****	92.4	****	89.6	****	86.8
ETHYL BENZENE		4.6	4.0	****	4.8	****	2.8	****	3.2	****	3.0	****	3.2	****	3.2
	PPBC	36.8	32.0	****	38.4	****	22.4	****	25.6	****	24.0	****	25.6	****	25.6
META-XYLENE		0.2	41.6	****	32.8	****	28.0	****	24.8	****	22.4	****	19.2	****	17.6
	PPBC	1.6	333	****	262	****	224	****	198	****	179	****	154	****	141
ISOPROPYL BENZENE		0.4	0.0	****	0.1	****	0.0	****	0.1	****	0.1	****	0.1	****	0.1
	PPBC	3.6	0.0	****	0.9	****	0.0	****	0.9	****	0.9	****	0.9	****	0.9
META-ETHYL TOLUENE		3.3	2.6	****	2.5	****	2.0	****	2.0	****	2.3	****	4.5	****	4.8
	PPBC	29.7	23.4	****	22.5	****	18.0	****	18.0	****	20.7	****	40.5	****	43.2
1,2,3 TRIMETHYL BENZENE		2.0	1.0	****	1.5	****	1.0	****	0.6	****	1.2	****	1.0	****	1.0
	PPBC	18.0	9.0	****	13.5	****	9.0	****	5.4	****	10.8	****	9.0	****	9.0
PAN		****	0.0	****	5.0	6.0	7.0	7.0	7.0	8.0	8.0	7.0	8.0	8.0	8.0
	PPBC	****	0.0	****	10.0	12.0	14.0	14.0	14.0	16.0	16.0	14.0	16.0	16.0	16.0
FORMALDEHYDE		****	31.0	****	36.0	****	63.0	****	87.0	****	83.0	****	97.0	****	93.0
	PPBC	****	31.0	****	36.0	****	63.0	****	87.0	****	83.0	****	97.0	****	93.0
3P COL., 2 MIN 40 SEC		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
3P COL., 45 MIN 00 SEC		28.0	25.0	****	23.0	****	25.0	****	19.0	****	20.0	****	17.0	****	20.0
TOTAL HC PPBC		920.6	5349.8	****	5091.5	****	4998.0	****	4896.3	****	4811.7	****	4772.3	****	4632.0
TOTAL NON-METHANE HC		200.6	2489.8	1441.2	2291.5	1328.0	2198.0	1283.2	2176.3	1227.4	2091.7	1167.8	2052.3	1107.9	1992.0
TOTAL SURROGATE		62.7	2285.1	1436.6	1968.0	1311.4	1808.2	1262.6	1732.4	1204.8	1645.6	1146.2	1549.9	1082.0	1480.4

SURROGATE RUN 134-J
GLASS CHAMBER
1975 JAN 31

CLOCK TIME		1600	1630
ELAPSED TIME(MIN)		390	420
		CONCENTRATIONS (PPB)	
METHANE		****	2640
	PPBC	****	2640
ETHENE		****	24.0
	PPBC	****	48.0
ETHANE		****	64.0
	PPBC	****	128
ACETYLENE (POROPAK N)		****	38.4
	PPBC	****	76.8
PROPANE		15.4	14.8
	PPBC	46.2	44.4
PROPENE		1.5	1.4
	PPBC	4.5	4.2
ISOBUTANE		0.6	0.7
	PPBC	2.4	2.8
N-BUTANE		131	128
	PPBC	524	512
ACETYLENE (DMS)		38.4	38.0
	PPBC	76.8	76.0
TRANS-2-BUTENE		0.0	0.0
	PPBC	0.0	0.0
ISOPENTANE		1.0	1.2
	PPBC	5.0	6.0
CIS-2-BUTENE		0.0	0.0
	PPBC	0.0	0.0
N-PENTANE		0.6	0.6
	PPBC	3.0	3.0
2,3-DIMETHYL BUTANE		69.2	68.0
	PPBC	415	408
2-METHYL BUTENE-2		0.0	0.0
	PPBC	0.0	0.0
ACETALDEHYDE		****	47.2
	PPBC	****	94.4
PROPIONALDEHYDE		****	9.6
	PPBC	****	28.8

SURROGATE RUN 134-J
GLASS CHAMBER
1975 JAN 31

CLOCK TIME		1600	1630
ELAPSED TIME(MIN)		390	420
ACETONE		****	63.2
	PPBC	****	190
BENZENE		****	1.2
	PPBC	****	7.2
METHYL ETHYL KETONE		****	5.6
	PPBC	****	22.4
TOLUENE		****	12.0
	PPBC	****	84.0
ETHYL BENZENE		****	3.6
	PPBC	****	28.8
META-XYLENE		****	15.6
	PPBC	****	125
ISOPROPYL BENZENE		****	0.1
	PPBC	****	0.9
META-ETHYL TOLUENE		****	2.4
	PPBC	****	21.6
1,2,3 TRIMETHYL BENZENE		****	1.0
	PPBC	****	9.0
PAN		7.0	8.0
	PPBC	14.0	16.0
FORMALDEHYDE		****	70.0
	PPBC	****	70.0
3P COL., 2 MIN 40 SEC		****	0.0
3P COL., 45 MIN 00 SEC		****	20.0
TOTAL HC PPBC		****	7060.0
TOTAL NON-METHANE HC		1291.7	4420.0
TOTAL SURROGATE		1129.4	3714.9

SURROGATE RUN 135-J
GLASS CHAMBER
1975 FEB 10

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		1155	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-35	0	30	60	90	120	150	180	210	240
		CONCENTRATIONS (PPB)									
METHANE		680	2130	****	2100	****	2080	****	2080	****	2080
	PPBC	680	2130	****	2100	****	2080	****	2080	****	2080
ETHENE		3.3	24.0	****	21.6	****	19.2	****	16.8	****	16.0
	PPBC	6.6	48.0	****	43.2	****	38.4	****	33.6	****	32.0
ETHANE		4.9	46.4	****	47.6	****	44.0	****	43.2	****	41.6
	PPBC	9.8	92.8	****	95.2	****	88.0	****	86.4	****	83.2
ACETYLENE (POROPAK N)		4.1	27.2	****	27.2	****	25.6	****	24.0	****	24.0
	PPBC	8.2	54.4	****	54.4	****	51.2	****	48.0	****	48.0
PROPANE		7.2	15.2	15.4	14.2	13.6	12.8	14.0	13.4	14.0	13.6
	PPBC	21.6	45.6	46.2	42.6	40.8	38.4	42.0	40.2	42.0	40.8
PROPENE		0.6	6.4	4.6	3.2	2.4	2.0	1.8	1.6	1.4	1.2
	PPBC	1.8	19.2	13.8	9.6	7.2	6.0	5.4	4.8	4.2	3.6
ISOBUTANE		0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4
	PPBC	0.8	0.8	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.6
N-BUTANE		0.2	95.2	92.8	****	83.2	81.6	80.0	77.6	79.2	78.4
	PPBC	0.8	381	371	****	333	326	320	310	317	314
ACETYLENE (DMS)		4.0	26.8	26.8	25.2	24.8	23.6	24.0	24.2	24.4	24.0
	PPBC	8.0	53.6	53.6	50.4	49.6	47.2	48.0	48.4	48.8	48.0
TRANS-2-BUTENE		0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.4	0.4	0.4	0.5	0.7	0.7	0.8	0.8	1.0
	PPBC	0.0	2.0	2.0	2.0	2.5	3.5	3.5	4.0	4.0	5.0
CIS-2-BUTENE		0.0	7.4	3.3	1.2	0.5	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	29.6	13.2	4.8	2.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.1	0.0	0.0	0.2	0.2	0.2	0.3	0.3	0.4
	PPBC	0.0	0.5	0.0	0.0	1.0	1.0	1.0	1.5	1.5	2.0
2,3-DIMETHYL BUTANE		0.0	61.6	56.4	52.0	50.0	48.0	47.2	45.6	44.8	43.0
	PPBC	0.0	370	338	312	300	288	283	274	269	258

SURROGATE RUN 135-J
GLASS CHAMBER
1975 FEB 10

CLOCK TIME		1155	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-35	0	30	60	90	120	150	180	210	240
2-METHYL BUTENE-2		0.0	9.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	49.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		1.0	2.0	****	20.0	****	16.0	****	16.0	****	20.0
	PPBC	2.0	4.0	****	40.0	****	32.0	****	32.0	****	40.0
PROPIONALDEHYDE		0.8	1.2	****	3.6	****	5.6	****	6.4	****	7.2
	PPBC	2.4	3.6	****	10.8	****	16.8	****	19.2	****	21.6
ACETONE		6.6	9.6	****	27.2	****	33.6	****	36.0	****	40.8
	PPBC	19.8	28.8	****	81.6	****	101	****	108	****	122
BENZENE		0.1	1.0	****	0.6	****	0.8	****	0.8	****	0.8
	PPBC	0.6	6.0	****	3.6	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		0.2	0.1	****	2.0	****	2.8	****	3.2	****	4.0
	PPBC	0.8	0.4	****	8.0	****	11.2	****	12.8	****	16.0
TOLUENE		0.1	10.4	****	9.2	****	8.6	****	8.0	****	7.8
	PPBC	0.7	72.8	****	64.4	****	60.2	****	56.0	****	54.6
ETHYL BENZENE		1.8	1.6	****	1.6	****	2.4	****	2.4	****	2.4
	PPBC	14.4	12.8	****	12.8	****	19.2	****	19.2	****	19.2
META-XYLENE		0.1	27.2	****	16.8	****	13.6	****	11.2	****	9.2
	PPBC	0.8	218	****	134	****	109	****	89.6	****	73.6
META-ETHYL TOLUENE		1.2	1.1	****	1.0	****	1.4	****	1.8	****	2.0
	PPBC	10.8	9.9	****	9.0	****	12.6	****	16.2	****	18.0
PAN		****	0.0	1.0	5.0	6.0	7.0	8.0	8.0	8.0	8.0
	PPBC	****	0.0	2.0	10.0	12.0	14.0	16.0	16.0	16.0	16.0
FORMALDEHYDE		****	27.0	****	39.0	****	77.0	****	122	****	149
	PPBC	****	27.0	****	39.0	****	77.0	****	122	****	149
3P CCL., 45 MIN 00 SEC		****	7.0	****	13.0	****	15.0	****	14.0	****	13.0
TOTAL HC PPBC		781.8	3606.8	****	3076.2	****	3377.5	****	3380.1	****	3403.0
TOTAL NON-METHANE HC		101.8	1476.8	851.2	976.2	748.7	1297.5	720.7	1300.1	703.7	1323.0
TOTAL SURROGATE		50.2	1381.0	846.4	758.6	732.4	1003.4	698.6	942.8	680.6	907.4

SURROGATE RUN 136-J
GLASS CHAMBER
1975 FEB 11

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		815	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		696	2900	****	2880	****	2850	****	2820	****	2800	****	2750	****	2720
	PPBC	696	2900	****	2880	****	2850	****	2820	****	2800	****	2750	****	2720
ETHENE		3.4	40.0	****	38.4	****	33.6	****	30.4	****	27.2	****	24.0	****	22.4
	PPBC	6.8	80.0	****	76.8	****	67.2	****	60.8	****	54.4	****	48.0	****	44.8
ETHANE		4.9	75.2	****	75.2	****	73.6	****	72.0	****	71.2	****	70.4	****	67.2
	PPBC	9.8	150	****	150	****	147	****	144	****	142	****	141	****	134
ACETYLENE (POROPAK N)		4.0	44.8	****	44.8	****	41.6	****	41.6	****	40.0	****	40.0	****	39.2
	PPBC	8.0	89.6	****	89.6	****	83.2	****	83.2	****	80.0	****	80.0	****	78.4
PROPANE		8.0	22.2	****	21.6	20.8	21.2	19.6	****	19.6	20.4	20.4	20.0	****	18.8
	PPBC	24.0	66.6	****	64.8	62.4	63.6	58.8	****	58.8	61.2	61.2	60.0	****	56.4
PROPENE		0.8	11.0	8.2	7.8	6.4	5.4	4.4	3.2	3.1	2.8	2.4	1.8	****	1.1
	PPBC	2.4	33.0	24.6	23.4	19.2	16.2	13.2	9.6	9.3	8.4	7.2	5.4	****	3.3
ISOBUTANE		0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	****	0.8
	PPBC	0.8	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.4	2.4	2.4	2.8	****	3.2
N-BUTANE		0.4	170	165	157	152	150	144	141	138	141	136	133	****	128
	PPBC	1.6	680	660	628	608	600	576	564	552	564	544	532	****	512
ACETYLENE (DMS)		4.0	44.8	44.4	44.0	53.2	42.4	41.2	41.2	40.0	41.2	40.4	40.0	****	38.4
	PPBC	8.0	89.6	88.8	88.0	106	84.8	82.4	82.4	80.0	82.4	80.8	80.0	****	76.8
TRANS-2-BUTENE		0.0	0.8	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	3.2	2.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ISOPENTANE		0.5	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.2	1.4	****	1.6
	PPBC	2.5	4.0	4.0	4.0	4.5	4.5	5.0	5.0	5.0	5.5	6.0	7.0	****	8.0
CIS-2-BUTENE		0.0	13.0	9.9	6.1	3.8	2.0	1.0	0.4	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	52.0	39.6	24.4	15.2	8.0	4.0	1.6	0.0	0.0	0.0	0.0	****	0.0
N-PENTANE		0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	****	0.8
	PPBC	0.5	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	3.0	3.5	4.0	****	4.0
2,3-DIMETHYL BUTANE		0.0	101	96.0	91.2	85.6	84.8	82.0	78.0	74.0	74.0	71.6	69.6	****	62.8
	PPBC	0.0	606	576	547	514	509	492	468	444	444	430	418	****	377

SURROGATE RUN 136-J
GLASS CHAMBER
1975 FEB 11

CLOCK TIME		815	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	16.5	9.8	5.0	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	82.5	49.0	25.0	9.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ACETALDEHYDE		1.0	2.0	****	16.8	****	24.0	****	24.8	****	24.0	****	28.0	****	24.0
	PPBC	2.0	4.0	****	33.6	****	48.0	****	49.6	****	48.0	****	56.0	****	48.0
PROPIONALDEHYDE		0.8	1.4	****	3.2	****	4.8	****	5.6	****	6.8	****	8.4	****	10.4
	PPBC	2.4	4.2	****	9.6	****	14.4	****	16.8	****	20.4	****	25.2	****	31.2
ACETONE		5.6	13.6	****	28.0	****	36.0	****	41.6	****	47.2	****	51.2	****	52.6
	PPBC	16.8	40.8	****	84.0	****	108	****	125	****	142	****	154	****	158
BENZENE		0.1	1.6	****	1.5	****	1.4	****	1.4	****	1.2	****	1.2	****	1.2
	PPBC	0.6	9.6	****	9.0	****	8.4	****	8.4	****	7.2	****	7.2	****	7.2
METHYL ETHYL KETONE		0.1	0.2	****	2.0	****	3.2	****	4.0	****	4.8	****	5.6	****	7.2
	PPBC	0.4	0.8	****	8.0	****	12.8	****	16.0	****	19.2	****	22.4	****	28.8
TOLUENE		0.2	16.8	****	15.6	****	14.4	****	13.6	****	12.8	****	12.0	****	11.6
	PPBC	1.4	118	****	109	****	101	****	95.2	****	89.6	****	84.0	****	81.2
ETHYL BENZENE		2.8	1.6	****	2.2	****	2.0	****	2.0	****	2.6	****	2.4	****	1.6
	PPBC	22.4	12.8	****	17.6	****	16.0	****	16.0	****	20.8	****	19.2	****	12.8
META-XYLENE		0.1	44.0	****	34.4	****	26.4	****	21.2	****	17.2	****	14.4	****	10.8
	PPBC	0.8	352	****	275	****	211	****	170	****	138	****	115	****	86.4
ISOPROPYL BENZENE		0.2	0.0	****	0.0	****	0.1	****	0.0	****	0.0	****	****	****	0.0
	PPBC	1.8	0.0	****	0.0	****	0.9	****	0.0	****	0.0	****	****	****	0.0
ORTHO-XYLENE		0.4	0.3	****	0.3	****	0.2	****	0.0	****	0.1	****	****	****	0.5
	PPBC	3.2	2.4	****	2.4	****	1.6	****	0.0	****	0.8	****	****	****	4.0
PARA-ETHYL TOLUENE		0.5	0.3	****	0.0	****	0.0	****	0.0	****	0.0	****	****	****	0.0
	PPBC	4.5	2.7	****	0.0	****	0.0	****	0.0	****	0.0	****	****	****	0.0
META-ETHYL TOLUENE		1.3	1.0	****	1.0	****	1.1	****	1.5	****	1.8	****	****	****	3.0
	PPBC	11.7	9.0	****	9.0	****	9.9	****	13.5	****	16.2	****	****	****	27.0
PAN		****	0.0	0.0	1.0	2.0	4.0	5.0	7.0	8.0	9.0	10.0	13.0	14.0	15.0
	PPBC	****	0.0	0.0	2.0	4.0	8.0	10.0	14.0	16.0	18.0	20.0	26.0	28.0	30.0
FORMALDEHYDE		****	15.0	****	36.0	****	64.0	****	69.0	****	126	****	107	****	87.0
	PPBC	****	15.0	****	36.0	****	64.0	****	69.0	****	126	****	107	****	87.0
3P COL., 45 MIN 00 SEC		****	8.0	****	8.0	****	10.0	****	10.0	****	14.0	****	****	****	18.0
TOTAL HC PPBC		820.4	5320.8	****	5112.3	****	4959.6	****	4753.2	****	4811.9	****	4663.4	****	4541.9
TOTAL NON-METHANE HC		124.4	2420.8	1447.1	2232.3	1346.3	2109.6	1245.5	1933.2	1170.0	2011.9	1154.7	1913.4	28.0	1821.9
TOTAL SURROGATE		54.8	2312.9	1440.0	2014.0	1334.2	1809.5	1226.4	1595.6	1144.1	1582.8	1122.8	1483.0	****	1372.9

SURROGATE RUN 136-J
GLASS CHAMBER
1975 FEB 11

CLOCK TIME		1530	1600	1630	1700	1730	1800
ELAPSED TIME(MIN)		390	420	450	480	510	540
		CONCENTRATIONS (PPB)					
METHANE		****	2720	****	2670	****	****
	PPBC	****	2720	****	2670	****	****
ETHENE		****	19.2	****	16.0	****	****
	PPBC	****	38.4	****	32.0	****	****
ETHANE		****	64.0	****	64.0	****	****
	PPBC	****	128	****	128	****	****
ACETYLENE (PORAPAK N)		****	38.4	****	36.8	****	9.0
	PPBC	****	76.8	****	73.6	****	18.0
PROPANE		19.2	18.8	16.8	17.8	****	****
	PPBC	57.6	56.4	50.4	53.4	****	****
PROPENE		0.8	0.7	0.5	0.5	****	****
	PPBC	2.4	2.1	1.5	1.5	****	****
ISOBUTANE		0.8	0.8	0.8	0.9	****	****
	PPBC	3.2	3.2	3.2	3.6	****	****
N-BUTANE		125	122	115	114	****	****
	PPBC	500	488	460	456	****	****
ACETYLENE (DMS)		38.8	38.4	36.0	36.8	****	****
	PPBC	77.6	76.8	72.0	73.6	****	****
TRANS-2-BUTENE		0.0	0.0	0.0	0.0	****	****
	PPBC	0.0	0.0	0.0	0.0	****	****
ISOPENTANE		1.9	1.9	1.9	2.0	****	****
	PPBC	9.5	9.5	9.5	10.0	****	****
CIS-2-BUTENE		0.0	0.0	0.0	0.0	****	****
	PPBC	0.0	0.0	0.0	0.0	****	****
N-PENTANE		0.8	0.9	0.9	1.0	****	****
	PPBC	4.0	4.5	4.5	5.0	****	****
2,3-DIMETHYL BUTANE		61.2	58.8	56.0	53.6	****	****
	PPBC	367	353	336	322	****	****
2-METHYL BUTENE-2		0.0	0.0	0.0	0.0	****	****
	PPBC	0.0	0.0	0.0	0.0	****	****
ACETALDEHYDE		****	****	****	24.0	****	****
	PPBC	****	****	****	48.0	****	****
PROPIONALDEHYDE		****	****	****	6.4	****	****
	PPBC	****	****	****	19.2	****	****

SURROGATE RUN 136-J
GLASS CHAMBER
1975 FEB 11

CLOCK TIME		1530	1600	1630	1700	1730	1800
ELAPSED TIME(MIN)		390	420	450	480	510	540
ACETONE		****	****	****	64.0	****	****
	PPBC	****	****	****	192	****	****
BENZENE		****	1.2	****	1.2	****	****
	PPBC	****	7.2	****	7.2	****	****
METHYL ETHYL KETONE		****	7.2	****	8.0	****	****
	PPBC	****	28.8	****	32.0	****	****
TOLUENE		****	10.4	****	10.0	****	****
	PPBC	****	72.8	****	70.0	****	****
ETHYL BENZENE		****	1.4	****	1.2	****	****
	PPBC	****	11.2	****	9.6	****	****
META-XYLENE		****	9.0	****	7.6	****	****
	PPBC	****	72.0	****	60.8	****	****
ISOPROPYL BENZENE		****	0.0	****	0.0	****	****
	PPBC	****	0.0	****	0.0	****	****
ORTHO-XYLENE		****	0.0	****	0.0	****	****
	PPBC	****	0.0	****	0.0	****	****
PARA-ETHYL TOLUENE		****	0.0	****	0.0	****	****
	PPBC	****	0.0	****	0.0	****	****
META-ETHYL TOLUENE		****	3.0	****	3.8	****	****
	PPBC	****	27.0	****	34.2	****	****
PAN		17.0	18.0	20.0	21.0	22.0	28.0
	PPBC	34.0	36.0	40.0	42.0	44.0	56.0
FORMALDEHYDE		****	86.0	****	101	****	117
	PPBC	****	86.0	****	101	****	117
3P COL., 45 MIN 00 SEC		****	14.0	****	****	****	****
TOTAL HC PPBC		****	6641.5	****	6603.0	****	****
TOTAL NON-METHANE HC		1179.9	3921.5	2424.2	3933.0	1390.3	2300.6
TOTAL SURROGATE		1059.6	3600.2	2359.9	3210.9	1334.2	1827.5

SURROGATE RUN C-137-J
GLASS CHAMBER
1975 FEB 18

C1, C2 DATA DISCARDED DUE TO MALFUNCTIONING RECORDER
ETHENE AND ETHANE FROM SURROGATE RUN 136-J MAY BE USED TO ESTIMATE INITIAL NMHC AND SURROGATE TOTALS

CLOCK TIME		845	930 .	1230	1530
ELAPSED TIME(MIN)		-45	0	180	360
		CONCENTRATIONS (PPB)			
PROPANE		6.4	20.6	18.0	17.0
	PPBC	19.2	61.8	54.0	51.0
PROPENE		0.7	11.2	4.0	2.1
	PPBC	2.1	33.6	12.0	6.3
ISOBUTANE		0.3	0.4	0.4	0.5
	PPBC	1.2	1.6	1.6	2.0
N-BUTANE		0.6	170	147	134
	PPBC	2.4	680	588	536
ACETYLENE (DMS)		3.0	44.0	39.6	38.0
	PPBC	6.0	88.0	79.2	76.0
TRANS-2-BUTENE		0.0	0.8	0.0	0.0
	PPBC	0.0	3.2	0.0	0.0
ISOPENTANE		0.9	0.8	0.8	1.0
	PPBC	4.5	4.0	4.0	5.0
CIS-2-BUTENE		0.0	13.0	1.2	0.0
	PPBC	0.0	52.0	4.8	0.0
N-PENTANE		0.4	0.4	0.3	0.4
	PPBC	2.0	2.0	1.5	2.0
2,3-DIMETHYL BUTANE		0.0	96.0	75.2	64.0
	PPBC	0.0	576	451	384
2-METHYL BUTENE-2		0.0	14.0	0.2	0.0
	PPBC	0.0	70.0	1.0	0.0
ACETALDEHYDE		15.7	4.9	10.0	16.0
	PPBC	31.4	9.8	20.0	32.0
PROPIONALDEHYDE		2.8	0.5	7.2	8.0
	PPBC	8.4	1.5	21.6	24.0
ACETONE		5.2	5.0	36.0	46.4
	PPBC	15.6	15.0	108	139
BENZENE		0.3	0.8	1.2	1.2
	PPBC	1.8	4.8	7.2	7.2

SURROGATE RUN D-137-J
GLASS CHAMBER
1975 FEB 16

CLOCK TIME		845	930	1230	1530
ELAPSED TIME(MIN)		-45	0	180	360
METHYL ETHYL KETONE		0.2	0.1	4.0	6.4
	PPBC	0.8	0.4	16.0	25.6
TOLUENE		0.3	16.2	12.8	12.0
	PPBC	2.1	113	89.6	84.0
ETHYL BENZENE		0.4	0.8	0.8	0.8
	PPBC	3.2	6.4	6.4	6.4
META-XYLENE		0.4	43.2	20.4	13.2
	PPBC	3.2	346	163	106
ISOPROPYL BENZENE		0.8	0.3	0.4	0.4
	PPBC	7.2	2.7	3.6	3.6
META-ETHYL TOLUENE		0.4	0.4	1.0	1.0
	PPBC	3.6	3.6	9.0	9.0
1,2,3 TRIMETHYL BENZENE		6.6	3.0	2.7	2.3
	PPBC	59.4	27.0	24.3	20.7
FORMALDEHYDE		****	2.0	40.0	65.0
	PPBC	****	2.0	40.0	65.0
TOTAL HC PPBC		174.1	2104.4	1706.2	1584.6
TOTAL NON-METHANE HC		174.1	2104.4	1706.2	1584.6
TOTAL SURROGATE		35.0	2023.6	1443.0	1242.9

SURROGATE RUN D-138-J
GLASS CHAMBER
1975 FEB 21

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		830	830	930	930	1530	1530
ELAPSED TIME(MIN)		-60	-60	0	0	360	360
		CONCENTRATIONS (PPB)					
METHANE		****	808	****	2820	****	2770
	PPBC	****	808	****	2820	****	2770
ETHENE		****	3.2	****	33.6	****	22.4
	PPBC	****	6.4	****	67.2	****	44.8
ETHANE		****	5.2	****	68.0	****	64.0
	PPBC	****	10.4	****	136	****	128
ACETYLENE (POROPAK N)		****	3.6	****	36.8	****	35.2
	PPBC	****	7.2	****	73.6	****	70.4
PROPANE		7.2	****	21.2	****	18.2	****
	PPBC	21.6	****	63.6	****	54.6	****
PROPENE		0.6	****	10.9	****	2.8	****
	PPBC	1.8	****	32.7	****	8.4	****
ISOBUTANE		0.1	****	0.4	****	0.4	****
	PPBC	0.4	****	1.6	****	1.6	****
N-BUTANE		0.1	****	166	****	136	****
	PPBC	0.4	****	664	****	544	****
ACETYLENE (DMS)		5.4	****	45.6	****	40.0	****
	PPBC	10.8	****	91.2	****	80.0	****
TRANS-2-BUTENE		0.0	****	0.8	****	0.0	****
	PPBC	0.0	****	3.2	****	0.0	****
CIS-2-BUTENE		0.0	****	12.8	****	0.1	****
	PPBC	0.0	****	51.2	****	0.4	****
2,3-DIMETHYL BUTANE		0.0	****	95.2	****	66.8	****
	PPBC	0.0	****	571	****	401	****
2-METHYL BUTENE-2		0.0	****	14.4	****	0.0	****
	PPBC	0.0	****	72.0	****	0.0	****
ACETALDEHYDE		2.4	10.0	1.8	****	24.0	****
	PPBC	4.8	20.0	3.6	****	48.0	****

