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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

POLLUTION CONTROL DEPARTMENT
THE GOVERNMENT OF THE KINGDOM OF THAILAND

FINAL REPORT
VOL.4
DATA BOOK

FEBRUARY 2003

THE ACID DEPOSITION CONTROL STRATEGY IN THE KINGDOM OF THAILAND

SUURI-KEIKAKU CO.,LTD.
PACIFIC CONSULTANTS INTERNATIONAL

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The exchange rates applied in this Study are:

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(as of February 2003)

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Sampling Date	SO_4^{2-}	nss-SO_4^{2-}	NO_3^-	Cl^-	NH_4^+	Na^+	K^+	Ca^{2+}	nss-Ca^{2+}	Mg^{2+}	pH	EC	R1	R2	Rain Amount
	umol/l	umol/l	umol/l	umol/l	umol/l	umol/l	umol/l	umol/l	umol/l	umol/l		mS/m			mm
2000/4/22	36.2	34.4	24.1	24.5	41.0	30.2	10.1	8.7	8.0	3.0	5.10	2.03	-3.6	-4.0	0.9
2000/4/25	22.3	21.9	14.4	11.9	20.5	6.9	0.0	3.6	3.5	0.0	4.48	1.84	-2.3	2.6	2.1
2000/5/5	35.1	34.5	17.6	14.4	41.0	10.2	3.5	3.6	3.4	0.0	4.42	2.29	-1.1	5.3	0.9
2000/5/14	25.1	20.7	5.4	30.2	46.5	73.7	5.5	21.1	19.5	6.1	6.40	2.19	28.8	-9.4	16.8
2000/5/16	9.7	9.1	4.7	9.5	6.4	9.6	2.6	5.4	5.2	1.5	5.18	0.72	7.4	-2.3	19.5
2000/5/18	12.6	11.7	15.8	11.2	7.9	14.3	0.1	18.8	18.5	2.4	4.90	0.97	19.4	11.5	11.0
2000/5/19	13.5	13.1	14.6	5.8	27.7	6.2	0.3	4.4	4.3	0.9	4.88	0.85	10.0	13.9	7.9
2000/5/22	107.6	104.9	103.6	39.9	92.9	45.5	20.8	94.5	93.5	14.2	4.83	5.22	4.4	3.8	3.1
2000/5/26	31.1	30.4	29.6	11.9	39.8	10.8	3.7	14.4	14.2	3.3	4.94	1.76	-1.2	0.6	60.0
2000/5/31	38.0	37.6	24.0	7.0	55.0	6.5	3.1	20.3	20.2	3.0	4.83	2.07	8.2	0.4	18.5
2000/6/4	19.5	18.8	12.6	10.8	25.6	11.8	3.2	7.3	7.0	1.9	4.93	1.48	6.3	-7.5	27.4
2000/6/5	19.6	19.0	12.7	11.0	30.9	10.6	2.9	5.1	4.9	1.4	5.00	1.33	3.5	-4.5	36.1
2000/6/8	47.5	46.2	19.6	24.4	56.8	21.4	2.9	10.4	9.9	4.7	4.85	2.70	-5.1	-8.0	13.9
2000/6/18	31.2	30.6	14.6	11.2	42.4	9.8	2.8	9.8	9.6	2.6	5.48	1.57	-3.0	-8.2	28.3
2000/7/6	17.7	16.9	19.9	13.5	30.5	14.0	3.5	7.6	7.3	2.3	5.33	1.17	2.6	-1.8	18.7
2000/7/7	16.0	13.4	20.1	47.5	14.1	43.2	0.0	8.0	7.1	6.7	5.10	1.54	-2.6	-0.4	6.7
2000/7/12	96.6	94.9	23.5	29.3	148.1	28.0	0.0	21.8	21.2	7.6	4.37	4.82	6.0	1.8	8.5
2000/7/13	12.9	12.4	6.0	9.9	17.6	8.9	0.0	4.5	4.3	1.4	5.31	0.71	1.8	2.0	24.1
2000/7/14	62.8	62.3	8.3	6.8	25.9	7.7	0.0	60.8	60.6	3.7	6.11	2.15	5.0	0.5	16.1
2000/7/15	13.5	12.9	8.0	7.1	24.8	9.4	6.1	3.7	3.5	1.1	5.72	0.63	10.3	7.0	17.5
2000/7/22	157.9	155.9	27.5	38.3	229.8	33.0	13.5	45.8	45.1	10.7	6.40	5.22	-0.7	4.5	4.3
2000/7/26	50.4	47.7	27.3	51.8	21.3	44.4	5.8	78.4	77.4	14.7	6.00	3.07	18.0	-2.0	1.1
2000/7/30	12.0	11.2	1.3	14.3	5.7	14.0	3.7	8.8	8.5	2.8	6.13	0.71	0.3	-4.9	13.0
2000/8/5	16.3	15.8	8.8	11.3	32.2	8.9	3.4	7.9	7.7	1.6	6.21	0.89	1.9	0.0	11.0
2000/8/8	10.4	10.1	0.0	6.0	10.9	5.5	0.0	4.2	4.1	1.3	5.35	0.66	8.6	-10.0	45.1
2000/8/9	20.8	19.9	3.0	17.7	32.9	14.4	5.9	2.9	2.6	1.9	5.15	1.04	5.7	5.0	8.0
2000/8/10	23.2	22.2	4.5	26.5	39.3	15.9	13.0	5.5	5.2	2.3	5.38	1.06	6.4	10.4	5.7
2000/8/13	13.0	12.3	4.4	30.0	31.2	11.0	26.3	1.1	0.9	1.7	5.69	0.66	11.5	22.8	6.8
2000/8/15	12.1	11.6	6.8	14.7	32.6	8.3	10.1	6.3	6.1	2.1	6.29	0.70	9.5	11.0	19.0
2000/8/19	4.3	4.0	3.7	1.9	8.2	4.7	0.0	0.0	0.0	0.7	6.01	0.88	-13.1	-54.3	28.2
2000/8/23	28.3	27.0	11.8	17.8	47.8	20.8	9.9	14.1	13.7	3.7	5.42	0.46	15.5	54.1	2.9
2000/8/25	144.8	144.3	9.4	14.1	151.5	8.9	6.8	24.3	24.1	8.7	4.18	5.83	-2.3	4.6	2.2
2000/8/26	35.9	35.3	4.7	97.3	41.6	10.1	4.2	8.4	8.2	1.3	5.16	1.45	-35.8	18.2	6.0
2000/8/28	16.1	15.9	4.7	7.5	30.9	3.7	0.0	5.3	5.2	0.2	5.85	0.96	2.9	-15.0	4.8
2000/8/30	25.5	25.4	4.1	5.4	46.1	1.1	0.0	0.0	0.0	0.0	5.35	1.06	-7.9	-4.0	18.6
2000/8/31	23.2	22.7	7.5	8.3	24.0	8.6	4.9	11.6	11.4	3.2	5.70	1.02	5.3	-1.7	6.0
2000/9/2	19.5	18.7	8.5	16.1	30.7	13.0	4.6	8.4	8.1	2.2	5.75	1.04	5.7	-1.6	7.4
2000/9/4	9.9	9.4	9.3	26.7	14.5	8.4	2.4	4.8	4.6	2.5	5.63	0.70	-13.8	4.2	4.8
2000/9/5	29.7	28.9	10.2	13.3	29.8	13.7	4.2	6.4	6.1	2.2	4.80	1.45	-1.3	5.6	39.4
2000/9/6	45.4	44.6	19.7	15.9	60.9	13.3	4.1	37.3	37.0	4.0	6.42	2.11	6.7	-0.2	3.8
2000/9/13	31.4	29.3	7.3	32.7	40.5	34.2	9.5	16.5	15.8	4.2	6.04	1.32	7.5	10.9	4.6
2000/9/21	65.3	64.7	50.7	8.9	73.5	9.8	3.4	21.6	21.4	3.5	4.11	4.17	6.0	10.0	41.0
2000/9/25	21.0	20.5	12.5	8.8	19.6	7.8	3.6	13.8	13.6	2.6	5.01	1.24	7.5	-0.1	78.0
2000/9/28	59.3	59.0	25.4	9.1	71.0	5.5	4.1	25.2	25.1	5.3	4.70	2.69	2.7	2.6	5.4
2000/9/29	19.3	18.9	7.4	8.8	19.2	6.4	2.9	6.5	6.4	2.6	4.81	1.17	6.3	4.1	68.0
2000/9/30	30.7	30.0	9.3	13.2	25.9	11.7	3.2	8.5	8.2	2.3	4.30	1.95	14.6	18.1	2.5
2000/10/2	20.8	20.7	12.8	3.8	20.7	1.6	1.9	4.6	4.6	1.7	4.40	1.44	13.7	18.5	8.9
2000/10/4	29.1	28.9	33.4	7.5	19.0	4.1	3.3	7.7	7.6	1.6	4.20	3.00	4.3	4.2	5.0
2000/10/6	38.4	37.9	43.0	12.4	30.9	7.7	3.7	20.4	20.2	4.4	4.21	2.91	7.5	12.7	18.8
2000/10/8	33.6	33.4	42.6	4.5	38.2	2.5	3.5	6.5	6.4	1.0	4.09	3.15	10.3	13.4	21.4
2000/10/13	23.4	23.0	22.8	11.0	25.7	6.6	6.6	14.7	14.6	4.2	4.97	1.39	4.1	3.4	8.9
2000/10/16	39.8	39.3	40.6	10.2	49.7	8.3	3.1	13.4	13.2	3.1	4.27	2.76	6.3	11.9	10.8
2000/10/17	17.8	17.6	18.5	37.7	33.9	3.6	37.8	12.4	12.3	1.4	5.39	1.08	7.6	18.0	54.9
2000/10/24	12.7	12.4	8.8	3.4	15.6	5.4	2.6	9.1	9.0	1.6	5.27	0.77	14.5	-0.2	26.0
2000/10/27	11.7	11.6	8.4	2.0	16.0	1.3	2.3	2.8	2.8	0.0	5.23	0.73	-4.2	-6.3	21.1
2000/10/30	7.6	7.4	6.8	3.2	18.2	2.7	2.2	5.5	5.4	0.0	5.63	0.62	18.2	-10.1	23.6

Note: Underlined values are rejected in the evaluation because of exceeding R1/R2

Table 1.2 The Result of EANET Monitoring at Khao Laem

Sampling Date	SO_4^{2-} umol/l	nss-SO_4^{2-} umol/l	NO_3^- umol/l	Cl^- umol/l	NH_4^+ umol/l	Na^+ umol/l	K^+ umol/l	Ca^{2+} umol/l	nss-Ca^{2+} umol/l	Mg^{2+} umol/l	pH	EC mS/m	R1	R2	Rain Amount mm
2000/5/7	5.2	4.9	9.2	7.7	7.8	3.7	3.1	2.0	2.0	2.0	5.19	0.62	3.5	-3.7	4.3
2000/5/11	1.2	1.1	11.8	11.0	1.7	2.2	2.0	1.8	1.7	1.0	5.30	0.37	-20.8	7.8	4.9
2000/5/12	3.0	1.4	14.7	8.1	4.2	26.5	1.8	3.4	2.9	1.6	5.56	0.58	22.4	-2.9	0.8
2000/5/16	3.2	2.6	9.0	10.5	1.3	9.6	1.7	7.4	7.2	1.6	5.77	0.52	11.3	-9.3	12.3
2000/5/17	3.5	2.9	15.6	10.1	10.8	9.2	1.2	5.1	4.9	1.7	5.79	0.59	5.1	-6.9	10.1
2000/5/18	3.4	2.3	13.3	20.3	11.3	18.1	3.5	3.4	3.0	2.8	5.88	0.71	7.0	-6.8	4.8
2000/6/2	0.6	0.4	10.6	3.2	1.5	2.7	1.9	1.6	1.6	0.0	5.83	0.34	-15.6	-21.4	30.8
2000/6/3	0.3	0.2	9.3	2.2	7.7	2.3	1.0	2.1	2.1	0.0	5.61	0.32	18.9	-7.6	25.8
2000/6/4	1.9	1.4	11.3	9.4	2.4	8.4	1.8	1.3	1.2	1.6	5.40	0.51	-4.2	-8.7	6.5
2000/6/11	3.1	2.2	11.7	14.8	3.8	14.6	3.2	8.5	8.2	2.3	5.68	0.55	16.1	1.8	11.0
2000/6/20	3.1	2.3	12.3	14.4	17.9	13.4	2.9	10.2	9.9	2.3	5.61	0.54	30.4	12.9	24.2
2000/6/23	5.1	3.9	10.2	19.3	2.6	19.9	2.7	6.7	6.3	2.9	5.70	0.68	7.7	-4.5	10.8
2000/6/26	2.0	1.6	11.6	6.6	6.2	5.9	2.9	7.7	7.6	1.2	5.51	0.36	23.4	13.7	1.1
2000/6/29	1.4	0.3	10.7	16.8	6.1	17.8	6.1	4.2	3.8	1.7	6.09	0.51	7.0	2.3	5.6
2000/7/3	2.2	2.1	12.6	3.3	2.8	2.3	2.4	0.9	0.9	3.5	6.13	0.62	-23.8	-33.7	0.4
2000/7/6	2.5	2.0	21.4	8.5	4.8	8.8	0.0	17.9	17.7	7.7	6.28	0.85	17.9	-9.8	7.3
2000/7/7	2.6	2.1	11.0	8.6	0.4	8.9	0.0	8.7	8.5	2.4	5.83	0.59	14.3	-17.4	6.4
2000/7/9	4.0	2.9	2.0	20.3	6.5	17.7	0.0	3.3	2.9	2.3	5.61	0.53	11.0	-1.0	10.0
2000/7/10	3.5	3.0	1.6	11.0	4.8	8.6	0.0	0.0	0.0	0.0	5.90	0.23	-14.3	8.7	14.0
2000/7/11	1.8	1.5	0.0	5.1	1.8	4.9	0.0	1.6	1.5	0.0	5.98	0.27	11.4	-25.2	14.0
2000/7/12	3.0	2.3	2.6	13.2	6.0	11.5	0.0	3.3	3.0	0.0	6.00	0.46	7.0	-14.5	15.0
2000/7/13	5.9	4.3	5.9	29.8	9.8	26.1	0.0	10.5	9.9	4.1	6.08	0.87	9.7	-4.6	2.2
2000/7/14	7.6	5.8	4.0	32.0	8.5	29.5	0.0	9.2	8.6	4.2	5.95	0.89	12.5	-5.4	5.6
2000/7/16	2.7	2.5	0.1	5.0	3.5	3.9	0.0	1.8	1.8	0.0	5.64	0.25	12.1	-4.3	56.0
2000/7/18	25.9	19.9	16.6	114.9	22.0	99.3	6.1	39.2	37.1	13.7	6.25	2.91	9.5	-2.1	22.0
2000/7/20	8.2	6.8	8.4	25.2	8.0	22.6	0.0	22.5	22.0	4.1	5.96	0.99	25.9	-4.4	3.2
2000/7/21	24.0	21.5	14.6	49.7	22.9	41.7	3.6	55.8	54.9	9.4	6.42	2.34	22.1	-5.0	2.2
2000/7/22	16.0	13.0	14.5	53.0	24.1	49.0	9.9	24.4	23.4	6.7	6.06	1.68	16.0	0.1	2.0
2000/7/23	3.5	3.0	2.8	8.8	2.5	8.6	0.0	3.4	3.2	0.0	5.55	0.36	5.5	-2.2	16.2
2000/7/24	8.5	6.9	4.4	25.3	9.5	25.8	0.0	19.5	19.0	4.7	6.12	0.98	22.1	-4.1	15.6
2000/7/29	6.5	5.1	4.6	26.0	7.8	22.7	0.0	8.3	7.8	2.8	6.19	0.74	1.1	-3.1	14.0
2000/8/7	1.2	0.8	0.0	5.6	1.3	6.0	5.2	0.0	0.0	0.0	5.99	0.22	25.7	-11.2	32.0
2000/8/8	1.8	1.5	0.5	19.2	6.1	4.9	15.7	2.5	2.4	1.4	6.15	0.32	6.5	18.9	6.0
2000/8/9	1.0	0.9	0.0	3.6	0.0	1.0	0.0	0.0	0.0	0.0	6.04	0.18	-71.3	-25.2	20.0
2000/8/14	2.1	1.4	0.8	22.8	0.0	12.0	12.7	2.1	1.9	1.6	6.14	0.32	-3.8	18.8	4.0
2000/8/15	4.7	4.5	0.0	7.2	0.0	3.0	5.5	9.5	9.4	3.7	6.00	0.60	36.8	-23.2	11.2
2000/8/20	1.1	0.7	5.1	7.9	4.0	6.9	0.0	0.0	0.0	0.3	5.68	0.43	-5.8	-25.7	23.0
2000/8/22	0.1	0.0	2.5	1.6	2.9	2.0	0.0	0.0	0.0	0.0	5.71	0.31	22.8	-40.5	12.4
2000/8/24	0.1	0.0	3.8	6.4	3.4	3.2	6.0	0.0	0.0	0.0	5.78	0.22	16.0	0.3	13.0
2000/8/25	0.0	0.0	5.7	6.5	5.3	4.1	6.0	1.9	1.8	0.0	5.76	0.29	26.2	-2.3	5.0
2000/8/27	0.0	0.0	4.5	6.8	4.8	4.5	5.9	2.3	2.2	0.0	5.85	0.27	30.7	-1.4	25.5
2000/8/28	0.0	0.0	4.6	10.3	6.0	5.3	9.3	3.3	3.2	0.0	6.08	0.34	13.0	1.3	13.0
2000/8/30	0.9	0.0	6.0	19.9	7.3	18.8	3.6	4.2	3.8	2.3	5.97	0.60	22.5	-9.6	15.0
2000/9/4	4.0	3.2	4.7	95.4	10.6	12.9	84.6	2.2	1.9	1.8	5.73	0.46	4.3	57.4	45.0
2000/9/10	4.6	3.9	4.6	17.6	13.8	11.2	7.7	4.6	4.3	2.2	5.99	0.52	20.1	4.5	12.5
2000/9/11	2.5	2.1	3.6	12.1	9.5	7.0	9.1	3.5	3.4	1.5	5.99	0.39	28.0	4.2	17.1
2000/9/12	1.1	0.2	2.5	20.1	15.4	15.7	8.1	12.5	12.2	3.7	6.61	0.83	20.5	-5.9	11.0
2000/9/14	2.1	0.4	4.9	35.7	6.8	27.6	12.9	4.0	3.4	1.8	5.96	0.63	14.4	7.3	2.8
2000/9/16	8.5	8.3	6.9	6.5	12.7	2.7	4.8	3.2	3.1	0.7	5.11	0.67	8.2	1.8	13.5
2000/9/26	4.8	4.6	5.3	17.3	1.6	4.1	15.7	1.3	1.2	6.1	5.26	0.50	12.8	14.3	22.3
2000/9/28	0.0	0.0	3.1	14.6	7.4	8.0	11.3	1.4	1.3	0.9	5.75	0.30	30.2	14.2	13.6
2000/10/1	0.6	0.5	6.5	5.7	0.0	1.9	4.6	5.0	4.9	0.7	5.34	0.33	25.0	5.6	24.0
2000/10/5	4.2	4.0	6.6	4.3	7.0	3.7	2.8	1.6	1.6	0.0	4.82	0.52	24.7	20.4	23.2
2000/10/8	0.7	0.6	1.0	3.1	0.0	1.6	0.0	4.8	4.7	1.7	5.44	0.24	53.5	2.4	9.0
2000/10/10	2.2	2.1	4.9	3.2	7.6	1.3	2.7	2.3	2.2	0.0	5.28	0.35	26.3	5.1	9.5
2000/10/12	3.9	3.6	12.6	6.6	11.0	4.7	2.9	7.6	7.5	3.8	5.96	0.60	22.4	-9.2	1.0
2000/10/14	3.2	3.1	4.5	178.4	9.1	1.8	177.7	1.8	1.7	1.0	5.49	1.41	2.1	35.6	6.0
2000/10/16	0.2	0.1	3.1	3.4	2.1	0.9	4.0	1.8	1.8	0.6	5.58	0.25	35.2	-6.3	13.8
2000/10/18	1.1	0.8	11.1	2.2	8.2	5.4	3.1	4.0	3.9	0.9	5.63	0.27	30.2	14.8	2.8
2000/10/21	4.4	4.3	5.0	3.2	5.3	2.3	2.9	1.7	1.7	0.7	5.10	0.42	15.4	9.5	15.5
2000/10/24	4.4	4.3	5.0	7.3	6.4	1.2	6.3	4.4	4.4	0.5	5.25	0.43	16.4	9.1	8.0
2000/10/25	6.9	6.8	8.3	4.4	18.7	1.9	4.8	4.0	4.0	2.0	5.86	0.50	18.9	0.3	37.5
2000/10/29	5.4	5.3	6.6	3.8	8.5	2.2	2.8	3.0	2.9	1.9	5.22	0.59	15.9	-6.0	54.0