SURROGATE RUN D-138-J
GLASS CHAMBER
1975 FEB 21

CLOCK TIME		830	830	930	930	1530	1530
ELAPSED TIME(MIN)		-60	-60	0	0	360	360
PROPIONALDEHYDE		0.9	0.8	0.8	9.6	4.0	****
	PPBC	2.7	2.4	2.4	28.8	12.0	****
ACETONE		1.2	9.4	8.8	23.2	40.8	****
	PPBC	3.6	28.2	26.4	69.6	122	****
BENZENE		0.1	****	1.4	****	1.0	****
	PPBC	0.6	****	8.4	****	6.0	****
METHYL ETHYL KETONE		0.0	0.6	0.0	2.0	4.8	****
	PPBC	0.0	2.4	0.0	8.0	19.2	****
TOLUENE		0.4	****	16.0	****	12.8	****
	PPBC	2.8	****	112	****	89.6	****
META-XYLENE		0.1	****	41.6	****	14.8	****
	PPBC	0.8	****	333	****	118	****
ISOPROPYL BENZENE		0.6	****	0.0	****	0.0	****
	PPBC	5.4	****	0.0	****	0.0	****
PAN		****	****	0.0	****	2.0	****
	PPBC	****	****	0.0	****	4.0	****
FORMALDEHYDE		****	****	0.0	****	****	****
	PPBC	****	****	0.0	****	****	****
TOTAL HC PPBC		****	885.0	****	3203.2	****	3013.2
TOTAL NON-METHANE HC		55.7	77.0	2036.3	383.2	1509.4	243.2
TOTAL SURROGATE		38.2	24.0	1993.9	276.8	1296.2	243.2

SURROGATE RUN D-139-J
GLASS CHAMBER
1975 FEB 24

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		825	825	915	915	1215	1515
ELAPSED TIME(MIN)		-50	-50	0	0	180	360
		CONCENTRATIONS (PPB)					
METHANE		****	848	****	2880	****	****
	PPBC	****	848	****	2880	****	****
ETHENE		****	3.5	****	25.6	****	****
	PPBC	****	7.0	****	51.2	****	****
ETHANE		****	6.0	****	52.0	****	****
	PPBC	****	12.0	****	104	****	****
ACETYLENE (POROPAK N)		****	2.5	****	28.0	****	****
	PPBC	****	5.0	****	56.0	****	****
PROPANE		7.6	****	21.6	****	18.8	18.4
	PPBC	22.8	****	64.8	****	56.4	55.2
PROPENE		0.8	****	11.2	****	4.2	2.4
	PPBC	2.4	****	33.6	****	12.6	7.2
ISOBUTANE		0.4	****	0.7	****	0.7	0.8
	PPBC	1.6	****	2.8	****	2.8	3.2
N-BUTANE		1.0	****	166	****	141	133
	PPBC	4.0	****	664	****	564	532
ACETYLENE (DMS)		3.8	****	45.2	****	38.8	38.8
	PPBC	7.6	****	90.4	****	77.6	77.6
TRANS-2-BUTENE		0.0	****	0.8	****	0.0	0.0
	PPBC	0.0	****	3.2	****	0.0	0.0
ISOPENTANE		1.4	****	1.5	****	1.4	1.7
	PPBC	7.0	****	7.5	****	7.0	8.5
CIS-2-BUTENE		0.0	****	12.7	****	1.2	0.0
	PPBC	0.0	****	50.8	****	4.8	0.0
N-PENTANE		0.8	****	0.8	****	0.8	0.8
	PPBC	4.0	****	4.0	****	4.0	4.0
2,3-DIMETHYL BUTANE		0.0	****	93.6	****	71.0	64.0
	PPBC	0.0	****	562	****	426	384

SURROGATE RUN D-139-J
GLASS CHAMBER
1975 FEB 24

CLOCK TIME		825	825	915	915	1215	1515
ELAPSED TIME(MIN)		-50	-50	0	0	180	360
2-METHYL BUTENE-2		0.0	****	14.2	****	0.0	0.0
	PPBC	0.0	****	71.0	****	0.0	0.0
ACETALDEHYDE		3.0	6.3	1.0	****	22.4	23.2
	PPBC	6.0	12.6	2.0	****	44.8	46.4
PROPIONALDEHYDE		0.7	0.8	0.0	1.0	3.2	4.8
	PPBC	2.1	2.4	0.0	3.0	9.6	14.4
ACETONE		2.0	4.8	8.8	14.8	32.0	44.8
	PPBC	6.0	14.4	26.4	44.4	96.0	134
BENZENE		0.1	****	1.6	****	1.4	1.6
	PPBC	0.6	****	9.6	****	8.4	9.6
METHYL ETHYL KETONE		0.0	0.5	0.0	1.4	4.0	6.0
	PPBC	0.0	2.0	0.0	5.6	16.0	24.0
TOLUENE		0.3	****	16.0	****	13.6	12.0
	PPBC	2.1	****	112	****	95.2	84.0
ETHYL BENZENE		0.4	****	0.0	****	0.0	0.0
	PPBC	3.2	****	0.0	****	0.0	0.0
META-XYLENE		0.1	****	41.6	****	20.0	13.2
	PPBC	0.8	****	333	****	160	106
ISOPROPYL BENZENE		0.4	****	0.2	****	0.0	0.0
	PPBC	3.6	****	1.8	****	0.0	0.0
META-ETHYL TOLUENE		0.0	****	0.4	****	1.2	1.4
	PPBC	0.0	****	3.6	****	10.8	12.6
PAN		****	****	0.0	****	****	4.0
	PPBC	****	****	0.0	****	****	8.0
FORMALDEHYDE		****	****	8.0	****	38.0	60.0
	PPBC	****	****	8.0	****	38.0	60.0
TOTAL HC PPBC		****	903.4	****	3144.2	****	****
TOTAL NON-METHANE HC		73.8	55.4	2049.9	264.2	1634.0	1570.7
TOTAL SURROGATE		39.7	24.0	1984.2	211.2	1396.6	1245.6

SURROGATE RUN 140-J
GLASS CHAMBER
1975 FEB 25

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		825	825	930	930	1230	1230
ELAPSED TIME(MIN)		-65	-65	0	0	180	180
		CONCENTRATIONS (PPB)					
METHANE		****	1090	****	2880	****	2820
	PPBC	****	1090	****	2880	****	2820
ETHENE		****	2.7	****	38.4	****	32.0
	PPBC	****	5.4	****	76.8	****	64.0
ETHANE		****	4.4	****	75.2	****	72.8
	PPBC	****	8.8	****	150	****	146
ACETYLENE (POROPAK N)		****	2.4	****	41.6	****	40.0
	PPBC	****	4.8	****	83.2	****	80.0
PROPANE		7.7	****	21.0	****	21.2	****
	PPBC	23.1	****	63.0	****	63.6	****
PROPENE		1.1	****	11.4	****	5.2	****
	PPBC	3.3	****	34.2	****	15.6	****
ISOBUTANE		0.9	****	1.2	****	1.7	****
	PPBC	3.6	****	4.8	****	6.8	****
N-BUTANE		2.2	****	170	****	150	****
	PPBC	8.8	****	680	****	600	****
ACETYLENE (DMS)		4.9	****	46.8	****	45.2	****
	PPBC	9.8	****	93.6	****	90.4	****
TRANS-2-BUTENE		0.0	****	0.8	****	0.0	****
	PPBC	0.0	****	3.2	****	0.0	****
ISOPENTANE		2.5	****	3.0	****	3.9	****
	PPBC	12.5	****	15.0	****	19.5	****
CIS-2-BUTENE		0.0	****	13.0	****	1.0	****
	PPBC	0.0	****	52.0	****	4.0	****
N-PENTANE		0.9	****	1.3	****	1.5	****
	PPBC	4.5	****	6.5	****	7.5	****
2,3-DIMETHYL BUTANE		0.0	****	95.2	****	74.8	****
	PPBC	0.0	****	571	****	449	****

SURROGATE RUN 140-J
GLASS CHAMBER
1975 FEB 25

CLOCK TIME		825	825	930	930	1230	1230
ELAPSED TIME(MIN)		-65	-65	0	0	180	180
2-METHYL BUTENE-2		0.0	****	15.0	****	1.0	****
	PPBC	0.0	****	75.0	****	5.0	****
ACETALDEHYDE		1.5	4.1	3.6	****	24.0	****
	PPBC	3.0	8.2	7.2	****	48.0	****
PROPIONALDEHYDE		0.6	0.8	1.2	1.7	4.0	3.0
	PPBC	1.8	2.4	3.6	5.1	12.0	9.0
ACETONE		1.1	3.8	8.4	12.3	32.0	36.0
	PPBC	3.3	11.4	25.2	36.9	96.0	108
BENZENE		0.1	****	1.8	****	1.6	****
	PPBC	0.6	****	10.8	****	9.6	****
METHYL ETHYL KETONE		0.0	0.4	0.0	1.4	4.0	5.8
	PPBC	0.0	1.6	0.0	5.6	16.0	23.2
TOLUENE		0.5	****	16.4	****	14.4	****
	PPBC	3.5	****	115	****	101	****
ETHYL BENZENE		0.4	****	0.0	****	0.0	****
	PPBC	3.2	****	0.0	****	0.0	****
META-XYLENE		0.2	****	41.6	****	22.4	****
	PPBC	1.6	****	333	****	179	****
ISOPROPYL BENZENE		0.1	****	0.0	****	0.0	****
	PPBC	0.9	****	0.0	****	0.0	****
META-ETHYL TOLUENE		0.2	****	0.4	****	1.4	****
	PPBC	1.8	****	3.6	****	12.6	****
PAN		****	****	0.0	****	4.0	****
	PPBC	****	****	0.0	****	8.0	****
FORMALDEHYDE		****	****	0.0	****	65.0	****
	PPBC	****	****	0.0	****	65.0	****
PROPYLENE OXIDE		****	0.0	****	0.5	****	0.6
	PPBC	****	0.0	****	1.5	****	1.8
BUTYRALDEHYDE		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
TOTAL HC PPBC		****	1132.6	****	3239.5	****	3251.6
TOTAL NON-METHANE HC		85.3	42.6	2096.5	359.5	1808.4	431.6
TOTAL SURROGATE		50.1	19.0	2019.8	310.4	1507.4	289.6

SURROGATE RUN 141-J
GLASS CHAMBER
1975 FEB 26

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		810	810	900	900	1200	1200	1500	150
ELAPSED TIME(MIN)		-50	-50	0	0	180	180	360	360
		CONCENTRATIONS (PPB)							
METHANE		****	1280	****	2880	****	2880	****	2830
	PPBC	****	1280	****	2880	****	2880	****	2830
ETHENE		****	9.2	****	30.4	****	32.0	****	24.0
	PPBC	****	18.4	****	60.8	****	64.0	****	48.0
ETHANE		****	8.6	****	62.4	****	75.2	****	73.6
	PPBC	****	17.2	****	125	****	150	****	147
ACETYLENE (POROPAK N)		****	8.2	****	36.0	****	39.2	****	39.2
	PPBC	****	16.4	****	72.0	****	78.4	****	78.4
PROPANE		7.2	****	20.8	****	19.6	****	17.2	****
	PPBC	21.6	****	62.4	****	58.8	****	51.6	****
PROPENE		0.8	****	11.4	****	****	****	2.4	****
	PPBC	2.4	****	34.2	****	****	****	7.2	****
ISOBUTANE		0.6	****	0.9	****	1.3	****	1.6	****
	PPBC	2.4	****	3.6	****	5.2	****	6.4	****
N-BUTANE		1.2	****	170	****	144	****	128	****
	PPBC	4.8	****	680	****	576	****	512	****
ACETYLENE (DMS)		4.4	****	46.8	****	44.0	****	40.0	****
	PPBC	8.8	****	93.6	****	88.0	****	80.0	****
TRANS-2-BUTENE		0.0	****	0.8	****	0.0	****	0.0	****
	PPBC	0.0	****	3.2	****	0.0	****	0.0	****
ISOPENTANE		1.1	****	2.0	****	2.6	****	3.0	****
	PPBC	5.5	****	10.0	****	13.0	****	15.0	****
CIS-2-BUTENE		0.0	****	13.0	****	1.0	****	0.0	****
	PPBC	0.0	****	52.0	****	4.0	****	0.0	****
N-PENTANE		0.5	****	0.9	****	1.0	****	1.6	****
	PPBC	2.5	****	4.5	****	5.0	****	8.0	****
2,3-DIMETHYL BUTANE		0.0	****	96.0	****	74.0	****	62.0	****
	PPBC	0.0	****	576	****	444	****	372	****

SURROGATE RUN 141-J
GLASS CHAMBER
1975 FEB 26

CLOCK TIME		810	810	900	900	1200	1200	1500	150
ELAPSED TIME(MIN)		-50	-50	0	0	180	180	360	360
2-METHYL BUTENE-2		0.0	****	15.0	****	0.0	****	0.0	****
	PPBC	0.0	****	75.0	****	0.0	****	0.0	****
ACETALDEHYDE		1.2	5.8	1.0	****	24.0	****	25.6	****
	PPBC	2.4	11.6	2.0	****	48.0	****	51.2	****
PROPIONALDEHYDE		0.5	0.4	0.4	1.2	4.8	2.0	11.2	5.2
	PPBC	1.5	1.2	1.2	3.6	14.4	6.0	33.6	15.6
ACETONE		1.5	3.2	9.2	****	32.0	34.4	46.4	68.8
	PPBC	4.5	9.6	27.6	****	96.0	103	139	206
BENZENE		0.2	****	1.6	****	1.6	****	1.6	****
	PPBC	1.2	****	9.6	****	9.6	****	9.6	****
METHYL ETHYL KETONE		0.1	0.6	0.0	0.7	4.0	6.0	5.6	10.6
	PPBC	0.4	2.4	0.0	2.8	16.0	24.0	22.4	42.4
TOLUENE		0.4	****	16.4	****	14.0	****	12.4	****
	PPBC	2.8	****	115	****	98.0	****	86.8	****
ETHYL BENZENE		0.4	****	0.0	****	0.8	****	1.2	****
	PPBC	3.2	****	0.0	****	6.4	****	9.6	****
META-XYLENE		0.3	****	42.4	****	22.0	****	13.2	****
	PPBC	2.4	****	339	****	176	****	106	****
ISOPROPYL BENZENE		0.2	****	0.0	****	0.0	****	0.0	****
	PPBC	1.8	****	0.0	****	0.0	****	0.0	****
META-ETHYL TOLUENE		0.8	****	0.6	****	1.4	****	2.0	****
	PPBC	7.2	****	5.4	****	12.6	****	18.0	****
PAN		****	****	0.0	****	****	****	****	****
	PPBC	****	****	0.0	****	****	****	****	****
FORMALDEHYDE		****	****	0.0	****	****	****	****	****
	PPBC	****	****	0.0	****	****	****	****	****
PROPYLENE OXIDE		****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0	****	0.0
BUTYRALDEHYDE		****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0	****	0.0
TOTAL HC PPBC		****	1356.8	****	3144.0	****	3306.0	****	3368.0
TOTAL NON-METHANE HC		75.4	76.8	2094.3	264.0	1671.0	426.0	1528.2	538.0
TOTAL SURROGATE		42.8	52.0	2030.4	257.6	1444.8	292.8	1215.2	273.6

SURROGATE RUN 142-J
GLASS CHAMBER
1975 FEB 27

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103
0935 SAMPLE ALSO RUN IN RM 103
ACETALDEHYDE INJECTED AT 0920,0945

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		845	845	935	1000	1000	1030	1100	1100	1130	1200	1230	1300	1430	1500
ELAPSED TIME(MIN)		-75	-75	-25	0	0	30	60	60	90	120	150	180	270	300
		CONCENTRATIONS (PPB)													
METHANE		****	1160	****	2790	3060	****	2620	3060	****	2660	****	2830	****	2790
	PPBC	****	1160	****	2790	3060	****	2620	3060	****	2660	****	2830	****	2790
ETHENE		****	3.8	****	****	41.6	****	44.8	38.4	****	47.0	****	41.0	****	35.2
	PPBC	****	7.6	****	****	83.2	****	89.6	76.8	****	94.0	****	82.0	****	70.4
ETHANE		****	6.6	****	****	80.8	****	83.4	78.4	****	93.9	****	85.8	****	86.2
	PPBC	****	13.2	****	****	162	****	167	157	****	188	****	172	****	172
ACETYLENE (POROPAK N)		****	4.6	****	****	44.8	****	50.5	43.2	****	60.1	****	52.4	****	54.1
	PPBC	****	9.2	****	****	89.6	****	101	86.4	****	120	****	105	****	108
PROPANE		6.8	****	****	20.6	****	21.0	21.0	****	20.6	20.4	19.6	18.8	18.8	18.8
	PPBC	20.4	****	****	61.8	****	63.0	63.0	****	61.8	61.2	58.8	56.4	56.4	56.4
PROPENE		0.7	****	****	11.4	****	10.2	9.0	****	7.8	6.8	5.6	4.8	2.6	2.0
	PPBC	2.1	****	****	34.2	****	30.6	27.0	****	23.4	20.4	16.8	14.4	7.8	6.0
ISOBUTANE		0.4	****	****	0.9	****	1.0	1.0	****	1.2	1.3	1.4	1.4	1.5	1.6
	PPBC	1.6	****	****	3.6	****	4.0	4.0	****	4.8	5.2	5.6	5.6	6.0	6.4
N-BUTANE		0.9	****	****	173	****	170	168	****	163	158	155	154	147	144
	PPBC	3.6	****	****	692	****	680	672	****	652	632	620	616	588	576
ACETYLENE (DMS)		7.2	****	****	51.2	****	50.8	50.8	****	50.0	50.0	48.0	48.0	46.8	46.0
	PPBC	14.4	****	****	102	****	102	102	****	100	100	96.0	96.0	93.6	92.0
TRANS-2-BUTENE		0.0	****	****	0.8	****	0.6	0.4	****	0.2	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	****	****	3.2	****	2.4	1.6	****	0.8	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.8	****	****	1.9	****	2.0	2.1	****	2.3	2.8	2.8	2.9	3.0	3.1
	PPBC	4.0	****	****	9.5	****	10.0	10.5	****	11.5	14.0	14.0	14.5	15.0	15.5
CIS-2-BUTENE		0.0	****	****	13.1	****	10.0	6.8	****	4.0	2.0	1.0	0.3	0.0	0.0
	PPBC	0.0	****	****	52.4	****	40.0	27.2	****	16.0	8.0	4.0	1.2	0.0	0.0
N-PENTANE		0.4	****	****	1.0	****	1.0	1.0	****	1.0	1.0	1.0	1.1	1.2	1.5
	PPBC	2.0	****	****	5.0	****	5.0	5.0	****	5.0	5.0	5.0	5.5	6.0	7.5
2,3-DIMETHYL BUTANE		0.0	****	****	96.0	****	92.0	88.8	****	84.8	84.0	80.4	78.0	74.0	72.0
	PPBC	0.0	****	****	576	****	552	533	****	509	504	482	468	444	432

SURROGATE RUN 142-J
GLASS CHAMBER
1975 FEB 27

CLOCK TIME		845	845	935	1000	1000	1030	1100	1100	1130	1200	1230	1300	1430	1500
ELAPSED TIME(MIN)		-75	-75	-25	0	0	30	60	60	90	120	150	180	270	300
2-METHYL BUTENE-2		0.0	****	****	15.0	****	8.5	4.2	****	2.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	****	****	75.0	****	42.5	21.0	****	10.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		1.8	6.0	113	162	****	****	160	****	****	139	****	139	****	101
	PPBC	3.6	12.0	226	324	****	****	320	****	****	278	****	278	****	202
PROPIONALDEHYDE		1.0	1.0	1.0	****	1.0	****	****	****	****	3.2	****	6.4	****	8.0
	PPBC	3.0	3.0	3.0	****	3.0	****	****	****	****	9.6	****	19.2	****	24.0
ACETONE		2.0	3.8	9.4	11.6	12.0	****	20.0	****	****	31.2	****	36.8	****	43.2
	PPBC	6.0	11.4	28.2	34.8	36.0	****	60.0	****	****	93.6	****	110	****	130
BENZENE		0.1	****	****	1.6	****	****	1.6	****	****	1.6	****	1.6	****	1.5
	PPBC	0.6	****	****	9.6	****	****	9.6	****	****	9.6	****	9.6	****	9.0
METHYL ETHYL KETONE		0.0	0.4	3.3	0.0	2.5	****	1.6	****	****	2.4	****	3.2	****	4.4
	PPBC	0.0	1.6	13.2	0.0	10.0	****	6.4	****	****	9.6	****	12.8	****	17.6
TOLUENE		0.4	****	****	16.6	****	****	15.2	****	****	15.2	****	14.4	****	13.2
	PPBC	2.8	****	****	116	****	****	106	****	****	106	****	101	****	92.4
ETHYL BENZENE		0.7	****	****	0.8	****	****	0.8	****	****	0.8	****	1.2	****	1.6
	PPBC	5.6	****	****	6.4	****	****	6.4	****	****	6.4	****	9.6	****	12.8
META-XYLENE		0.2	****	****	42.0	****	****	33.6	****	****	28.0	****	24.0	****	17.2
	PPBC	1.6	****	****	336	****	****	269	****	****	224	****	192	****	138
ISOPROPYL BENZENE		0.0	****	****	0.1	****	****	0.2	****	****	0.0	****	0.0	****	0.0
	PPBC	0.0	****	****	0.9	****	****	1.8	****	****	0.0	****	0.0	****	0.0
ORTHO-XYLENE		0.0	****	****	0.0	****	****	0.0	****	****	0.2	****	0.4	****	0.3
	PPBC	0.0	****	****	0.0	****	****	0.0	****	****	1.6	****	3.2	****	2.4
META-ETHYL TOLUENE		1.0	****	****	0.6	****	****	0.8	****	****	0.9	****	1.6	****	2.4
	PPBC	9.0	****	****	5.4	****	****	7.2	****	****	8.1	****	14.4	****	21.6
PAN		****	****	****	0.0	****	1.0	5.0	****	9.0	12.0	****	18.0	28.0	31.0
	PPBC	****	****	****	0.0	****	2.0	10.0	****	18.0	24.0	****	36.0	56.0	62.0
FORMALDEHYDE		****	****	****	0.0	****	****	13.0	****	****	****	****	12.0	****	83.0
	PPBC	****	****	****	0.0	****	****	13.0	****	****	****	****	12.0	****	83.0
3P COL., 45 MIN 00 SEC		****	****	****	10.0	****	****	8.0	****	****	10.0	****	****	****	15.0
TOTAL HC PPBC		****	1218.0	****	5238.4	3443.4	****	5151.4	3380.0	****	5072.6	****	5163.6	****	5026.7
TOTAL NON-METHANE HC		80.3	58.0	270.4	2448.4	383.4	1533.1	2531.4	320.0	1412.1	2412.6	1302.6	2333.6	1272.8	2236.7
TOTAL SURROGATE		44.9	30.0	****	2049.2	334.4	1512.1	2077.5	320.0	1372.8	1947.9	1278.0	1802.8	1189.8	1643.3

SURROGATE RUN 142-J
GLASS CHAMBER
1975 FEB 27

CLOCK TIME		1530	1600	1900
ELAPSED TIME(MIN)		330	360	540
		CONCENTRATIONS (PPB)		
METHANE		****	2740	2750
	PPBC	****	2740	2750
ETHENE		****	33.6	22.2
	PPBC	****	67.2	44.4
ETHANE		****	86.2	81.1
	PPBC	****	172	162
ACETYLENE (POROPAK N)		****	53.8	49.7
	PPBC	****	108	99.4
PROPANE		****	18.8	17.4
	PPBC	****	56.4	52.2
PROPENE		1.5	1.3	0.3
	PPBC	4.5	3.9	0.9
ISOBUTANE		1.6	1.7	2.2
	PPBC	6.4	6.8	8.8
N-BUTANE		139	138	122
	PPBC	556	552	488
ACETYLENE (DMS)		44.4	45.6	36.8
	PPBC	88.8	91.2	73.6
TRANS-2-BUTENE		0.0	0.0	0.0
	PPBC	0.0	0.0	0.0
ISOPENTANE		3.2	3.4	4.4
	PPBC	16.0	17.0	22.0
CIS-2-BUTENE		0.0	0.0	0.0
	PPBC	0.0	0.0	0.0
N-PENTANE		1.2	1.4	1.7
	PPBC	6.0	7.0	8.5
2,3-DIMETHYL BUTANE		68.0	66.0	54.0
	PPBC	408	396	324
2-METHYL BUTENE-2		0.0	0.0	0.0
	PPBC	0.0	0.0	0.0
ACETALDEHYDE		****	108	****
	PPBC	****	216	****
PROPIONALDEHYDE		****	11.6	****
	PPBC	****	34.8	****

SURROGATE RUN 142-J
GLASS CHAMBER
1975 FEB 27

CLOCK TIME		1530	1600	1900
ELAPSED TIME(MIN)		330	360	540
ACETONE		****	55.2	****
	PPBC	****	166	****
BENZENE		****	1.6	****
	PPBC	****	9.6	****
METHYL ETHYL KETONE		****	4.8	****
	PPBC	****	19.2	****
TOLUENE		****	12.8	****
	PPBC	****	89.6	****
ETHYL BENZENE		****	2.8	****
	PPBC	****	22.4	****
META-XYLENE		****	15.6	****
	PPBC	****	125	****
ISOPROPYL BENZENE		****	0.0	****
	PPBC	****	0.0	****
ORTHO-XYLENE		****	0.1	****
	PPBC	****	0.8	****
META-ETHYL TOLUENE		****	3.8	****
	PPBC	****	34.2	****
PAN		33.0	37.0	48.0
	PPBC	66.0	74.0	96.0
FORMALDEHYDE		****	38.0	25.0
	PPBC	****	38.0	25.0
3P COL., 45 MIN 00 SEC		****	28.0	****
TOTAL HC PPBC		****	5005.1	4338.9
TOTAL NON-METHANE HC		1232.0	2265.1	1588.9
TOTAL SURROGATE		1102.2	1591.7	1158.2

SURROGATE RUN 143-J
GLASS CHAMBER
1975 FEB 28

SECOND SET OF DATA FOR A GIVEN TIME WAS OBTAINED USING GC'S IN RM 103

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		855	855	945	945	1245
ELAPSED TIME(MIN)		-50	-50	0	0	180
		CONCENTRATIONS (PPB)				
METHANE		943	936	2460	2880	2490
	PPBC	943	936	2460	2880	2490
ETHENE		7.2	5.6	46.6	35.2	37.3
	PPBC	14.4	11.2	93.2	70.4	74.6
ETHANE		9.6	7.2	84.3	68.8	77.0
	PPBC	19.2	14.4	169	138	154
ACETYLENE (POROPAK N)		6.2	4.0	49.7	36.8	51.3
	PPBC	12.4	8.0	99.4	73.6	103
PROPANE		9.2	****	23.6	****	21.6
	PPBC	27.6	****	70.8	****	64.8
PROPENE		1.0	****	11.8	****	5.0
	PPBC	3.0	****	35.4	****	15.0
ISOBUTANE		0.5	****	0.9	****	1.2
	PPBC	2.0	****	3.6	****	4.8
N-BUTANE		1.1	****	173	****	150
	PPBC	4.4	****	692	****	600
ACETYLENE (DMS)		4.9	****	48.0	****	44.2
	PPBC	9.8	****	96.0	****	88.4
TRANS-2-BUTENE		0.0	****	0.8	****	0.0
	PPBC	0.0	****	3.2	****	0.0
ISOPENTANE		1.0	****	1.8	****	2.3
	PPBC	5.0	****	9.0	****	11.5
CIS-2-BUTENE		0.0	****	13.0	****	1.0
	PPBC	0.0	****	52.0	****	4.0
N-PENTANE		0.5	****	0.9	****	1.0
	PPBC	2.5	****	4.5	****	5.0
2,3-DIMETHYL BUTANE		0.0	****	96.0	****	76.4
	PPBC	0.0	****	576	****	458

SURROGATE RUN 143-J
GLASS CHAMBER
1975 FEB 28

CLOCK TIME		855	855	945	945	1245
ELAPSED TIME(MIN)		-50	-50	0	0	180
2-METHYL BUTENE-2		0.0	****	15.0	****	0.2
	PPBC	0.0	****	75.0	****	1.0
ACETALDEHYDE		1.8	3.8	2.8	****	23.2
	PPBC	3.6	7.6	5.6	****	46.4
PROPIONALDEHYDE		0.7	0.5	1.6	1.2	5.6
	PPBC	2.1	1.5	4.8	3.6	16.8
ACETONE		1.4	2.6	6.8	11.6	29.6
	PPBC	4.2	7.8	20.4	34.8	88.8
BENZENE		0.1	****	1.6	****	1.4
	PPBC	0.6	****	9.6	****	8.4
METHYL ETHYL KETONE		0.2	0.4	0.2	2.0	3.2
	PPBC	0.8	1.6	0.8	8.0	12.8
TOLUENE		0.4	****	16.0	****	13.6
	PPBC	2.8	****	112	****	95.2
ETHYL BENZENE		0.0	****	0.8	****	1.2
	PPBC	0.0	****	6.4	****	9.6
PARA-XYLENE		1.5	****	0.0	****	0.0
	PPBC	12.0	****	0.0	****	0.0
META-XYLENE		0.1	****	40.8	****	21.6
	PPBC	0.8	****	326	****	173
ORTHO-XYLENE		0.0	****	0.3	****	0.2
	PPBC	0.0	****	2.4	****	1.6
META-ETHYL TOLUENE		1.9	****	1.0	****	1.6
	PPBC	17.1	****	9.0	****	14.4
PAN		****	****	0.0	****	4.0
	PPBC	****	****	0.0	****	8.0
FORMALDEHYDE		****	****	0.0	****	20.0
	PPBC	****	****	0.0	****	20.0
TOTAL HC PPBC		1076.2	988.1	4838.4	3208.0	4473.4
TOTAL NON-METHANE HC		133.2	52.1	2378.4	328.0	1983.4
TOTAL SURROGATE		83.3	33.6	2302.3	281.6	1735.3

SURROGATE RUN 144-J
GLASS CHAMBER
1975 MAR 3

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		900	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-90	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		886	2370	****	2420	****	2220	****	2550	****	2200	****	2270	****	2260
	PPBC	886	2370	****	2420	****	2220	****	2550	****	2200	****	2270	****	2260
ETHENE		7.9	41.5	****	39.6	****	34.0	****	36.4	****	28.8	****	27.0	****	26.3
	PPBC	15.8	83.0	****	79.2	****	68.0	****	72.8	****	57.6	****	54.0	****	52.6
ETHANE		10.9	74.7	****	75.1	****	71.3	****	72.9	****	67.2	****	68.1	****	70.7
	PPBC	21.8	149	****	150	****	143	****	146	****	134	****	136	****	141
ACETYLENE (POROPAK N)		6.2	41.4	****	45.5	****	41.1	****	42.3	****	41.2	****	41.4	****	40.3
	PPBC	12.4	82.8	****	91.0	****	82.2	****	84.6	****	82.4	****	82.8	****	80.6
PROPANE		7.4	22.8	22.8	22.4	21.6	20.4	20.2	20.4	20.4	20.4	20.0	19.6	18.8	19.2
	PPBC	22.2	68.4	68.4	67.2	64.8	61.2	60.6	61.2	61.2	61.2	60.0	58.8	56.4	57.6
PROPENE		0.6	11.4	10.2	8.6	7.2	5.8	5.0	4.5	3.9	3.4	2.8	2.2	1.8	1.6
	PPBC	1.8	34.2	30.6	25.8	21.6	17.4	15.0	13.5	11.7	10.2	8.4	6.6	5.4	4.8
ISOBUTANE		0.4	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1
	PPBC	1.6	3.2	3.6	3.6	3.6	3.6	3.6	3.6	4.0	4.0	4.0	4.0	4.0	4.4
N-BUTANE		0.8	170	167	165	158	154	150	147	147	144	141	138	134	131
	PPBC	3.2	680	668	660	632	616	600	588	588	576	564	552	536	524
ACETYLENE (DMS)		6.0	48.2	48.4	48.2	47.6	44.8	44.0	45.2	45.2	44.8	44.0	42.8	42.4	42.0
	PPBC	12.0	96.4	96.8	96.4	95.2	89.6	88.0	90.4	90.4	89.6	88.0	85.6	84.8	84.0
TRANS-2-BUTENE		0.0	0.8	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	2.4	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.8	1.4	2.0	1.8	1.6	1.6	1.6	1.6	1.8	1.9	1.9	1.9	1.9	2.0
	PPBC	4.0	7.0	10.0	9.0	8.0	8.0	8.0	8.0	9.0	9.5	9.5	9.5	9.5	10.0
CIS-2-BUTENE		0.0	13.0	10.0	6.7	4.2	2.4	1.6	0.8	0.3	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	52.0	40.0	26.8	16.8	9.6	6.4	3.2	1.2	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.4	0.7	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0
	PPBC	2.0	3.5	4.0	4.5	4.0	4.0	4.0	4.0	4.5	4.5	4.5	4.5	5.0	5.0
2,3-DIMETHYL BUTANE		0.0	92.0	90.0	87.2	84.4	78.4	77.6	76.0	73.6	72.0	69.2	66.8	66.0	62.4
	PPBC	0.0	552	540	523	506	470	466	456	442	432	415	401	396	374

SURROGATE RUN 144-J
GLASS CHAMBER
1975 MAR 3

CLOCK TIME		900	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-90	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	14.1	9.0	4.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	70.5	45.0	21.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		1.5	3.2	****	18.4	****	24.0	****	24.0	****	24.0	****	23.2	****	26.0
	PPBC	3.0	6.4	****	36.8	****	48.0	****	48.0	****	48.0	****	46.4	****	52.0
PROPIONALDEHYDE		0.6	2.0	****	2.8	****	4.8	****	5.6	****	7.2	****	8.0	****	10.4
	PPBC	1.8	6.0	****	8.4	****	14.4	****	16.8	****	21.6	****	24.0	****	31.2
ACETONE		0.8	8.0	89.0	24.2	****	28.0	****	33.6	****	39.2	****	45.6	****	48.8
	PPBC	2.4	24.0	267	72.6	****	84.0	****	101	****	118	****	137	****	146
BENZENE		0.1	1.6	****	1.4	****	1.4	****	1.2	****	1.2	****	1.2	****	1.2
	PPBC	0.6	9.6	****	8.4	****	8.4	****	7.2	****	7.2	****	7.2	****	7.2
METHYL ETHYL KETONE		0.0	0.0	****	1.2	****	2.0	****	2.8	****	4.0	****	4.8	****	5.2
	PPBC	0.0	0.0	****	4.8	****	8.0	****	11.2	****	16.0	****	19.2	****	20.8
TOLUENE		0.4	15.8	****	14.8	****	13.6	****	12.8	****	12.4	****	11.6	****	11.2
	PPBC	2.8	111	****	104	****	95.2	****	89.6	****	86.8	****	81.2	****	78.4
ETHYL BENZENE		0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
PARA-XYLENE		0.8	0.8	****	0.8	****	0.8	****	0.8	****	2.0	****	2.0	****	2.2
	PPBC	6.4	6.4	****	6.4	****	6.4	****	6.4	****	16.0	****	16.0	****	17.6
META-XYLENE		0.2	40.4	****	31.2	****	24.0	****	20.0	****	17.6	****	14.8	****	12.4
	PPBC	1.6	323	****	250	****	192	****	160	****	141	****	118	****	99.2
META-ETHYL TOLUENE		1.0	1.0	****	0.9	****	1.0	****	1.2	****	1.4	****	1.9	****	2.6
	PPBC	9.0	9.0	****	8.1	****	9.0	****	10.8	****	12.6	****	17.1	****	23.4
PAN		****	0.0	****	****	1.0	2.0	****	5.0	****	6.0	8.0	8.0	9.0	11.0
	PPBC	****	0.0	****	****	2.0	4.0	****	10.0	****	12.0	16.0	16.0	18.0	22.0
FORMALDEHYDE		****	38.0	****	21.0	****	27.0	****	24.0	****	60.0	****	75.0	****	67.0
	PPBC	****	38.0	****	21.0	****	27.0	****	24.0	****	60.0	****	75.0	****	67.0
3P COL., 45 MIN 00 SEC		****	12.0	****	10.0	****	10.0	****	9.0	****	9.0	****	8.0	****	****
TOTAL HC PPBC		998.2	4699.2	****	4605.5	****	4203.1	****	4478.4	****	4114.0	****	4137.9	****	4081.7
TOTAL NON-METHANE HC		112.2	2329.2	1775.8	2185.5	1364.8	1983.1	1251.2	1928.4	1211.6	1914.0	1169.6	1867.9	1115.1	1821.7
TOTAL SURROGATE		81.4	2216.1	1491.2	2001.9	1347.2	1758.3	1235.6	1677.6	1194.1	1585.0	1135.6	1492.2	1078.6	1414.7

SURROGATE RUN 145-J
GLASS CHAMBER
1975 MAR 4

ELECTROMETER FOR PN SAMPLES CHANGED AFTER 1030

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		905	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-85	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		1270	2360	****	2880	****	2880	****	2860	****	2850	****	2800	****	2750
	PPBC	1270	2360	****	2880	****	2880	****	2860	****	2850	****	2800	****	2750
ETHENE		8.2	43.8	****	32.0	****	32.0	****	30.4	****	28.8	****	24.8	****	21.6
	PPBC	16.4	87.6	****	64.0	****	64.0	****	60.8	****	57.6	****	49.6	****	43.2
ETHANE		13.9	77.1	****	68.8	****	75.2	****	76.8	****	78.4	****	73.6	****	72.0
	PPBC	27.8	154	****	138	****	150	****	154	****	157	****	147	****	144
ACETYLENE (PORAPAK N)		9.0	46.9	****	36.8	****	40.0	****	41.6	****	41.6	****	40.0	****	40.0
	PPBC	18.0	93.8	****	73.6	****	80.0	****	83.2	****	83.2	****	80.0	****	80.0
PROPANE		8.4	22.4	22.0	20.0	20.4	20.4	20.4	21.2	21.2	21.2	21.2	21.2	21.2	20.4
	PPBC	25.2	67.2	66.0	60.0	61.2	61.2	61.2	63.6	63.6	63.6	63.6	63.6	63.6	61.2
PROPENE		0.8	11.4	9.4	6.6	5.9	4.8	4.1	3.4	2.8	2.3	1.6	1.2	1.0	0.8
	PPBC	2.4	34.2	28.2	19.8	17.7	14.4	12.3	10.2	8.4	6.9	4.8	3.6	3.0	2.4
ISOBUTANE		0.6	0.9	0.9	1.0	1.2	1.3	1.4	1.5	1.6	1.7	1.8	2.0	2.1	2.2
	PPBC	2.4	3.6	3.6	4.0	4.8	5.2	5.6	6.0	6.4	6.8	7.2	8.0	8.4	8.8
N-BUTANE		1.5	173	167	154	154	150	149	147	146	142	141	138	133	131
	PPBC	6.0	692	668	616	616	600	596	588	584	568	564	552	532	524
ACETYLENE (DMS)		8.3	51.2	50.4	46.8	46.4	48.4	46.4	48.0	47.8	47.8	47.2	46.8	46.0	45.2
	PPBC	16.6	102	101	93.6	92.8	96.8	92.8	96.0	95.6	95.6	94.4	93.6	92.0	90.4
1-BUTENE		0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOBUTENE		0.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.4	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRANS-2-BUTENE		0.0	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		1.2	1.8	1.8	2.0	2.4	2.6	2.7	2.9	3.0	3.0	3.4	3.6	3.8	4.0
	PPBC	6.0	9.0	9.0	10.0	12.0	13.0	13.5	14.5	15.0	15.0	17.0	18.0	19.0	20.0
CIS-2-BUTENE		0.0	13.0	8.5	4.6	2.7	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	52.0	34.0	18.4	10.8	4.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SURROGATE RUN 145-J
GLASS CHAMBER
1975 MAR 4

CLOCK TIME		905	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-85	0	30	60	90	120	150	180	210	240	270	300	330	360
N-PENTANE		0.6	0.9	0.9	1.0	1.0	1.0	1.0	1.2	1.3	1.3	1.4	1.5	1.5	1.6
	PPBC	3.0	4.5	4.5	5.0	5.0	5.0	5.0	6.0	6.5	6.5	7.0	7.5	7.5	8.0
2,3-DIMETHYL BUTANE		0.0	95.2	91.2	84.0	81.2	80.0	74.0	72.8	71.6	68.0	65.6	64.0	60.0	58.0
	PPBC	0.0	571	547	504	487	480	444	437	430	408	394	384	360	348
2-METHYL BUTENE-2		0.0	14.2	6.0	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	71.0	30.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		0.6	1.6	****	20.0	****	25.6	****	31.2	****	28.0	****	27.2	****	27.2
	PPBC	1.2	3.2	****	40.0	****	51.2	****	62.4	****	56.0	****	54.4	****	54.4
PROPIONALDEHYDE		0.4	1.2	****	2.8	****	4.8	****	6.4	****	8.0	****	11.2	****	12.8
	PPBC	1.2	3.6	****	8.4	****	14.4	****	19.2	****	24.0	****	33.6	****	38.4
ACETONE		1.3	6.4	****	22.4	****	31.2	****	41.6	****	44.8	****	52.0	****	56.0
	PPBC	3.9	19.2	****	67.2	****	93.6	****	125	****	134	****	156	****	168
BENZENE		0.1	1.4	****	1.4	****	1.6	****	1.4	****	1.4	****	1.6	****	1.6
	PPBC	0.6	8.4	****	8.4	****	9.6	****	8.4	****	8.4	****	9.6	****	9.6
METHYL ETHYL KETONE		0.0	0.0	****	1.8	****	2.4	****	3.6	****	4.0	****	5.6	****	6.4
	PPBC	0.0	0.0	****	7.2	****	9.6	****	14.4	****	16.0	****	22.4	****	25.6
TOLUENE		0.1	15.2	****	14.0	****	12.8	****	12.4	****	11.6	****	11.2	****	10.4
	PPBC	0.7	106	****	98.0	****	89.6	****	86.8	****	81.2	****	78.4	****	72.8
PARA-XYLENE		1.4	0.8	****	1.0	****	1.2	****	2.0	****	2.2	****	2.4	****	3.2
	PPBC	11.2	6.4	****	8.0	****	9.6	****	16.0	****	17.6	****	19.2	****	25.6
META-XYLENE		0.1	40.0	****	28.8	****	22.0	****	17.8	****	14.6	****	11.8	****	9.0
	PPBC	0.8	320	****	230	****	176	****	142	****	117	****	94.4	****	72.0
META-ETHYL TOLUENE		1.2	0.8	****	0.6	****	1.4	****	1.4	****	2.5	****	3.0	****	3.5
	PPBC	10.8	7.2	****	5.4	****	12.6	****	12.6	****	22.5	****	27.0	****	31.5
PAN		****	0.0	0.0	1.0	4.0	5.0	7.0	9.0	10.0	12.0	14.0	16.0	18.0	20.0
	PPBC	****	0.0	0.0	2.0	8.0	10.0	14.0	18.0	20.0	24.0	28.0	32.0	36.0	40.0
FORMALDEHYDE		****	185	****	64.0	****	46.0	****	40.0	****	68.0	****	83.0	****	29.0
	PPBC	****	185	****	64.0	****	46.0	****	40.0	****	68.0	****	83.0	****	29.0
3P COL., 45 MIN 00 SEC		****	9.0	****	9.0	****	10.0	****	12.0	****	13.0	****	14.0	****	22.0
TOTAL HC PPBC		1407.3	4870.4	****	4950.8	****	4888.6	****	4834.1	****	4797.5	****	4730.3	****	4561.7
TOTAL NON-METHANE HC		137.3	2510.4	1494.1	2070.8	1317.5	2008.6	1246.0	1974.1	1229.1	1947.5	1179.6	1930.3	1121.5	1811.7
TOTAL SURROGATE		96.6	2257.1	1476.2	1841.2	1287.7	1728.8	1207.9	1631.8	1181.2	1548.3	1120.4	1459.6	1050.6	1352.8

SURROGATE RUN 145-J
GLASS CHAMBER
1975 MAR 4

CLOCK TIME		1700	1730	1800	1830	1900	1930
ELAPSED TIME(MIN)		390	420	450	480	510	540
		CONCENTRATIONS (PPB)					
METHANE		****	2750	****	2770	****	2740
	PPBC	****	2750	****	2770	****	2740
ETHENE		****	17.6	****	16.0	****	14.4
	PPBC	****	35.2	****	32.0	****	28.8
ETHANE		****	72.0	****	72.0	****	72.0
	PPBC	****	144	****	144	****	144
ACETYLENE (POROPAK N)		****	40.0	****	40.0	****	40.0
	PPBC	****	80.0	****	80.0	****	80.0
PROPANE		21.0	20.6	19.6	20.6	18.8	20.0
	PPBC	63.0	61.8	58.8	61.8	56.4	60.0
PROPENE		0.6	0.6	0.4	0.6	0.3	0.3
	PPBC	1.8	1.8	1.2	1.8	0.9	0.9
ISOBUTANE		2.2	2.4	2.4	2.6	2.5	2.7
	PPBC	8.8	9.6	9.6	10.4	10.0	10.8
N-BUTANE		130	123	122	122	118	113
	PPBC	520	-492	488	488	472	452
ACETYLENE (DMS)		46.0	44.8	44.0	44.8	42.0	42.0
	PPBC	92.0	89.6	88.0	89.6	84.0	84.0
1-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ISOBUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
TRANS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		4.0	4.3	4.6	4.7	4.7	4.9
	PPBC	20.0	21.5	23.0	23.5	23.5	24.5
CIS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		1.7	1.9	1.9	1.9	2.0	2.0
	PPBC	8.5	9.5	9.5	9.5	10.0	10.0
2,3-DIMETHYL BUTANE		57.2	53.6	52.0	50.0	46.0	44.0
	PPBC	343	322	312	300	276	264
2-METHYL BUTENE-2		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0

SURROGATE RUN 145-J
GLASS CHAMBER
1975 MAR 4

CLOCK TIME		1700	1730	1800	1830	1900	1930
ELAPSED TIME(MIN)		390	420	450	480	510	540
ACETALDEHYDE		****	28.0	****	25.6	****	26.0
	PPBC	****	56.0	****	51.2	****	52.0
PROPIONALDEHYDE		****	14.4	****	16.0	****	17.6
	PPBC	****	43.2	****	48.0	****	52.8
ACETONE		****	60.0	****	64.0	****	72.0
	PPBC	****	180	****	192	****	216
BENZENE		****	1.6	****	1.6	****	1.6
	PPBC	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		****	0.0	****	5.6	****	8.0
	PPBC	****	0.0	****	22.4	****	32.0
TOLUENE		****	10.4	****	9.8	****	9.2
	PPBC	****	72.8	****	68.6	****	64.4
PARA-XYLENE		****	2.6	****	2.5	****	3.0
	PPBC	****	20.8	****	20.0	****	24.0
META-XYLENE		****	7.2	****	5.2	****	4.4
	PPBC	****	57.6	****	41.6	****	35.2
META-ETHYL TOLUENE		****	3.5	****	4.0	****	4.4
	PPBC	****	31.5	****	36.0	****	39.6
PAN		22.0	23.0	25.0	26.0	27.0	28.0
	PPBC	44.0	46.0	50.0	52.0	54.0	56.0
FORMALDEHYDE		****	40.0	****	40.0	****	24.0
	PPBC	****	40.0	****	40.0	****	24.0
3P COL., 45 MIN 00 SEC		****	28.0	****	28.0	****	29.0
TOTAL HC PPBC		****	6999.6	****	6578.0	****	6431.2
TOTAL NON-METHANE HC		1238.6	4249.6	2534.2	3808.0	2304.3	3691.2
TOTAL SURROGATE		1116.6	3528.7	2424.2	3063.8	2177.0	2860.1

SURROGATE RUN 146-J
GLASS CHAMBER
1975 MAR 5

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		830	915	1215
ELAPSED TIME(MIN)		-45	0	180
		CONCENTRATIONS (PPB)		
METHANE		1010	2720	2720
	PPBC	1010	2720	2720
ETHENE		8.8	44.0	32.0
	PPBC	17.6	88.0	64.0
ETHANE		15.2	81.6	78.4
	PPBC	30.4	163	157
ACETYLENE (PORAPAK N)		9.8	48.0	43.2
	PPBC	19.6	96.0	86.4
PROPANE		8.5	22.8	20.4
	PPBC	25.5	68.4	61.2
PROPENE		0.8	11.6	4.6
	PPBC	2.4	34.8	13.8
ISOBUTANE		0.3	0.6	0.8
	PPBC	1.2	2.4	3.2
N-BUTANE		0.8	170	147
	PPBC	3.2	680	588
ACETYLENE (DMS)		10.8	53.6	48.0
	PPBC	21.6	107	96.0
TRANS-2-BUTENE		0.0	0.8	0.0
	PPBC	0.0	3.2	0.0
ISOPENTANE		0.8	1.0	1.4
	PPBC	4.0	5.0	7.0
CIS-2-BUTENE		0.0	13.0	1.0
	PPBC	0.0	52.0	4.0
N-PENTANE		0.3	0.5	0.8
	PPBC	1.5	2.5	4.0
2,3-DIMETHYL BUTANE		0.0	92.8	72.8
	PPBC	0.0	557	437

SURROGATE RUN 146-J
GLASS CHAMBER
1975 MAR 5

CLOCK TIME		830	915	1215
ELAPSED TIME(MIN)		-45	0	180
2-METHYL BUTENE-2		0.0	14.0	0.0
	PPBC	0.0	70.0	0.0
ACETALDEHYDE		1.0	2.0	23.2
	PPBC	2.0	4.0	46.4
PROPIONALDEHYDE		0.8	1.6	6.4
	PPBC	2.4	4.8	19.2
ACETONE		2.4	7.2	32.8
	PPBC	7.2	21.6	98.4
BENZENE		0.1	1.4	1.2
	PPBC	0.6	8.4	7.2
METHYL ETHYL KETONE		0.2	0.2	3.2
	PPBC	0.8	0.8	12.8
TOLUENE		0.2	14.8	12.8
	PPBC	1.4	104	89.6
ETHYL BENZENE		1.4	0.8	1.6
	PPBC	11.2	6.4	12.8
META-XYLENE		0.2	38.4	20.8
	PPBC	1.6	307	166
META-ETHYL TOLUENE		1.5	0.9	1.9
	PPBC	13.5	8.1	17.1
PAN		****	0.0	4.0
	PPBC	****	0.0	8.0
FORMALDEHYDE		****	4.0	****
	PPBC	****	4.0	****
3P COL., 45 MIN 00 SEC		****	6.0	12.0
TOTAL HC PPBC		1157.1	5016.8	4627.9
TOTAL NON-METHANE HC		147.1	2296.8	1907.9
TOTAL SURROGATE		102.7	2228.8	1671.8

SURROGATE RUN 147-J
GLASS CHAMBER
1975 MAR 6

2-METHYLBUTENE-2 AT 1215 HOURS UNCERTAIN DUE TO POSSIBLE INTERFERENCE

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		820	915	1215
ELAPSED TIME(MIN)		-55	0	180
		CONCENTRATIONS (PPB)		
METHANE		640	2560	2540
	PPBC	640	2560	2540
ETHENE		9.8	43.2	32.0
	PPBC	19.6	86.4	64.0
ETHANE		16.3	81.6	75.2
	PPBC	32.6	163	150
ACETYLENE (POROPAK N)		7.0	40.8	39.2
	PPBC	14.0	81.6	78.4
PROPANE		8.0	22.0	19.2
	PPBC	24.0	66.0	57.6
PROPENE		0.7	11.0	4.4
	PPBC	2.1	33.0	13.2
ISOBUTANE		0.2	0.3	0.4
	PPBC	0.8	1.2	1.6
N-BUTANE		0.3	167	139
	PPBC	1.2	668	556
ACETYLENE (DMS)		7.1	48.4	42.4
	PPBC	14.2	96.8	84.8
TRANS-2-BUTENE		0.0	0.7	0.0
	PPBC	0.0	2.8	0.0
ISOPENTANE		0.2	0.4	0.5
	PPBC	1.0	2.0	2.5
CIS-2-BUTENE		0.0	12.9	1.0
	PPBC	0.0	51.6	4.0
2,3-DIMETHYL BUTANE		0.0	91.2	70.0
	PPBC	0.0	547	420
2-METHYL BUTENE-2		0.0	14.0	14.0
	PPBC	0.0	70.0	70.0

SURROGATE RUN 147-J
GLASS CHAMBER
1975 MAR 6

CLOCK TIME		820	915	1215
ELAPSED TIME(MIN)		-55	0	180
ACETALDEHYDE		0.5	2.0	23.2
	PPBC	1.0	4.0	46.4
PROPIONALDEHYDE		0.6	1.2	5.6
	PPBC	1.8	3.6	16.8
ACETONE		0.8	9.2	32.0
	PPBC	2.4	27.6	96.0
BENZENE		0.2	1.4	1.2
	PPBC	1.2	8.4	7.2
METHYL ETHYL KETONE		0.1	0.0	3.2
	PPBC	0.4	0.0	12.8
TOLUENE		0.1	15.2	12.4
	PPBC	0.7	106	86.8
PARA-XYLENE		1.7	1.0	1.6
	PPBC	13.6	8.0	12.8
META-XYLENE		0.1	40.0	21.6
	PPBC	0.8	320	173
META-ETHYL TOLUENE		1.8	0.9	1.8
	PPBC	16.2	8.1	16.2
PAN		****	0.0	4.0
	PPBC	****	0.0	8.0
FORMALDEHYDE		****	40.0	5.0
	PPBC	****	40.0	5.0
3P COL., 45 MIN 00 SEC		17.0	18.0	****
TOTAL HC PPBC		773.5	4866.7	4441.7
TOTAL NON-METHANE HC		133.5	2306.7	1901.7
TOTAL SURROGATE		95.1	2203.8	1676.4

SURROGATE RUN 148-J
GLASS CHAMBER
1975 MAR 7.