Note: Underlined values are rejected in the evaluation because of exceeding R1/R2

Table 1.3 The Result of EANET Monitoring at OEPP

Sampling Date	SO_4^{2-} umol/l	nss-SO_4^{2-} umol/l	NO_3^- umol/l	Cl^- umol/l	NH_4^+ umol/l	Na^+ umol/l	K^+ umol/l	Ca^{2+} umol/l	nss-Ca^{2+} umol/l	Mg^{2+} umol/l	pH	EC mS/m	R1	R2	Rain Amount mm
2000/3/24	35.3	34.8	29.7	12.2	38.9	8.3	0.0	11.4	11.2	2.6	5.18	2.12	-15.9	-14.3	0.3
2000/3/29	38.3	37.9	40.6	18.4	52.6	6.9	0.0	12.5	12.4	2.5	4.43	3.23	-3.4	-4.7	4.0
2000/4/10	30.4	30.0	31.9	15.5	52.8	7.0	0.0	12.2	12.0	2.6	4.56	3.03	3.8	-11.8	10.2
2000/4/11	25.9	25.9	22.5	11.8	64.5	0.0	0.0	8.2	8.2	1.6	4.92	3.10	5.5	-29.9	60.4
2000/4/13	13.8	13.8	12.5	8.7	9.5	0.0	0.0	0.0	0.0	0.0	4.95	1.08	-40.5	-12.6	10.4
2000/4/20	73.7	72.2	212.9	19.0	191.5	24.4	12.5	41.0	40.5	8.2	4.38	5.76	-1.4	6.1	0.6
2000/4/21	85.6	84.9	73.8	17.3	145.1	10.7	0.0	32.9	32.6	5.6	4.63	4.16	-1.2	3.1	10.4
2000/4/25	65.2	64.6	35.9	15.6	64.9	10.0	3.8	10.8	10.6	2.8	5.03	2.05	-22.5	9.1	6.9
2000/4/27	10.9	9.8	20.7	25.0	34.3	18.5	0.0	10.0	9.6	3.5	5.83	1.41	9.3	-13.7	2.0
2000/4/28	31.0	30.6	28.1	12.2	0.0	6.4	0.0	16.4	16.3	3.0	5.84	1.98	-37.4	-28.4	2.6
2000/5/2	58.2	57.8	81.3	14.1	109.1	5.5	3.4	25.9	25.8	4.4	4.23	4.53	5.7	3.9	24.7
2000/5/3	23.0	22.6	30.6	104.4	36.9	5.6	0.0	6.1	6.0	0.0	4.87	1.57	-45.3	14.3	25.0
2000/5/4	18.9	18.8	17.0	7.2	27.6	1.7	0.0	6.2	6.2	0.0	4.66	1.38	1.3	5.2	24.8
2000/5/12	0.0	0.0	10.3	21.7	19.6	15.1	0.0	6.1	5.7	2.8	6.02	1.12	17.2	-28.8	24.8
2000/5/16	0.0	0.0	135.1	37.8	100.9	32.6	7.8	33.1	32.4	6.7	6.12	3.03	10.3	-5.0	1.3
2000/5/18	10.5	9.6	13.3	16.4	30.4	14.7	2.0	20.1	19.8	3.7	5.99	1.34	30.8	-13.6	5.0
2000/5/22	8.7	8.3	13.0	6.0	33.5	7.0	0.0	7.4	7.3	1.1	6.05	1.01	15.7	-16.9	2.0
2000/5/23	18.4	17.5	25.7	14.4	73.8	14.7	4.2	24.5	24.2	3.5	6.39	1.88	24.5	-6.7	1.2
2000/5/25	8.9	8.4	6.5	7.2	20.1	7.0	0.2	11.1	10.9	2.1	6.15	0.81	16.2	-11.7	11.7
2000/5/29	12.0	11.3	25.8	10.2	39.4	11.8	3.5	13.3	13.1	2.4	6.23	1.00	11.1	3.6	29.4
2000/5/31	96.0	95.1	46.4	16.3	175.5	14.3	0.0	25.7	25.4	5.8	4.81	4.27	2.6	0.0	33.2
2000/6/1	27.1	26.5	24.9	12.3	66.2	11.3	0.0	18.9	18.6	3.0	6.02	1.66	11.4	-2.8	4.9
2000/6/2	9.8	8.6	12.9	22.9	30.9	20.1	3.3	13.1	12.6	3.0	6.01	1.06	17.8	-2.0	3.5
2000/6/5	22.0	21.8	4.0	4.1	39.1	3.4	0.0	3.2	3.1	0.0	5.35	1.16	1.3	-12.1	12.0
2000/6/14	10.9	9.5	14.3	25.6	34.1	23.7	3.0	17.6	17.1	4.9	6.99	1.27	-4.5	3.8	7.6
2000/6/16	9.9	9.4	17.5	7.7	25.6	7.8	0.0	8.4	8.3	1.9	6.48	0.84	-6.3	-3.9	59.6
2000/6/20	9.5	9.0	12.7	11.0	28.8	9.2	0.0	8.4	8.2	2.3	6.33	1.06	4.7	-15.0	17.5
2000/6/21	6.5	6.3	10.5	3.7	19.6	4.5	0.0	3.5	3.4	0.0	5.91	0.67	8.5	-18.8	26.3
2000/6/22	14.1	13.2	56.4	21.6	42.8	14.4	10.1	17.1	16.8	3.3	4.99	2.13	5.4	-6.9	1.2
2000/6/23	9.3	8.9	17.9	7.2	19.7	7.0	0.0	10.8	10.6	2.8	6.26	0.92	0.5	-11.2	15.2
2000/6/26	15.2	14.9	13.0	4.1	35.2	4.2	2.6	18.3	18.2	2.7	6.13	1.18	21.3	-9.8	17.2
2000/6/28	17.8	17.0	10.3	12.0	33.0	12.9	7.7	7.3	7.0	2.6	5.84	1.11	12.8	-6.4	19.2
2000/6/30	43.5	43.2	38.4	6.5	56.0	4.4	3.7	15.4	15.3	1.9	5.63	1.47	-13.3	9.1	5.0
2000/7/3	41.9	41.0	28.4	12.6	68.2	13.8	14.2	17.9	17.6	3.2	5.44	2.13	6.6	-2.7	7.0
2000/7/5	24.1	23.7	16.6	9.7	49.8	6.4	0.0	7.5	7.3	2.3	5.52	1.34	2.7	-5.7	8.0
2000/7/6	9.5	7.2	22.8	37.0	25.6	37.2	8.1	13.1	12.3	5.7	5.88	3.31	16.5	-43.7	8.0
2000/7/7	5.1	4.6	12.3	10.7	17.4	8.9	3.1	8.3	8.1	1.9	5.86	0.71	21.2	-7.1	8.4
2000/7/11	42.1	40.6	24.0	28.1	75.6	24.4	9.4	33.2	32.6	6.9	6.02	2.15	14.5	4.3	1.7
2000/7/12	85.1	83.6	164.2	30.9	156.8	25.1	13.1	129.9	129.4	17.0	6.09	1.23	13.7	65.7	0.8
2000/7/14	13.8	13.3	20.9	8.2	44.8	8.6	0.0	9.1	8.9	2.3	6.23	1.16	7.6	-7.5	14.0
2000/7/19	27.3	25.5	23.1	35.9	58.9	29.1	5.0	46.8	46.1	6.7	6.57	2.61	19.7	-8.0	2.4
2000/7/20	17.8	16.7	11.4	19.5	28.5	17.7	2.1	27.7	27.3	4.4	5.75	1.35	26.4	-3.1	6.0
2000/7/21	21.8	20.8	15.2	17.0	47.6	17.0	7.9	24.4	24.0	3.9	5.80	1.59	26.4	-3.9	25.0
2000/7/25	34.7	32.6	36.0	28.9	76.4	35.3	16.1	44.7	43.9	7.9	6.96	2.51	11.6	4.4	1.8
2000/7/28	4.9	4.4	2.1	11.3	10.5	8.8	0.0	2.4	2.3	0.0	5.67	0.43	6.1	-2.8	0.3
2000/8/2	21.4	21.2	8.4	6.0	37.2	3.4	0.0	8.0	7.9	0.0	4.96	1.28	8.4	-2.3	0.3
2000/8/3	20.1	19.4	20.5	14.4	59.5	11.0	3.6	15.5	15.3	2.9	6.01	1.36	16.2	0.4	2.6
2000/8/4	5.3	4.9	3.1	8.3	18.5	6.1	0.0	5.5	5.4	0.0	6.28	0.54	5.2	-7.3	4.4
2000/8/8	12.3	12.0	6.7	9.7	33.2	5.6	7.5	7.0	6.8	1.6	6.12	0.74	14.0	4.2	23.0
2000/8/9	16.2	16.0	0.4	6.1	15.7	3.9	0.0	0.0	0.0	0.0	4.96	0.98	-12.0	-8.5	69.8
2000/8/12	8.0	7.4	6.0	21.5	28.2	10.4	16.9	4.4	4.1	1.7	6.21	0.56	13.0	20.6	43.6
2000/8/15	10.7	10.4	8.3	19.3	40.1	5.7	17.5	11.4	11.3	2.1	6.33	0.80	19.7	13.7	5.6
2000/8/18	5.5	5.3	5.1	3.6	15.0	2.6	0.0	0.0	0.0	0.5	6.02	0.61	-13.2	-28.6	21.0
2000/8/22	4.4	4.4	4.1	0.8	30.3	0.0	0.0	0.0	0.0	0.0	6.03	0.59	22.7	-20.3	6.2
2000/8/23	26.7	26.4	43.8	5.1	83.5	4.6	3.3	20.2	20.1	2.9	5.96	1.95	15.2	-5.3	3.8
2000/8/25	23.9	23.2	20.8	20.4	59.6	12.0	2.6	24.2	23.9	4.2	6.32	1.87	13.3	-7.7	4.8
2000/8/29	5.9	5.8	3.3	2.1	14.4	1.7	0.0	0.0	0.0	0.0	5.81	0.52	1.3	-26.4	16.4
2000/9/1	9.1	8.6	11.8	9.1	19.6	8.4	2.2	11.3	11.1	2.4	5.84	0.71	20.3	0.0	3.6
2000/9/4	15.5	14.6	16.3	18.8	44.4	15.2	6.8	14.9	14.5	3.8	6.27	1.30	15.4	-2.2	25.0
2000/9/6	31.9	30.6	34.6	39.3	92.9	22.1	13.8	43.0	42.5	6.7	6.50	2.77	19.1	-2.6	1.0
2000/9/7	25.6	24.9	19.9	15.4	65.9	12.9	7.9	36.0	35.7	5.1	6.40	2.02	25.5	-4.6	2.0
2000/9/8	22.9	21.4	33.3	33.2	89.7	25.1	16.2	38.4	37.9	7.5	6.70	2.60	22.9	-3.3	1.0
2000/9/12	14.6	13.8	32.9	57.4	55.3	13.3	47.7	35.2	34.9	4.4	6.65	1.50	15.1	21.6	0.8
2000/9/14	41.2	40.7	31.2	13.9	103.5	7.4	7.7	25.7	25.5	2.6	6.02	1.97	13.9	6.3	1.8
2000/9/15	51.6	51.4	43.9	11.6	65.9	3.0	10.8	24.6	24.5	2.1	4.54	3.07	1.0	1.0	21.0
2000/9/19	68.3	68.1	66.5	10.4	59.2	3.4	8.1	9.2	9.1	1.8	3.91	6.83	0.5	-1.8	4.0
2000/9/20	57.2	56.2	103.8	20.3	2.1	16.0	14.2	65.0	64.6	6.6	4.37	4.14	-4.5	2.5	0.8
2000/9/21	11.1	10.8	18.6	32.4	35.3	5.6	26.8	16.4	16.3	1.4	6.38	0.91	9.0	18.7	2.8
2000/9/25	20.8	20.0	23.7	8.2	21.5	13.2	3.6	17.7	17.5	2.3	5.08	1.02	8.3	13.9	14.8

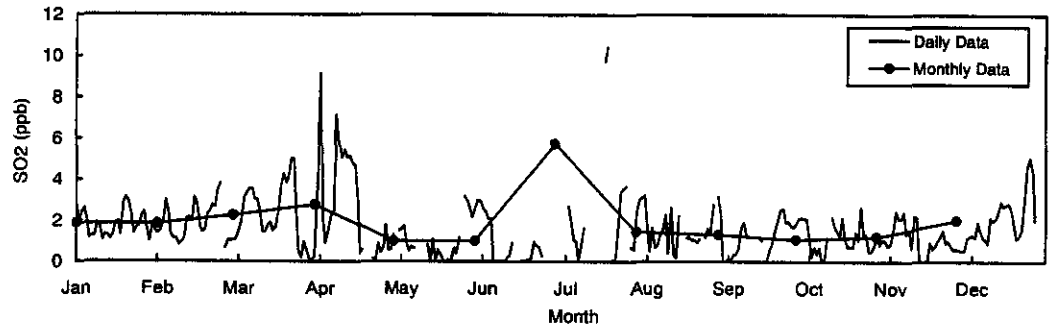
Table 1.4 The Result of EANET Monitoring at ERTC