DMS DATA AT 1000 AND 1030 HOURS UNRELIABLE DUE TO NOISE INTERFERENCE

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		810	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-110	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		752	3170	****	2720	****	2640	****	2640	****	2610	****	2580	****	2560
	PPBC	752	3170	****	2720	****	2640	****	2640	****	2610	****	2580	****	2560
ETHENE		10.8	43.2	****	35.2	****	30.4	****	27.2	****	22.4	****	19.2	****	16.0
	PPBC	21.6	86.4	****	70.4	****	60.8	****	54.4	****	44.8	****	38.4	****	32.0
ETHANE		17.0	80.0	****	78.4	****	76.0	****	73.6	****	72.0	****	72.0	****	68.8
	PPBC	34.0	160	****	157	****	152	****	147	****	144	****	144	****	138
ACETYLENE (POROPAK N)		3.4	39.2	****	34.4	****	34.4	****	33.6	****	32.0	****	32.0	****	32.0
	PPBC	6.8	78.4	****	68.8	****	68.8	****	67.2	****	64.0	****	64.0	****	64.0
PROPANE		7.5	21.2	****	20.0	19.8	19.2	****	18.8	18.8	17.6	17.6	17.6	15.8	16.8
	PPBC	22.5	63.6	****	60.0	59.4	57.6	****	56.4	56.4	52.8	52.8	52.8	47.4	50.4
PROPENE		0.6	10.6	****	5.2	6.0	3.4	****	2.0	1.6	1.1	0.8	0.6	0.4	0.3
	PPBC	1.8	31.8	****	15.6	18.0	10.2	****	6.0	4.8	3.3	2.4	1.8	1.2	0.9
ISOBUTANE		0.1	0.3	****	****	0.4	0.4	****	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	PPBC	0.4	1.2	****	****	1.6	1.6	****	1.6	1.6	1.6	1.6	1.6	1.6	1.6
N-BUTANE		0.2	160	147	144	144	138	****	131	131	125	125	120	116	116
	PPBC	0.8	640	588	576	576	552	****	524	524	500	500	480	464	464
ACETYLENE (DMS)		3.4	43.2	****	40.8	40.2	39.6	****	38.4	38.4	38.0	37.6	37.2	34.0	36.0
	PPBC	6.8	86.4	****	81.6	80.4	79.2	****	76.8	76.8	76.0	75.2	74.4	68.0	72.0
TRANS-2-BUTENE		0.0	0.8	****	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	****	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.4	****	0.5	0.5	0.4	****	0.4	0.4	0.5	0.6	0.8	0.8	0.9
	PPBC	0.0	2.0	****	2.5	2.5	2.0	****	2.0	2.0	2.5	3.0	4.0	4.0	4.5
CIS-2-BUTENE		0.0	12.5	6.0	3.0	1.1	0.2	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	50.0	24.0	12.0	4.4	0.8	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.0	0.1	0.1	****	0.2	0.2	0.3	0.3	0.4	0.4	0.5
	PPBC	0.0	0.0	0.0	0.0	0.5	0.5	****	1.0	1.0	1.5	1.5	2.0	2.0	2.5
2,3-DIMETHYL BUTANE		0.0	87.2	78.0	74.0	72.0	69.6	****	66.0	60.8	58.0	55.6	52.4	50.0	48.8
	PPBC	0.0	523	468	444	432	418	****	396	365	348	334	314	300	293

SURROGATE RUN 148-J
GLASS CHAMBER
1975 MAR 7

CLOCK TIME		810	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-110	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	13.0	****	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	65.0	****	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		0.5	2.0	****	22.4	****	28.0	****	26.4	****	25.6	****	24.0	****	28.8
	PPBC	1.0	4.0	****	44.8	****	56.0	****	52.8	****	51.2	****	48.0	****	57.6
PROPIONALDEHYDE		0.6	2.4	****	4.0	****	6.4	****	8.8	****	10.4	****	12.8	****	14.4
	PPBC	1.8	7.2	****	12.0	****	19.2	****	26.4	****	31.2	****	38.4	****	43.2
ACETONE		1.0	9.2	****	31.2	****	36.0	****	41.6	****	47.2	****	49.6	****	61.6
	PPBC	3.0	27.6	****	93.6	****	108	****	125	****	142	****	149	****	185
BENZENE		0.2	1.2	****	1.2	****	1.6	****	1.6	****	1.4	****	1.2	****	1.2
	PPBC	1.2	7.2	****	7.2	****	9.6	****	9.6	****	8.4	****	7.2	****	7.2
METHYL ETHYL KETONE		0.1	0.2	****	2.8	****	3.6	****	4.0	****	4.8	****	4.8	****	8.0
	PPBC	0.4	0.8	****	11.2	****	14.4	****	16.0	****	19.2	****	19.2	****	32.0
TOLUENE		0.1	14.4	****	12.4	****	11.6	****	10.8	****	10.0	****	9.6	****	8.8
	PPBC	0.7	101	****	86.8	****	81.2	****	75.6	****	70.0	****	67.2	****	61.6
PARA-XYLENE		1.5	2.4	****	2.4	****	2.0	****	2.4	****	2.8	****	2.6	****	3.2
	PPBC	12.0	19.2	****	19.2	****	16.0	****	19.2	****	22.4	****	20.8	****	25.6
META-XYLENE		0.0	40.0	****	24.0	****	17.6	****	14.4	****	11.2	****	8.8	****	7.2
	PPBC	0.0	320	****	192	****	141	****	115	****	89.6	****	70.4	****	57.6
META-ETHYL TOLUENE		0.8	1.0	****	1.0	****	1.9	****	2.8	****	3.8	****	3.9	****	4.3
	PPBC	7.2	9.0	****	9.0	****	17.1	****	25.2	****	34.2	****	35.1	****	38.7
PAN		****	0.0	1.0	3.0	6.0	9.0	12.0	14.0	17.0	19.0	22.0	24.0	25.0	27.0
	PPBC	****	0.0	2.0	6.0	12.0	18.0	24.0	28.0	34.0	38.0	44.0	48.0	50.0	54.0
FORMALDEHYDE		****	255	****	118	****	111	****	62.0	****	25.0	****	114	****	****
	PPBC	****	255	****	118	****	111	****	62.0	****	25.0	****	114	****	****
3P COL., 45 MIN 00 SEC		16.0	12.0	****	10.0	****	14.0	****	14.0	****	23.0	****	29.0	****	32.0
TOTAL HC PPBC		867.2	5629.6	****	4732.3	****	4560.4	****	4455.4	****	4309.3	****	4305.3	****	4176.6
TOTAL NON-METHANE HC		115.2	2459.6	1082.0	2012.3	1186.8	1920.4	24.0	1815.4	1065.4	1699.3	1014.1	1725.3	938.2	1616.6
TOTAL SURROGATE		88.2	2126.4	1080.0	1688.8	1170.2	1547.0	****	1446.8	1026.8	1322.5	964.0	1238.2	880.6	1164.9

SURROGATE RUN 149-J
GLASS CHAMBER
1975 MAR 11

PROPANE AT 1730 HOURS ESTIMATED
NO DATA AT 1500 HOURS, EC SAMPLE TAKEN INSTEAD

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		815	1030	1100	1130	1200	1230	1300	1350	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-135	0	30	60	90	120	150	200	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		704	2740	****	2740	****	2720	****	2660	****	2660	****	2640	****	2620
	PPBC	704	2740	****	2740	****	2720	****	2660	****	2660	****	2640	****	2620
ETHENE		12.8	44.8	****	38.4	****	36.8	****	32.0	****	28.8	****	25.6	****	22.4
	PPBC	25.6	89.6	****	76.8	****	73.6	****	64.0	****	57.6	****	51.2	****	44.8
ETHANE		4.8	72.0	****	70.4	****	68.0	****	67.2	****	64.0	****	62.4	****	62.4
	PPBC	9.6	144	****	141	****	136	****	134	****	128	****	125	****	125
ACETYLENE (PORDPAK N)		2.8	40.0	****	38.4	****	36.0	****	35.2	****	33.6	****	32.0	****	32.0
	PPBC	5.6	80.0	****	76.8	****	72.0	****	70.4	****	67.2	****	64.0	****	64.0
PROPANE		6.7	20.0	19.6	18.8	18.4	19.6	19.6	18.8	18.8	15.6	****	18.0	18.0	17.2
	PPBC	20.1	60.0	58.8	56.4	55.2	58.8	58.8	56.4	56.4	46.8	****	54.0	54.0	51.6
PROPENE		0.6	10.4	8.8	7.0	5.8	5.0	4.6	3.8	3.2	2.6	****	1.6	1.4	1.2
	PPBC	1.8	31.2	26.4	21.0	17.4	15.0	13.8	11.4	9.6	7.8	****	4.8	4.2	3.6
ISOBUTANE		0.1	0.4	0.4	0.4	0.4	0.8	2.2	1.0	1.0	1.0	****	1.0	1.0	1.0
	PPBC	0.4	1.6	1.6	1.6	1.6	3.2	8.8	4.0	4.0	4.0	****	4.0	4.0	4.0
N-BUTANE		0.1	157	157	150	144	147	147	141	141	136	****	131	****	122
	PPBC	0.4	628	628	600	576	588	588	564	564	544	****	524	****	488
ACETYLENE (DMS)		3.0	42.0	41.6	40.0	40.0	42.0	42.0	40.0	40.0	38.2	****	38.4	****	37.0
	PPBC	6.0	84.0	83.2	80.0	80.0	84.0	84.0	80.0	80.0	76.4	****	76.8	****	74.0
TRANS-2-BUTENE		0.0	0.7	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0
	PPBC	0.0	2.8	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0
ISOPENTANE		0.0	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	****	0.4	0.5	0.4
	PPBC	0.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.5	2.5	****	2.0	2.5	2.0
CIS-2-BUTENE		0.0	12.0	8.7	5.0	3.0	1.6	0.9	0.4	0.0	0.0	****	0.0	0.0	0.0
	PPBC	0.0	48.0	34.8	20.0	12.0	6.4	3.6	1.6	0.0	0.0	****	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.4	0.2	****	0.4	0.3	0.0
	PPBC	0.0	0.0	0.0	0.5	0.5	0.0	1.0	0.0	2.0	1.0	****	2.0	1.5	0.0
2,3-DIMETHYL BUTANE		0.0	87.6	86.0	80.0	75.6	72.0	74.8	68.8	68.4	****	****	62.4	60.0	57.0
	PPBC	0.0	526	516	480	454	432	449	413	410	****	****	374	360	342

SURROGATE RUN 149-J
GLASS CHAMBER
1975 MAR 11

CLOCK TIME		815	1030	1100	1130	1200	1230	1300	1350	1400	1430	1500	1530	1600	1630
ELAPSED TIME(MIN)		-135	0	30	60	90	120	150	200	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	14.0	6.8	4.0	0.5	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0
	PPBC	0.0	70.0	34.0	20.0	2.5	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0
ACETALDEHYDE		7.0	1.2	****	17.2	****	24.0	****	36.8	****	38.8	****	22.0	****	22.4
	PPBC	14.0	2.4	****	34.4	****	48.0	****	73.6	****	77.6	****	44.0	****	44.8
PROPIONALDEHYDE		1.8	3.6	****	4.8	****	5.6	****	6.4	****	8.0	****	9.6	****	12.0
	PPBC	5.4	10.8	****	14.4	****	16.8	****	19.2	****	24.0	****	28.8	****	36.0
ACETONE		4.8	8.8	****	20.8	****	30.4	****	44.8	****	52.0	****	48.0	****	56.8
	PPBC	14.4	26.4	****	62.4	****	91.2	****	134	****	156	****	144	****	170
BENZENE		0.1	1.2	****	1.2	****	0.8	****	0.8	****	0.9	****	0.8	****	0.8
	PPBC	0.6	7.2	****	7.2	****	4.8	****	4.8	****	5.4	****	4.8	****	4.8
METHYL ETHYL KETONE		0.2	0.4	****	1.4	****	2.4	****	4.8	****	5.2	****	4.8	****	6.4
	PPBC	0.8	1.6	****	5.6	****	9.6	****	19.2	****	20.8	****	19.2	****	25.6
TOLUENE		0.1	15.2	****	13.6	****	12.8	****	11.6	****	11.2	****	10.4	****	10.0
	PPBC	0.7	106	****	95.2	****	89.6	****	81.2	****	78.4	****	72.8	****	70.0
ETHYL BENZENE		1.0	1.5	****	1.6	****	1.2	****	1.2	****	1.6	****	1.6	****	2.0
	PPBC	8.0	12.0	****	12.8	****	9.6	****	9.6	****	12.8	****	12.8	****	16.0
META-XYLENE		0.1	39.6	****	28.8	****	22.4	****	17.6	****	14.6	****	12.0	****	9.2
	PPBC	0.8	317	****	230	****	179	****	141	****	117	****	96.0	****	73.6
ISOPROPYL BENZENE		0.8	0.0	****	0.1	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	7.2	0.0	****	0.9	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		0.8	1.7	****	1.2	****	1.0	****	1.0	****	1.4	****	1.6	****	2.0
	PPBC	7.2	15.3	****	10.8	****	9.0	****	9.0	****	12.6	****	14.4	****	18.0
1,2,3 TRIMETHYL BENZENE		4.8	0.0	****	0.0	****	0.0	****	0.0	****	****	****	****	****	0.0
	PPBC	43.2	0.0	****	0.0	****	0.0	****	0.0	****	****	****	****	****	0.0
PAN		****	0.0	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	****	11.0	12.0
	PPBC	****	0.0	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	****	22.0	24.0
FORMALDEHYDE		****	91.0	****	****	****	119	****	139	****	145	****	****	****	121
	PPBC	****	91.0	****	****	****	119	****	139	****	145	****	****	****	121
3P COL., 06 MIN 30 SEC		18.0	32.0	****	16.0	****	16.0	****	20.0	****	32.0	****	24.0	****	28.0
3P COL., 45 MIN 00 SEC		13.0	17.0	****	14.0	****	12.0	****	12.0	****	****	****	****	****	16.0
TOTAL HC PPBC		870.0	5014.7	****	4714.4	****	4695.8	****	4626.6	****	4186.9	****	4288.4	****	4354.0
TOTAL NON-METHANE HC		166.0	2274.7	1386.4	1974.4	1204.8	1975.8	1217.3	1966.6	1140.9	1526.9	16.0	1648.4	448.2	1734.0
TOTAL SURROGATE		64.8	2104.4	1382.8	1819.8	1196.7	1656.6	1197.0	1541.8	1120.4	1051.2	****	1372.4	418.2	1267.4

SURROGATE RUN 149-J
GLASS CHAMBER
1975 MAR 11

CLOCK TIME		1700	1730	1800	1830	1900	1930
ELAPSED TIME(MIN)		390	420	450	480	510	540
		CONCENTRATIONS (PPB)					
METHANE		****	2590	****	2560	****	2560
	PPBC	****	2590	****	2560	****	2560
ETHENE		****	20.8	****	17.6	****	14.4
	PPBC	****	41.6	****	35.2	****	28.8
ETHANE		****	62.4	****	57.6	****	59.2
	PPBC	****	125	****	115	****	118
ACETYLENE (POROPAK N)		****	32.0	****	30.4	****	30.4
	PPBC	****	64.0	****	60.8	****	60.8
PROPANE		18.0	16.8	17.2	17.2	16.8	16.0
	PPBC	54.0	50.4	51.6	51.6	50.4	48.0
PROPENE		0.8	0.8	0.6	0.4	0.2	0.2
	PPBC	2.4	2.4	1.8	1.2	0.6	0.6
ISOBUTANE		1.0	1.2	1.0	1.2	1.2	1.2
	PPBC	4.0	4.8	4.0	4.8	4.8	4.8
N-BUTANE		125	122	120	118	112	109
	PPBC	500	488	480	472	448	436
ACETYLENE (DMS)		38.0	37.2	37.0	37.2	36.0	35.2
	PPBC	76.0	74.4	74.0	74.4	72.0	70.4
TRANS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.6	0.6	0.8	0.6	0.5	0.4
	PPBC	3.0	3.0	4.0	3.0	2.5	2.0
CIS-2-BUTENE		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.3	0.4	0.4	0.4	0.4	0.4
	PPBC	1.5	2.0	2.0	2.0	2.0	2.0
2,3-DIMETHYL BUTANE		65.0	****	****	52.8	49.2	45.6
	PPBC	390	****	****	317	295	274
2-METHYL BUTENE-2		0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		****	25.6	****	26.4	****	24.0
	PPBC	****	51.2	****	52.8	****	48.0
PROPIONALDEHYDE		****	12.8	****	15.2	****	16.8
	PPBC	****	38.4	****	45.6	****	50.4

SURROGATE RUN 149-J
GLASS CHAMBER
1975 MAR 11

CLOCK TIME		1700	1730	1800	1830	1900	1930
ELAPSED TIME(MIN)		390	420	450	480	510	540
ACETONE		****	62.4	****	67.2	****	68.8
	PPBC	****	187	****	202	****	206
BENZENE		****	0.8	****	0.8	****	0.8
	PPBC	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		****	7.2	****	8.0	****	8.0
	PPBC	****	28.8	****	32.0	****	32.0
TOLUENE		****	9.6	****	8.8	****	8.4
	PPBC	****	67.2	****	61.6	****	58.8
ETHYL BENZENE		****	2.0	****	2.4	****	2.8
	PPBC	****	16.0	****	19.2	****	22.4
META-XYLENE		****	8.8	****	6.4	****	6.4
	PPBC	****	70.4	****	51.2	****	51.2
ISOPROPYL BENZENE		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		****	2.6	****	3.0	****	3.2
	PPBC	****	23.4	****	27.0	****	28.8
1,2,3 TRIMETHYL BENZENE		****	0.0	****	0.0	****	****
	PPBC	****	0.0	****	0.0	****	****
PAN		****	15.0	****	17.0	****	19.0
	PPBC	****	30.0	****	34.0	****	38.0
FORMALDEHYDE		****	****	****	****	****	****
	PPBC	****	****	****	****	****	****
3P COL., 06 MIN 30 SEC		****	36.0	****	34.0	****	36.0
3P COL., 45 MIN 00 SEC		****	23.0	****	22.0	****	****
TOTAL HC PPBC		****	6168.2	****	6133.5	****	6056.3
TOTAL NON-METHANE HC		1196.9	3578.2	2003.8	3573.5	2080.3	3496.3
TOTAL SURROGATE		1087.2	3018.4	1990.2	2992.2	2062.9	2737.6

SURROGATE RUN 150-J
GLASS CHAMBER
1975 MAR 12

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		825	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-95	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		780	2610	****	2560	****	2560	****	2560	****	2560	****	2560	****	2480
	PPBC	780	2610	****	2560	****	2560	****	2560	****	2560	****	2560	****	2480
ETHENE		10.0	44.8	****	40.0	****	38.4	****	33.6	****	32.0	****	28.8	****	27.2
	PPBC	20.0	89.6	****	80.0	****	76.8	****	67.2	****	64.0	****	57.6	****	54.4
ETHANE		4.0	72.0	****	70.0	****	68.8	****	68.0	****	67.2	****	64.0	****	64.0
	PPBC	8.0	144	****	140	****	138	****	136	****	134	****	128	****	128
ACETYLENE (POROPAK N)		4.2	41.6	****	40.0	****	38.0	****	38.4	****	36.0	****	36.0	****	36.0
	PPBC	8.4	83.2	****	80.0	****	76.0	****	76.8	****	72.0	****	72.0	****	72.0
PROPANE		7.2	22.4	22.4	22.0	21.8	21.2	21.2	21.2	20.0	19.8	20.8	20.0	****	18.4
	PPBC	21.6	67.2	67.2	66.0	65.4	63.6	63.6	63.6	60.0	59.4	62.4	60.0	****	55.2
PROPENE		0.6	11.6	10.4	8.8	7.6	6.8	6.2	5.2	4.6	4.4	4.0	3.4	****	2.6
	PPBC	1.8	34.8	31.2	26.4	22.8	20.4	18.6	15.6	13.8	13.2	12.0	10.2	****	7.8
ISOBUTANE		0.0	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.7	****	0.6
	PPBC	0.0	1.6	1.6	1.6	1.6	1.6	2.4	2.4	2.4	2.4	2.4	2.8	****	2.4
N-BUTANE		0.2	179	176	170	166	****	160	160	154	****	154	147	****	138
	PPBC	0.8	716	704	680	664	****	640	640	616	****	616	588	****	552
ACETYLENE (DMS)		4.5	49.2	48.8	48.0	47.2	46.8	46.8	46.8	46.6	45.6	46.0	44.8	****	41.6
	PPBC	9.0	98.4	97.6	96.0	94.4	93.6	93.6	93.6	93.2	91.2	92.0	89.6	****	83.2
TRANS-2-BUTENE		****	0.6	0.5	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	****	2.4	2.0	1.6	1.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ISOPENTANE		****	0.8	1.0	1.0	1.2	1.2	1.0	1.0	1.2	1.2	1.4	1.0	****	1.4
	PPBC	****	4.0	5.0	5.0	6.0	6.0	5.0	5.0	6.0	6.0	7.0	5.0	****	7.0
CIS-2-BUTENE		****	13.5	11.0	7.2	5.0	3.4	2.5	1.6	1.0	0.8	0.2	0.1	****	0.0
	PPBC	****	54.0	44.0	28.8	20.0	13.6	10.0	6.4	4.0	3.2	0.8	0.4	****	0.0
N-PENTANE		****	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.6
	PPBC	****	2.0	2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.5	3.0	3.0	2.5	3.0
2,3-DIMETHYL BUTANE		****	****	92.0	92.0	86.4	84.8	80.0	76.0	76.0	76.8	76.0	72.0	72.0	68.4
	PPBC	****	****	552	552	518	509	480	456	456	461	456	432	432	410

SURROGATE RUN 150-J
GLASS CHAMBER
1975 MAR 12

CLOCK TIME		825	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-95	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		****	16.0	8.4	4.4	2.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	****	80.0	42.0	22.0	14.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		0.8	1.6	****	16.8	****	24.0	****	26.0	****	28.8	****	32.0	****	30.0
	PPBC	1.6	3.2	****	33.6	****	48.0	****	52.0	****	57.6	****	64.0	****	60.0
PROPIONALDEHYDE		0.6	2.2	****	3.2	****	4.0	****	4.8	****	6.4	****	8.0	****	9.6
	PPBC	1.8	6.6	****	9.6	****	12.0	****	14.4	****	19.2	****	24.0	****	28.8
ACETONE		2.6	9.0	****	24.8	****	31.2	****	39.2	****	46.4	****	49.6	****	54.4
	PPBC	7.8	27.0	****	74.4	****	93.6	****	118	****	139	****	149	****	163
BENZENE		0.4	2.0	****	1.2	****	0.8	****	0.8	****	0.8	****	0.8	****	0.8
	PPBC	2.4	12.0	****	7.2	****	4.8	****	4.8	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		0.1	****	****	1.6	****	2.4	****	3.2	****	4.8	****	4.8	****	5.2
	PPBC	0.4	****	****	6.4	****	9.6	****	12.8	****	19.2	****	19.2	****	20.8
TOLUENE		0.1	15.2	****	14.4	****	13.6	****	12.8	****	12.4	****	11.6	****	11.2
	PPBC	0.7	106	****	101	****	95.2	****	89.6	****	86.8	****	81.2	****	78.4
ETHYL BENZENE		1.7	0.8	****	1.2	****	0.5	****	1.0	****	1.1	****	1.2	****	1.2
	PPBC	13.6	6.4	****	9.6	****	4.0	****	8.0	****	8.8	****	9.6	****	9.6
META-XYLENE		0.0	39.2	****	32.0	****	26.0	****	21.6	****	18.8	****	16.0	****	14.4
	PPBC	0.0	314	****	256	****	208	****	173	****	150	****	128	****	115
META-ETHYL TOLUENE		1.3	****	****	1.0	****	0.9	****	1.0	****	1.0	****	1.3	****	1.6
	PPBC	11.7	****	****	9.0	****	8.1	****	9.0	****	9.0	****	11.7	****	14.4
PAN		****	0.0	0.0	0.0	1.0	1.0	1.0	2.0	****	2.0	2.0	3.0	3.0	4.0
	PPBC	****	0.0	0.0	0.0	2.0	2.0	2.0	4.0	****	4.0	4.0	6.0	6.0	8.0
FORMALDEHYDE		****	134	****	151	****	171	161	****	****	****	191	****	****	177
	PPBC	****	134	****	151	****	171	161	****	****	****	191	****	****	177
3P COL., 06 MIN 30 SEC		22.0	18.0	****	12.0	****	8.0	****	12.0	****	14.0	****	13.0	****	14.0
3P COL., 45 MIN 00 SEC		14.0	10.0	****	8.0	****	6.0	****	8.0	****	10.0	****	11.0	****	****
TOTAL HC PPBC		880.9	4505.6	****	4911.5	****	4137.3	****	4524.4	****	3886.5	****	4425.1	****	4458.0
TOTAL NON-METHANE HC		100.9	1895.6	1548.6	2351.5	1412.3	1577.3	1478.2	1964.4	1253.4	1326.5	1446.6	1865.1	440.5	1978.0
TOTAL SURROGATE		61.6	1698.8	1540.0	2041.6	1400.2	1214.6	1305.8	1732.4	1243.0	1053.8	1239.2	1566.2	432.0	1479.0

SURROGATE RUN 150-J
GLASS CHAMBER
1975 MAR 12

CLOCK TIME 1900
ELAPSED TIME(MIN) 540

		CONCENTRATIONS (PPB)
METHANE		2350
	PPBC	2350
ETHENE		16.0
	PPBC	32.0
ETHANE		43.2
	PPBC	86.4
ACETYLENE (POROPAK N)		25.6
	PPBC	51.2
PROPANE		18.0
	PPBC	54.0
PROPENE		1.2
	PPBC	3.6
ISOBUTANE		0.6
	PPBC	2.4
N-BUTANE		128
	PPBC	512
ACETYLENE (DMS)		40.8
	PPBC	81.6
TRANS-2-BUTENE		0.0
	PPBC	0.0
ISOPENTANE		1.4
	PPBC	7.0
CIS-2-BUTENE		0.0
	PPBC	0.0
N-PENTANE		0.8
	PPBC	4.0
2,3-DIMETHYL BUTANE		59.2
	PPBC	355
2-METHYL BUTENE-2		0.0
	PPBC	0.0
ACETALDEHYDE		20.0
	PPBC	40.0
PROPIONALDEHYDE		17.6
	PPBC	52.8

SURROGATE RUN 150-J
GLASS CHAMBER
1975 MAR 12

CLOCK TIME		1900
ELAPSED TIME(MIN)		540
ACETONE		62.4
	PPBC	187
BENZENE		0.8
	PPBC	4.8
METHYL ETHYL KETONE		7.2
	PPBC	28.8
TOLUENE		10.4
	PPBC	72.8
ETHYL BENZENE		2.4
	PPBC	19.2
META-XYLENE		10.0
	PPBC	80.0
META-ETHYL TOLUENE		****
	PPBC	****
PAN		****
	PPBC	****
FORMALDEHYDE		****
	PPBC	****
3P COL., 06 MIN 30 SEC		36.0
3P COL., 45 MIN 00 SEC		****
TOTAL HC PPBC		4059.5
TOTAL NON-METHANE HC		1709.5
TOTAL SURROGATE		1324.0

SURROGATE RUN 151-J
GLASS CHAMBER
1975 MAR 13

PN SAMPLE AT 1200 HOURS SUSPECT

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		815	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-105	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		684	2750	****	2720	****	2560	****	2430	****	2590	****	2590	****	2580
	PPBC	684	2750	****	2720	****	2560	****	2430	****	2590	****	2590	****	2580
ETHENE		2.8	41.6	****	36.8	****	25.8	****	30.4	****	25.6	****	22.4	****	19.2
	PPBC	5.6	83.2	****	73.6	****	51.6	****	60.8	****	51.2	****	44.8	****	38.4
ETHANE		1.5	72.0	****	72.0	****	64.0	****	68.8	****	67.2	****	65.6	****	64.0
	PPBC	3.0	144	****	144	****	128	****	138	****	134	****	131	****	128
ACETYLENE (POROPAK N)		2.4	41.6	****	40.0	****	36.0	****	32.0	****	36.0	****	36.8	****	35.2
	PPBC	4.8	83.2	****	80.0	****	72.0	****	64.0	****	72.0	****	73.6	****	70.4
PROPANE		7.6	****	23.2	20.8	20.8	20.8	21.0	20.4	20.2	20.4	19.8	19.2	19.6	19.2
	PPBC	22.8	****	69.6	62.4	62.4	62.4	63.0	61.2	60.6	61.2	59.4	57.6	58.8	57.6
PROPENE		-0.6	11.8	10.4	8.0	6.4	5.4	4.8	3.6	3.0	2.4	1.6	1.4	1.0	0.8
	PPBC	-1.8	35.4	31.2	24.0	19.2	16.2	14.4	10.8	9.0	7.2	4.8	4.2	3.0	2.4
ISOBUTANE		0.0	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	PPBC	0.0	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
N-BUTANE		0.2	176	179	170	163	160	163	154	152	150	****	147	139	134
	PPBC	0.8	704	716	680	652	640	652	616	608	600	****	588	556	536
ACETYLENE (DMS)		5.4	50.0	50.4	48.4	47.6	47.2	47.2	45.6	46.6	44.8	44.4	44.0	43.2	42.4
	PPBC	10.8	100	101	96.8	95.2	94.4	94.4	91.2	93.2	89.6	88.8	88.0	86.4	84.8
TRANS-2-BUTENE		0.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.4	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.4	0.2	0.2	0.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.0	1.0	1.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CIS-2-BUTENE		0.0	13.8	10.4	6.0	3.2	1.2	0.5	0.5	0.4	0.5	0.6	0.6	0.6	0.6
	PPBC	0.0	55.2	41.6	24.0	12.8	4.8	2.0	2.0	1.6	2.0	2.4	2.4	2.4	2.4
N-PENTANE		0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	PPBC	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5
2,3-DIMETHYL BUTANE		0.0	103	96.8	92.0	84.0	81.6	80.0	76.0	****	72.0	67.2	66.0	64.0	60.4
	PPBC	0.0	618	581	552	504	490	480	456	****	432	403	396	384	362

SURROGATE RUN 151-J
GLASS CHAMBER
1975 MAR 13

CLOCK TIME		815	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600
ELAPSED TIME(MIN)		-105	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	14.4	8.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	72.0	40.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		0.5	****	****	25.6	****	31.2	****	32.8	****	32.8	****	32.0	****	31.2
	PPBC	1.0	****	****	51.2	****	62.4	****	65.6	****	65.6	****	64.0	****	62.4
PROPIONALDEHYDE		0.8	****	****	2.4	****	4.0	****	5.6	****	7.2	****	8.8	****	11.2
	PPBC	2.4	****	****	7.2	****	12.0	****	16.8	****	21.6	****	26.4	****	33.6
ACETONE		3.0	12.6	****	29.6	****	40.0	****	49.6	****	56.0	****	63.2	****	70.4
	PPBC	9.0	37.8	****	88.8	****	120	****	149	****	168	****	190	****	211
BENZENE		0.1	1.6	****	1.2	****	1.0	****	0.8	****	0.8	****	0.8	****	0.8
	PPBC	0.6	9.6	****	7.2	****	6.0	****	4.8	****	4.8	****	4.8	****	4.8
METHYL ETHYL KETONE		0.2	0.2	****	1.6	****	3.2	****	4.8	****	5.6	****	7.2	****	8.0
	PPBC	0.8	0.8	****	6.4	****	12.8	****	19.2	****	22.4	****	28.8	****	32.0
TOLUENE		0.1	15.2	****	14.4	****	12.8	****	12.4	****	11.2	****	10.8	****	10.0
	PPBC	0.7	106	****	101	****	89.6	****	86.8	****	78.4	****	75.6	****	70.0
ETHYL BENZENE		1.7	1.3	****	1.2	****	1.0	****	1.6	****	1.6	****	2.4	****	2.4
	PPBC	13.6	10.4	****	9.6	****	8.0	****	12.8	****	12.8	****	19.2	****	19.2
META-XYLENE		0.1	40.0	****	31.2	****	23.2	****	18.4	****	15.2	****	11.6	****	8.8
	PPBC	0.8	320	****	250	****	186	****	147	****	122	****	92.8	****	70.4
META-ETHYL TOLUENE		1.0	1.0	****	1.0	****	1.4	****	1.5	****	2.0	****	3.0	****	3.2
	PPBC	9.0	9.0	****	9.0	****	12.6	****	13.5	****	18.0	****	27.0	****	28.8
PAN		****	0.0	****	1.0	3.0	5.0	7.0	9.0	10.0	12.0	14.0	15.0	18.0	19.0
	PPBC	****	0.0	****	2.0	6.0	10.0	14.0	18.0	20.0	24.0	28.0	30.0	36.0	38.0
FORMALDEHYDE		****	111	****	173	****	192	****	222	****	181	****	177	****	183
	PPBC	****	111	****	173	****	192	****	222	****	181	****	177	****	183
3P COL., 06 MIN 30 SEC		21.0	24.0	****	16.0	****	16.0	****	22.0	****	20.0	****	28.0	****	30.0
3P COL., 45 MIN 00 SEC		13.0	14.0	****	10.0	****	12.0	****	16.0	****	20.0	****	23.0	****	****
TOTAL HC PPBC		760.1	5163.6	****	5089.2	****	4750.4	****	4610.1	****	4679.6	****	4632.8	****	4541.3
TOTAL NON-METHANE HC		76.1	2413.6	1583.4	2369.2	1354.2	2190.4	1323.4	2180.1	795.0	2089.6	589.2	2042.8	1129.2	1961.3
TOTAL SURROGATE		39.7	2232.2	1580.8	2012.2	1345.6	1751.0	1305.8	1656.0	772.4	1568.8	558.6	1473.4	1090.6	1345.2

SURROGATE RUN 151-J
GLASS CHAMBER
1975 MAR 13

CLOCK TIME		1900
ELAPSED TIME(MIN)		540
		CONCENTRATIONS (PPB)
METHANE		2540
	PPBC	2540
ETHENE		12.8
	PPBC	25.6
ETHANE		60.8
	PPBC	122
ACETYLENE (PORAPAK N)		32.0
	PPBC	64.0
PROPANE		17.2
	PPBC	51.6
PROPENE		0.1
	PPBC	0.3
ISOBUTANE		0.4
	PPBC	1.6
N-BUTANE		39.6
	PPBC	158
ACETYLENE (OHS)		39.6
	PPBC	79.2
TRANS-2-BUTENE		0.0
	PPBC	0.0
ISOPENTANE		1.0
	PPBC	5.0
CIS-2-BUTENE		0.0
	PPBC	0.0
N-PENTANE		0.6
	PPBC	3.0
2,3-DIMETHYL BUTANE		48.4
	PPBC	290
2-METHYL BUTENE-2		0.0
	PPBC	0.0
ACETALDEHYDE		17.6
	PPBC	35.2
PROPIONALDEHYDE		20.8
	PPBC	62.4

SURROGATE RUN 151-J
GLASS CHAMBER
1975 MAR 13

CLOCK TIME		1900
ELAPSED TIME(MIN)		540
ACETONE		78.4
	PPBC	235
BENZENE		0.8
	PPBC	4.8
METHYL ETHYL KETONE		9.6
	PPBC	38.4
TOLUENE		8.8
	PPBC	61.6
ETHYL BENZENE		3.2
	PPBC	25.6
META-XYLENE		4.5
	PPBC	36.0
META-ETHYL TOLUENE		****
	PPBC	****
PAN		25.0
	PPBC	50.0
FORMALDEHYDE		****
	PPBC	****
3P COL., 06 MIN 30 SEC		56.0
3P COL., 45 MIN 00 SEC		****
TOTAL HC PPBC		3894.4
TOTAL NON-METHANE HC		1354.4
TOTAL SURROGATE		856.8

SURROGATE RUN 153-J
GLASS CHAMBER
1675 MAR 18

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		845	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		920	2930	****	2930	****	2850	****	2800	****	2800	****	2770	****	2770
	PPBC	920	2930	****	2930	****	2850	****	2800	****	2800	****	2770	****	2770
ETHENE		5.6	43.2	****	40.0	****	36.8	****	33.6	****	32.0	****	28.8	****	27.2
	PPBC	11.2	86.4	****	80.0	****	73.6	****	67.2	****	64.0	****	57.6	****	54.4
ETHANE		5.6	80.0	****	80.0	****	79.2	****	77.6	****	75.2	****	72.0	****	70.4
	PPBC	11.2	160	****	160	****	158	****	155	****	150	****	144	****	141
ACETYLENE (POROPAK N)		6.0	48.1	****	47.3	****	45.7	****	44.1	****	43.2	****	40.8	****	40.8
	PPBC	12.0	96.2	****	94.6	****	91.4	****	88.2	****	86.4	****	81.6	****	81.6
PROPANE		7.4	22.4	22.8	22.8	22.0	21.4	21.2	19.6	20.0	20.0	20.2	20.0	****	19.2
	PPBC	22.2	67.2	68.4	68.4	66.0	64.2	63.6	58.8	60.0	60.0	60.6	60.0	****	57.6
PROPENE		1.2	12.4	11.0	9.7	8.2	7.2	6.4	5.6	4.8	4.6	4.1	3.8	****	2.9
	PPBC	3.6	37.2	33.0	29.1	24.6	21.6	19.2	16.8	14.4	13.8	12.3	11.4	****	8.7
ISOBUTANE		0.6	0.6	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.1	****	1.2
	PPBC	2.4	2.4	3.2	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.0	4.4	****	4.8
N-BUTANE		1.4	182	176	174	168	163	160	154	153	150	150	147	****	142
	PPBC	5.6	728	704	696	672	652	640	616	612	600	600	588	****	568
ACETYLENE (DMS)		5.5	48.8	47.7	47.3	46.9	45.4	45.4	43.5	43.5	43.5	43.5	43.5	****	41.6
	PPBC	11.0	97.6	95.4	94.6	93.8	90.8	90.8	87.0	87.0	87.0	87.0	87.0	****	83.2
TRANS-2-BUTENE		0.0	0.7	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	2.8	2.0	0.8	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ISOPENTANE		1.5	1.5	1.4	1.5	1.8	1.9	2.0	1.9	1.8	2.0	2.0	2.4	****	2.5
	PPBC	7.5	7.5	7.0	7.5	9.0	9.5	10.0	9.5	9.0	10.0	10.0	12.0	****	12.5
CIS-2-BUTENE		0.0	13.5	11.0	7.9	5.3	3.9	2.8	1.8	1.1	0.8	0.2	0.0	****	0.0
	PPBC	0.0	54.0	44.0	31.6	21.2	15.6	11.2	7.2	4.4	3.2	0.8	0.0	****	0.0
N-PENTANE		0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	****	1.2
	PPBC	3.5	4.0	4.0	4.5	4.5	4.5	4.5	4.5	4.5	5.0	5.0	5.0	****	6.0
2,3-DIMETHYL BUTANE		0.0	92.0	88.8	85.6	82.4	78.8	77.6	74.0	73.6	70.0	69.2	68.0	****	65.2
	PPBC	0.0	552	533	514	494	473	466	444	442	420	415	408	****	391

SURROGATE RUN 153-J
GLASS CHAMBER
1675 MAR 18

CLOCK TIME		845	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-45	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	14.5	9.2	6.5	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
	PPBC	0.0	72.5	46.0	32.5	12.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0
ACETALDEHYDE		4.0	4.0	****	16.0	****	24.0	****	24.0	****	28.0	****	28.0	****	29.6
	PPBC	8.0	8.0	****	32.0	****	48.0	****	48.0	****	56.0	****	56.0	****	59.2
PROPIONALCEHYDE		1.1	1.2	****	2.0	****	2.4	****	3.2	****	4.0	****	4.8	****	9.6
	PPBC	3.3	3.6	****	6.0	****	7.2	****	9.6	****	12.0	****	14.4	****	28.8
ACETONE		4.0	11.6	****	20.8	****	30.4	****	34.4	****	40.0	****	44.0	****	48.8
	PPBC	12.0	34.8	****	62.4	****	91.2	****	103	****	120	****	132	****	146
BENZENE		0.2	1.7	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6	****	1.6
	PPBC	1.2	10.2	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6	****	9.6
METHYL ETHYL KETONE		0.2	0.4	****	1.2	****	3.2	****	4.0	****	4.8	****	5.6	****	5.6
	PPBC	0.8	1.6	****	4.8	****	12.8	****	16.0	****	19.2	****	22.4	****	22.4
TOLUENE		0.4	15.4	****	14.4	****	13.2	****	12.4	****	12.0	****	11.9	****	11.2
	PPBC	2.8	108	****	101	****	92.4	****	86.8	****	84.0	****	83.3	****	78.4
ETHYL BENZENE		1.8	1.6	****	1.6	****	1.6	****	1.4	****	1.6	****	1.6	****	1.8
	PPBC	14.4	12.8	****	12.8	****	12.8	****	11.2	****	12.8	****	12.8	****	14.4
META-XYLENE		0.2	40.0	****	31.2	****	25.2	****	20.8	****	17.6	****	16.2	****	14.0
	PPBC	1.6	320	****	250	****	202	****	166	****	141	****	130	****	112
ISOPROPYL BENZENE		0.2	****	****	0.3	****	0.1	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	1.8	****	****	2.7	****	0.9	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		1.4	1.8	****	1.0	****	1.5	****	1.4	****	1.8	****	2.0	****	1.8
	PPBC	12.6	16.2	****	9.0	****	13.5	****	12.6	****	16.2	****	18.0	****	16.2
1,2,3 TRIMETHYL BENZENE		****	1.0	****	0.9	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	****	9.0	****	8.1	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
PAN		0.0	0.0	0.0	****	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0
	PPBC	0.0	0.0	0.0	****	2.0	2.0	2.0	4.0	4.0	4.0	6.0	6.0	6.0	8.0
FORMALDEHYDE		0.0	****	****	111	****	****	****	****	****	153	****	147	****	157
	PPBC	0.0	****	****	111	****	****	****	****	****	153	****	147	****	157
3P COL., 06 MIN 30 SEC		34.0	24.0	****	20.0	****	16.0	****	15.0	****	16.0	****	24.0	****	20.0
3P COL., 45 MIN 00 SEC		****	26.0	****	17.0	****	14.0	****	14.0	****	14.0	****	16.0	****	16.0
TOTAL HC PPBC		1057.2	5324.9	****	5261.0	****	4914.3	****	4737.8	****	4844.3	****	4775.8	****	4748.8
TOTAL NON-METHANE HC		137.2	2394.9	1539.8	2331.0	1404.0	2064.3	1310.5	1937.8	1240.5	2044.3	1200.9	2005.8	6.0	1978.8
TOTAL SURROGATE		69.7	2284.8	1525.6	2057.0	1384.9	1848.7	1290.4	1706.0	1219.4	1622.9	1175.9	1566.2	****	1493.5

SURROGATE RUN 154-J
GLASS CHAMBER
1975 MAR 31

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		840	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515	1545	1615
ELAPSED TIME(MIN)		-95	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		788	2670	****	2610	****	2610	****	2560	****	2530	****	2490	****	2540
	PPBC	788	2670	****	2610	****	2610	****	2560	****	2530	****	2490	****	2540
ETHENE		3.3	35.2	****	30.4	****	27.2	****	27.0	****	26.4	****	22.4	****	****
	PPBC	6.6	70.4	****	60.8	****	54.4	****	54.0	****	52.8	****	44.8	****	****
ETHANE		3.5	70.4	****	67.2	****	64.0	****	64.0	****	72.0	****	60.0	****	****
	PPBC	7.0	141	****	134	****	128	****	128	****	144	****	120	****	****
ACETYLENE (PORAPAK N)		2.5	37.5	****	36.7	****	35.1	****	35.1	****	35.3	****	31.0	****	****
	PPBC	5.0	75.0	****	73.4	****	70.2	****	70.2	****	70.6	****	62.0	****	****
PROPANE		8.8	21.2	20.4	20.2	18.8	18.8	18.6	18.2	18.0	17.8	17.8	17.0	17.2	16.4
	PPBC	26.4	63.6	61.2	60.6	56.4	56.4	55.8	54.6	54.0	53.4	53.4	51.0	51.6	49.2
PROPENE		1.0	10.8	9.8	8.4	6.5	5.9	5.3	4.6	4.1	3.6	3.4	2.9	2.8	2.2
	PPBC	3.0	32.4	29.4	25.2	19.5	17.7	15.9	13.8	12.3	10.8	10.2	8.7	8.4	6.6
ISOBUTANE		0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	****	0.3	****	0.4	0.4
	PPBC	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	****	1.2	****	1.6	1.6
N-BUTANE		0.7	160	160	154	****	141	141	136	133	131	128	****	123	118
	PPBC	2.8	640	640	616	****	564	564	544	532	524	512	****	492	472
ACETYLENE (DMS)		2.7	39.7	39.7	39.5	35.9	36.7	36.7	35.9	35.9	35.6	35.6	34.1	33.7	28.2
	PPBC	5.4	79.4	79.4	79.0	71.8	73.4	73.4	71.8	71.8	71.2	71.2	68.2	67.4	56.4
1-BUTENE		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOBUTENE		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRANS-2-BUTENE		0.0	0.8	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.0	0.9	1.0	0.8	1.0	1.2	1.2
	PPBC	4.0	4.0	4.0	4.5	4.5	4.5	5.0	5.0	4.5	5.0	4.0	5.0	6.0	6.0
CIS-2-BUTENE		0.0	12.2	9.8	6.8	4.8	3.0	2.1	1.5	1.0	0.5	0.5	0.2	0.0	0.0
	PPBC	0.0	48.8	39.2	27.2	19.2	12.0	8.4	6.0	4.0	2.0	2.0	0.8	0.0	0.0

SURROGATE RUN 154-J
GLASS CHAMBER
1975 MAR 31

CLOCK TIME		840	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515	1545	1615
ELAPSED TIME(MIN)		-95	0	30	60	90	120	150	180	210	240	270	300	330	360
N-PENTANE		0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.5	0.4
	PPBC	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	2.0	2.0	2.0	1.5	2.5	2.0
2,3-DIMETHYL BUTANE		0.0	88.0	88.8	84.0	78.0	74.0	73.6	71.2	****	67.6	64.8	63.0	60.0	58.0
	PPBC	0.0	528	533	504	468	444	442	427	****	406	389	378	360	348
2-METHYL BUTENE-2		0.0	8.3	4.8	2.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	41.5	24.0	14.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		2.5	1.7	****	20.9	****	19.3	****	32.5	****	36.2	****	41.4	****	42.8
	PPBC	5.0	3.4	****	41.8	****	38.6	****	65.0	****	72.4	****	82.8	****	85.6
PROPIONALDEHYDE		1.4	2.9	****	4.4	****	5.5	****	6.8	****	7.8	****	9.4	****	10.4
	PPBC	4.2	8.7	****	13.2	****	16.5	****	20.4	****	23.4	****	28.2	****	31.2
ACETONE		5.3	13.4	****	27.7	****	34.1	****	42.1	****	47.3	****	53.6	****	49.8
	PPBC	15.9	40.2	****	83.1	****	102	****	126	****	142	****	161	****	149
BENZENE		0.1	1.5	****	1.4	****	1.4	****	1.3	****	1.4	****	1.2	****	1.4
	PPBC	0.6	9.0	****	8.4	****	8.4	****	7.8	****	8.4	****	7.2	****	8.4
METHYL ETHYL KETONE		0.2	0.6	****	1.4	****	3.3	****	3.6	****	4.6	****	5.7	****	5.0
	PPBC	0.8	2.4	****	5.6	****	13.2	****	14.4	****	18.4	****	22.8	****	20.0
TOLUENE		0.0	16.1	****	15.0	****	13.9	****	13.7	****	12.7	****	12.3	****	11.7
	PPBC	0.0	113	****	105	****	97.3	****	95.9	****	88.9	****	86.1	****	81.9
ETHYL BENZENE		1.1	1.5	****	1.2	****	0.8	****	1.2	****	1.5	****	1.2	****	1.4
	PPBC	8.8	12.0	****	9.6	****	6.4	****	9.6	****	12.0	****	9.6	****	11.2
META-XYLENE		0.1	68.7	****	36.6	****	28.0	****	24.0	****	20.9	****	18.6	****	16.0
	PPBC	0.8	550	****	293	****	224	****	192	****	167	****	149	****	128
ISOPROPYL BENZENE		0.1	0.2	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.9	1.8	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		0.8	1.7	****	1.3	****	1.1	****	1.2	****	1.4	****	1.5	****	1.8
	PPBC	7.2	15.3	****	11.7	****	9.9	****	10.8	****	12.6	****	13.5	****	16.2
PAN		****	0.0	0.0	****	1.0	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	3.0
	PPBC	****	0.0	0.0	****	2.0	2.0	2.0	2.0	4.0	4.0	4.0	6.0	6.0	6.0
FORMALDEHYDE		****	140	****	****	163	179	****	195	****	181	****	173	****	157
	PPBC	****	140	****	****	163	179	****	195	****	181	****	173	****	157
TOTAL HC PPBC		891.9	5218.1	****	4709.7	****	4663.9	****	4606.3	****	4530.7	****	3903.7	****	4176.7
TOTAL NON-METHANE HC		103.9	2548.1	1415.5	2099.7	814.7	2053.9	1169.1	2046.3	686.6	2000.7	1048.8	1413.7	995.5	1636.7
TOTAL SURROGATE		51.8	2308.2	1408.4	1918.3	641.7	1669.6	1159.1	1586.5	674.1	1519.6	1037.6	903.3	979.4	1142.1

SURROGATE RUN 155
GLASS CHAMBER
1975 APR 16

TOLUENE ADDED INSTEAD OF LIQUID SURROGATE

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		850	1000	1030	1100	1130	1200	1230	1300	1400	1500	1600
ELAPSED TIME(MIN)		-70	0	30	60	90	120	150	180	240	300	360
		CONCENTRATIONS (PPB)										
METHANE		781	2790	****	2670	****	2660	****	2640	2600	2580	2530
	PPBC	781	2790	****	2670	****	2660	****	2640	2600	2580	2530
ETHENE		1.7	32.4	****	27.4	****	22.1	****	18.7	17.8	16.5	13.7
	PPBC	3.4	64.8	****	54.8	****	44.2	****	37.4	35.6	33.0	27.4
ETHANE		5.3	70.0	****	67.3	****	63.1	****	62.7	62.4	59.8	56.3
	PPBC	10.6	140	****	135	****	126	****	125	125	120	113
ACETYLENE (PORAPAK N)		1.6	33.2	****	30.4	****	30.2	****	31.0	29.5	27.3	27.8
	PPBC	3.2	66.4	****	60.8	****	60.4	****	62.0	59.0	54.6	55.6
PROPANE		6.1	19.6	19.2	18.6	****	17.6	16.6	16.4	14.8	15.6	15.2
	PPBC	18.3	58.8	57.6	55.8	****	52.8	49.8	49.2	44.4	46.8	45.6
PROPENE		0.6	10.4	8.8	6.4	****	3.0	2.0	1.4	0.8	0.7	0.4
	PPBC	1.8	31.2	26.4	19.2	****	9.0	6.0	4.2	2.4	2.1	1.2
ISOBUTANE		0.2	0.3	0.4	0.2	****	0.4	0.4	0.4	0.4	0.4	0.4
	PPBC	0.8	1.2	1.6	0.8	****	1.6	1.6	1.6	1.6	1.6	1.6
N-BUTANE		0.2	157	150	146	****	130	125	122	112	112	112
	PPBC	0.8	628	600	584	****	520	500	488	448	448	448
ACETYLENE (DMS)		1.5	33.2	32.3	31.3	****	30.3	29.7	29.1	27.1	27.4	28.2
	PPBC	3.0	66.4	64.6	62.6	****	60.6	59.4	58.2	54.2	54.8	56.4
TRANS-2-BUTENE		0.0	0.8	0.4	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.2	1.6	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.4	0.3	0.5	****	0.8	0.8	****	0.9	1.0	0.8
	PPBC	0.0	2.0	1.5	2.5	****	4.0	4.0	****	4.5	5.0	4.0
CIS-2-BUTENE		0.0	12.0	8.0	2.8	****	0.0	0.0	****	0.0	0.0	0.0
	PPBC	0.0	48.0	32.0	11.2	****	0.0	0.0	****	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.0	****	0.1	0.2	****	0.3	****	0.2
	PPBC	0.0	0.0	0.0	0.0	****	0.5	1.0	****	1.5	****	1.0
ACETALDEHYDE		3.2	4.2	****	29.4	****	26.2	****	28.8	30.3	29.4	29.6
	PPBC	6.4	8.4	****	58.8	****	52.4	****	57.6	60.6	58.8	59.2

SURROGATE RUN 155
GLASS CHAMBER
1975 APR 16

CLOCK TIME		850	1000	1030	1100	1130	1200	1230	1300	1400	1500	1600
ELAPSED TIME(MIN)		-70	0	30	60	90	120	150	180	240	300	360
PROPIONALDEHYDE		2.2	2.5	****	4.4	****	7.4	****	8.7	9.4	10.4	12.3
	PPBC	6.6	7.5	****	13.2	****	22.2	****	26.1	28.2	31.2	36.9
ACETONE		6.3	17.5	****	21.9	****	25.2	****	24.9	26.2	26.9	28.3
	PPBC	18.9	52.5	****	65.7	****	75.6	****	74.7	78.6	80.7	84.9
BENZENE		0.1	2.1	****	1.9	****	1.8	****	1.7	1.8	1.6	1.7
	PPBC	0.6	12.6	****	11.4	****	10.8	****	10.2	10.8	9.6	10.2
METHYL ETHYL KETONE		0.2	0.6	****	2.5	****	5.3	****	6.0	6.6	6.8	7.5
	PPBC	0.8	2.4	****	10.0	****	21.2	****	24.0	26.4	27.2	30.0
TOLUENE		0.2	800	****	732	****	418	****	562	528	491	490
	PPBC	1.4	5600	****	5120	****	4330	****	3930	3700	3440	3430
ETHYL BENZENE		1.9	0.0	****	2.0	****	3.4	****	3.4	3.5	3.4	3.1
	PPBC	15.2	0.0	****	16.0	****	27.2	****	27.2	28.0	27.2	24.8
PARA-XYLENE		0.0	2.5	****	0.0	****	0.0	****	0.0	0.0	0.0	0.0
	PPBC	0.0	20.0	****	0.0	****	0.0	****	0.0	0.0	0.0	0.0
META-XYLENE		0.3	0.0	****	0.0	****	0.0	****	0.0	0.3	0.3	0.1
	PPBC	2.4	0.0	****	0.0	****	0.0	****	0.0	2.4	2.4	0.8
ISOPROPYL BENZENE		0.0	0.6	****	0.5	****	0.5	****	0.4	0.5	0.6	0.4
	PPBC	0.0	5.4	****	4.5	****	4.5	****	3.6	4.5	5.4	3.6
META-ETHYL TOLUENE		0.0	3.2	****	2.5	****	5.2	****	5.0	5.0	4.8	4.8
	PPBC	0.0	28.8	****	22.5	****	46.8	****	45.0	45.0	43.2	43.2
PAN		****	0.0	****	4.0	14.0	23.0	24.0	23.0	20.0	16.0	11.0
	PPBC	****	0.0	****	8.0	28.0	46.0	48.0	46.0	40.0	32.0	22.0
FORMALDEHYDE		****	91.0	****	99.0	****	109	****	143	145	157	****
	PPBC	****	91.0	****	99.0	****	109	****	143	145	157	****
TOTAL HC PPBC		872.1	9662.2	****	9023.7	****	8224.5	****	7793.3	7488.9	7205.5	6973.0
TOTAL NON-METHANE HC		91.1	6872.2	785.3	6353.7	28.0	5564.5	669.8	5153.3	4888.9	4625.5	4443.0
TOTAL SURROGATE		41.8	6640.4	782.2	6041.3	****	5142.7	615.2	4694.3	4414.2	4146.6	4121.6