Sampling Date	SO_4^{2-} umol/l	nss-SO_4^{2-} umol/l	NO_3^- umol/l	Cl^- umol/l	NH_4^+ umol/l	Na^+ umol/l	K^+ umol/l	Ca^{2+} umol/l	nss-Ca^{2+} umol/l	Mg^{2+} umol/l	pH	EC mS/m	R1	R2	Rain Amount mm
2000/2/29	78.4	77.3	112.1	66.6	0.0	17.8	19.4	99.3	98.9	11.5	5.04	6.79	-11.2	-21.1	11.3
2000/3/8	66.5	65.1	100.0	37.0	115.3	23.9	12.3	87.6	87.1	13.6	5.22	5.06	14.3	-5.6	8.3
2000/3/24	70.7	69.8	77.3	23.4	101.4	15.2	10.0	58.6	58.3	8.2	5.14	4.14	5.0	-4.3	0.6
2000/4/10	14.9	14.5	16.9	9.0	20.5	5.7	2.1	16.2	16.1	1.7	5.54	1.15	9.1	-10.3	3.4
2000/4/11	10.6	10.5	19.2	4.0	43.8	2.6	1.0	5.7	5.7	0.4	5.28	1.34	18.8	-17.7	33.4
2000/4/12	9.0	8.8	11.9	2.0	18.9	1.7	0.5	2.0	2.0	0.0	5.06	0.85	3.1	-8.1	13.7
2000/4/21	32.7	32.4	26.0	5.9	36.6	4.8	1.0	5.7	5.6	0.4	5.10	1.96	-21.7	-16.5	32.4
2000/5/10	18.3	17.9	13.9	22.9	76.3	6.2	6.0	9.0	8.9	1.5	6.75	1.89	2.4	-12.5	38.0
2000/5/12	15.9	15.4	8.9	9.9	39.9	9.0	1.2	8.3	8.1	1.5	6.37	0.93	4.8	-0.1	38.8
2000/5/16	88.5	88.5	30.5	5.6	255.0	0.0	22.1	63.3	63.3	10.2	6.56	9.11	29.1	-32.1	4.3
2000/5/18	24.1	23.1	10.6	12.7	41.1	15.4	1.9	11.4	11.1	2.2	6.22	1.33	3.3	-6.3	15.7
2000/5/19	10.0	9.2	10.6	5.6	26.8	13.2	1.3	5.0	4.7	0.7	6.08	0.71	11.0	-2.3	31.2
2000/5/24	16.7	16.2	11.8	6.5	45.3	8.8	1.3	11.7	11.5	14.8	6.65	0.94	17.4	12.3	30.3
2000/5/26	22.1	19.8	30.4	34.6	49.8	38.5	11.4	23.1	22.2	5.7	6.85	1.62	2.9	10.4	2.6
2000/5/31	30.2	29.7	32.0	11.2	51.5	7.8	0.4	16.7	16.5	2.9	6.18	1.73	-5.9	-6.9	11.0
2000/6/1	17.2	17.0	26.3	3.4	27.2	2.9	7.6	5.6	5.6	1.1	4.60	2.02	8.8	-8.1	23.0
2000/6/2	12.7	12.4	11.4	4.5	21.1	4.2	0.8	4.4	4.3	0.8	5.75	0.80	-3.7	-12.4	11.2
2000/6/7	10.7	9.6	9.5	16.1	26.5	18.8	1.4	5.4	5.0	2.1	6.24	0.87	4.8	-3.5	29.6
2000/6/8	34.7	31.9	36.9	19.2	50.9	46.6	1.7	14.8	13.8	3.5	5.60	2.20	4.9	-7.6	30.9
2000/6/9	29.7	29.2	28.1	8.8	50.9	8.7	1.6	20.8	20.6	3.5	5.78	1.41	7.2	3.6	19.9
2000/6/15	23.6	21.9	14.1	32.4	77.3	28.7	10.0	38.3	37.7	7.3	6.15	1.96	34.4	3.6	3.8
2000/6/16	23.7	22.6	22.0	20.0	49.5	18.5	2.0	22.9	22.5	4.6	6.34	1.85	10.6	-8.7	29.6
2000/6/27	36.2	31.2	14.0	35.7	23.7	82.9	2.7	12.4	10.6	3.9	6.52	1.84	0.6	0.1	4.2
2000/6/28	30.9	30.4	40.3	7.7	29.4	8.8	1.1	14.2	14.0	2.0	4.48	3.17	-2.4	-12.7	9.8
2000/7/5	16.6	15.7	37.5	15.3	43.9	15.4	2.9	23.0	22.6	3.3	5.18	2.05	17.0	-12.0	4.1
2000/7/7	10.5	9.9	8.0	10.7	23.7	9.5	1.8	14.8	14.6	2.1	6.62	0.70	4.7	9.8	10.2
2000/7/18	18.2	16.6	12.8	24.7	44.7	25.9	2.8	21.9	21.4	3.4	6.85	1.42	4.7	3.7	6.0
2000/7/19	35.2	33.6	21.4	32.5	63.6	26.8	2.1	45.2	44.6	5.4	6.95	2.20	5.5	4.4	9.8
2000/7/20	26.0	24.2	12.7	17.6	32.5	31.0	1.9	31.9	31.2	3.8	6.87	1.39	5.1	8.8	2.9
2000/7/21	41.9	39.7	22.4	27.1	79.9	36.4	3.3	44.3	43.5	4.7	6.85	2.76	11.6	-3.2	5.6
2000/7/25	8.4	8.0	5.7	5.1	23.9	6.2	0.9	11.8	11.7	1.4	6.81	0.63	-4.8	8.6	42.8
2000/7/26	30.3	28.6	24.9	42.1	61.8	28.5	4.3	38.3	37.6	7.0	6.08	2.42	16.1	-4.7	6.2
2000/7/28	12.7	11.6	6.3	12.4	16.1	16.9	2.0	9.0	8.6	2.0	6.19	0.79	4.7	-2.6	6.0
2000/8/2	28.1	27.8	31.8	9.2	57.9	5.2	2.2	18.6	18.5	2.5	5.85	1.95	5.7	-12.7	14.3
2000/8/3	14.2	13.9	11.7	4.0	39.0	4.8	1.1	13.6	13.5	1.4	5.88	0.91	26.8	-1.4	14.4
2000/8/4	27.8	26.6	23.2	15.1	52.1	18.9	2.0	37.1	36.7	5.4	5.94	1.91	25.8	-4.1	3.2
2000/8/7	16.4	15.4	14.1	10.6	24.0	17.1	0.8	7.0	6.7	1.7	6.00	1.26	2.5	-19.5	8.7
2000/8/9	15.1	14.0	7.9	13.8	20.6	17.1	1.2	6.8	6.4	1.5	5.78	1.05	4.9	-13.3	7.3
2000/8/14	16.2	14.4	25.5	27.3	36.8	29.5	1.3	15.5	14.8	3.8	5.81	1.29	11.6	2.5	6.8
2000/8/18	22.4	22.2	17.4	4.9	36.4	2.9	1.3	10.6	10.5	1.4	6.14	1.36	-6.9	-14.7	13.8
2000/8/22	10.0	9.9	4.6	1.9	25.1	2.2	0.4	2.9	2.8	0.4	6.45	0.84	-9.6	-22.9	14.1
2000/8/24	18.9	18.5	3.0	4.5	25.6	6.0	0.8	5.6	5.4	0.8	6.42	0.93	-13.7	-11.7	13.0
2000/8/25	37.2	36.4	28.3	14.8	77.0	14.3	2.3	32.2	31.9	4.2	5.38	1.96	18.4	4.4	2.5
2000/8/29	18.0	17.6	14.8	9.7	46.9	7.2	1.8	16.1	16.0	2.1	5.51	1.15	22.4	1.5	7.6
2000/8/31	20.5	19.8	11.1	1.0	52.7	12.0	2.1	17.6	17.3	3.2	6.76	1.25	12.2	0.8	9.2
2000/9/1	14.8	14.2	17.2	8.5	21.7	8.5	1.0	6.4	6.2	1.5	5.88	1.21	-6.7	-22.1	30.3
2000/9/4	10.7	10.4	9.6	6.4	24.9	5.7	0.6	13.9	13.8	1.7	5.03	0.72	31.4	17.0	23.0
2000/9/7	5.1	4.9	4.5	4.2	27.8	3.5	0.7	8.9	8.9	1.4	6.13	0.58	33.9	-2.3	16.6
2000/9/11	23.7	22.9	6.5	8.7	37.8	11.8	1.1	38.9	38.6	2.7	5.78	1.49	36.8	-3.5	3.0
2000/9/12	34.5	30.8	24.6	69.0	57.2	60.8	3.4	34.8	33.5	9.2	5.83	2.48	12.9	1.8	3.8
2000/9/21	8.4	7.9	10.0	2.4	28.0	7.5	4.4	4.0	3.8	0.5	4.99	0.96	33.9	-2.7	34.6
2000/9/22	8.7	8.5	6.1	1.7	21.1	2.4	0.7	3.5	3.4	0.0	5.15	0.54	20.8	9.8	58.0
2000/9/27	14.1	13.8	15.4	3.6	39.9	4.8	3.1	9.8	9.7	1.5	5.56	1.15	21.8	-10.4	21.7
2000/9/28	22.2	21.4	2.9	7.3	34.5	13.4	1.4	5.2	4.9	1.0	4.96	1.54	14.2	-11.6	7.7
2000/9/30	26.4	25.4	32.7	12.8	41.0	16.9	1.4	17.7	17.3	2.8	4.92	1.83	6.7	-0.5	14.4
2000/10/2	28.3	27.5	43.9	7.9	31.7	13.0	1.3	10.9	10.6	1.0	5.39	2.48	-19.0	-27.3	10.8
2000/10/5	29.7	29.3	42.3	6.1	32.1	7.0	1.7	5.6	5.5	0.6	4.42	3.65	-8.4	-18.5	6.0
2000/10/10	30.5	30.3	22.2	4.1	44.1	3.0	0.9	5.4	5.3	0.6	4.43	2.54	5.3	-3.0	31.2
2000/10/12	12.5	11.9	9.5	4.7	19.0	9.7	0.8	2.9	2.7	0.5	4.72	1.25	16.9	-1.9	12.3
2000/10/13	17.4	17.2	20.0	3.5	23.6	3.4	0.7	3.8	3.7	0.5	4.58	1.49	3.5	4.0	6.1
2000/10/20	32.9	32.2	55.3	9.5	56.5	11.1	2.4	36.4	36.2	4.3	5.01	2.06	10.5	5.6	10.2
2000/10/24	9.1	8.7	15.7	9.7	37.3	7.0	2.7	20.1	20.0	1.3	4.89	0.95	40.3	17.9	6.5

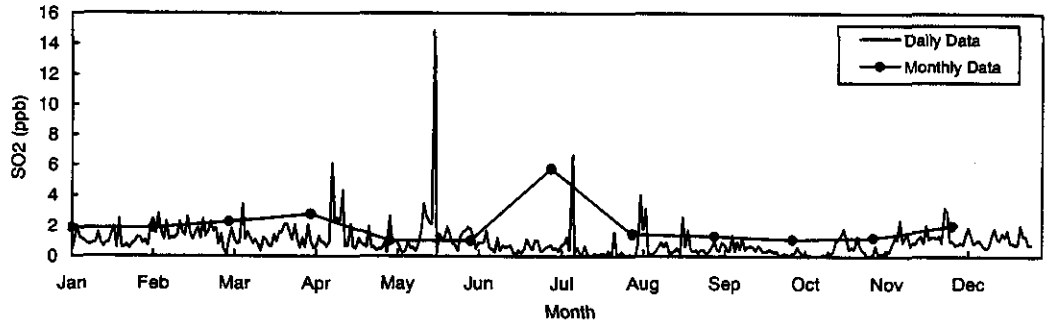
Note: Underlined values are rejected in the evaluation because of exceeding R1/R2