SURROGATE RUN 156-J
GLASS CHAMBER
1975 APR 17

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		815	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-75	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		7.2	2710	****	2710	****	2690	****	2680	****	2680	****	2660	****	2620
	PPBC	7.2	2710	****	2710	****	2690	****	2680	****	2680	****	2660	****	2620
ETHENE		1.8	34.3	****	27.6	****	25.3	****	21.4	****	19.3	****	17.8	****	15.4
	PPBC	3.6	68.6	****	55.2	****	50.6	****	42.8	****	38.6	****	35.6	****	30.8
ETHANE		4.5	72.3	****	66.5	****	65.7	****	67.1	****	64.2	****	64.3	****	63.4
	PPBC	9.0	145	****	133	****	131	****	134	****	128	****	129	****	127
ACETYLENE (POROPAK N)		3.2	36.7	****	33.5	****	32.3	****	31.9	****	30.2	****	30.6	****	30.0
	PPBC	6.4	73.4	****	67.0	****	64.6	****	63.8	****	60.4	****	61.2	****	60.0
PROPANE		5.1	18.8	18.8	17.6	17.2	17.2	16.8	15.4	17.1	15.6	14.8	15.4	14.8	15.0
	PPBC	15.3	56.4	56.4	52.8	51.6	51.6	50.4	46.2	51.3	46.8	44.4	46.2	44.4	45.0
PROPENE		0.4	10.4	8.8	6.4	5.2	4.1	3.5	2.2	2.2	1.7	1.3	0.8	0.7	0.6
	PPBC	1.2	31.2	26.4	19.2	15.6	12.3	10.5	6.6	6.6	5.1	3.9	2.4	2.1	1.8
ISOBUTANE		0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.4
	PPBC	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.2	1.6	1.6	2.0	2.0	2.0	1.6
N-BUTANE		0.2	162	158	150	142	141	138	128	134	125	123	118	115	115
	PPBC	0.8	648	632	600	568	564	552	512	536	500	492	472	460	460
ACETYLENE (DMS)		3.1	36.2	35.5	33.7	33.6	32.6	32.9	30.7	32.0	30.3	21.7	29.4	27.4	29.4
	PPBC	6.2	72.4	71.0	67.4	67.2	65.2	65.8	61.4	64.0	60.6	43.4	58.8	54.8	58.8
TRANS-2-BUTENE		0.0	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	2.8	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.0	0.3	0.4	0.4	0.4	0.6	0.6	0.8	1.2	0.9	1.0	1.2	1.0	1.2
	PPBC	0.0	1.5	2.0	2.0	2.0	3.0	3.0	4.0	6.0	4.5	5.0	6.0	5.0	6.0
CIS-2-BUTENE		0.0	12.2	8.0	4.2	1.9	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	48.8	32.0	16.8	7.6	3.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.4	0.4	0.4	0.6	0.6	0.4
	PPBC	0.0	0.0	0.0	0.0	0.5	0.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	2.0
2,3-DIMETHYL BUTANE		0.0	91.6	86.4	80.8	76.0	73.6	70.0	66.0	****	62.0	60.0	56.4	54.0	53.2
	PPBC	0.0	550	518	485	456	442	420	396	****	372	360	338	324	319

SURROGATE RUN 156-J
GLASS CHAMBER
1975 APR 17

CLOCK TIME		815	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530
ELAPSED TIME(MIN)		-75	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	6.7	4.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	33.5	22.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACETALDEHYDE		1.4	1.7	****	35.5	****	38.1	****	41.8	****	47.0	****	32.8	****	31.1
	PPBC	2.8	3.4	****	71.0	****	76.2	****	83.6	****	94.0	****	65.6	****	62.2
PROPIONALDEHYDE		1.1	1.7	****	2.7	****	4.5	****	6.3	****	8.1	****	9.8	****	11.4
	PPBC	3.3	5.1	****	8.1	****	13.5	****	18.9	****	24.3	****	29.4	****	34.2
ACETONE		4.3	10.3	****	34.1	****	74.4	****	55.0	****	66.6	****	61.3	****	72.6
	PPBC	12.9	30.9	****	102	****	223	****	165	****	200	****	184	****	218
BENZENE		0.1	1.4	****	1.2	****	1.2	****	1.1	****	1.2	****	1.0	****	1.2
	PPBC	0.6	8.4	****	7.2	****	7.2	****	6.6	****	7.2	****	6.0	****	7.2
METHYL ETHYL KETONE		0.0	0.0	****	2.2	****	3.9	****	4.9	****	6.5	****	7.2	****	8.1
	PPBC	0.0	0.0	****	8.8	****	15.6	****	19.6	****	26.0	****	28.8	****	32.4
TOLUENE		0.2	16.4	****	14.7	****	13.2	****	12.2	****	11.6	****	10.8	****	10.3
	PPBC	1.4	115	****	103	****	92.4	****	85.4	****	81.2	****	75.6	****	72.1
ETHYL BENZENE		1.5	1.3	****	1.2	****	1.5	****	1.8	****	2.0	****	1.7	****	2.5
	PPBC	12.0	10.4	****	9.6	****	12.0	****	14.4	****	16.0	****	13.6	****	20.0
META-XYLENE		0.0	45.8	****	30.7	****	22.7	****	17.7	****	14.2	****	11.0	****	9.1
	PPBC	0.0	366	****	246	****	182	****	142	****	114	****	88.0	****	72.8
ISOPROPYL BENZENE		0.4	0.1	****	0.0	****	0.2	****	0.0	****	0.0	****	0.0	****	0.2
	PPBC	3.6	0.9	****	0.0	****	1.8	****	0.0	****	0.0	****	0.0	****	1.8
PARA-ETHYL TOLUENE		1.0	0.4	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	9.0	3.6	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		1.2	1.4	****	1.2	****	2.0	****	2.6	****	2.8	****	3.2	****	4.0
	PPBC	10.8	12.6	****	10.8	****	18.0	****	23.4	****	25.2	****	28.8	****	36.0
PAN		****	0.0	0.0	2.0	5.0	7.0	8.0	9.0	11.0	12.0	14.0	****	16.0	****
	PPBC	****	0.0	0.0	4.0	10.0	14.0	16.0	18.0	22.0	24.0	28.0	****	32.0	****
FORMALDEHYDE		****	10.0	****	30.0	****	40.0	****	46.0	****	46.0	****	60.0	****	50.0
	PPBC	****	10.0	****	30.0	****	40.0	****	46.0	****	46.0	****	60.0	****	50.0
TOTAL HC PPBC		100.6	4935.6	****	4746.9	****	4710.1	****	4509.1	****	4496.8	****	4333.9	****	4279.1
TOTAL NON-METHANE HC		93.4	2225.6	1362.6	2036.9	1180.1	2020.1	1121.9	1829.1	689.5	1816.8	924.7	1673.9	927.3	1659.1
TOTAL SURROGATE		37.6	2137.6	1359.4	1781.9	1166.0	1594.0	1100.3	1427.4	657.9	1346.2	943.7	1246.8	885.3	1187.9

SURROGATE RUN 156-J
GLASS CHAMBER
1975 APR 17

CLOCK TIME		1600	1630	1700	1730	1800	1830
ELAPSED TIME(MIN)		390	420	450	480	510	540
		CONCENTRATIONS (PPB)					
METHANE		****	2620	****	2570	****	2570
	PPBC	****	2620	****	2570	****	2570
ETHENE		****	13.3	****	11.6	****	0.6
	PPBC	****	26.6	****	23.2	****	1.2
ETHANE		****	61.8	****	60.1	****	1.7
	PPBC	****	124	****	120	****	3.4
ACETYLENE (POROPAK N)		****	29.5	****	27.5	****	1.3
	PPBC	****	59.0	****	55.0	****	2.6
PROPANE		****	15.1	****	14.4	****	14.3
	PPBC	****	45.3	****	43.2	****	42.9
PROPENE		****	0.4	****	0.2	****	0.3
	PPBC	****	1.2	****	0.6	****	0.9
ISOBUTANE		****	0.6	****	0.6	****	0.6
	PPBC	****	2.4	****	2.4	****	2.4
N-BUTANE		****	112	****	106	****	92.8
	PPBC	****	448	****	424	****	371
ACETYLENE (DMS)		****	29.4	****	27.4	****	27.4
	PPBC	****	58.8	****	54.8	****	54.8
TRANS-2-BUTENE		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
ISOPENTANE		****	1.0	****	1.2	****	1.4
	PPBC	****	5.0	****	6.0	****	7.0
CIS-2-BUTENE		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
N-PENTANE		****	0.6	****	0.8	****	0.6
	PPBC	****	3.0	****	4.0	****	3.0
2,3-DIMETHYL BUTANE		****	48.8	****	44.8	****	42.0
	PPBC	****	293	****	269	****	252
2-METHYL BUTENE-2		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
ACETALDEHYDE		****	30.1	****	30.4	****	30.4
	PPBC	****	60.2	****	60.8	****	60.8
PROPIONALDEHYDE		****	13.1	****	15.3	****	17.5
	PPBC	****	39.3	****	45.9	****	52.5

SURROGATE RUN 156-J
GLASS CHAMBER
1975 APR 17

CLOCK TIME		1600	1630	1700	1730	1800	1830
ELAPSED TIME(MIN)		390	420	450	480	510	540
ACETONE		****	78.8	****	81.2	****	84.5
	PPBC	****	236	****	244	****	254
BENZENE		****	1.1	****	1.0	****	0.9
	PPBC	****	6.6	****	6.0	****	5.4
METHYL ETHYL KETONE		****	9.0	****	8.8	****	10.0
	PPBC	****	36.0	****	35.2	****	40.0
TOLUENE		****	9.6	****	9.2	****	8.6
	PPBC	****	67.2	****	64.4	****	60.2
ETHYL BENZENE		****	3.0	****	2.8	****	3.4
	PPBC	****	24.0	****	22.4	****	27.2
META-XYLENE		****	7.6	****	6.0	****	5.1
	PPBC	****	60.8	****	48.0	****	40.8
ISOPROPYL BENZENE		****	0.2	****	0.2	****	0.1
	PPBC	****	1.8	****	1.8	****	0.9
PARA-ETHYL TOLUENE		****	0.0	****	0.0	****	0.0
	PPBC	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		****	4.5	****	4.9	****	5.1
	PPBC	****	40.5	****	44.1	****	45.9
PAN		18.0	20.0	****	21.0	21.0	21.0
	PPBC	36.0	40.0	****	42.0	42.0	42.0
FORMALDEHYDE		****	****	****	60.0	****	****
	PPBC	****	****	****	60.0	****	****
TOTAL HC PPBC		****	6465.1	****	6228.3	****	5932.0
TOTAL NON-METHANE HC		129.4	3845.1	1362.6	3658.3	1222.1	3362.0
TOTAL SURROGATE		37.6	3262.0	1359.4	2829.2	1166.0	2395.3

SURROGATE RUN 157-J
GLASS CHAMBER
1975 APR 18

PEAKS MARKED '3P COL.' FOLLOWED BY A RETENTION TIME ARE UNKNOWNS
MEASURED ON THE 3-PART GC COLUMN USED FOR OXYGENATES AND AROMATICS
--- NUMBERS FOR THOSE PEAKS ARE SIGNAL HEIGHTS ONLY ---

CLOCK TIME		825	915	945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
ELAPSED TIME(MIN)		-50	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		746	2880	****	2850	****	2800	****	2770	****	2700	****	2690	****	2650
	PPBC	746	2880	****	2850	****	2800	****	2770	****	2700	****	2690	****	2650
ETHENE		2.4	34.6	****	30.7	****	25.6	****	24.3	****	19.6	****	19.3	****	15.7
	PPBC	4.8	69.2	****	61.4	****	51.2	****	48.6	****	39.2	****	38.6	****	31.4
ETHANE		5.1	72.5	****	71.4	****	65.7	****	66.2	****	64.6	****	64.9	****	61.5
	PPBC	10.2	145	****	143	****	131	****	132	****	129	****	130	****	123
ACETYLENE (POROPAK N)		3.3	36.5	****	36.5	****	36.9	****	33.7	****	31.3	****	31.7	****	29.3
	PPBC	6.6	73.0	****	73.0	****	73.8	****	67.4	****	62.6	****	63.4	****	58.6
PROPANE		5.0	19.2	19.6	18.8	18.8	18.4	****	17.5	****	15.2	****	14.7	****	15.5
	PPBC	15.0	57.6	58.8	56.4	56.4	55.2	****	52.5	****	45.6	****	44.1	****	46.5
PROPENE		0.6	10.8	7.8	7.4	6.0	5.0	****	3.4	****	2.2	****	1.2	****	0.6
	PPBC	1.8	32.4	23.4	22.2	18.0	15.0	****	10.2	****	6.6	****	3.6	****	1.8
ISOBUTANE		0.2	0.4	0.4	0.4	0.5	0.4	****	0.4	****	0.4	****	0.4	****	0.5
	PPBC	0.8	1.6	1.6	1.6	2.0	1.6	****	1.6	****	1.6	****	1.6	****	2.0
N-BUTANE		0.4	165	160	155	154	150	****	141	****	128	****	125	****	118
	PPBC	1.6	660	640	620	616	600	****	564	****	512	****	500	****	472
ACETYLENE (DMS)		3.3	36.2	36.5	36.5	35.8	34.5	****	34.9	****	29.4	****	28.4	****	29.7
	PPBC	6.6	72.4	73.0	73.0	71.6	69.0	****	69.8	****	58.8	****	56.8	****	59.4
TRANS-2-BUTENE		0.0	0.8	0.5	0.4	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.0	3.2	2.0	1.6	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0
ISOPENTANE		0.4	0.8	0.8	1.6	0.8	0.6	****	1.0	****	1.0	****	1.0	****	1.0
	PPBC	2.0	4.0	4.0	8.0	4.0	3.0	****	5.0	****	5.0	****	5.0	****	5.0
CIS-2-BUTENE		0.0	12.4	9.2	10.4	3.0	1.2	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.0	49.6	36.8	41.6	12.0	4.8	****	0.0	****	0.0	****	0.0	****	0.0
N-PENTANE		0.0	0.2	0.2	0.2	0.4	0.2	****	0.4	****	0.3	****	0.6	****	0.4
	PPBC	0.0	1.0	1.0	1.0	2.0	1.0	****	2.0	****	1.5	****	3.0	****	2.0
2,3-DIMETHYL BUTANE		0.0	92.8	89.6	84.0	82.4	78.0	****	70.8	****	64.8	****	60.0	****	55.2
	PPBC	0.0	557	538	504	494	468	****	425	****	389	****	360	****	331

SURROGATE RUN 157-J
GLASS CHAMBER
1975 APR 18

CLOCK TIME		825	915	945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
ELAPSED TIME(MIN)		-50	0	30	60	90	120	150	180	210	240	270	300	330	360
2-METHYL BUTENE-2		0.0	9.0	5.1	0.0	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	0.0	45.0	25.5	0.0	0.0	0.0	****	0.0	****	0.0	****	0.0	****	0.0
ACETALDEHYDE		1.7	5.9	****	25.2	****	31.5	****	35.5	****	33.2	****	36.5	****	45.3
	PPBC	3.4	11.8	****	50.4	****	63.0	****	71.0	****	66.4	****	73.0	****	90.6
PROPIONALDEHYDE		1.2	1.2	****	2.2	****	4.1	****	6.0	****	8.0	****	10.0	****	11.5
	PPBC	3.6	3.6	****	6.6	****	12.3	****	18.0	****	24.0	****	30.0	****	34.5
ACETONE		5.3	19.4	****	33.3	****	44.4	****	52.1	****	59.0	****	65.8	****	73.1
	PPBC	15.9	58.2	****	99.9	****	133	****	156	****	177	****	197	****	219
BENZENE		0.1	2.0	****	1.4	****	1.7	****	1.7	****	1.6	****	1.4	****	1.3
	PPBC	0.6	12.0	****	8.4	****	10.2	****	10.2	****	9.6	****	8.4	****	7.8
METHYL ETHYL KETONE		0.2	0.4	****	1.7	****	3.9	****	4.8	****	5.6	****	6.1	****	6.3
	PPBC	0.8	1.6	****	6.8	****	15.6	****	19.2	****	22.4	****	24.4	****	25.2
TOLUENE		0.2	16.5	****	14.8	****	13.4	****	12.8	****	11.6	****	11.0	****	10.5
	PPBC	1.4	116	****	104	****	93.8	****	89.6	****	81.2	****	77.0	****	73.5
ETHYL BENZENE		2.3	1.7	****	1.5	****	1.8	****	1.9	****	2.3	****	2.8	****	2.7
	PPBC	18.4	13.6	****	12.0	****	14.4	****	15.2	****	18.4	****	22.4	****	21.6
META-XYLENE		0.0	44.3	****	32.9	****	25.1	****	20.4	****	16.0	****	13.0	****	10.4
	PPBC	0.0	354	****	263	****	201	****	163	****	128	****	104	****	83.2
ISOPROPYL BENZENE		0.4	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	3.6	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
ORTHO-XYLENE		0.3	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	2.4	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
PARA-ETHYL TOLUENE		1.9	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	17.1	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		1.9	0.0	****	1.6	****	1.8	****	2.6	****	3.2	****	4.4	****	4.0
	PPBC	17.1	0.0	****	14.4	****	16.2	****	23.4	****	28.8	****	39.6	****	36.0
PAN		****	0.0	0.0	1.0	3.0	5.0	6.0	****	9.0	****	****	****	13.0	15.0
	PPBC	****	0.0	0.0	2.0	6.0	10.0	12.0	****	18.0	****	****	****	26.0	30.0
FORMALDEHYDE		****	40.0	****	64.0	****	68.0	****	81.0	93.0	103	****	103	****	****
	PPBC	****	40.0	****	64.0	****	68.0	****	81.0	93.0	103	****	103	****	****
TOTAL HC PPBC		873.1	5188.8	****	5014.9	****	4840.1	****	4726.8	****	4549.0	****	4515.0	****	4345.6
TOTAL NON-METHANE HC		127.1	2308.8	1403.7	2164.9	1282.4	2040.1	12.0	1956.8	111.0	1849.0	0.0	1825.0	26.0	1695.6
TOTAL SURROGATE		41.4	2161.4	1397.1	1889.8	1268.4	1691.6	****	1553.9	****	1391.3	****	1317.2	****	1221.6

SURROGATE RUN 158-J
GLASS CHAMBER
1975 APR 21

CLOCK TIME		830	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515	1545	1615	1645
ELAPSED TIME(MIN)		-135	0	30	60	90	120	150	180	210	240	270	300	330	360
		CONCENTRATIONS (PPB)													
METHANE		938	2850	****	2850	****	2850	****	2820	****	2760	****	2750	****	2040
	PPBC	938	2850	****	2850	****	2850	****	2820	****	2760	****	2750	****	2040
ETHENE		2.6	46.1	****	42.6	****	38.9	****	35.6	****	31.4	****	30.2	****	27.3
	PPBC	5.2	92.2	****	85.2	****	77.8	****	71.2	****	62.8	****	60.4	****	54.6
ETHANE		5.4	94.9	****	91.9	****	92.5	****	90.2	****	86.9	****	86.9	****	86.4
	PPBC	10.8	190	****	184	****	185	****	180	****	174	****	174	****	173
ACETYLENE (POROPAK N)		3.4	48.8	****	48.7	****	47.0	****	43.9	****	44.2	****	44.2	****	41.6
	PPBC	6.8	97.6	****	97.4	****	94.0	****	87.8	****	88.4	****	88.4	****	83.2
PROPANE		5.2	22.4	22.4	22.4	22.2	20.0	20.4	20.8	20.8	20.8	21.1	20.4	19.6	18.8
	PPBC	15.6	67.2	67.2	67.2	66.6	60.0	61.2	62.4	62.4	62.4	63.3	61.2	58.8	56.4
PROPENE		0.6	13.8	13.2	10.4	8.8	7.2	6.4	5.6	5.0	4.6	3.8	3.2	2.6	2.4
	PPBC	1.8	41.4	39.6	31.2	26.4	21.6	19.2	16.8	15.0	13.8	11.4	9.6	7.8	7.2
ISOBUTANE		0.2	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.8
	PPBC	0.8	2.4	2.8	3.2	3.2	3.2	3.6	3.6	3.6	3.2	3.2	3.6	3.6	3.2
N-BUTANE		0.3	221	221	208	202	190	184	****	182	189	182	****	173	166
	PPBC	1.2	884	884	832	808	760	736	****	728	756	728	****	692	664
ACETYLENE (DMS)		2.4	47.1	48.1	45.2	46.2	42.0	42.0	43.9	50.4	43.9	54.4	41.3	41.7	40.7
	PPBC	4.8	94.2	96.2	90.4	92.4	84.0	84.0	87.8	101	87.8	109	82.6	83.4	81.4
TRANS-2-BUTENE		0.0	0.9	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	3.6	3.2	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ISOPENTANE		0.5	1.4	1.4	1.8	1.9	1.9	2.0	2.0	1.8	2.2	2.0	2.2	2.2	2.2
	PPBC	2.5	7.0	7.0	9.0	9.5	9.5	10.0	10.0	9.0	11.0	10.0	11.0	11.0	11.0
CIS-2-BUTENE		0.0	17.0	13.1	8.8	5.8	3.8	2.1	1.2	0.6	0.3	0.0	0.0	0.0	0.0
	PPBC	0.0	68.0	52.4	35.2	23.2	15.2	8.4	4.8	2.4	1.2	0.0	0.0	0.0	0.0
N-PENTANE		0.0	0.5	0.8	0.9	1.0	1.0	1.0	1.0	0.8	1.0	1.0	0.8	1.0	0.8
	PPBC	0.0	2.5	4.0	4.5	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	4.0
2,3-DIMETHYL BUTANE		0.0	120	117	110	106	99.2	96.0	96.0	92.0	92.8	88.8	84.0	83.2	69.6
	PPBC	0.0	720	702	660	636	595	576	576	552	557	533	504	499	418
2-METHYL BUTENE-2		0.0	11.2	6.3	3.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	PPBC	0.0	56.0	31.5	19.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SURROGATE RUN 158-J
GLASS CHAMBER
1975 APR 21

CLOCK TIME		830	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515	1545	1615	1645
ELAPSED TIME(MIN)		-135	0	30	60	90	120	150	180	210	240	270	300	330	360
ACETALDEHYDE		2.3	5.6	****	30.4	****	44.5	****	37.5	****	42.6	****	50.7	****	45.0
	PPBC	4.6	11.2	****	60.8	****	89.0	****	75.0	****	85.2	****	101	****	90.0
PROPIONALDEHYDE		1.8	3.3	****	4.1	****	6.0	****	8.2	****	9.3	****	11.5	****	12.4
	PPBC	5.5	9.8	****	12.3	****	18.0	****	24.6	****	27.8	****	34.5	****	37.2
ACETONE		3.9	17.9	****	39.1	****	52.8	****	55.8	****	55.5	****	69.0	****	****
	PPBC	11.6	53.7	****	117	****	158	****	167	****	167	****	207	****	****
BENZENE		0.1	2.1	****	2.0	****	2.0	****	2.0	****	1.9	****	1.9	****	1.7
	PPBC	0.5	12.9	****	12.2	****	12.2	****	12.2	****	11.3	****	11.3	****	10.3
METHYL ETHYL KETONE		0.0	0.6	****	2.2	****	4.4	****	5.3	****	6.1	****	7.2	****	7.7
	PPBC	0.0	2.2	****	8.8	****	17.6	****	21.2	****	24.3	****	28.7	****	30.9
TOLUENE		0.3	22.4	****	20.3	****	19.0	****	17.8	****	15.5	****	16.5	****	15.3
	PPBC	2.2	157	****	142	****	133	****	125	****	109	****	116	****	107
ETHYL BENZENE		1.9	3.6	****	2.1	****	1.9	****	2.1	****	1.5	****	2.1	****	2.6
	PPBC	15.1	29.0	****	16.8	****	15.5	****	16.8	****	11.8	****	16.8	****	21.2
META-XYLENE		0.0	59.2	****	47.5	****	37.6	****	31.3	****	26.3	****	23.6	****	19.8
	PPBC	0.0	474	****	380	****	301	****	250	****	210	****	189	****	158
ISOPROPYL BENZENE		0.3	0.1	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
	PPBC	2.3	1.1	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0	****	0.0
META-ETHYL TOLUENE		1.3	3.2	****	1.8	****	2.0	****	2.6	****	1.6	****	2.6	****	3.0
	PPBC	11.9	28.5	****	16.2	****	17.8	****	23.8	****	14.2	****	23.8	****	27.4
PAN		****	0.0	0.0	1.0	1.0	2.0	2.0	4.0	5.0	5.0	6.0	7.0	8.0	9.0
	PPBC	****	0.0	0.0	2.0	2.0	4.0	4.0	8.0	10.0	10.0	12.0	14.0	16.0	18.0
FORMALDEHYDE		****	107	****	113	****	123	****	125	****	119	****	125	****	125
	PPBC	****	107	****	113	****	123	****	125	****	119	****	125	****	125
TOTAL HC PPBC		1035.4	5965.8	****	5757.8	****	5560.8	****	4686.9	****	5283.1	****	4529.8	****	4629.7
TOTAL NON-METHANE HC		97.4	3115.8	1889.5	2907.8	1677.6	2710.8	1507.4	1866.9	1487.2	2523.1	1474.5	1779.8	1376.8	1985.7
TOTAL SURROGATE		42.6	2848.5	1876.1	2531.7	1657.9	2237.6	1484.8	1374.4	1460.6	2033.8	1444.3	1198.8	1341.2	1607.6

APPENDIX D

Derivation of Regression Expressions and Extrapolation of 6- and 9-Hour Ozone Data

All ozone profiles were fitted to an expansion in orthonormal functions

$$(O_3) = A_0 \text{ X } G_0 + A_1 \text{ X } G_1 + A_2 \text{ X } G_2 \quad . \quad \text{(ppm)} \tag{1}$$

$X = 0.1\ (t - D)$, t = time in hours, D = duration of induction period hours.

$$\left.\begin{aligned} G_0 &= \sqrt{3} \\ G_1 &= \sqrt{5}\ (4X - 3) \\ G_2 &= \sqrt{7}\ (15X^2 - 20X + 6) \end{aligned}\right\} \tag{2}$$

The coefficients were related to initial NO_x and HC ($nonCH_4$)

$$A_0 = 0.00312 + 0.084961\ \frac{\sqrt{N}}{\sqrt{C}} + 1.081499\ \sqrt{C}\ \sqrt{N} - 1.402871\ \sqrt{C}\ N \quad \text{(ppm)} \tag{3}$$

where sufficient figures are given to avoid round-off errors when estimating A_0 to four and ozone to 3 significant figures.

$$\frac{A_1}{A_0} = 0.18801 + 0.06463\ \frac{N}{C^2} - 1.7614\ \frac{N^2}{C^3} + 0.56241\ \frac{N}{C} + 3.69018\ \frac{N^2}{C^2} \tag{4}$$

(A large number of significant figures are necessary since $\frac{A_1}{A_0} \gtrsim 0.1$ and the result requires precision in estimating differences between larger numbers.)

$$\frac{A_2}{A_0} = 0.07730 + 0.180660\ \frac{N}{C^2} - 1.07172\ \frac{N^2}{C^3} - 1.27478\ \frac{N}{C} + 3.7376\ \frac{N^2}{C^2} \tag{5}$$

These expressions, equations 3-5, in combination with equations 1 and 2 allow prediction of ozone levels out to ten hours after delay. Figure 44 shows the

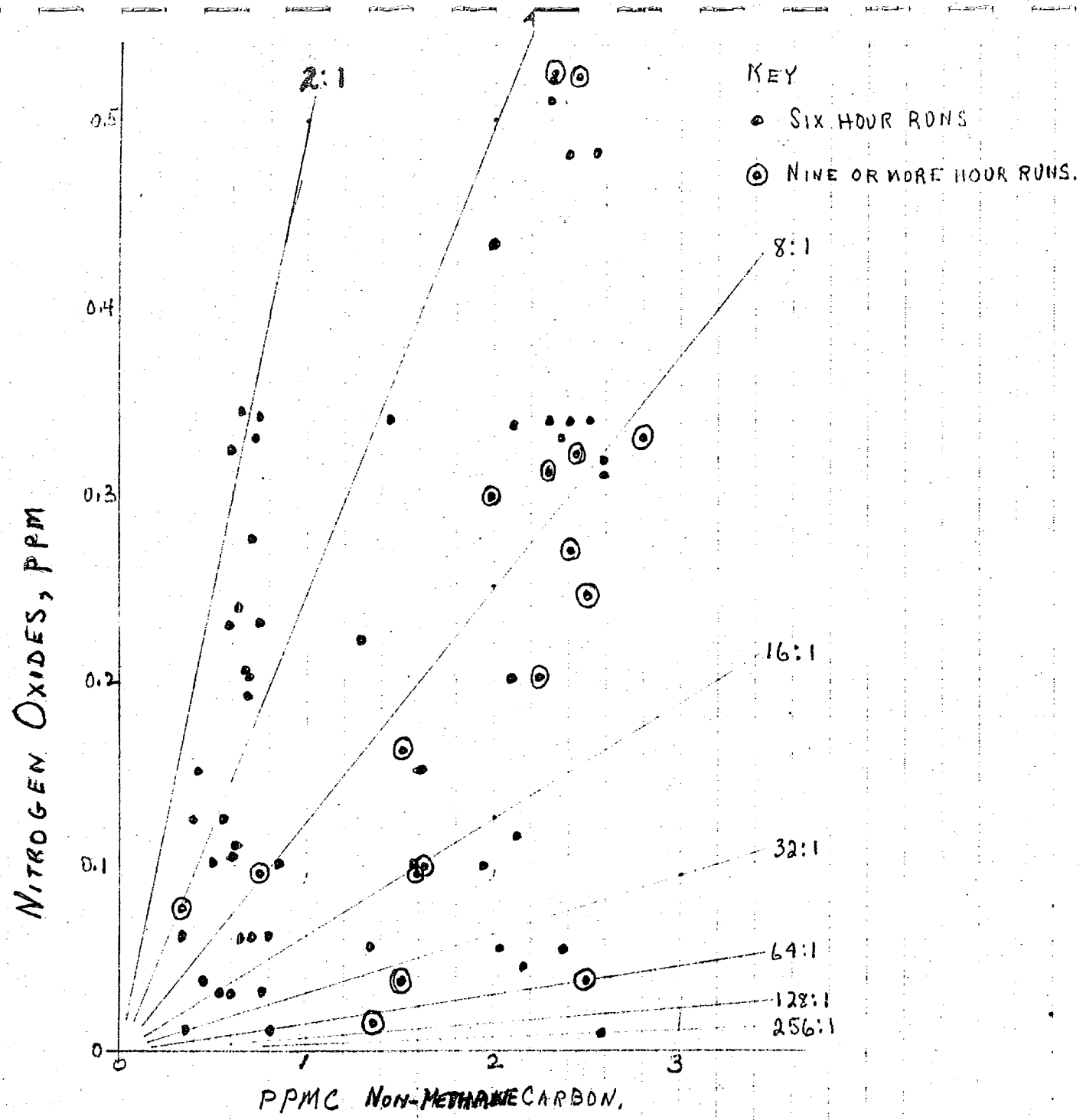

FIG. 44 EXPERIMENTAL COVERAGE OF THE NMHC–NO_x CONCENTRATION PLANE.

coverage of the NO_x-HC plane by experiment. It is apparent that predictions at hydrocarbon-to-NO_x ratios of 2 or less are extrapolations from the data and are therefore quite likely to be wrong. For greater ratios the coverage is fairly dense from (HC) = 0.3 to (HC) = 2.5 ppmC and from (NO_x) = 0.010 to (NO_x) $\lesssim$ 0.50 ppm. Any predictions outside this region should be regarded as uncertain extrapolations. On the time axis all experiments used to generate the regressions were run at least six hours but only a minority were run to nine or more hours. Consequently, predictions past six hours are quasi-extrapolations and must be regarded as probably less precise.