1.2 Data of Air Quality Monitoring by PCD

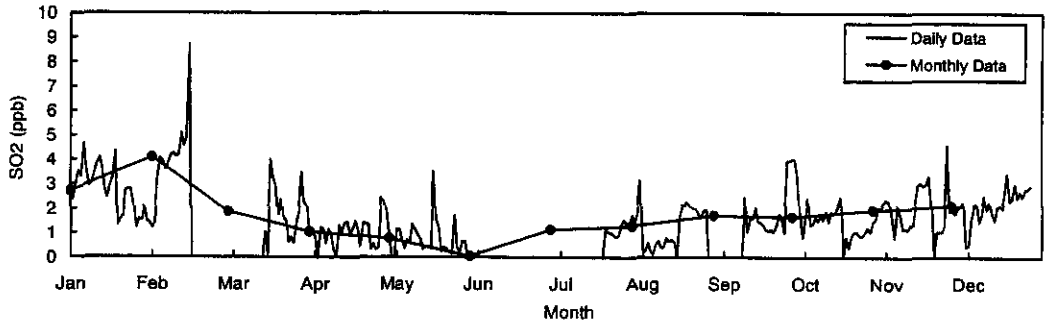
Chiang Mai



Lampang



Nakorn Sawan



Korn Kaen

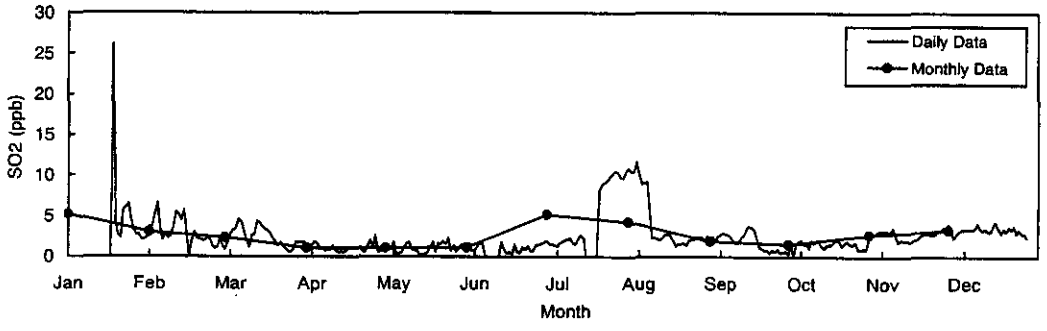


Figure 1.1(1) Time Trend of SO_2 Concentration of Air Quality

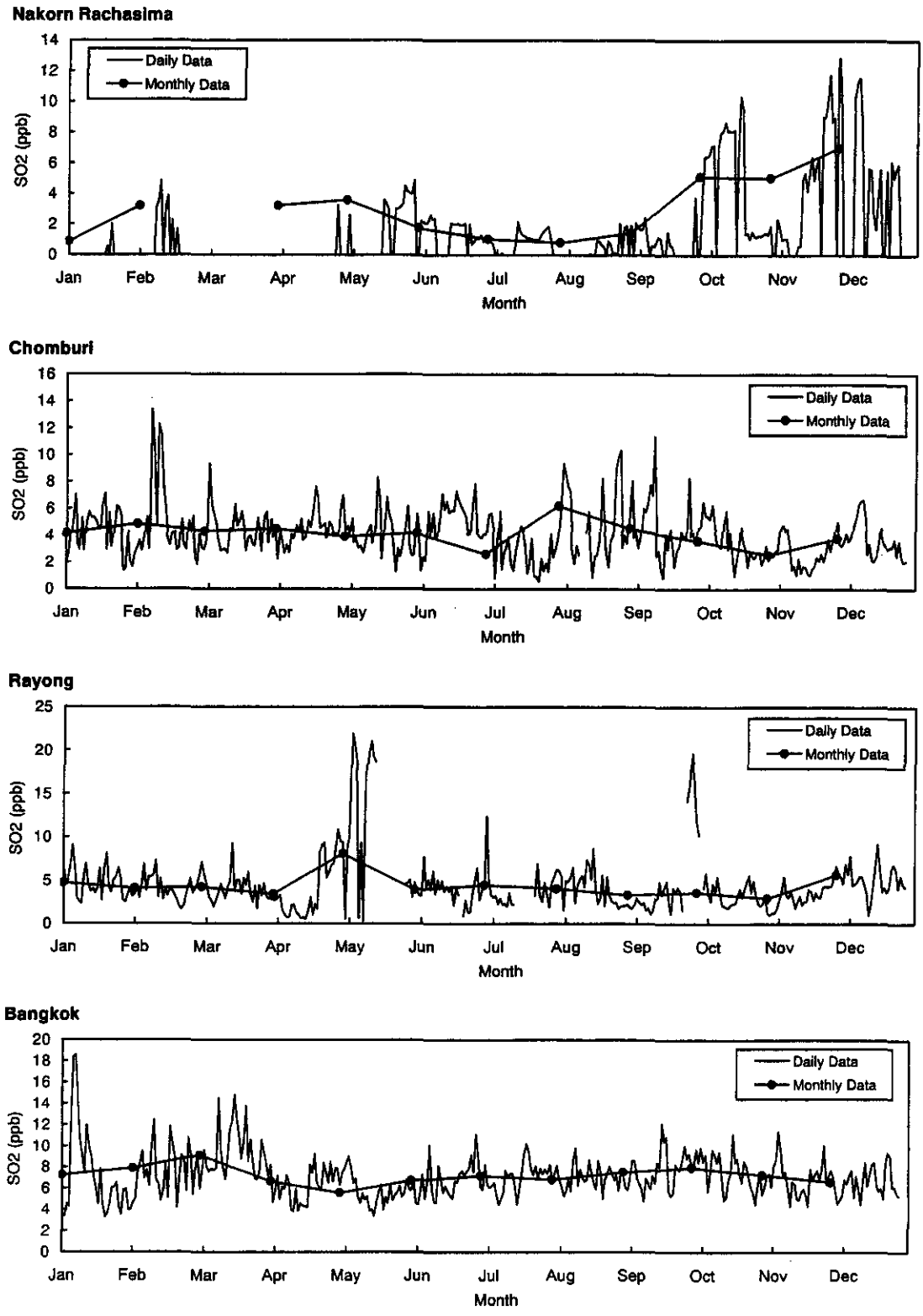


Figure 1.1(2) Time Trend of SO_2 Concentration of Air Quality

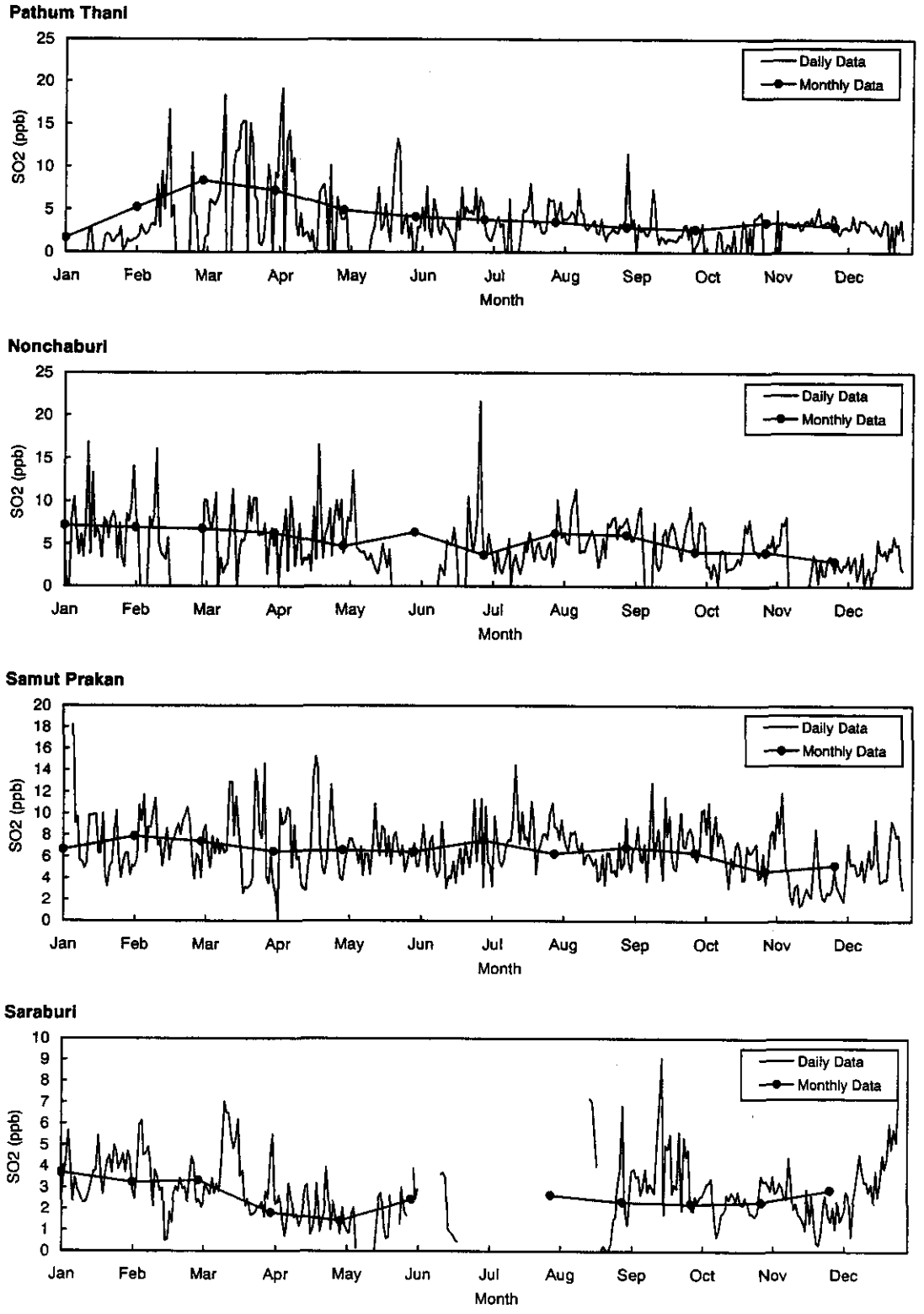


Figure 1.1(3) Time Trend of SO_2 Concentration of Air Quality

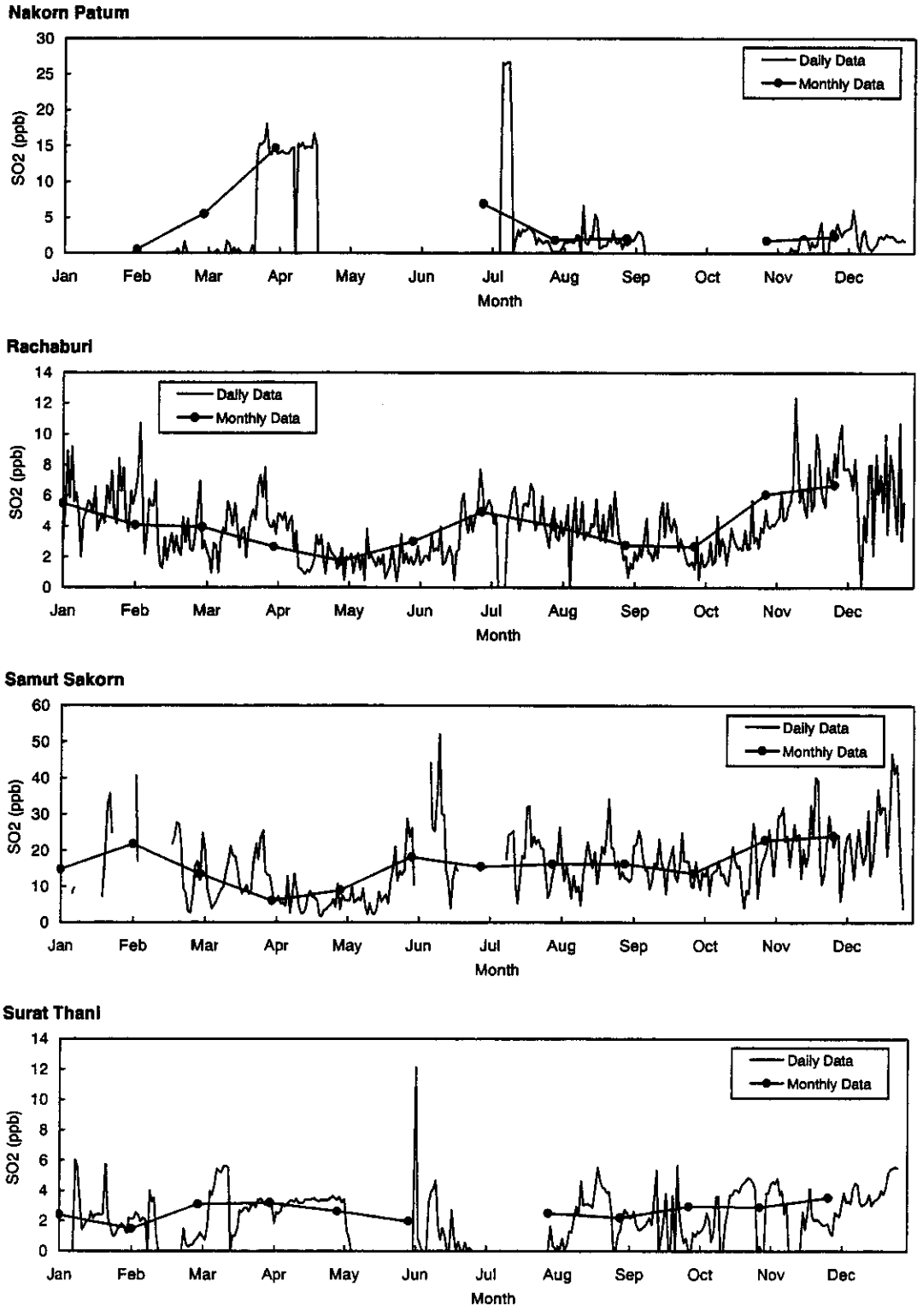


Figure 1.1(4) Time Trend of SO_2 Concentration of Air Quality

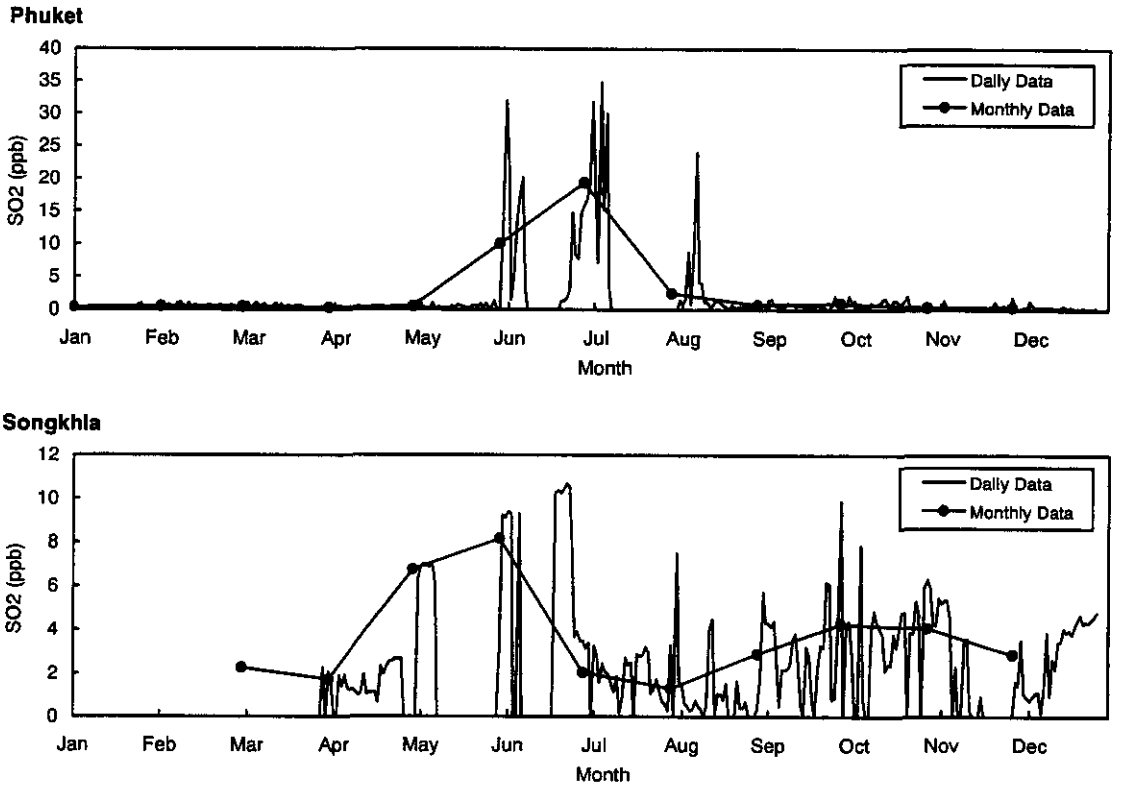


Figure 1.1(5) Time Trend of SO_2 Concentration of Air Quality

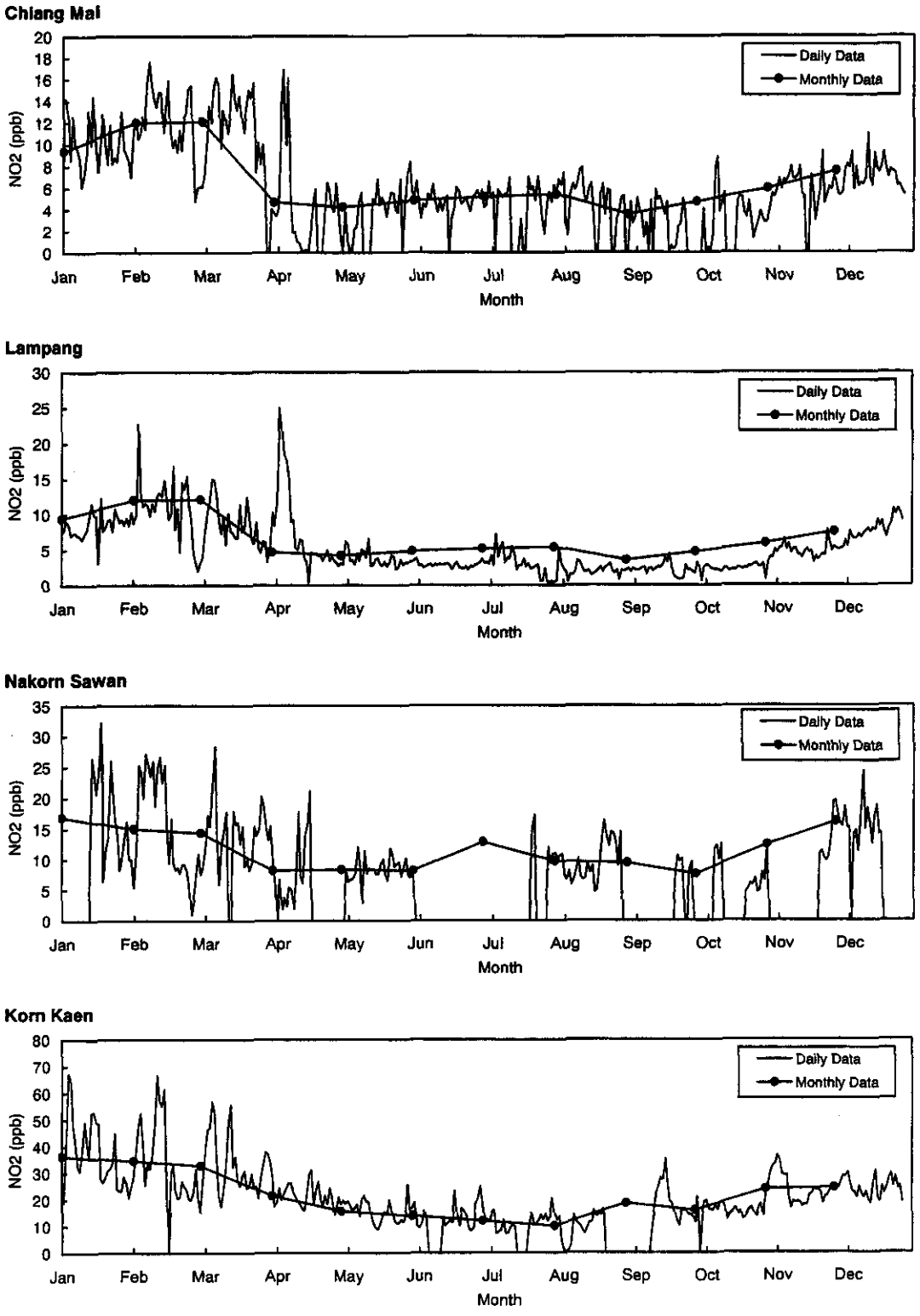


Figure 1.2(1) Time Trend of NO_2 Concentration of Air Quality

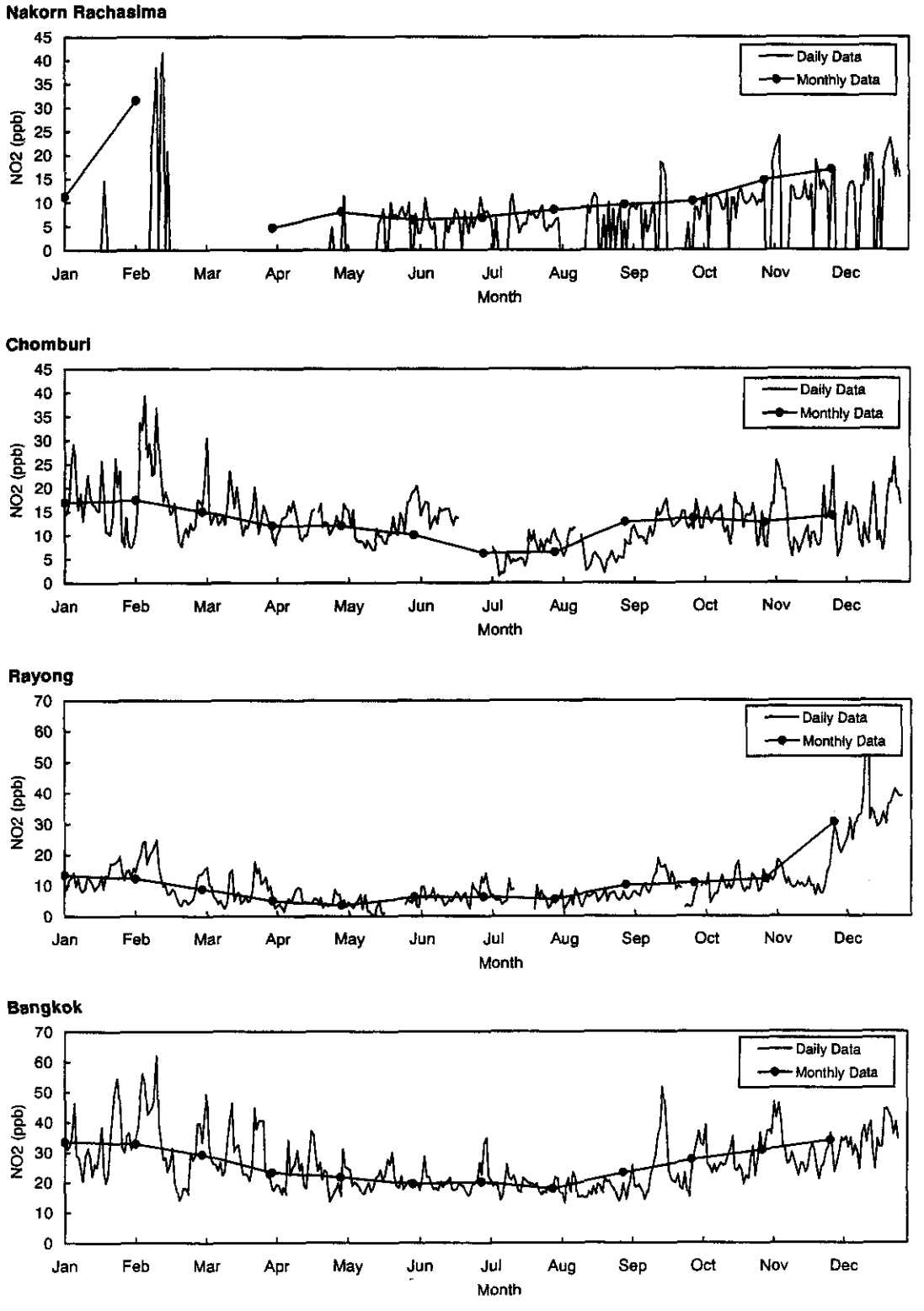


Figure 1.2(2) Time Trend of NO_2 Concentration of Air Quality

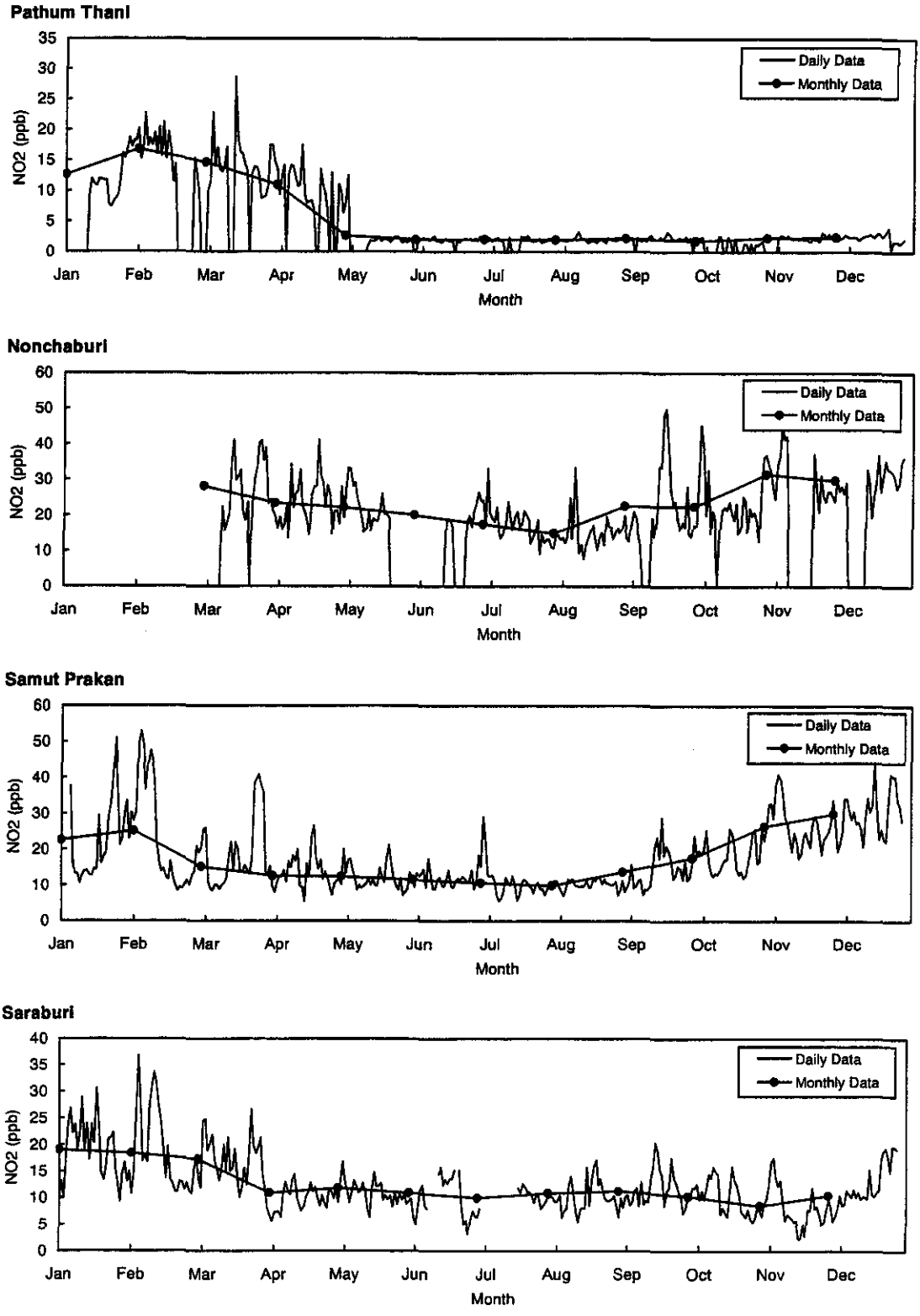


Figure 1.2(3) Time Trend of NO_2 Concentration of Air Quality

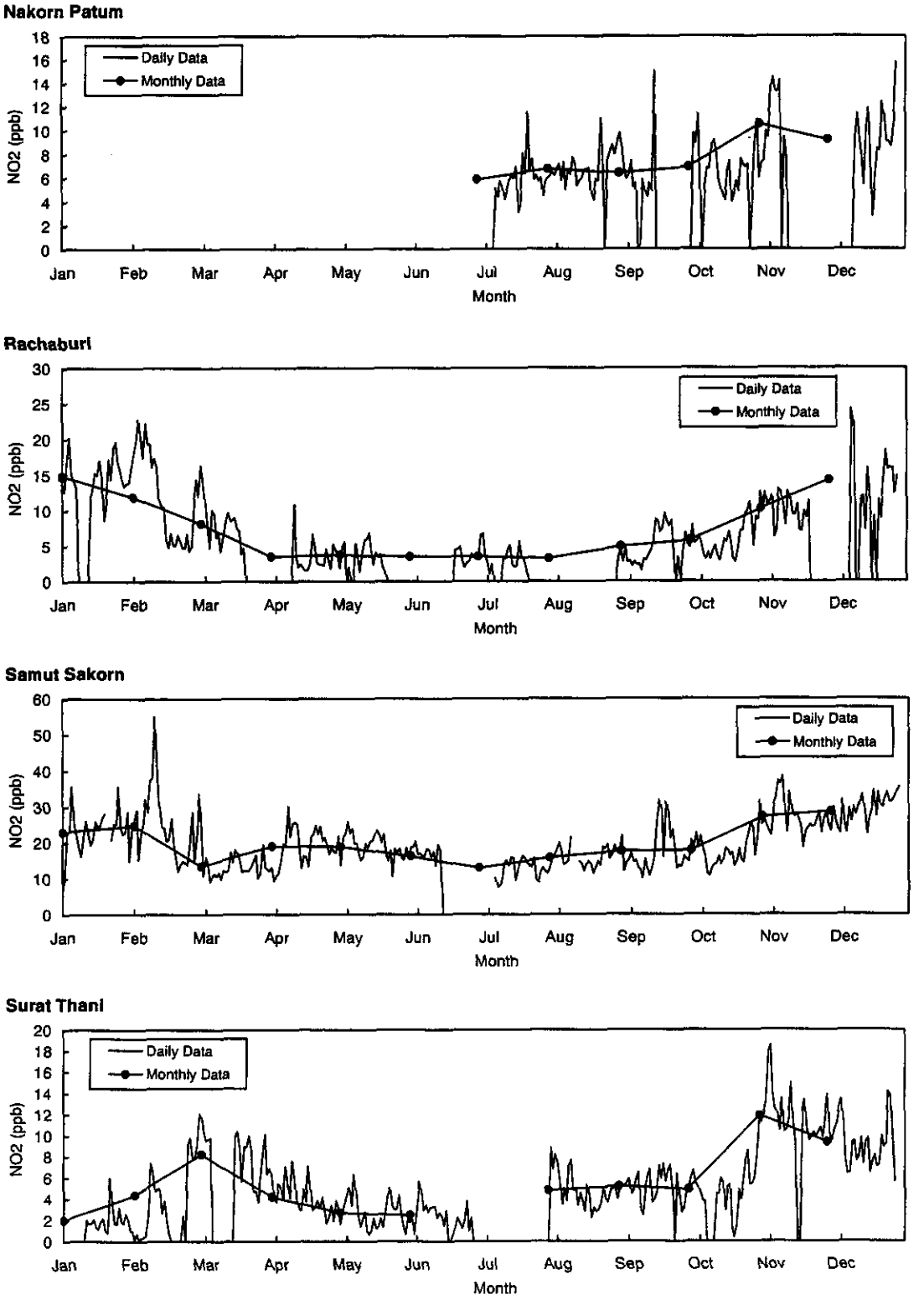


Figure 1.2(4) Time Trend of NO_2 Concentration of Air Quality

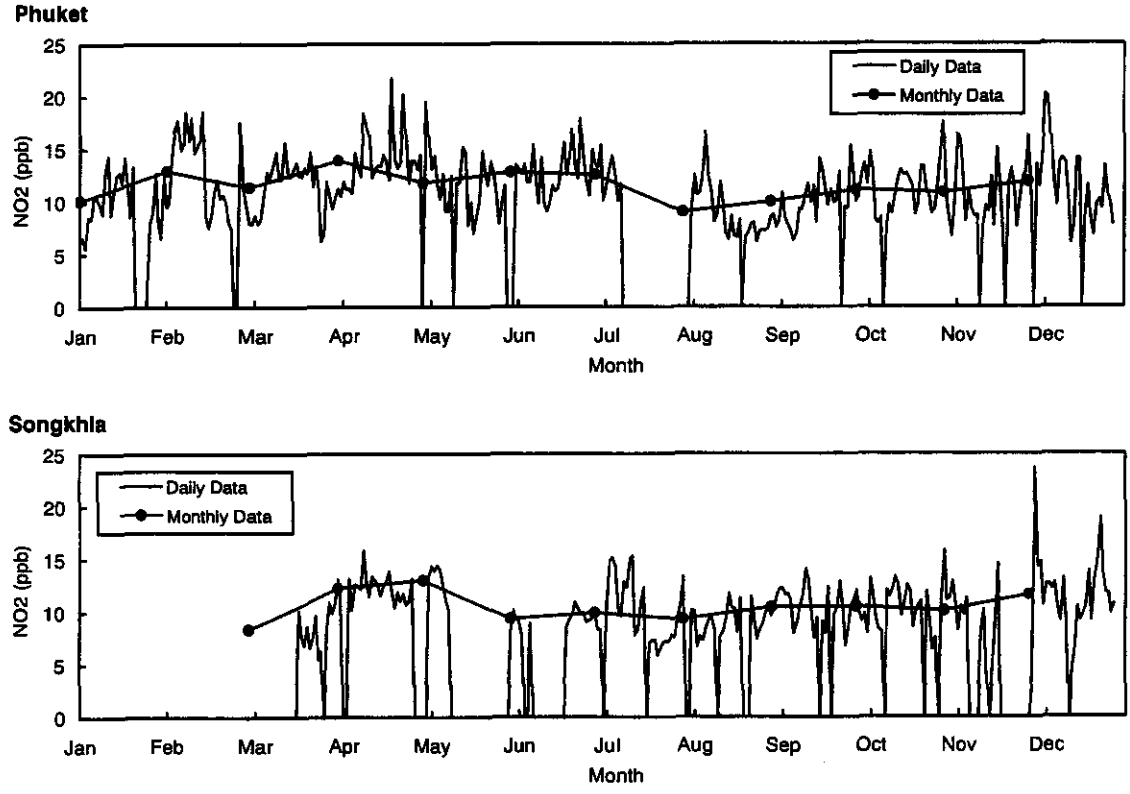


Figure 1.2(5) Time Trend of NO_2 Concentration of Air Quality

2. Stationary Source Inventory

2.1 Petroleum Fuel Sale by Type of Business in the Provinces in 2000

2.2 Province Code

2.3 ATMOS Point Sources in 2000

2.4 Airviro Main Point Sources in 2000

ULG 87 Sale by Type of Business in the Provinces in 2000
2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	25,168	-	32	-	-	40	25,240
1	Bangkok	16,882	-	32	-	-	40	16,954
2	Nonthaburi	2,621	-	-	-	-	-	2,621
3	Pathum Thani	1,856	-	-	-	-	-	1,856
4	Samut Prakan	3,809	-	-	-	-	-	3,809
	Central	2,896	-	-	-	-	-	2,896
5	Kanchanaburi	-	-	-	-	-	-	-
6	Chai Nat	33	-	-	-	-	-	33
7	Nakhon Pathom	298	-	-	-	-	-	298
8	Prachuap Khiri Khan	-	-	-	-	-	-	-
9	Phetchaburi	-	-	-	-	-	-	-
10	Ratchaburi	-	-	-	-	-	-	-
11	Lop Buri	454	-	-	-	-	-	454
12	Samut Songkhram	-	-	-	-	-	-	-
13	Samut Sakhon	-	-	-	-	-	-	-
14	Saraburi	1,208	-	-	-	-	-	1,208
15	Sing Buri	6	-	-	-	-	-	6
16	Suphan Buri	317	-	-	-	-	-	317
17	Ayutthaya	499	-	-	-	-	-	499
18	Ang Thong	81	-	-	-	-	-	81
	Northern Region	4,375	-	-	-	-	-	4,375
	upper part	3,052	-	-	-	-	-	3,052
19	Chiang Rai	364	-	-	-	-	-	364
20	Chiang Mai	1,420	-	-	-	-	-	1,420
21	Nan	262	-	-	-	-	-	262
22	Phayao	63	-	-	-	-	-	63
23	Phrae	428	-	-	-	-	-	428
24	Mae Hong Son	-	-	-	-	-	-	-
25	Lampang	88	-	-	-	-	-	88
26	Lamphun	427	-	-	-	-	-	427
	lower part	1,323	-	-	-	-	-	1,323
27	Kamphaeng Phet	-	-	-	-	-	-	-
28	Tak	150	-	-	-	-	-	150
29	Nakhon Sawan	130	-	-	-	-	-	130
30	Phichit	232	-	-	-	-	-	232
31	Phitsanulok	360	-	-	-	-	-	360
32	Phetchabun	33	-	-	-	-	-	33
33	Sukhothai	-	-	-	-	-	-	-
34	Uttaradit	277	-	-	-	-	-	277
35	Uthai Thani	141	-	-	-	-	-	141
	Northeastern Region	9,391	-	-	-	-	4,897	14,288
	upper part	6,023	-	-	-	-	3,861	9,884
36	Kalasin	136	-	-	-	-	205	341
37	Khon Kaen	422	-	-	-	-	771	1,193
38	Nakhon Phanom	129	-	-	-	-	374	503
39	Maha Sarakham	1,049	-	-	-	-	256	1,305
40	Mukdahan	-	-	-	-	-	-	-
41	Roi Et	2,092	-	-	-	-	52	2,144
42	Loei	725	-	-	-	-	116	841
43	Sakon Nakhon	674	-	-	-	-	237	911
44	Nong Khai	513	-	-	-	-	117	630
45	Nong Bua Lam Phu	48	-	-	-	-	108	156
46	Udon Thani	235	-	-	-	-	1,625	1,860
	lower part	3,368	-	-	-	-	1,036	4,404
47	Chaiyaphum	159	-	-	-	-	80	239
48	Nakhon Ratchasima	948	-	-	-	-	479	1,427
49	Buri Ram	517	-	-	-	-	157	674
50	Yasothon	500	-	-	-	-	116	616
51	Si Sa Ket	81	-	-	-	-	-	81
52	Surin	619	-	-	-	-	120	739
53	Amnat Charoen	-	-	-	-	-	-	-
54	Ubon Ratchathani	544	-	-	-	-	84	628

ULG 87 Sale by Type of Business in the Provinces in 2000
2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	-	-	-	-	-	-	-
	upper part	-	-	-	-	-	-	-
55	Krabi	-	-	-	-	-	-	-
56	Chumphon	-	-	-	-	-	-	-
57	Nakhon Si Thammarat	-	-	-	-	-	-	-
58	Phangnga	-	-	-	-	-	-	-
59	Phuket	-	-	-	-	-	-	-
60	Ranong	-	-	-	-	-	-	-
61	Surat Thani	-	-	-	-	-	-	-
	lower part	-	-	-	-	-	-	-
62	Trang	-	-	-	-	-	-	-
63	Narathiwat	-	-	-	-	-	-	-
64	Pattani	-	-	-	-	-	-	-
65	Phathalung	-	-	-	-	-	-	-
66	Yala	-	-	-	-	-	-	-
67	Songkhla	-	-	-	-	-	-	-
68	Satun	-	-	-	-	-	-	-
	Eastern Region	1,638	-	-	-	-	-	1,638
69	Chanthaburi	-	-	-	-	-	-	-
70	Chachoengsao	1,220	-	-	-	-	-	1,220
71	Chon Buri	97	-	-	-	-	-	97
72	Trat	-	-	-	-	-	-	-
73	Nakhon Nayok	-	-	-	-	-	-	-
74	Prachin Buri	321	-	-	-	-	-	321
75	Rayong	-	-	-	-	-	-	-
76	Sa Kaeo	-	-	-	-	-	-	-
	Total	43,468	-	32	-	-	4,937	48,437

ULG 91 Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	920,680	138	327,819	157	949	23,528	1,273,271
1	Bangkok	700,861	138	323,299	157	714	17,637	1,042,807
2	Nonthaburi	82,454	-	259	-	25	3	82,741
3	Pathum Thani	67,803	-	3,207	-	84	5,888	76,982
4	Samut Prakan	69,561	-	1,054	-	126	-	70,741
	Central	346,275	5,057	78,906	-	322	16,799	447,359
5	Kanchanaburi	22,654	2,104	198	-	12	450	25,418
6	Chai Nat	14,682	-	928	-	-	-	15,610
7	Nakhon Pathom	44,266	393	3,095	-	83	-	47,837
8	Prachuap Khiri Khan	22,890	797	794	-	132	-	24,613
9	Phetchaburi	17,255	939	11,204	-	1	140	29,539
10	Ratchaburi	24,085	183	1,532	-	-	-	25,800
11	Lop Buri	21,199	-	179	-	-	6	21,384
12	Samut Songkhram	12,624	-	13,370	-	-	-	25,994
13	Samut Sakhon	29,381	510	5,938	-	52	3,763	39,644
14	Saraburi	43,146	126	35,115	-	42	12,229	90,658
15	Sing Buri	12,991	-	98	-	-	-	13,089
16	Suphan Buri	28,708	-	141	-	-	21	28,870
17	Ayutthaya	44,560	5	5,311	-	-	190	50,066
18	Ang Thong	7,834	-	1,003	-	-	-	8,837
	Northern Region	330,872	3,862	22,760	10	2,492	5,630	365,626
	upper part	177,581	647	4,976	-	1,434	2,518	187,156
19	Chiang Rai	22,497	-	83	-	-	259	22,839
20	Chiang Mai	74,104	647	2,018	-	1,285	794	78,848
21	Nan	15,818	-	318	-	-	-	16,136
22	Phayao	8,216	-	148	-	-	-	8,364
23	Phrae	13,955	-	712	-	148	216	15,031
24	Mae Hong Son	2,954	-	-	-	-	-	2,954
25	Lampang	29,956	-	1,448	-	1	1,249	32,654
26	Lamphun	10,082	-	249	-	-	-	10,331
	lower part	153,291	3,215	17,784	10	1,058	3,112	178,470
27	Kamphaeng Phet	15,198	697	1,286	-	-	1,056	18,237
28	Tak	12,677	-	739	-	-	40	13,456
29	Nakhon Sawan	30,300	-	5,651	10	84	673	36,718
30	Phichit	13,511	720	3,377	-	96	105	17,809
31	Phitsanulok	26,920	-	2,318	-	878	1,074	31,190
32	Phetchabun	22,449	843	1,071	-	-	-	24,363
33	Sukhothai	14,265	511	2,857	-	-	-	17,633
34	Uttaradit	13,385	444	23	-	-	37	13,889
35	Uthai Thani	4,586	-	462	-	-	127	5,175
	Northeastern Region	349,208	3,784	59,914	-	3,958	10,069	426,932
	upper part	169,025	958	18,385	-	156	4,414	192,938
36	Kalasin	15,888	-	549	-	-	611	17,048
37	Khon Kaen	51,921	-	13,848	-	-	1,681	67,449
38	Nakhon Phanom	7,546	-	204	-	-	166	7,916
39	Maha Sarakham	11,969	-	23	-	-	-	11,992
40	Mukdahan	5,247	-	21	-	-	45	5,313
41	Roi Et	20,591	-	1,780	-	-	861	23,232
42	Loei	6,850	943	383	-	-	6	8,182
43	Sakon Nakhon	20,695	-	-	-	3	3	20,701
44	Nong Khai	7,596	-	344	-	-	225	8,165
45	Nong Bua Lam Phu	2,915	-	7	-	-	126	3,048
46	Udon Thani	17,808	15	1,226	-	153	690	19,892
	lower part	180,183	2,826	41,529	-	3,802	5,655	233,995
47	Chaiyaphum	10,550	-	230	-	-	1,001	11,781
48	Nakhon Ratchasima	45,692	139	9,255	-	48	629	55,763
49	Buri Ram	22,648	-	5,839	-	-	654	29,141
50	Yasothon	8,530	-	534	-	-	1,737	10,801
51	Si Sa Ket	19,434	-	13,455	-	3,754	184	36,827
52	Surin	20,449	2,687	171	-	-	62	23,369
53	Amnat Charoen	2,864	-	18	-	-	57	2,939
54	Ubon Ratchathani	50,016	-	12,027	-	-	1,331	63,374

ULG 91 Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	348,098	40	154,351	-	1,746	14,704	518,939
	upper part	183,390	40	67,240	-	40	12,287	262,997
55	Krabi	15,470	-	145	-	-	293	15,908
56	Chumphon	23,480	27	14,943	-	3	591	39,044
57	Nakhon Si Thammarat	59,266	-	31,335	-	15	819	91,435
58	Phangnga	10,177	-	60	-	-	-	10,237
59	Phuket	19,218	-	477	-	6	60	19,761
60	Ranong	4,880	-	311	-	-	-	5,191
61	Surat Thani	50,899	13	19,969	-	16	10,524	81,421
	lower part	164,708	-	87,112	-	1,706	2,417	255,943
62	Trang	18,697	-	207	-	-	360	19,264
63	Narathiwat	19,435	-	-	-	111	-	19,546
64	Pattani	10,391	-	3,515	-	-	48	13,954
65	Phathalung	10,646	-	-	-	-	114	10,760
66	Yala	14,340	-	42	-	-	-	14,382
67	Songkhla	80,372	-	82,117	-	1,595	1,895	165,979
68	Satun	10,827	-	1,231	-	-	-	12,058
	Eastern Region	234,541	414	13,749	-	2,838	2,406	253,948
69	Chanthaburi	17,529	-	935	-	-	94	18,558
70	Chachoengsao	30,985	-	4,836	-	304	667	36,792
71	Chon Buri	96,915	414	2,859	-	264	1,063	101,515
72	Trat	9,234	-	553	-	-	279	10,066
73	Nakhon Nayok	9,656	-	7	-	439	-	10,102
74	Prachin Buri	15,001	-	321	-	1,110	179	16,611
75	Rayong	43,726	-	2,091	-	721	124	46,662
76	Sa Kaeo	11,496	-	2,147	-	-	-	13,643
	Total	2,529,674	13,295	657,498	167	12,305	73,136	3,286,076