At low carbon levels, along constant ratio lines, equations 4 and 5 obviously become unbelievable because the parameters, A_1, A_2, approach infinity. A fairly successful attempt to remove these infinities was made by ad hoc reasoning. Note that the terms in equations 4 and 5 which cause the approach to infinity have relatively smaller coefficients. This circumstance suggests that A_1 and A_2 are more accurately represented by

$$\frac{A_1}{A_0} = -0.18801 + 0.56241 \frac{N}{C + \delta_1} + 3.69018 \frac{N^2}{(C + \delta_2)^2} \qquad (6)$$

$$\frac{A_2}{A_0} = 0.07730 - 1.27478 \frac{N}{C + \delta_3} + 3.71376 \frac{N^2}{(C + \delta_4)^2} \qquad (7)$$

which implies

$$0.06463 \cong -0.56241\ \delta_1 \qquad \delta_1 = -0.115 \text{ ppmC}$$

$$-1.7614 \cong -3.69018\ (2\delta_2) \qquad \delta_2 = +0.239 \text{ ppmC}$$

$$0.180660 \simeq -1.27478\ (-\delta_3) \qquad \delta_3 = +0.142 \text{ ppmC}$$

$$-1.07072 = 3.71376\ (-\delta_4) \qquad \delta_4 = +0.144 \text{ ppmC}$$

Since the smallest coefficient probably has a large confidence interval this outcome justifies the hypothesis that all δ's are equal.

This same reasoning can be applied to equation 3 to give

$$0.084961 \cong 1.081499 \frac{\delta_5}{2} \qquad \delta_5 = 0.157 \text{ ppmC}$$

Unfortunately, no term of the form

$$a_5 \frac{N}{\sqrt{C}}$$

was included in the regression expression, equation 3, when calculating the coefficients. If this were done a sixth estimate of δ would be possible

$$a_5 \cong a_4 \frac{\delta_6}{2}$$

The logic of the hypothesis would require $a_5 \gtrsim -0.07$. At the present, accepting the hypothesis of equal δ's requires that we take 0.113 ppmC as our current best estimate of its value. Under this hypothesis the equations become

$$A_0 = 0.00312 + 1.081499 \sqrt{N} \sqrt{C + 0.113} - 1.402871 N \sqrt{C + 0.113} \qquad (8)$$

$$\frac{A_1}{A_0} = 0.18801 + 0.56241 \frac{N}{C + 0.113} + 3.69018 \frac{N^2}{(C + 0.113)^2} \qquad (9)$$

$$\frac{A_2}{A_0} = 0.07730 - 1.27478 \frac{N}{C + 0.113} + 3.71376 \frac{N^2}{(C + 0.113)^2} \qquad (10)$$

These forms, equations 8-10, were applied only to low carbon cases, e.g., C = 0.25 or C = 0 because the value of δ needs to be more accurately calculated by a least square fit to the data using regression expressions of the forms of equations 8-10 with δ one of the parameters to be determined. This is not a simple calculation because the least squares fitting then becomes a non-linear problem, unless one is satisfied with approximations.

Figures 45 through 53 illustrate ozone profiles predicted from these equations. The delay times were correlated by

$$D = 0.413 + 2.639\,\frac{N}{\sqrt{C}} - \frac{0.540}{\sqrt{C}} + 0.313\,\frac{\log_{10}\left(\frac{1-P}{P}\right)}{\sqrt{C}} \text{ (hours)} \qquad (11)$$

where P = initial mole fraction NO_2 in NO_x (NO_x = N, (NMHC) = C). This applies strictly only to my defined delay time which was obtained by a linear extrapolation, backward in time, of the initial portion of the ozone profiles to find an intercept on the time axis. Figure 54 shows how closely this expression predicts delay. Six experiments fall seriously off the regression line. Considerable variability can be expected for delays because they are a measure of what classical kineticists called the induction period and are strongly dependent on initial concentrations of chain initiators, some of which will be unavoidably inadvertent.

Some explanation of how the form of equation 11 was arrived at for a regression expression is necessary to indicate that this was not a wholly arbitrary procedure. First, it was postulated that

$$\frac{d(NO)}{dt} = -\alpha(NO) \qquad (12)$$

at the time when ozone first starts upward along its profile. The important assumption here is that α varies sufficiently slowly with time to be regarded as a constant during the initial portion of the ozone profile. Next, the Leighton relationship was assumed to hold

$$\frac{d(O_3)}{dt} = \beta\,\frac{d}{dt}\left[\frac{(NO_2)}{(NO)}\right] = \frac{-\beta N}{(NO)^2}\,\frac{d(NO)}{dt} \qquad (13)$$

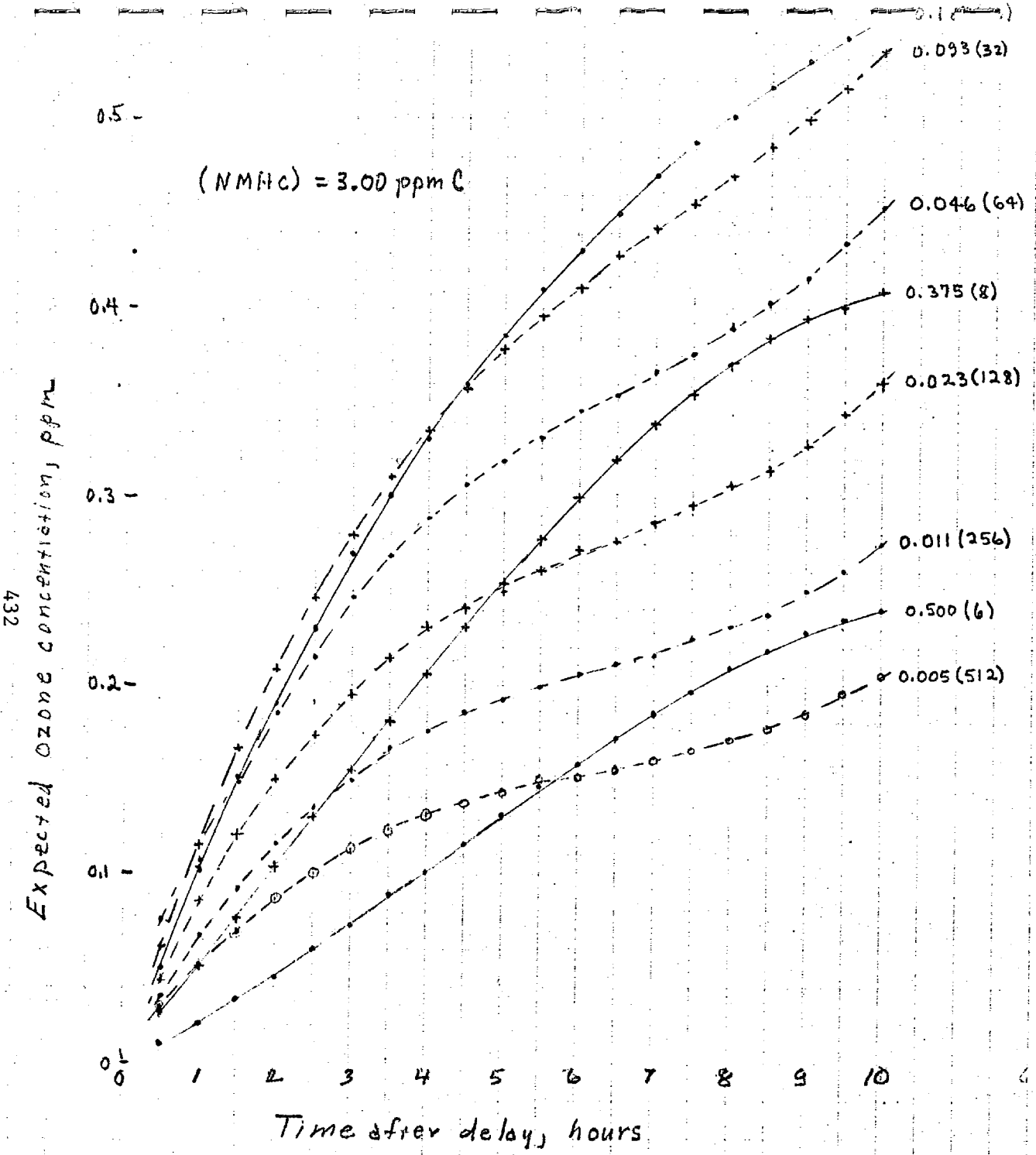
(NMHC) = 3.00 ppm C
0.093 (32)
0.046 (64)
0.375 (8)
0.023 (128)
0.011 (256)
0.500 (6)
0.005 (512)
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10
Expected ozone concentration, ppm
Time after delay, hours

Figure 45.

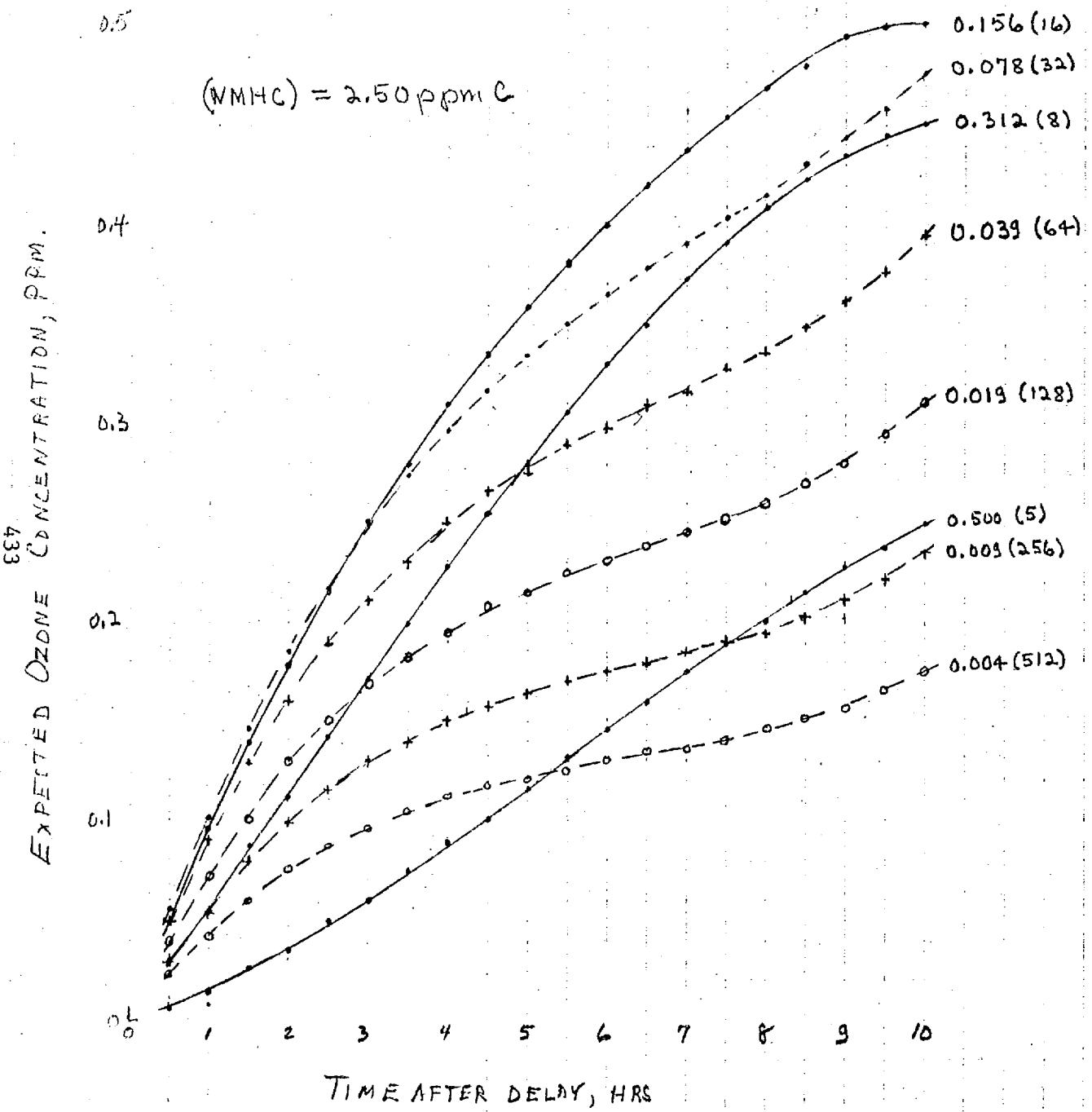
(NMHC) = 2.50 ppm C
0.156 (16)
0.078 (32)
0.312 (8)
0.039 (64)
0.019 (128)
0.500 (5)
0.009 (256)
0.004 (512)
0.5
0.4
0.3
0.2
0.1
0.0
1
2
3
4
5
6
7
8
9
10
EXPECTED OZONE CONCENTRATION, PPM.
TIME AFTER DELAY, HRS

Figure 46.

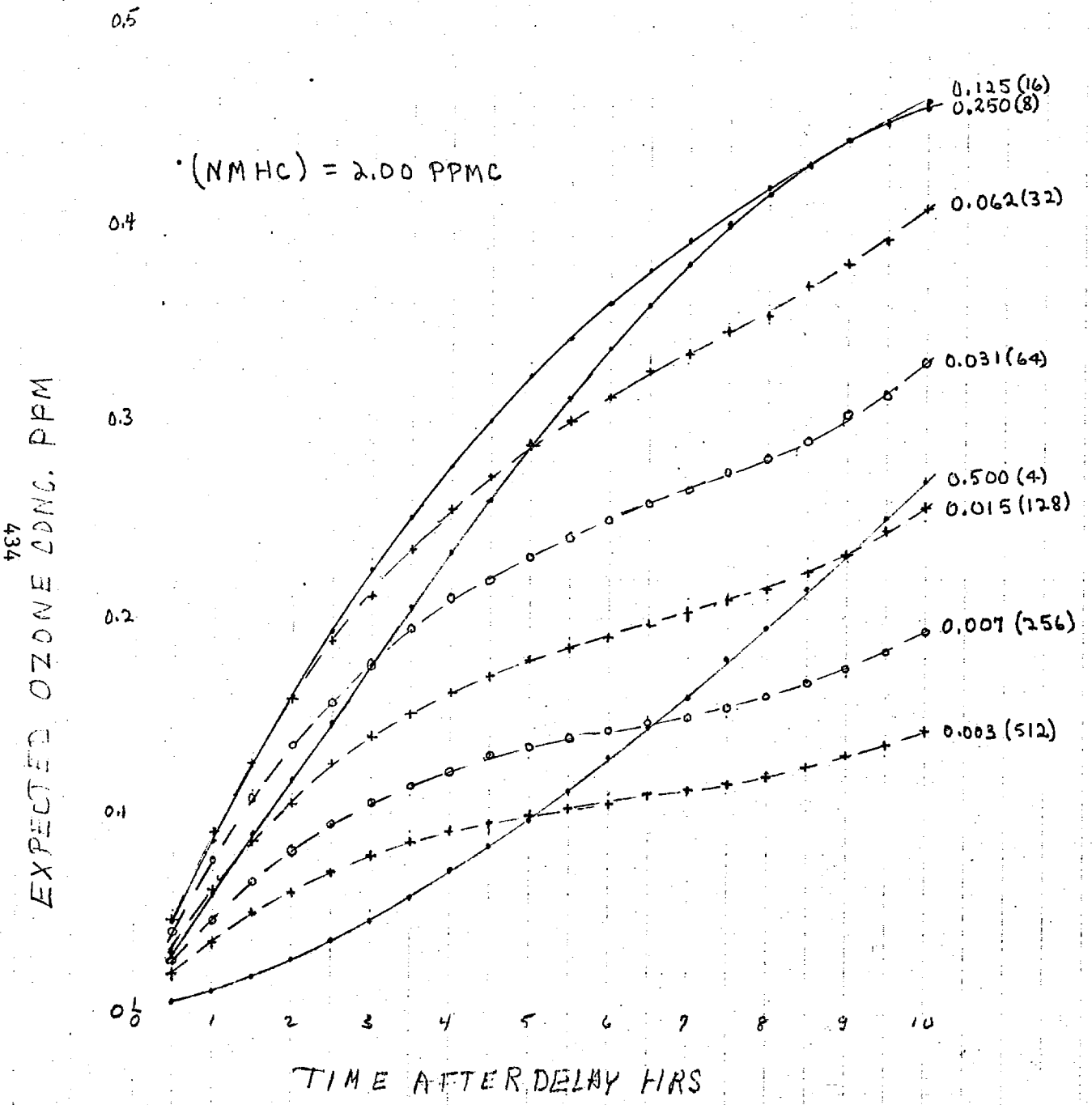
(NMHC) = 2.00 PPMC
0.125 (16)
0.250 (8)
0.062 (32)
0.031 (64)
0.500 (4)
0.015 (128)
0.007 (256)
0.003 (512)
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10
EXPECTED OZONE CONC. PPM
TIME AFTER DELAY HRS

Figure 47.

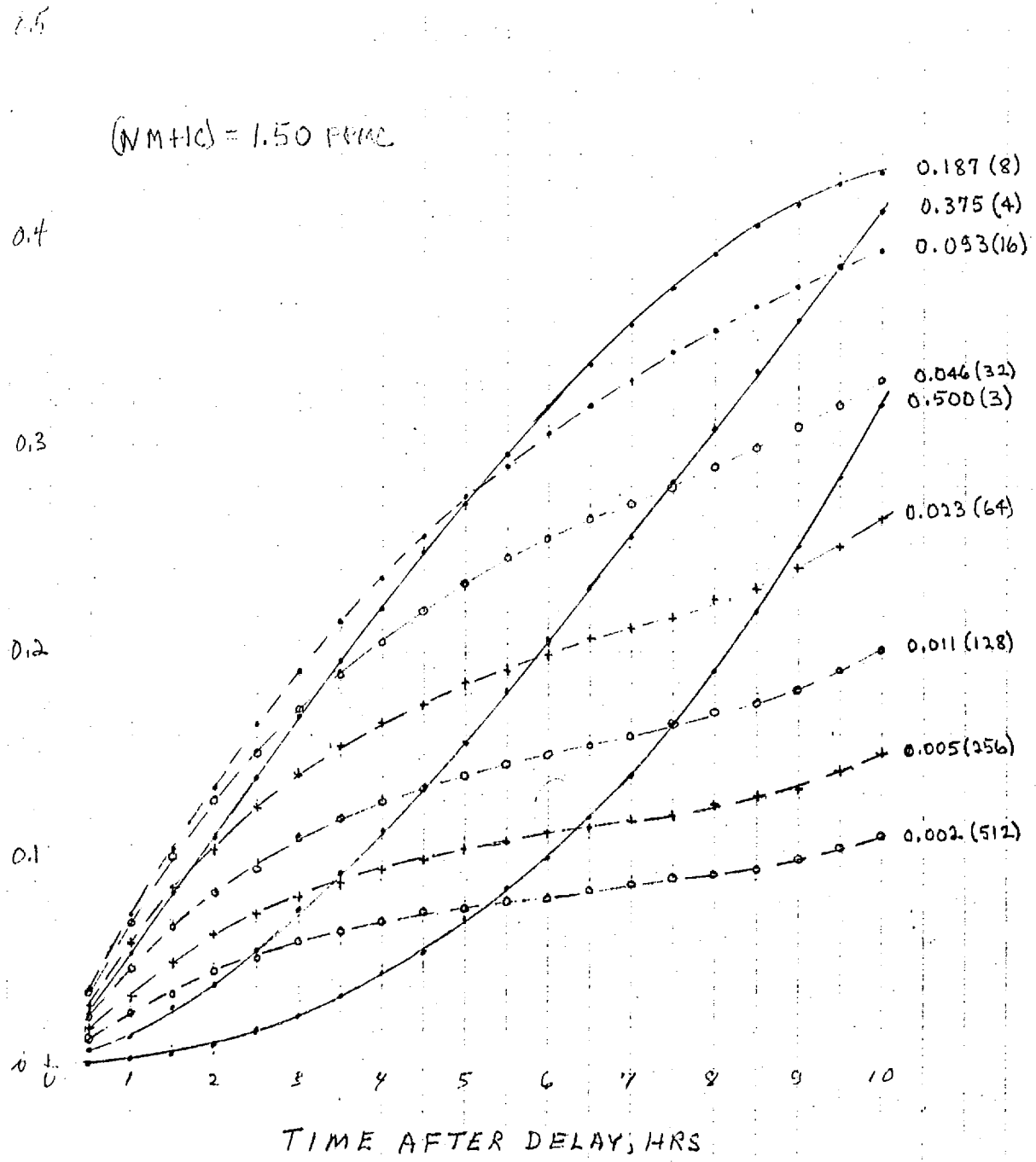
(NM+HC) = 1.50 PPMC
0.187 (8)
0.375 (4)
0.093(16)
0.046(32)
0.500(3)
0.023 (64)
0.011 (128)
0.005(256)
0.002 (512)
EXPECTED OZONE CONC. P.P.M.
TIME AFTER DELAY, HRS
0
1
2
3
4
5
6
7
8
9
10
0.1
0.2
0.3
0.4

Figure 48.

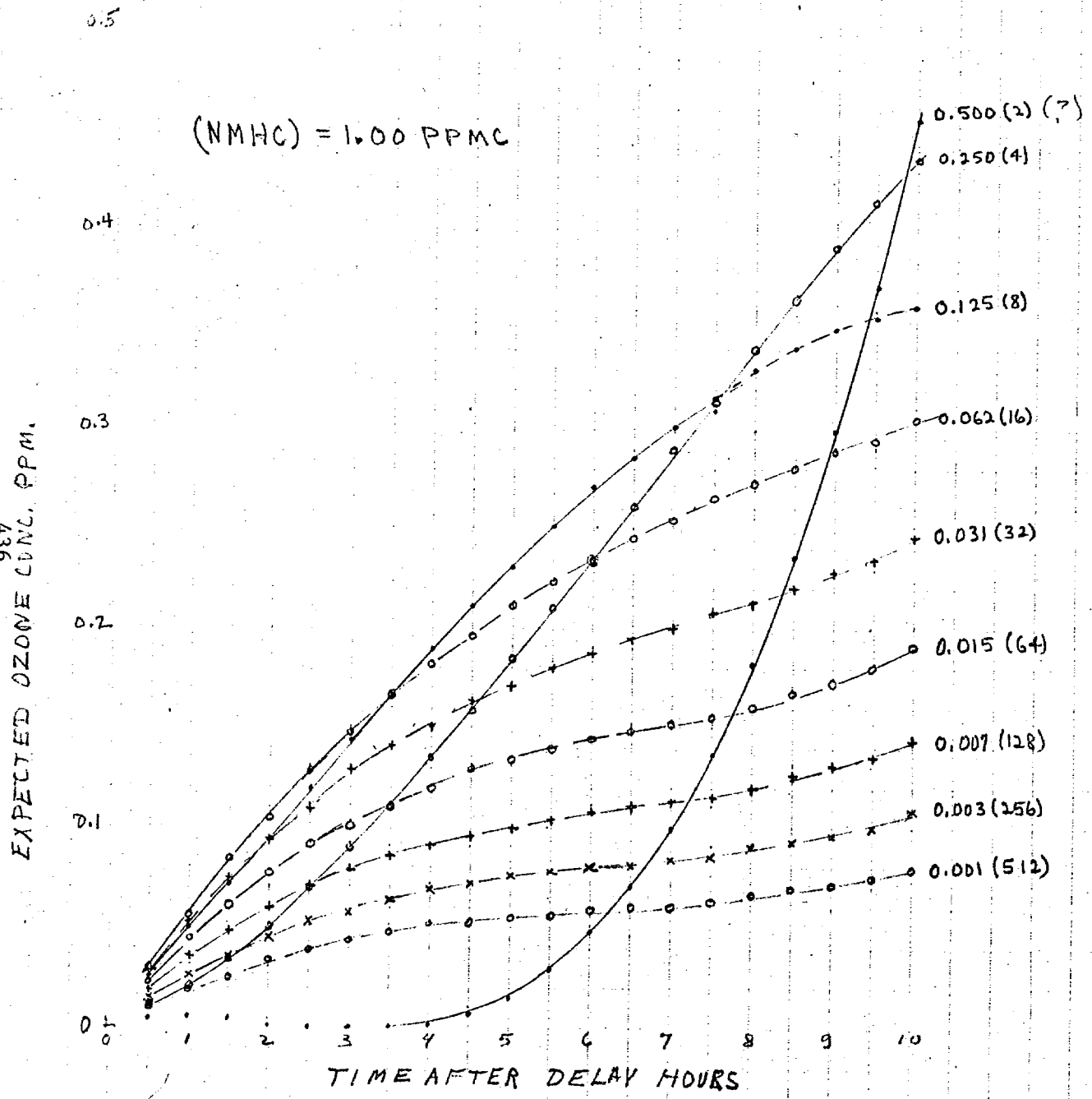
(NMHC) = 1.00 PPMC
0.500 (2) (7)
0.250 (4)
0.125 (8)
0.062 (16)
0.031 (32)
0.015 (64)
0.007 (128)
0.003 (256)
0.001 (512)
EXPECTED OZONE CONC. PPM.
TIME AFTER DELAY HOURS
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10

Figure 49.