ULG 95 Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	1,439,510	1,419	202,273	1,242	9,896	42,207	1,696,546
1	Bangkok	1,142,039	1,382	198,231	1,242	6,383	34,831	1,384,107
2	Nonthaburi	117,726	12	560	-	221	42	118,561
3	Pathum Thani	81,255	3	2,852	-	1,486	7,036	92,632
4	Samut Prakan	98,490	22	630	-	1,806	298	101,246
	Central	352,560	4,487	54,987	-	490	8,171	420,695
5	Kanchanaburi	23,972	2,019	281	-	12	180	26,464
6	Chai Nat	6,322	-	196	-	-	-	6,518
7	Nakhon Pathom	50,096	234	2,469	-	100	119	53,018
8	Prachuap Khiri Khan	25,005	1,068	280	-	-	-	26,353
9	Phetchaburi	24,789	861	7,921	-	84	224	33,879
10	Ratchaburi	29,549	27	658	-	-	-	30,234
11	Lop Buri	17,079	-	137	-	-	-	17,216
12	Samut Songkhram	12,190	-	12,039	-	-	-	24,229
13	Samut Sakhon	33,516	99	6,843	-	1	2,270	42,729
14	Saraburi	38,715	125	21,271	-	261	5,282	65,654
15	Sing Buri	8,804	-	19	-	-	-	8,823
16	Suphan Buri	16,758	-	32	-	-	12	16,802
17	Ayutthaya	61,204	39	1,861	-	32	84	63,220
18	Ang Thong	4,561	15	980	-	-	-	5,556
	Northern Region	324,059	4,255	17,865	30	2,964	3,167	352,340
	upper part	220,228	997	6,270	30	2,705	1,901	232,131
19	Chiang Rai	30,257	20	92	-	-	203	30,572
20	Chiang Mai	95,624	926	2,097	-	2,538	824	102,009
21	Nan	6,367	-	209	-	-	-	6,576
22	Phayao	11,263	-	366	-	-	-	11,629
23	Phrae	14,473	21	1,021	30	145	90	15,780
24	Mae Hong Son	5,254	-	-	-	-	-	5,254
25	Lampang	41,899	-	2,185	-	22	784	44,890
26	Lamphun	15,091	30	301	-	-	-	15,422
	lower part	103,831	3,258	11,595	-	259	1,266	120,209
27	Kamphaeng Phet	8,964	231	551	-	-	416	10,162
28	Tak	12,308	-	937	-	-	330	13,575
29	Nakhon Sawan	23,666	21	4,137	-	12	246	28,082
30	Phichit	7,129	516	1,471	-	21	-	9,137
31	Phitsanulok	22,835	-	1,768	-	226	274	25,103
32	Phetchabun	8,632	932	785	-	-	-	10,349
33	Sukhothai	10,412	581	1,817	-	-	-	12,810
34	Uttaradit	6,921	977	14	-	-	-	7,912
35	Uthai Thani	2,964	-	115	-	-	-	3,079
	Northeastern Region	214,204	481	22,174	-	1,015	3,852	241,726
	upper part	112,205	81	7,671	-	225	1,811	121,993
36	Kalasin	5,898	6	94	-	-	72	6,070
37	Khon Kaen	35,254	-	5,908	-	12	868	42,042
38	Nakhon Phanom	3,811	-	38	-	-	69	3,918
39	Maha Sarakham	6,488	-	6	-	-	-	6,494
40	Mukdahan	3,017	-	-	-	-	-	3,017
41	Roi Et	9,888	-	216	-	-	18	10,122
42	Loei	3,254	45	28	-	-	-	3,327
43	Sakon Nakhon	11,310	-	-	-	-	38	11,348
44	Nong Khai	6,910	-	268	-	-	135	7,313
45	Nong Bua Lam Phu	2,742	-	25	-	-	60	2,827
46	Udon Thani	23,634	30	1,088	-	213	551	25,516
	lower part	101,999	400	14,503	-	790	2,041	119,733
47	Chaiyaphum	5,710	-	188	-	-	323	6,221
48	Nakhon Ratchasima	51,237	148	5,670	-	126	664	57,845
49	Buri Ram	8,545	-	1,891	-	-	162	10,598
50	Yasothon	3,081	-	68	-	-	213	3,362
51	Si Sa Ket	6,156	-	4,421	-	664	-	11,241
52	Surin	8,289	243	49	-	-	-	8,581
53	Amnat Charoen	781	-	-	-	-	-	781
54	Ubon Ratchathani	18,201	9	2,216	-	-	679	21,105

ULG 95 Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	289,113	13	62,054	150	1,982	4,748	358,059
	upper part	169,507	13	23,933	150	487	3,488	197,578
55	Krabi	9,094	-	64	-	-	-	9,158
56	Chumphon	14,029	12	4,030	-	6	75	18,152
57	Nakhon Si Thammarat	39,328	-	11,936	-	28	273	51,565
58	Phangnga	10,527	-	39	-	-	-	10,566
59	Phuket	55,688	-	821	105	453	132	57,199
60	Ranong	3,050	-	102	-	-	-	3,152
61	Surat Thani	37,791	1	6,942	45	-	3,008	47,787
	lower part	119,606	-	38,120	-	1,495	1,260	160,481
62	Trang	13,860	-	129	-	-	345	14,334
63	Narathiwat	9,883	-	-	-	36	-	9,919
64	Pattani	6,102	-	1,237	-	-	207	7,546
65	Phathalung	3,931	-	-	-	-	-	3,931
66	Yala	10,318	-	9	-	-	-	10,327
67	Songkhla	70,011	-	36,489	-	1,459	705	108,665
68	Satun	5,501	-	256	-	-	3	5,760
	Eastern Region	336,428	525	14,298	-	5,130	1,340	357,721
69	Chanthaburi	32,552	-	1,660	-	-	123	34,335
70	Chachoengsao	36,475	-	3,611	-	564	190	40,840
71	Chon Buri	170,991	525	3,542	-	2,254	685	177,997
72	Trat	9,315	-	468	-	-	3	9,786
73	Nakhon Nayok	6,411	-	-	-	88	-	6,499
74	Prachin Buri	10,910	-	199	-	567	91	11,767
75	Rayong	60,803	-	2,962	-	1,657	206	65,628
76	Sa Kaeo	8,971	-	1,856	-	-	42	10,869
	Total	2,955,873	11,180	373,650	1,422	21,477	63,486	3,427,088

Kerosine Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	1,016	4	4,290	49	29,846	1,705	36,910
1	Bangkok	991	4	4,119	36	22,851	1,279	29,280
2	Nonthaburi	0.18	-	-	-	212	14	226
3	Pathum Thani	8	-	125	3	233	58	427
4	Samut Prakan	17	-	45	10	6,551	354	6,976
	Central	1,069	-	93	1	2,441	153	3,757
5	Kanchanaburi	75	-	-	-	55	-	130
6	Chai Nat	-	-	-	-	-	-	-
7	Nakhon Pathom	-	-	6	-	181	142	329
8	Prachuap Khiri Khan	-	-	-	-	384	-	384
9	Phetchaburi	6	-	24	-	-	-	30
10	Ratchaburi	0	-	60	-	322	-	382
11	Lop Buri	18	-	-	-	-	2	20
12	Samut Songkhram	-	-	3	-	-	4	7
13	Samut Sakhon	837	-	-	1	704	4	1,546
14	Saraburi	93	-	-	-	113	1	208
15	Sing Buri	5	-	-	-	-	-	5
16	Suphan Buri	31	-	-	-	-	-	31
17	Ayutthaya	-	-	-	-	1	-	1
18	Ang Thong	4	-	-	-	681	-	685
	Northern Region	1,528	30	35	-	30	22	1,645
	upper part	866	-	35	-	30	11	941
19	Chiang Rai	40	-	32	-	-	-	72
20	Chiang Mai	483	-	-	-	1	2	486
21	Nan	70	-	-	-	-	-	70
22	Phayao	27	-	-	-	-	-	27
23	Phrae	119	-	-	-	-	1	120
24	Mae Hong Son	11	-	-	-	-	-	11
25	Lampang	114	-	3	-	29	8	154
26	Lamphun	2	-	-	-	-	-	2
	lower part	662	30	-	-	-	11	703
27	Kamphaeng Phet	-	-	-	-	-	-	-
28	Tak	118	-	-	-	-	-	118
29	Nakhon Sawan	277	-	-	-	-	8	285
30	Phichit	36	-	-	-	-	-	36
31	Phitsanulok	202	-	-	-	-	3	205
32	Phetchabun	12	-	-	-	-	0	12
33	Sukhothai	16	-	-	-	-	-	16
34	Uttaradit	-	30	-	-	-	-	30
35	Uthai Thani	-	-	-	-	-	-	-
	Northeastern Region	659	-	420	0	21	5	1,105
	upper part	285	-	-	0	20	-	305
36	Kalasin	-	-	-	-	-	-	-
37	Khon Kaen	163	-	-	0	20	-	184
38	Nakhon Phanom	21	-	-	-	-	-	21
39	Maha Sarakham	-	-	-	-	-	-	-
40	Mukdahan	-	-	-	-	-	-	-
41	Roi Et	16	-	-	-	-	-	16
42	Loei	-	-	-	-	-	-	-
43	Sakon Nakhon	1	-	-	-	-	-	1
44	Nong Khai	4	-	-	-	-	-	4
45	Nong Bua Lam Phu	-	-	-	-	-	-	-
46	Udon Thani	79	-	-	-	-	-	79
	lower part	375	-	420	-	1	5	800
47	Chaiyaphum	-	-	-	-	-	-	-
48	Nakhon Ratchasima	-	-	329	-	1	-	330
49	Buri Ram	37	-	91	-	-	-	128
50	Yasothon	-	-	-	-	-	-	-
51	Si Sa Ket	-	-	-	-	-	-	-
52	Surin	33	-	-	-	-	-	33
53	Amnat Charoen	-	-	-	-	-	-	-
54	Ubon Ratchathani	305	-	-	-	-	5	310

Kerosine Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	2,323	-	451	-	82	336	3,192
	upper part	531	-	412	-	78	329	1,350
55	Krabi	-	-	-	-	-	-	-
56	Chumphon	-	-	-	-	-	-	-
57	Nakhon Si Thammarat	-	-	-	-	6	-	6
58	Phangnga	-	-	-	-	48	5	53
59	Phuket	-	-	45	-	-	15	60
60	Ranong	-	-	-	-	-	-	-
61	Surat Thani	531	-	367	-	24	308	1,230
	lower part	1,792	-	39	-	4	7	1,842
62	Trang	-	-	-	-	-	-	-
63	Narathiwat	-	-	-	-	-	-	-
64	Pattani	-	-	-	-	-	-	-
65	Phathalung	-	-	-	-	-	-	-
66	Yala	-	-	-	-	-	-	-
67	Songkhla	1,792	-	39	-	4	7	1,842
68	Satun	-	-	-	-	-	-	-
	Eastern Region	995	4	70	-	1,058	21	2,149
69	Chanthaburi	242	-	48	-	3	-	293
70	Chachoengsao	93	-	-	-	11	4	107
71	Chon Buri	218	-	-	-	789	2	1,009
72	Trat	21	-	22	-	-	-	43
73	Nakhon Nayok	9	4	-	-	-	-	13
74	Prachin Buri	151	-	-	-	57	-	208
75	Rayong	228	-	-	-	199	15	442
76	Sa Kaeo	33	-	-	-	-	-	33
	Total	7,591	38	5,358	50	33,478	2,243	48,758

High-speed Diesel Oil Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	2,150,772	524	1,545,202	169,878	230,404	449,081	4,545,860
1	Bangkok	1,354,780	490	1,499,259	132,459	136,177	407,857	3,531,022
2	Nonthaburi	184,703	-	3,304	8,694	7,653	1,008	205,363
3	Pathum Thani	283,133	-	27,290	10,282	36,441	28,603	385,749
4	Samut Prakan	328,156	34	15,348	18,443	50,133	11,612	423,726
	Central	1,860,770	22,549	358,729	68,082	213,872	141,727	2,665,729
5	Kanchanaburi	124,591	13,052	4,180	132	12,711	3,758	158,424
6	Chai Nat	52,880	-	10,322	3,972	897	1,240	69,311
7	Nakhon Pathom	249,378	476	19,125	13,313	20,378	6,725	309,395
8	Prachuap Khiri Khan	104,602	3,150	13,542	915	3,840	4,836	130,885
9	Phetchaburi	117,246	3,682	57,268	285	1,220	4,780	184,481
10	Ratchaburi	113,481	30	3,119	129	7,355	3,596	127,710
11	Lop Buri	80,688	-	4,555	814	13,723	3,124	102,904
12	Samut Songkhram	67,777	-	52,253	182	3,702	10,491	134,405
13	Samut Sakhon	158,314	591	30,820	8,910	44,527	53,271	296,433
14	Saraburi	261,746	1,483	135,895	35,780	85,777	24,049	544,730
15	Sing Buri	51,689	-	4,807	528	282	1,184	58,490
16	Suphan Buri	144,068	-	1,976	109	7,904	10,373	164,430
17	Ayutthaya	299,366	85	17,349	2,997	10,842	11,650	342,289
18	Ang Thong	34,943	-	3,518	16	714	2,650	41,841
	Northern Region	1,382,636	13,750	130,519	18,457	89,307	116,981	1,751,650
	upper part	665,982	2,381	30,432	7,534	46,783	54,233	807,345
19	Chiang Rai	110,227	-	3,160	255	4,870	3,030	121,542
20	Chiang Mai	220,270	1,965	8,485	2,685	12,807	16,440	262,651
21	Nan	34,082	-	1,746	-	46	32	35,906
22	Phayao	37,838	-	1,325	-	2,305	1,356	42,824
23	Phrae	60,186	350	7,966	210	2,131	1,591	72,434
24	Mae Hong Son	12,664	27	-	-	15	1,020	13,726
25	Lampang	123,357	39	6,277	4,384	22,812	29,110	185,979
26	Lamphun	67,359	-	1,473	-	1,797	1,654	72,283
	lower part	716,654	11,369	100,087	10,923	42,524	62,748	944,305
27	Kamphaeng Phet	88,405	4,566	16,181	508	4,530	8,997	123,187
28	Tak	77,194	-	3,677	-	1,773	3,669	86,313
29	Nakhon Sawan	155,061	-	25,768	10,245	15,618	14,591	221,283
30	Phichit	66,670	1,861	12,527	-	856	4,956	86,870
31	Phitsanulok	114,717	-	19,371	50	9,589	10,313	154,040
32	Phetchabun	82,693	1,756	6,103	-	2,843	7,148	100,543
33	Sukhothai	70,801	1,654	9,443	105	835	5,425	88,263
34	Uttaradit	45,546	1,532	4,073	15	3,873	2,784	57,823
35	Uthai Thani	15,567	-	2,944	-	2,607	4,865	25,983
	Northeastern Region	1,483,653	6,977	313,423	7,034	75,520	141,955	2,028,562
	upper part	683,818	803	84,454	1,598	37,413	67,965	876,051
36	Kalasin	52,457	-	1,503	-	3,473	8,128	65,561
37	Khon Kaen	192,509	-	51,336	1,386	10,159	19,336	274,725
38	Nakhon Phanom	19,067	-	312	60	-	5,731	25,170
39	Maha Sarakham	54,624	-	1,983	-	188	1,257	58,052
40	Mukdahan	17,270	-	843	-	480	2,291	20,884
41	Roi Et	86,437	-	10,446	-	1,077	3,820	101,780
42	Loei	27,308	686	1,308	-	8,208	1,446	38,956
43	Sakon Nakhon	68,808	-	118	-	432	6,606	75,964
44	Nong Khai	34,890	-	1,817	-	501	3,974	41,182
45	Nong Bua Lam Phu	18,056	-	1,315	-	1,560	2,823	23,754
46	Udon Thani	112,392	117	13,473	152	11,335	12,553	150,022
	lower part	799,835	6,174	228,969	5,436	38,107	73,990	1,152,511
47	Chaiyaphum	57,750	-	1,876	915	1,149	8,152	69,842
48	Nakhon Ratchasima	302,964	1,548	135,646	1,933	27,526	24,710	494,327
49	Buri Ram	100,410	16	36,419	-	670	7,416	144,931
50	Yasothon	35,183	-	1,781	-	-	5,965	42,929
51	Si Sa Ket	66,841	-	35,683	-	4,512	1,896	108,932
52	Surin	65,129	4,610	1,972	-	433	6,685	78,829
53	Amnat Charoen	11,761	-	665	-	20	2,182	14,628
54	Ubon Ratchathani	159,797	-	14,927	2,588	3,797	16,984	198,093

High-speed Diesel Oil Sale by Type of Business in the Provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	1,282,651	4,517	567,019	10,427	82,459	192,749	2,139,821
	upper part	819,719	4,502	322,960	7,552	45,928	135,919	1,336,580
55	Krabi	61,263	-	1,330	-	5,946	1,416	69,955
56	Chumphon	121,618	39	57,629	-	2,538	1,158	182,982
57	Nakhon Si Thammarat	245,510	537	138,915	2,063	14,718	22,481	424,224
58	Phangnga	45,752	-	426	45	4,625	3,430	54,278
59	Phuket	102,103	-	9,964	2,749	2,391	17,770	134,977
60	Ranong	18,126	-	838	-	177	3,429	22,570
61	Surat Thani	225,347	3,926	113,858	2,695	15,533	86,235	447,594
	lower part	462,931	15	244,059	2,875	36,531	56,830	803,242
62	Trang	65,565	-	594	1,330	2,100	2,340	71,929
63	Narathiwat	25,184	-	927	150	3,954	405	30,620
64	Pattani	26,769	-	4,145	-	1,806	9,960	42,680
65	Phathalung	24,417	9	-	-	1,899	471	26,796
66	Yala	35,005	-	266	-	3,786	123	39,180
67	Songkhla	254,847	6	237,132	1,395	22,155	41,424	556,960
68	Satun	31,144	-	995	-	831	2,107	35,077
	Eastern Region	1,300,548	3,663	145,330	28,536	131,314	127,071	1,736,463
69	Chanthaburi	99,007	-	22,214	-	2,076	8,189	131,486
70	Chachoengsao	213,817	-	30,335	628	28,594	10,756	284,130
71	Chon Buri	518,092	2,922	25,936	21,550	56,301	61,155	685,957
72	Trat	42,482	525	16,393	96	325	1,293	61,114
73	Nakhon Nayok	44,758	-	426	1,020	8,717	543	55,464
74	Prachin Buri	65,976	-	10,424	24	8,976	3,610	89,010
75	Rayong	263,387	216	26,035	5,218	22,660	38,386	355,902
76	Sa Kaeo	53,029	-	13,567	-	3,666	3,139	73,401
	Total	9,461,030	51,980	3,060,222	302,414	822,876	1,169,564	14,868,085

Fuel Oil Sale by type of business in the provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Bangkok & Perimeter	-	-	135,834	493,994	1,399,025	1,294,092	3,322,945
1	Bangkok	-	-	85,889	493,775	662,168	1,292,944	2,534,776
2	Nonthaburi	-	-	216	-	34,947	36	35,199
3	Pathum Thani	-	-	421	108	214,158	824	215,512
4	Samut Prakan	-	-	49,308	110	487,752	288	537,459
	Central	-	-	27,215	3,464	815,324	376,606	1,222,609
5	Kanchanaburi	-	-	12	67	12,043	30	12,152
6	Chai Nat	-	-	15	-	745	-	760
7	Nakhon Pathom	-	-	4,122	108	103,419	1,728	109,377
8	Prachuap Khiri Khan	-	-	192	-	28,800	-	28,992
9	Phetchaburi	-	-	228	-	16,036	84	16,348
10	Ratchaburi	-	-	72	75	35,111	165	35,423
11	Lop Buri	-	-	-	-	17,212	-	17,212
12	Samut Songkhram	-	-	168	96	927	12	1,203
13	Samut Sakhon	-	-	20,503	3,118	417,823	374,315	815,759
14	Saraburi	-	-	1,332	-	68,294	-	69,626
15	Sing Buri	-	-	124	-	3,941	-	4,065
16	Suphan Buri	-	-	-	-	1,950	156	2,106
17	Ayutthaya	-	-	408	-	97,146	116	97,670
18	Ang Thong	-	-	39	-	11,876	-	11,915
	Northern Region	-	-	1,456	-	46,973	2,718	51,147
	upper part	-	-	616	-	17,603	2,396	20,615
19	Chiang Rai	-	-	24	-	1,406	144	1,574
20	Chiang Mai	-	-	568	-	8,219	1,176	9,963
21	Nan	-	-	-	-	120	-	120
22	Phayao	-	-	-	-	1,212	-	1,212
23	Phrae	-	-	-	-	1,641	795	2,436
24	Mae Hong Son	-	-	-	-	-	-	-
25	Lampang	-	-	-	-	2,909	281	3,190
26	Lamphun	-	-	24	-	2,096	-	2,120
	lower part	-	-	840	-	29,370	322	30,532
27	Kamphaeng Phet	-	-	36	-	15,123	-	15,159
28	Tak	-	-	18	-	5,607	250	5,875
29	Nakhon Sawan	-	-	699	-	3,367	24	4,090
30	Phichit	-	-	63	-	291	12	366
31	Phitsanulok	-	-	-	-	855	-	855
32	Phetchabun	-	-	-	-	1,447	36	1,483
33	Sukhothai	-	-	-	-	1,159	-	1,159
34	Uttaradit	-	-	24	-	572	-	596
35	Uthai Thani	-	-	-	-	949	-	949
	Northeastern Region	96	-	3,162	27	100,703	3,288	107,276
	upper part	-	-	36	-	28,524	1,758	30,318
36	Kalasin	-	-	-	-	5,897	312	6,209
37	Khon Kaen	-	-	-	-	9,458	951	10,409
38	Nakhon Phanom	-	-	-	-	492	-	492
39	Maha Sarakham	-	-	-	-	1,205	108	1,313
40	Mukdahan	-	-	-	-	204	-	204
41	Roi Et	-	-	12	-	300	24	336
42	Loei	-	-	24	-	1,040	219	1,283
43	Sakon Nakhon	-	-	-	-	791	-	791
44	Nong Khai	-	-	-	-	4,619	144	4,763
45	Nong Bua Lam Phu	-	-	-	-	360	-	360
46	Udon Thani	-	-	-	-	4,158	-	4,158
	lower part	96	-	3,126	27	72,179	1,530	76,958
47	Chaiyaphum	-	-	446	-	6,635	48	7,129
48	Nakhon Ratchasima	-	-	2,680	15	59,924	1,326	63,945
49	Buri Ram	-	-	-	-	983	-	983
50	Yasothon	-	-	-	-	438	-	438
51	Si Sa Ket	-	-	-	12	381	12	405
52	Surin	96	-	-	-	144	-	240
53	Amnat Charoen	-	-	-	-	105	-	105
54	Ubon Ratchathani	-	-	-	-	3,569	144	3,713

Fuel Oil Sale by type of business in the provinces in 2000

thousand/litres

No.	Province	Station	Store	Wholesaler	Transport	Industry	others	Total
	Southern Region	48	18	5,175	1,874	171,113	30,961	209,189
	upper part	48	18	737	1,178	43,871	7,448	53,300
55	Krabi	-	-	-	312	1,276	228	1,816
56	Chumphon	-	-	-	-	5,035	84	5,119
57	Nakhon Si Thammarat	-	-	6	-	7,451	360	7,817
58	Phangnga	-	-	-	-	483	-	483
59	Phuket	-	-	393	-	2,784	5,718	8,895
60	Ranong	-	-	-	24	1,296	-	1,320
61	Surat Thani	48	18	338	842	25,546	1,058	27,850
	lower part	-	-	4,438	696	127,242	23,513	155,889
62	Trang	-	-	15	-	405	27	447
63	Narathiwat	-	-	48	-	1,848	168	2,064
64	Pattani	-	-	1,696	-	5,731	240	7,667
65	Phathalung	-	-	-	-	36	-	36
66	Yala	-	-	-	-	84	936	1,020
67	Songkhla	-	-	2,679	696	118,598	22,142	144,115
68	Satun	-	-	-	-	540	-	540
	Eastern Region	24	-	9,461	155,666	456,280	838,775	1,460,206
69	Chanthaburi	-	-	-	-	4,015	216	4,231
70	Chachoengsao	-	-	605	1,736	33,636	180	36,157
71	Chon Buri	-	-	2,412	138,600	255,461	829,662	1,226,135
72	Trat	-	-	-	-	84	-	84
73	Nakhon Nayok	-	-	-	-	562	37	599
74	Prachin Buri	-	-	4,920	-	41,103	1,282	47,305
75	Rayong	-	-	1,434	15,331	119,062	7,398	143,225
76	Sa Kaeo	24	-	90	-	2,357	-	2,471
	Total	168	18	182,303	655,025	2,989,418	2,546,440	6,373,372

Province Code

No.	Province
1	Bangkok
2	Nonthaburi
3	Pathum Thani
4	Samut Prakan
5	Samut Sakhon
6	Nakhon Pathom
7	Kanchanaburi
8	Chai Nat
9	Prachuap Khiri Khan
10	Phetchaburi
11	Ratchaburi
12	Lop Buri
13	Samut Songkhram
14	Saraburi
15	Sing Buri
16	Suphan Buri
17	Ayutthaya
18	Ang Thong
19	Chiang Rai
20	Chiang Mai
21	Nan
22	Phayao
23	Phrae
24	Mae Hong Son
25	Lampang
26	Lamphun
27	Kamphaeng Phet
28	Tak
29	Nakhon Sawan
30	Phichit
31	Phitsanulok
32	Phetchabun
33	Sukhothai
34	Uttaradit
35	Uthai Thani
36	Kalasin
37	Khon Kaen
38	Nakhon Phanom

No.	Province
39	Maha Sarakham
40	Mukdahan
41	Roi Et
42	Loei
43	Sakon Nakhon
44	Nong Khai
45	Nong Bua Lam Phu
46	Udon Thani
47	Chaiyaphum
48	Nakhon Ratchasima
49	Buri Ram
50	Yasothon
51	Si Sa Ket
52	Surin
53	Amnat Charoen
54	Ubon Ratchathani
55	Krabi
56	Chumphon
57	Nakhon Si Thammarat
58	Phangnga
59	Phuket
60	Ranong
61	Surat Thani
62	Trang
63	Narathiwat
64	Pattani
65	Phathalung
66	Yala
67	Songkhla
68	Satun
69	Chanthaburi
70	Chachoengsao
71	Chon Buri
72	Trat
73	Nakhon Nayok
74	Prachin Buri
75	Rayong
76	Sa Kaeo

ATMOS Point Sources

No.	Industry Type	Province Name	Longitude (degree)	Longitude (minutes)	Latitude (degree)	Latitude (minutes)	East (UTM)	North (UTM)	SOX (T/Y)
1	Power plant/EGAT	Nonthaburi					644366	1550888	2,755.60
2	Power plant/EGAT	Samut Prakan					668837	1505785	24,774.08
3	Power plant/EGAT	Chachoengsao	101	2.08	13	28.77			26,946.35
4	Power plant/EGAT	Surat Thani	99	15.42	9	3.08			359.43
5	Power plant/EGAT	Lampang					579750	2072500	36,927.52
6	Power plant/EGAT	Ratchaburi	99	50.42	13	27.33			9,348.16
7	Power plant/EGAT	Phra Nakornsi Aydhaya					692486	1573801	70.34
8	Power plant/EGAT	Khon kaen	102	46.67	16	43.15			925.42
9	Power plant/EGAT	Bangkok					695200	1528100	0.84
10	Power plant/EGAT	Kamphaengphet	99	52.08	16	39.45			12.42
11	Power plant/EGAT	Mae Hong Son	97	57.92	19	12.32			0.49
12	Power plant/IPP	Ratchaburi					580668	1496223	12.23
13	Power plant/IPP	Chon buri					707213	1450128	11.14
14	Power plant/IPP	Rayong					733983	1411479	73.89
15	Power plant/IPP	Nakhon Sri Thammarat					594921	1020556	1,171.43
16	Power Plant/SPP-F	Rayong					733320	1403996	6.80
17	Power Plant/SPP-F	Rayong					733800	1402800	239.94
18	Power Plant/SPP-F	Rayong					732519	1401944	1.41
19	Power Plant/SPP-F	Rayong					730446	1404350	4.15
20	Power Plant/SPP-F	Chon buri					706350	1449412	1.55
21	Power Plant/SPP-F	Chiang Mai	99	10.20	19	55.10			332.67
22	Power Plant/SPP-F	Saraburi	101	2.08	14	35.75			3.40
23	Power Plant/SPP-F	Chon buri	101	0.55	13	24.65			3.40
24	Power Plant/SPP-F	Rayong					733933	1405315	3.40
25	Power Plant/SPP-F	Prachin buri					779850	1541250	2,165.13
26	Power Plant/SPP-F	Rayong					732048	1401852	5.29
27	Power Plant/SPP-F	Chon buri	100	55.90	13	4.11			3.40
28	Power Plant/SPP-F	Chachoengsao					706200	1450050	4.94
29	Power Plant/SPP-F	Prachin buri					779900	1541300	1.26
30	Power Plant/SPP-F	Phra Nakornsi Aydhaya	100	37.50	14	20.14			6.15
31	Power Plant/SPP-F	Samut Prakan	100	49.17	13	28.77			3.40
32	Power Plant/SPP-F	Rayong					733265	1404142	647.84
33	Power Plant/SPP-F	Chai nat	100	2.50	15	15.61			0.99
34	Power Plant/SPP-F	Chachoengsao	101	0.00	13	45.20			2.64
35	Power Plant/SPP-F	Prachin buri	101	33.33	13	51.78			3.40
36	Power Plant/SPP-F	Saraburi	100	53.77	14	22.00			3.40
37	Power Plant/SPP-F	Chon buri					705800	1447655	2.27
38	Power Plant/SPP-F	Phuket	98	25.06	7	53.42			0.09
39	Power Plant/SPP-NF	Nakhon Sawan	100	22.08	15	12.33			5.14
40	Power Plant/SPP-NF	Chaiyaphum	102	6.25	16	20.55			3.85
41	Power Plant/SPP-NF	Suphan buri	99	41.67	14	49.31			3.85
42	Power Plant/SPP-NF	Ratchaburi	99	50.02	13	47.67			1.61
43	Power Plant/SPP-NF	Rayong	101	18.76	12	39.15			457.31
44	Power Plant/SPP-NF	Nakhon ratchasima	102	8.33	14	51.78			5.14
45	Power Plant/SPP-NF	Uttaradit					752200	1400140	1.93
46	Power Plant/SPP-NF	Saraburi	101	2.01	14	35.01			1,608.06
47	Power Plant/SPP-NF	Phra Nakornsi Aydhaya	100	33.33	14	6.16			133.40
48	Power Plant/SPP-NF	Prachin buri					779800	1541202	4.84
49	Power Plant/SPP-NF	Nakhon Sawan	100	10.42	15	38.22			1.61
50	Power Plant/SPP-NF	Ratchaburi	99	50.03	13	47.70			1.93
51	Power Plant/SPP-NF	Khonkhaen	102	25.00	16	28.77			3.85
52	Power Plant/SPP-NF	Nakhon ratchasima					894949	1604348	1.93
53	Power Plant/SPP-NF	Lop buri	101	5.03	15	4.11			3.85
54	Power Plant/SPP-NF	Nakhon ratchasima	102	18.34	15	43.95			5.14
55	Power Plant/SPP-NF	Chachoengsao	101	12.45	13	43.15			0.30
56	Power Plant/SPP-NF	Suphan buri	99	51.66	14	22.60			1.93
57	Power Plant/SPP-NF	Prachin buri	101	33.35	13	51.80			333.50
58	Refinery	Chon buri					706349	1450047	7,215.82
59	Refinery	Rayong					734347	1405013	5,380.78
60	Refinery	Rayong					734433	1402036	9,243.75
61	Refinery	Chon buri					705080	1448460	8,483.75
62	Refinery	Bangkok					672680	1513280	565.82
63	Refinery	Rayong	101	18.75	12	39.10			2,809.57
64	Refinery	Rayong					731191	1405236	9.42
65	Refinery	Chieng Mai	99	10.00	19	55.00			2.87
66	Cement Plant	Saraburi	100	55.00	14	43.56			78.59
67	Cement Plant	Lampang	99	37.50	18	55.89			1,571.79
68	Cement Plant	Saraburi	101	7.50	14	38.50			1,835.40
69	Cement Plant	Saraburi	101	4.17	14	37.40			1,496.94
70	Cement Plant	Saraburi					694500	1622500	1,014.88
71	Cement Plant	Saraburi	100	51.67	14	39.45			21.03
72	Cement Plant	Saraburi	100	54.58	14	35.34			3.43
73	Cement Plant	Saraburi	101	8.33	14	39.45			4,341.14
74	Cement Plant	Petchaburi	99	57.08	12	46.44			280.68
75	Cement Plant	Nakhon Sri thammarat	99	42.50	8	4.52			1,571.79
76	Cement Plant	Ratchaburi	99	47.92	13	25.07			134.73
77	Cement Plant	Nakhon Sawan	100	20.83	15	21.78			636.95
78	Cement Plant	Saraburi	100	43.33	14	35.75			1,347.25
79	Cement Plant	Saraburi	100	51.70	14	39.50			1,496.94
80	Cement Plant	Saraburi	101	4.17	14	39.45			61.75
81	Cement Plant	Lampang	99	30.64	19	52.19			748.47

ATMOS Point Sources

No.	Industry Type	Province Name	Longitude (degree)	Longitude (minutes)	Latitude (degree)	Latitude (minutes)	East (UTM)	North (UTM)	SOX (T/Y)
82	Pulp and Paper	Phra Nakornsi Aydhaya	100	33.50	14	6.20			108.43
83	Pulp and Paper	Sukhothai	99	35.00	17	20.55			32.43
84	Pulp and Paper	Phra Nakornsi Aydhaya	100	35.01	14	11.92			19.03
85	Pulp and Paper	Kanchanaburi	99	41.67	13	55.89			898.27
86	Pulp and Paper	Samut Prakhan					669186	1509653	54.99
87	Pulp and Paper	Samut Sakhon					638800	1500700	2,315.16
88	Pulp and Paper	Samut sakhon					670559	1508938	926.50
89	IRON AND STEEL	Samut Prakhan					680000	1495000	13.64
90	IRON AND STEEL	Samut Prakhan					670894	1509439	12.73
91	IRON AND STEEL	Chon buri	101	4.25	13	2.10			5.94
92	IRON AND STEEL	Rayong					732289	1402823	0.48
93	IRON AND STEEL	Samut Prakhan					671955	1499950	109.97
94	IRON AND STEEL	Rayong					729689	1404859	6.62
95	IRON AND STEEL	Pathum thani					672000	1559003	0.11
96	IRON AND STEEL	Prachuap Khiri Khan					558508	1241163	1,635.66
97	IRON AND STEEL	Prachuap Khiri Khan					559689	1242113	957.33
98	Acid Plant	Rayong					731000	1403000	1,704.12
99	Acid Plant	Samut Sakhon					637856	1498942	88.40
100	Acid Plant	Rayong					733021	1403259	4,620.00
101	Petroleum	Chon buri					707600	1450400	1,734.48
102	Other	Samut Prakhan					666584	1508680	134.71
103	Other	Bangkok					667026	1527197	0.49
104	Other	Nonthaburi					644421	1550872	8.70
105	Other	Nonthaburi					644381	1550880	13.99
106	Other	Pathum thani					672302	1560484	4.26
107	Other	Samut Prakhan					697500	1502200	0.06
108	Other	Samut Prakhan					681503	1494548	109.14
109	Other	Samut Prakhan					680391	1497746	0.23
110	Other	Rayong					734284	1403238	160.84
111	Other	Rayong					731625	1403830	0.09
112	Other	Rayong					732125	1403400	105.81
113	Other	Rayong					733432	1404315	105.64
114	Other	Rayong					732350	1403916	0.16
115	Other	Rayong					733877	1405796	295.58
116	Other	Rayong					731700	1404495	0.31
117	Other	Rayong					734102	1403976	0.03
118	Other	Rayong					734200	1403985	0.05
119	Other	Rayong					734111	1403994	0.05
120	Other	Rayong					730100	1404260	16.92
121	Other	Rayong					733300	1405550	0.07
122	Other	Rayong					733500	1405745	0.00
123	Other	Rayong					730056	1404256	101.38
124	Other	Rayong					730000	1404200	11.77
125	Other	Rayong					730150	1404250	0.02
126	Other	Chon buri					707520	1450090	0.32
127	Other	Kanchanaburi	99	45.83	13	53.84			7.54
128	Other	Kanchanaburi	99	45.80	13	53.83			9.54
129	Other	Kamphaengphet	99	33.33	16	28.60			6.48
130	Other	Khonkhaen	102	25.02	16	28.60			23.57
131	Other	Nakhon ratchasima	102	18.33	15	43.97			33.29
132	Other	Lampang	99	12.50	18	4.93			2.66
133	Other	Suphan buri	100	6.25	14	45.21			3.38
134	Other	Udon Thani	103	1.90	17	30.50			19.62
135	Other	Saraburi	100	53.75	14	21.99			0.85
136	Other	Rayong					733900	1411300	1.02
137	other	Samut Prakhan					687165	1502997	2.40
138	other	Bangkok					667064	1527199	364.87
139	Boiler	Bangkok					686275	1527000	58.45
140	Boiler	Samut Prakan					697500	1505670	63.76
141	Boiler	Samut Prakan					638300	1504875	26.57
142	Boiler	Samut Prakan					671180	1501900	53.13
143	Boiler	Samut Sakhon					641600	1500750	53.13
144	Boiler	Samut Sakhon					638700	1499655	53.13
145	Boiler	Samut Sakhon					638700	1499655	53.13
146	Boiler	Pathum Thani					654150	1554000	85.01
147	Boiler	Samut Sakhon					638700	1499655	53.13
148	Boiler	Samut Sakhon					638700	1499655	53.13
149	Boiler	Nakhon Pathom					635780	1517300	53.13
150	Boiler	Nakhon Pathom					635780	1517300	53.13
151	Boiler	Nakhon Pathom					635780	1517300	42.51
152	Boiler	Nakhon Pathom					635780	1517300	42.51
153	Boiler	Nakhon Pathom					635780	1517300	42.51
154	Boiler	Nakhon Pathom					635780	1517300	42.51
155	Boiler	Nakhon Pathom					635780	1517300	42.51
156	Boiler	Nakhon Pathom					633750	1516200	26.57