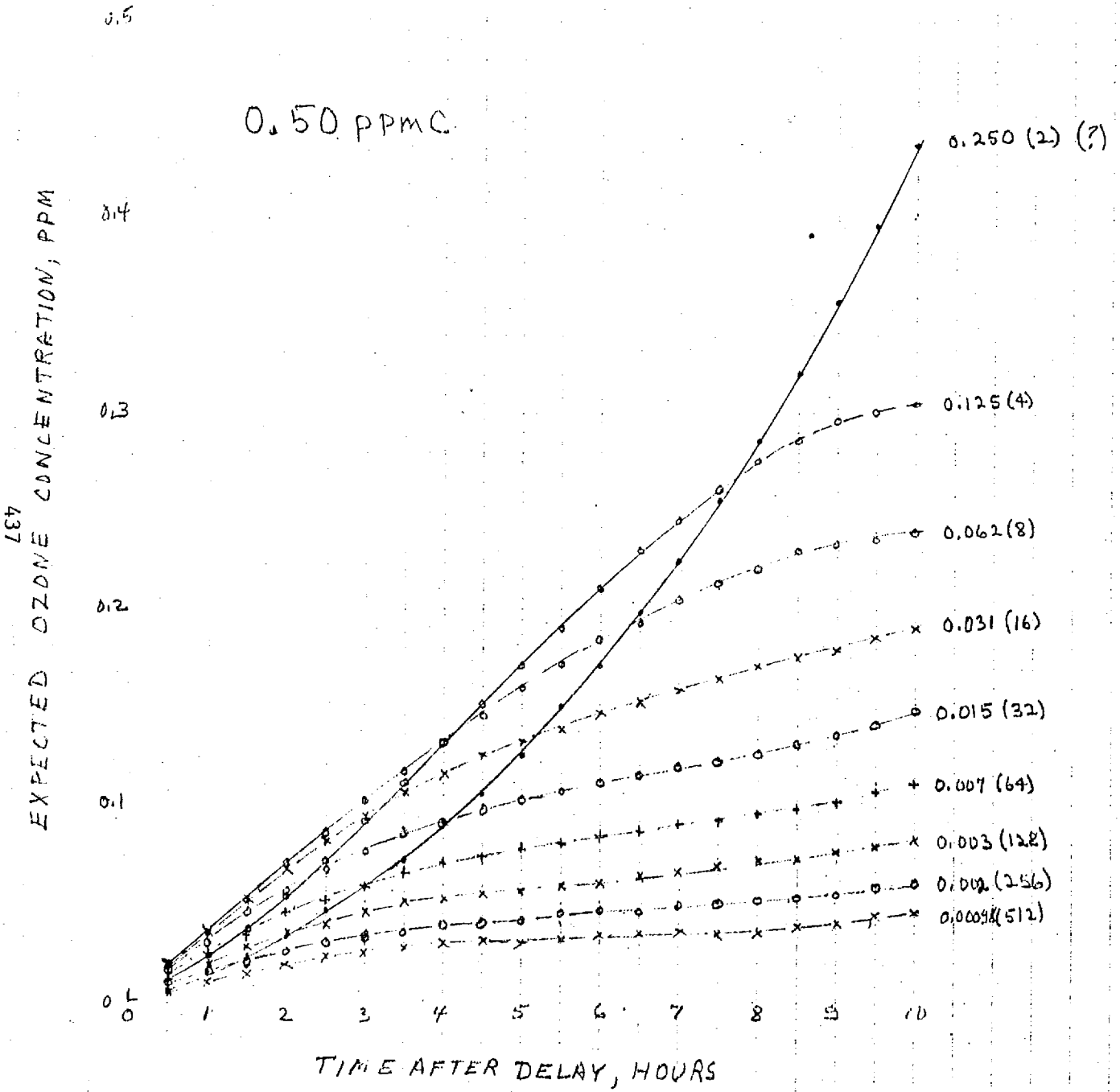
0.50 ppmC
0.250 (2) (?)
0.125 (4)
0.062 (8)
0.031 (16)
0.015 (32)
0.007 (64)
0.003 (128)
0.002 (256)
0.0009 (512)
EXPECTED OZONE CONCENTRATION, PPM
TIME AFTER DELAY, HOURS
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10

Figure 50.

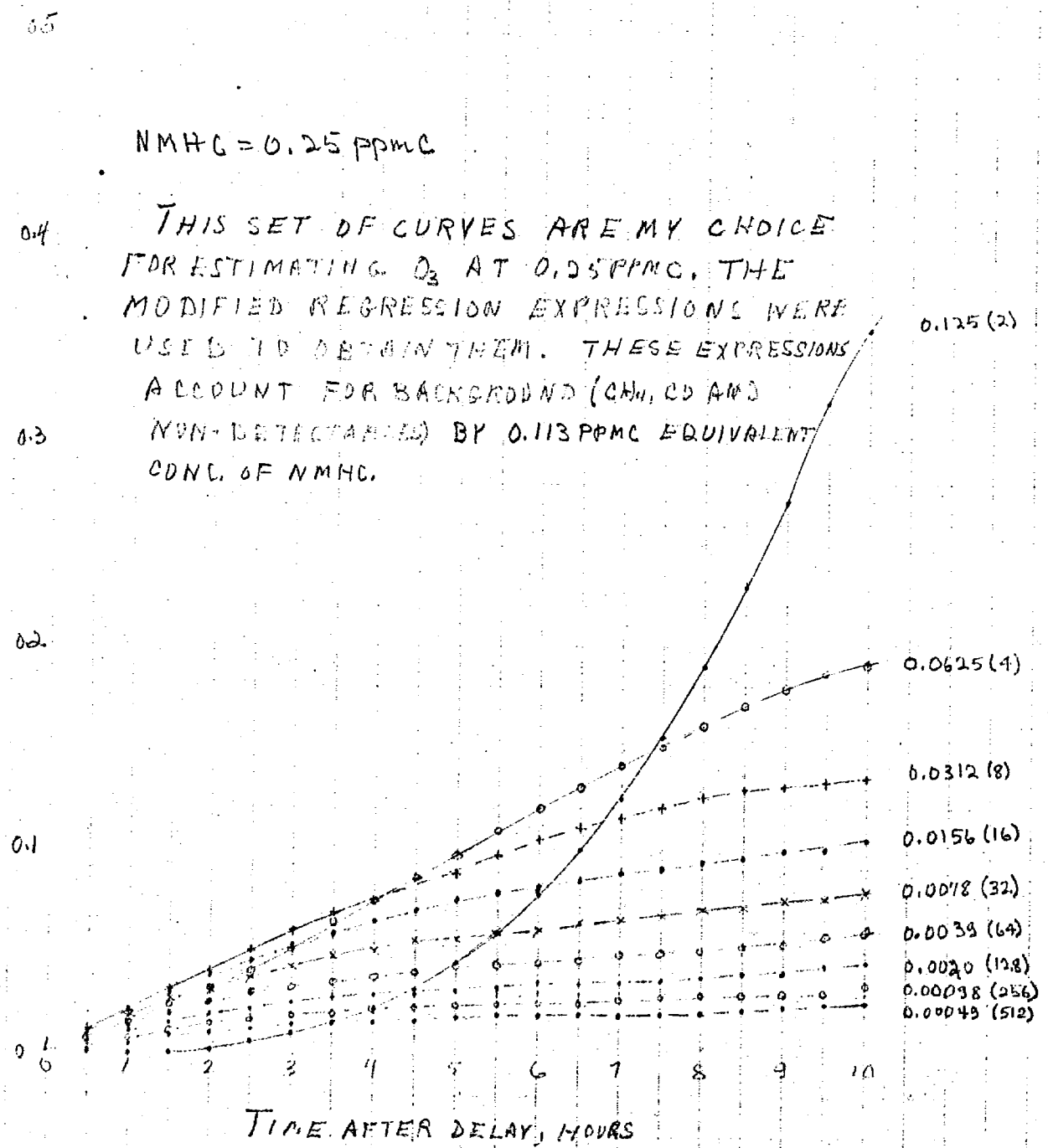
NMHC = 0.25 ppmC
THIS SET OF CURVES ARE MY CHOICE FOR ESTIMATING O_3 AT 0.25 PPMC. THE MODIFIED REGRESSION EXPRESSIONS WERE USED TO OBTAIN THEM. THESE EXPRESSIONS ACCOUNT FOR BACKGROUND (CH_4, CO AND NON-DETECTABLES) BY 0.113 PPMC EQUIVALENT CONC. OF NMHC.
EXPECTED OZONE CONCENTRATION, PPM
TIME AFTER DELAY, HOURS
0.125 (2)
0.0625 (4)
0.0312 (8)
0.0156 (16)
0.0078 (32)
0.0039 (64)
0.0020 (128)
0.00098 (256)
0.00049 (512)

Figure 51.

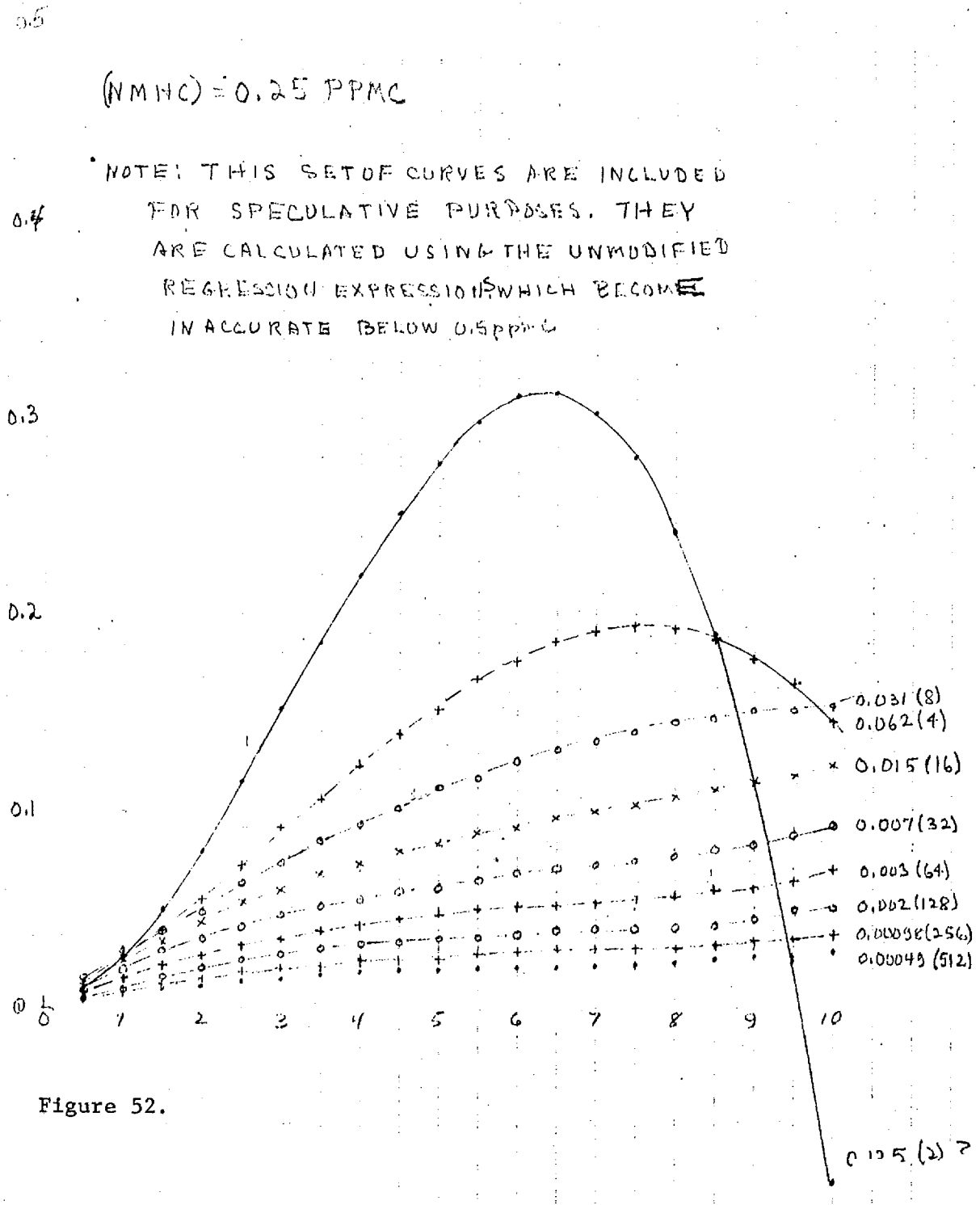
(NMHC) = 0.25 PPMC
NOTE: THIS SET OF CURVES ARE INCLUDED FOR SPECULATIVE PURPOSES. THEY ARE CALCULATED USING THE UNMODIFIED REGRESSION EXPRESSIONS WHICH BECOME INACCURATE BELOW 0.5 PPMC
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10
0.031 (8)
0.062 (4)
0.015 (16)
0.007 (32)
0.003 (64)
0.002 (128)
0.00098 (256)
0.00049 (512)
0.125 (2)

Figure 52.

(NMHC)$_i$ = 0

Only 1.4 ppm methane
0.2 ppm CO + background
impurities (non-analyzable)

A speculative set of curves calculated using the regression expressions with ∞'s removed (the usual expressions → ∞ when C → 0).

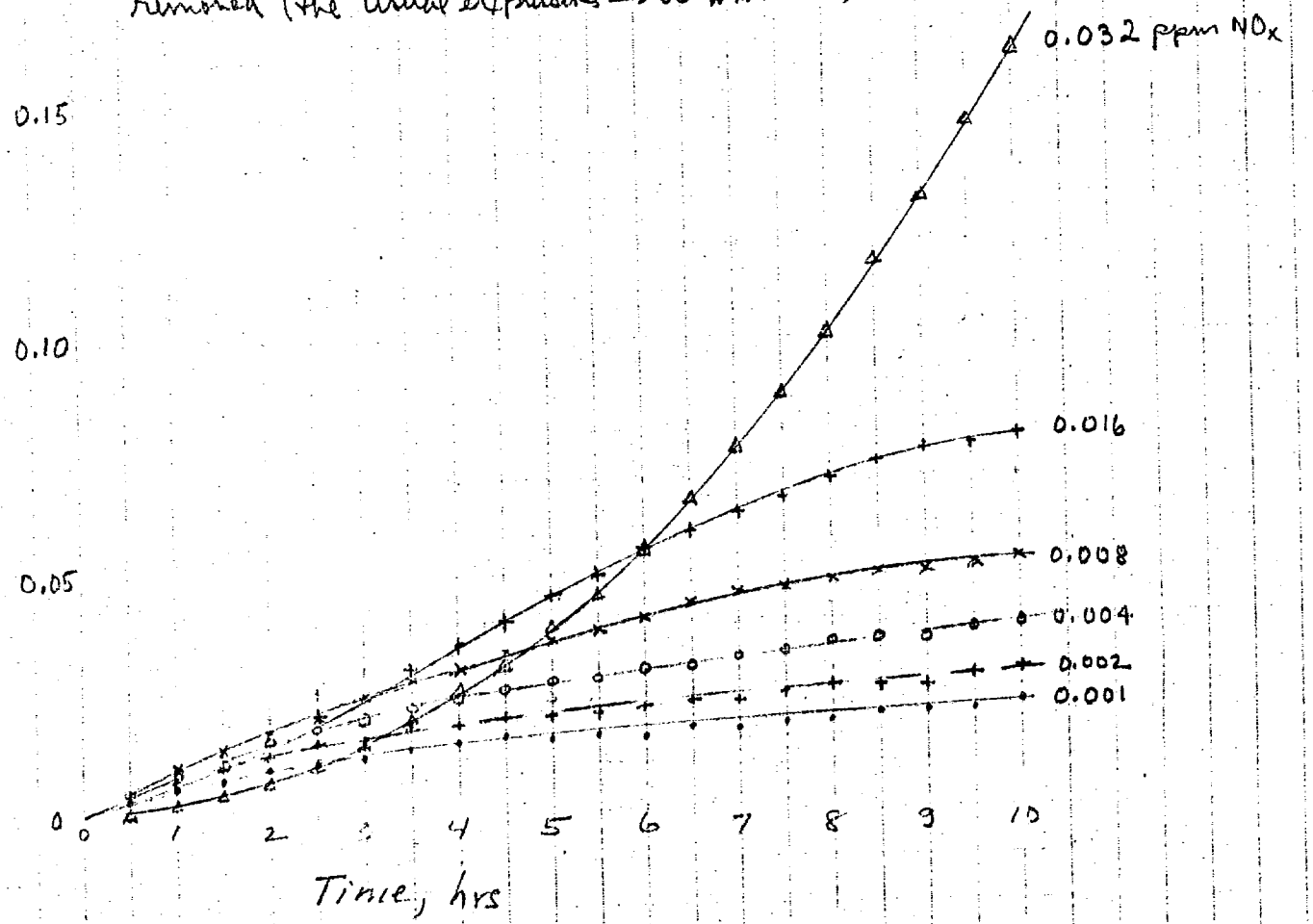

Figure 53.

Scatter Diagram for Regression

$$D = 0.413 + 2.639\frac{N}{\sqrt{C}} - \frac{0.540}{\sqrt{C}} + 0.313\frac{\log\left(\frac{1}{P}-1\right)}{\sqrt{C}}$$

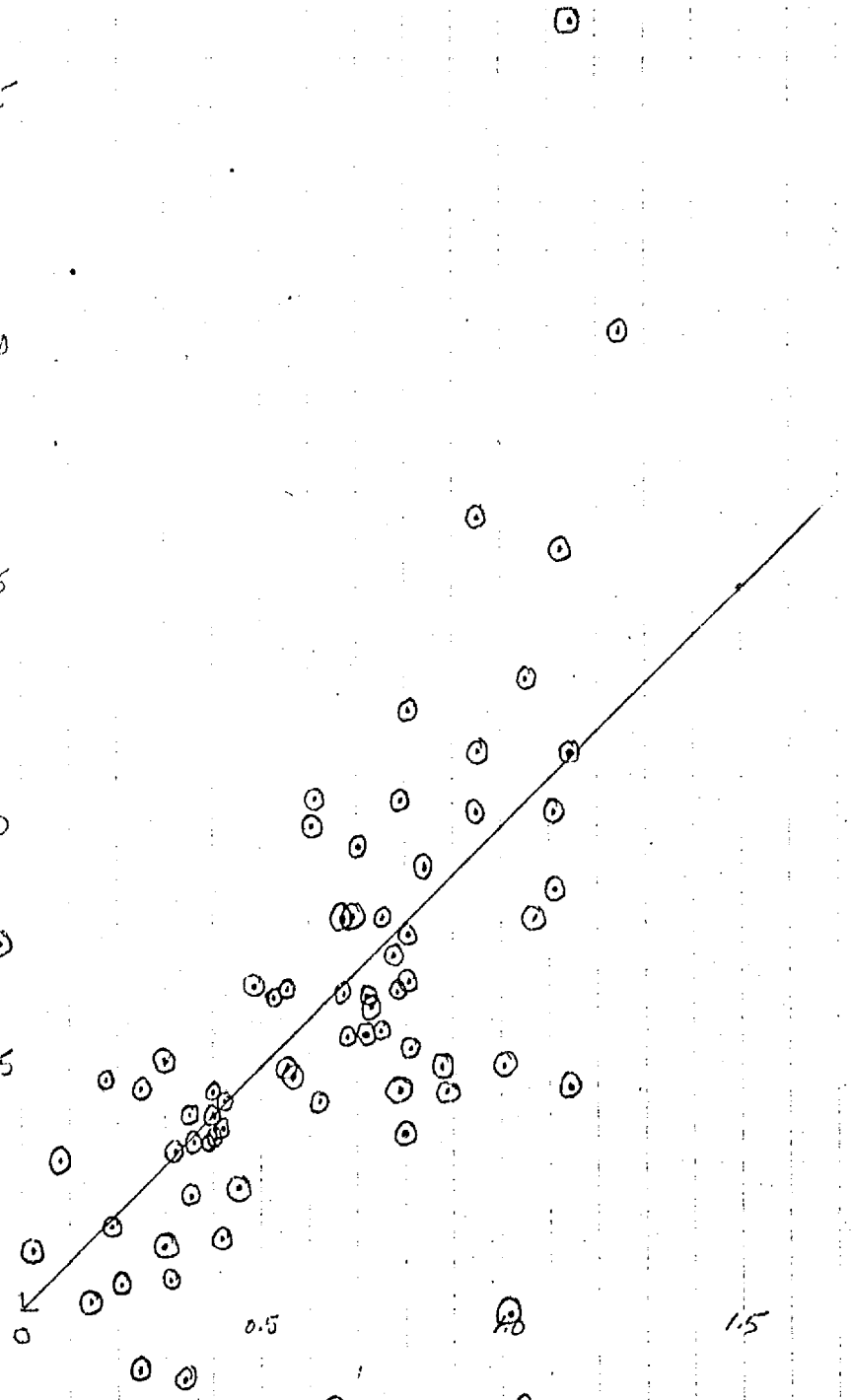

Figure 54.

Substituting (12) into (13) yields

$$\frac{d(O_3)}{dt} = \alpha\beta\left[\frac{(NO_2)}{(NO)} + 1\right].$$

When ozone levels are appreciably above the detection limit of the analyzer $\frac{(NO_2)}{(NO)} >> 1$ so

$$\frac{d(O_3)}{dt} = \alpha(O_3) \quad \text{or} \quad (O_3) = Ae^{\alpha t}$$

during this time period. A brief investigation of α defined as $d\ \ln(O_3)/dt$ for several experiments suggested that α is independent of (NO_x) and varies slowly enough with (NMHC) to be well represented by $\alpha = \alpha_0\sqrt{C}$ giving

$$(O_3) = Ae^{\alpha_0\sqrt{C}\ t} \tag{14}$$

$$(NO) = Be^{-\alpha_0\sqrt{C}\ t} \tag{15}$$

The concentrations A and B remain to be determined. They are not equal to the zero time values because the rate constant $\alpha_0\sqrt{C}$ applies only to a period when steady-state radical concentrations have been established. The unsupported assumption was made that there exists a relaxation time for buildup to steady-state, 1/K hours, which is sufficiently well-defined to write

$$\frac{d(O_3)}{dt} \cong \beta\ \alpha_0\sqrt{C}\left(1 - e^{-Kt}\right)\left[\frac{(NO_2)}{(NO)} + 1\right] \tag{16}$$

$$\frac{d(NO)}{dt} \cong -\alpha_0\sqrt{C}\left(1 - e^{-Kt}\right)(NO) \tag{17}$$

and it was assumed that $d(N)/dt$ was small during the initial period equation 17 has a solution

$$(NO) = (NO)_0 \exp - \alpha_0\sqrt{C}\left[t - \frac{1}{K}\left(1 - e^{-Kt}\right)\right] \tag{18}$$

giving

$$B = (NO)_0 \exp \frac{\alpha_0\sqrt{C}}{K}\left(1 - e^{-Kt}\right)$$

$$B \simeq N(1 - P) \exp\left(\frac{\alpha_0\sqrt{C}}{K}\right) \tag{19}$$

assuming $e^{-Kt} << 1$ at the time ozone starts building up. The solution (18) allows a solution of differential equation 16, written

$$\frac{d(O_3)}{dt} + \alpha_0\sqrt{C}\left(1 - e^{-Kt}\right)(O_3) = \beta\alpha_0\sqrt{C}\left(1 - e^{-Kt}\right)$$

with its solution, which can be written in the form

$$(O_3) = (O_3)\, e^{+\alpha_0\sqrt{C}\left[t - \frac{1}{K}\left(1 - e^{-Kt}\right)\right]} + \beta\alpha_0\sqrt{C}\, e^{\alpha_0\sqrt{C}\left[t - \frac{1}{K}\left(1 - e^{-Kt}\right)\right]} \times$$

$$\int_0^t e^{-\alpha_0\sqrt{C}\left[s - \frac{1}{K}\left(1 - e^{-Ks}\right)\right]}\left(1 - e^{-Ks}\right) ds \,.$$

Initial ozone $(O_3)_0$ can be approximated by $\beta NP/(1-P)$, assuming the Leighton relationship. The second turn can be evaluated to give

$$(O_3) = \beta N \frac{P}{1-P}\, e^{\alpha_0\sqrt{C}\left[t - \frac{1}{K}\left(1 - e^{-Kt}\right)\right]} + \beta\left[e^{\alpha_0\sqrt{C}\left[t - \frac{1}{K}\left(1 - e^{-Kt}\right)\right]} - 1\right]$$

again assuming $e^{-Kt} << 1$ gives

$$A = \beta\left[N \frac{P}{1-P} + 1\right] e^{\frac{-\alpha_0\sqrt{C}}{K}} \tag{20}$$

We may now write

$$\sigma = A\, e^{+\alpha_0\sqrt{C}\, t_1}$$

where σ = an arbitrary ozone concentration called appreciable ozone. Operationally, in calculating delays $\sigma \gtrsim 0.05$ ppm ozone. Since the slope at this point is

$$\frac{d\sigma}{dt} = A\alpha_0\sqrt{C}\; e^{\alpha_0\sqrt{C}\, t_1}$$

The extrapolation procedure for calculating delays amounts to saying

$$D = t_1 - \left(\frac{\sigma}{\frac{d\sigma}{dt}}\right)_{t=t_1} = t_1 - \frac{1}{\alpha_0\sqrt{C}}$$

and

$$t_1 = \frac{1}{\alpha_0\sqrt{C}} \ln \frac{\sigma}{A}$$

giving

$$D = \frac{\ln\left[\dfrac{\sigma\, e^{\frac{\alpha_0\sqrt{C}}{K}}}{\beta\left(N\,\frac{P}{1-P} + 1\right)}\right] - 1}{\alpha_0\sqrt{C}} \qquad (21)$$

Rearranging equation 21

$$D = \frac{\frac{\alpha_0\sqrt{C}}{K} \ln\sigma - \ln\beta - \ln\left(1 + \frac{P}{1-P}\, N\right) - 1}{\alpha_0\sqrt{C}}$$

Since $\frac{P}{1-P} N << 1$ in all cases this can be rewritten

$$D \cong \frac{\ln\sigma}{K} + \frac{\ln\left(\frac{1}{\beta}\right) - 1}{\alpha_0\sqrt{C}} - \frac{\left(\frac{P}{1-P}\right)N}{\alpha_0\sqrt{C}} \qquad (23)$$

which looks straightforward until one remembers that 1/K is the assumed relaxation time and is a function of initial concentrations also. However, the inspiration for $C^{-\frac{1}{2}}$ powers in equation 11 is clear.

The $\log_0\frac{(1-P)}{P}$ term comes from an earlier and erroneous version of (23). This regression should be repeated using equation 22 and various reasonable forms for 1/K until the minimum variance is obtained. However, the expression (11) does a reasonable job (see Figure 54).

In fact, all of the expressions used to represent the data could be tinkered with in an attempt to attain perfection. It's a question of how far to go profitably.

Precision

Expression (1) fitted the data to ±0.005 ppm in most cases when using the A's determined from the data. Consequently, most errors will arise in representing the A's by equations 3-5. Equation 3 gave a standard deviation of 0.0544 ppm when comparing predicted with actual A_0's. Since there were about 100 experiments in the package, simple statistics imply that predicted A_0's are within ±0.01 ppm of the "true" mean. The ratio of A_1 to A_0 has a similar standard deviation of 0.126 implying ±0.01 in estimating this fraction in the mean. For A_2/A_0 the corresponding figures are ±0.058 and ±0.006. No calculations were made about precision in estimating delay times.