Airviro Main Point Sources

code	X1 (UTM)	Y1 (UTM)	X2 (UTM)	Y2 (UTM)	province code	Nox (T/Y)	Sox (T/Y)
1	693150	1523038	0	0	1	0.456	0.007
2	693186	1522841	0	0	1	0.456	0.007
3	693222	1522644	0	0	1	0.456	0.007
4	693258	1522447	0	0	1	0.456	0.007
5	693294	1522250	0	0	1	0.456	0.007
6	693330	1522053	0	0	1	0.456	0.007
7	693366	1521856	0	0	1	0.456	0.007
8	693402	1521659	0	0	1	0.456	0.007
9	668372	1506027	0	0	1	1.591	2.503
10	663269	1512229	0	0	1	50.488	79.435
11	665585	1527977	0	0	1	1.061	1.669
12	665590	1527977	0	0	1	9.547	15.020
13	675035	1541800	0	0	1	32.272	50.775
14	675028	1541805	0	0	1	13.667	21.503
15	675021	1541810	0	0	1	22.356	35.174
16	675014	1541815	0	0	1	39.334	61.885
17	675007	1541820	0	0	1	18.923	29.772
18	675000	1541825	0	0	1	34.440	54.186
19	671955	1499950	0	0	4	70.176	109.970
20	671950	1499800	0	0	4	0.000	0.000
21	671980	1499800	0	0	4	0.000	0.000
22	672000	1499800	0	0	4	0.000	0.000
23	680000	1495000	0	0	4	7.422	13.640
24	680005	1495010	0	0	4	0.000	0.000
25	680010	1495020	0	0	4	0.000	0.000
26	680015	1495030	0	0	4	0.000	0.000
27	680020	1495040	0	0	4	0.000	0.000
28	680188	1497695	0	0	4	14.196	0.096
29	680830	1494559	0	0	4	57.562	109.140
30	680830	1494564	0	0	4	0.000	0.000
31	680830	1494569	0	0	4	0.000	0.000
32	680830	1494589	0	0	4	0.000	0.000
33	694516	1499946	0	0	4	2.046	0.019
34	666584	1508680	0	0	4	76.806	134.710
35	666589	1508680	0	0	4	0.000	0.000
36	666594	1508680	0	0	4	0.000	0.000
37	666644	1508730	0	0	4	0.000	0.000
38	666644	1508740	0	0	4	0.000	0.000
39	668240	1409600	0	0	4	46.407	73.014
40	668245	1409600	0	0	4	0.000	0.000
41	669186	1509653	0	0	4	678.254	54.994
42	669216	1509683	0	0	4	0.000	0.000
43	669221	1509683	0	0	4	0.000	0.000
44	668925	1504592	0	0	4	479.541	754.478
45	664323	1541437	0	0	2	123.753	194.704
46	664333	1541447	0	0	2	123.753	194.704
47	664343	1541457	0	0	2	123.753	194.704
48	629402	1524660	0	0	6	123.753	194.704
49	629452	1524660	0	0	6	24.674	0.229
50	629502	1524660	0	0	6	2.237	0.021
51	629080	1529484	0	0	6	44.947	70.716
52	629085	1529489	0	0	6	44.947	70.716
53	629090	1529494	0	0	6	1.306	2.054
54	625913	1558152	0	0	6	41.048	64.582

Airviro Main Point Sources

code	X1 (UTM)	Y1 (UTM)	X2 (UTM)	Y2 (UTM)	province code	Nox (T/Y)	Sox (T/Y)
55	625918	1558152	0	0	6	40.659	63.971
56	625913	1558172	0	0	6	39.860	62.713
57	633350	1499389	0	0	5	3.388	0.031
58	633350	1499389	0	0	5	0.000	0.000
59	634802	1498548	0	0	5	67.589	106.341
60	634812	1498548	0	0	5	67.589	106.341
61	634802	1498558	0	0	5	67.589	106.341
62	639534	1500085	0	0	5	35.199	55.380
63	639539	1500090	0	0	5	51.029	80.286
64	641597	1506754	0	0	5	26.884	42.297
65	674905	1562425	0	0	3	15.372	24.185
66	674910	1562430	0	0	3	1.662	0.015
67	674915	1562435	0	0	3	5.881	0.055
68	674920	1562440	0	0	3	1,207.170	18.216
69	674925	1562445	0	0	3	7.863	0.073
70	674930	1562450	0	0	3	7.863	0.073
71	674935	1562455	0	0	3	1,207.170	18.216
72	674940	1562460	0	0	3	1,207.170	18.216
73	674945	1562465	0	0	3	0.000	0.000
74	674950	1562470	0	0	3	0.000	0.000
75	674955	1562475	0	0	3	0.000	0.000
76	674960	1562480	0	0	3	0.000	0.000
77	674965	1562485	0	0	3	0.000	0.000
78	674970	1562490	0	0	3	0.000	0.000
79	674975	1562495	0	0	3	0.000	0.000
80	681717	1548733	0	0	3	124.161	195.348
81	681727	1548743	0	0	3	118.407	186.293
82	681737	1548753	0	0	3	136.889	215.372
83	681747	1548763	0	0	3	222.520	350.099
84	677913	1546702	0	0	3	4.339	0.029
85	677918	1546702	0	0	3	5.654	0.038
86	677923	1546707	0	0	3	4.112	0.028
87	677928	1546707	0	0	3	5.142	0.035
88	677933	1546707	0	0	3	6.426	0.043
89	672680	1513280	0	0	1	484.704	161.093
90	672690	1513290	0	0	1	135.432	192.456
91	672700	1513300	0	0	1	72.706	65.578
92	672710	1513310	0	0	1	85.536	146.124
93	672720	1513320	0	0	1	8.610	0.570
94	672730	1513330	0	0	1	0.000	0.000
95	668837	1505785	0	0	4	781.096	6,591.823
96	668862	1505775	0	0	4	951.471	388.572
97	668887	1505765	0	0	4	2,203.398	7,906.928
98	668912	1505755	0	0	4	3,336.580	9,298.328
99	668937	1505745	0	0	4	2,102.689	574.295
100	668687	1505750	0	0	4	3,865.993	5.091
101	668688	1505755	0	0	4	4,835.730	9.042
102	664124	1526958	0	0	2	0.000	
103	664144	1526938	0	0	2	300.516	2,755.600
104	664164	1526918	0	0	2	0.000	
105	695200	1528100	0	0	1	92.674	0.840
106	679000	1497000	0	0	4	502.386	3.400

3. Mobile Source Inventory

3.1 Input/Output Files of MOBILE 5a

MOBILE 5a divides vehicle type into 8 categories, namely LDGV, LDGT1, LDGT2, HDGV, LDDV, LDDT, HDDV and MC. However, only 5 categories, LDGV, LDDV, LDDT, HDDV and MC were utilized in the study since there was not any or few light duty gasoline fueled truck or heavy duty gasoline fueled vehicle in Thailand.

Four runs were implemented for each case, namely

- the first was for LDGV by modifying LDGV in MOBILE 5a
- the second was for Taxi (Gasoline) by modifying LDGV in MOBILE 5a
- the third was for Taxi (LPG) by modifying LDGV in MOBILE 5a
- the fourth was for LDDV, LDDT, HDDV and MC by modifying LDDV, LDDT, HDDV and MC in MOBILE 5a respectively.

The following table shows the titles of input/output files of MOBILE 5a. Each case has two groups of files, input and output files, output files come after input files.

Table 3.1 List of Input/Output Files

Case	Type for Calculation	Title *
2000	LDGV	TAciDES(JICA) Yr2000 1/4 LDGV
	Taxi (Gasoline)	TAciDES(JICA) Yr2000 2/4 Taxi(G)
	Taxi (LPG)	TAciDES(JICA) Yr2000 3/4 Taxi(L)
	LDDV, LDDT, HDDV, MC	TAciDES(JICA) Yr2000 4/4 LDDV/T,HDDV,MC
2011 (BAU)	LDGV	TAciDES(JICA) Yr2011 1/4 LDGV
	Taxi (Gasoline)	TAciDES(JICA) Yr2011 2/4 Taxi(G)
	Taxi (LPG)	TAciDES(JICA) Yr2011 3/4 Taxi(L)
	LDDV, LDDT, HDDV, MC	TAciDES(JICA) Yr2011 4/4 LDDV/T,HDDV,MC

*Note: titles are printed in the 2nd line of the input file and the 10th line of the output file.

```
1
TAciDES(JICA) Yr2000 1/4 LDGV
2
1
3
4
2
1
1
1
1
1
1
4
3
1
1
2
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
0.0320000.0785000.1519000.000000-0.24350-0.019500.000000-0.18490
0.0320000.0785000.1519000.000000-0.24350-0.019500.000000-0.18490
0.0320000.0785000.1519000.000000-0.24350-0.019500.000000-0.18490
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
-0.03890-0.001800.0017000.009700-0.020400.0009000.014500-0.05900
-0.03890-0.001800.0017000.009700-0.020400.0009000.014500-0.05900
-0.03890-0.001800.0017000.009700-0.020400.0009000.014500-0.05900
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
-0.003900.0024000.007500-0.00750-0.001900.0100000.0011000.009200
-0.003900.0024000.007500-0.00750-0.001900.0100000.0011000.009200
-0.003900.0024000.007500-0.00750-0.001900.0100000.0011000.009200
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
0.0767000.0444000.0297000.0000000.1198000.0438000.0073000.083900
0.0767000.0444000.0297000.0000000.1198000.0438000.0073000.083900
0.0767000.0444000.0297000.0000000.1198000.0438000.0073000.083900
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
0.0299000.0258000.0188000.0015000.0258000.0057000.0003000.027000
0.0299000.0258000.0188000.0015000.0258000.0057000.0003000.027000
0.0299000.0258000.0188000.0015000.0258000.0057000.0003000.027000
0.0000000.0000000.0000000.0000000.0000000.0000000.0000000.000000
0.0088000.0035000.0006000.0051000.0053000.0011000.0009000.004700
0.0088000.0035000.0006000.0051000.0053000.0011000.0009000.004700
0.0088000.0035000.0006000.0051000.0053000.0011000.0009000.004700
.430.000.000.000.070.155.178.167
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.127550.126980.124090.123870.124810.122880.122880.117490.117420.11469
0.114690.114690.110590.110740.111110.105870.110590.108140.105130.10000
0.100000.100000.100000.100000.10000
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
```

```
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
0.0540.0390.0290.0900.0950.0880.0900.0820.0640.045
0.0480.0360.0280.0190.0150.0150.0200.0210.0180.017
0.0160.0170.0170.0170.020
29
1 1 3 71 94 3.4400 0.0000 0.0000
1 1 3 95 95 0.5000 0.0750 0.2160
1 1 3 96 98 0.2070 0.0830 0.1940
1 1 3 99 03 0.1290 0.0830 0.1950
1 1 3 04 11 0.0770 0.0830 0.1950
1 5 3 71 94 1.8430 0.0400 0.0000
1 5 3 95 95 1.8430 0.0400 0.0000
1 5 3 96 00 1.6250 0.0400 0.0000
1 5 3 01 03 1.3190 0.0300 0.0000
1 5 3 04 11 1.1770 0.0300 0.0000
1 6 3 71 94 2.4890 0.0800 0.0000
1 6 3 95 96 2.4890 0.0800 0.0000
1 6 3 97 00 1.3560 0.0300 0.0000
1 6 3 01 03 1.1770 0.0300 0.0000
1 6 3 04 11 0.9160 0.0300 0.0000
1 7 3 71 97 20.381 0.0570 0.0000
1 7 3 98 99 16.742 0.0570 0.0000
1 7 3 00 11 14.650 0.0570 0.0000
1 8 3 76 94 0.0800 0.0000 0.0000
1 8 3 95 95 0.0900 0.0000 0.0000
1 8 3 96 96 0.1000 0.0000 0.0000
1 8 3 97 97 0.1200 0.0000 0.0000
1 8 3 98 98 0.1900 0.0000 0.0000
1 8 3 99 99 0.2200 0.0000 0.0000
1 8 3 00 00 0.2800 0.0000 0.0000
1 8 3 01 01 0.3100 0.0000 0.0000
1 8 3 02 02 0.3300 0.0000 0.0000
1 8 3 03 03 0.3500 0.0000 0.0000
1 8 3 04 11 0.3700 0.0000 0.0000
1 00 3.11 91.9 20.6 27.3 20.6  7
5 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 6.21 91.9 20.6 27.3 20.6  7
10 km/hr        B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 9.32 91.9 20.6 27.3 20.6  7
15 km/hr        B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 12.4 91.9 20.6 27.3 20.6  7
20 km/hr        B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 15.5 91.9 20.6 27.3 20.6  7
25 km/hr        B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 18.6 91.9 20.6 27.3 20.6  7
30 km/hr        B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 21.7 91.9 20.6 27.3 20.6  7
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35 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 24.8 91.9 20.6 27.3 20.6  7
40 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 28.0 91.9 20.6 27.3 20.6  7
45 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 31.1 91.9 20.6 27.3 20.6  7
50 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 34.2 91.9 20.6 27.3 20.6  7
55 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 37.3 91.9 20.6 27.3 20.6  7
60 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 40.4 91.9 20.6 27.3 20.6  7
65 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 43.5 91.9 20.6 27.3 20.6  7
70 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 46.6 91.9 20.6 27.3 20.6  7
75 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 49.7 91.9 20.6 27.3 20.6  7
80 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 52.8 91.9 20.6 27.3 20.6  7
85 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 55.9 91.9 20.6 27.3 20.6  7
90 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 59.0 91.9 20.6 27.3 20.6  7
95 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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1 00 62.1 91.9 20.6 27.3 20.6  7
100 km/hr         B75.2096.809.0009.000 20 1 2 1
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TAciDES(JICA) Yr2000 2/4 Taxi(G)
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29
1 1 3 71 94 3.4400 0.0000 0.0000
1 1 3 95 95 0.5000 0.0750 0.2160
1 1 3 96 98 0.2070 0.0830 0.1940
1 1 3 99 03 0.1290 0.0830 0.1950
1 1 3 04 11 0.0770 0.0830 0.1950
1 5 3 71 94 1.8430 0.0400 0.0000
1 5 3 95 95 1.8430 0.0400 0.0000
1 5 3 96 00 1.6250 0.0400 0.0000
1 5 3 01 03 1.3190 0.0300 0.0000
1 5 3 04 11 1.1770 0.0300 0.0000
1 6 3 71 94 2.4890 0.0800 0.0000
1 6 3 95 96 2.4890 0.0800 0.0000
1 6 3 97 00 1.3710 0.0300 0.0000
1 6 3 01 03 1.1770 0.0300 0.0000
1 6 3 04 11 0.9160 0.0300 0.0000
1 7 3 71 97 20.380 0.1700 0.0000
1 7 3 98 99 16.740 0.1700 0.0000
1 7 3 00 11 14.650 0.1700 0.0000
1 8 3 76 94 0.0800 0.0000 0.0000
1 8 3 95 95 0.0900 0.0000 0.0000
1 8 3 96 96 0.1000 0.0000 0.0000
1 8 3 97 97 0.1200 0.0000 0.0000
1 8 3 98 98 0.1900 0.0000 0.0000
1 8 3 99 99 0.2200 0.0000 0.0000
1 8 3 00 00 0.2800 0.0000 0.0000
1 8 3 01 01 0.3100 0.0000 0.0000
1 8 3 02 02 0.3300 0.0000 0.0000
1 8 3 03 03 0.3500 0.0000 0.0000
1 8 3 04 11 0.3700 0.0000 0.0000
1 00 3.11 91.9 20.6 27.3 20.6  7
5 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 6.21 91.9 20.6 27.3 20.6  7
10 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 9.32 91.9 20.6 27.3 20.6  7
15 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 12.4 91.9 20.6 27.3 20.6  7
20 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 15.5 91.9 20.6 27.3 20.6  7
25 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
.010.010.010.010.010.010.010.000.010.000
1 00 18.6 91.9 20.6 27.3 20.6  7
30 km/hr         B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 21.7 91.9 20.6 27.3 20.6  7
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35 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 24.8 91.9 20.6 27.3 20.6  7
40 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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.010.010.010.010.010.010.010.000.010.000
1 00 28.0 91.9 20.6 27.3 20.6  7
45 km/hr          B75.2096.809.0009.000 20 1 2 1
.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010.010
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1 00 31.1 91.9 20.6 27.3 20.6  7
50 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 34.2 91.9 20.6 27.3 20.6  7
55 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 37.3 91.9 20.6 27.3 20.6  7
60 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 40.4 91.9 20.6 27.3 20.6  7
65 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 43.5 91.9 20.6 27.3 20.6  7
70 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 46.6 91.9 20.6 27.3 20.6  7
75 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 49.7 91.9 20.6 27.3 20.6  7
80 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 52.8 91.9 20.6 27.3 20.6  7
85 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 55.9 91.9 20.6 27.3 20.6  7
90 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 59.0 91.9 20.6 27.3 20.6  7
95 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 62.1 91.9 20.6 27.3 20.6  7
100 km/hr         B75.2096.809.0009.000 20 1 2 1
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TAciDES(JICA) Yr2000 3/4 Taxi(L)
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1 1 3 71 94 0.6440 0.0000 0.0000
1 1 3 95 95 0.6440 0.0000 0.0000
1 1 3 96 98 0.6440 0.0000 0.0000
1 1 3 99 03 0.6440 0.0000 0.0000
1 1 3 04 11 0.6440 0.0000 0.0000
1 5 3 71 94 1.8430 0.0400 0.0000
1 5 3 95 95 1.8430 0.0400 0.0000
1 5 3 96 00 1.6250 0.0400 0.0000
1 5 3 01 03 1.3190 0.0300 0.0000
1 5 3 04 11 1.1770 0.0300 0.0000
1 6 3 71 94 2.4890 0.0800 0.0000
1 6 3 95 96 2.4890 0.0800 0.0000
1 6 3 97 00 1.3710 0.0300 0.0000
1 6 3 01 03 1.1770 0.0300 0.0000
1 6 3 04 11 0.9160 0.0300 0.0000
1 7 3 71 97 20.380 0.1700 0.0000
1 7 3 98 99 16.740 0.1700 0.0000
1 7 3 00 11 14.650 0.1700 0.0000
1 8 3 76 94 0.0800 0.0000 0.0000
1 8 3 95 95 0.0900 0.0000 0.0000
1 8 3 96 96 0.1000 0.0000 0.0000
1 8 3 97 97 0.1200 0.0000 0.0000
1 8 3 98 98 0.1900 0.0000 0.0000
1 8 3 99 99 0.2200 0.0000 0.0000
1 8 3 00 00 0.2800 0.0000 0.0000
1 8 3 01 01 0.3100 0.0000 0.0000
1 8 3 02 02 0.3300 0.0000 0.0000
1 8 3 03 03 0.3500 0.0000 0.0000
1 8 3 04 11 0.3700 0.0000 0.0000
1 00 3.11 91.9 20.6 27.3 20.6  7
5 km/hr         B75.2096.809.0009.000 20 1 2 1
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1 00 6.21 91.9 20.6 27.3 20.6  7
10 km/hr        B75.2096.809.0009.000 20 1 2 1
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1 00 9.32 91.9 20.6 27.3 20.6  7
15 km/hr        B75.2096.809.0009.000 20 1 2 1
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1 00 12.4 91.9 20.6 27.3 20.6  7
20 km/hr        B75.2096.809.0009.000 20 1 2 1
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1 00 15.5 91.9 20.6 27.3 20.6  7
25 km/hr        B75.2096.809.0009.000 20 1 2 1
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1 00 18.6 91.9 20.6 27.3 20.6  7
30 km/hr        B75.2096.809.0009.000 20 1 2 1
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1 00 21.7 91.9 20.6 27.3 20.6  7
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35 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 24.8 91.9 20.6 27.3 20.6  7
40 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 28.0 91.9 20.6 27.3 20.6  7
45 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 31.1 91.9 20.6 27.3 20.6  7
50 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 34.2 91.9 20.6 27.3 20.6  7
55 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 37.3 91.9 20.6 27.3 20.6  7
60 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 40.4 91.9 20.6 27.3 20.6  7
65 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 43.5 91.9 20.6 27.3 20.6  7
70 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 46.6 91.9 20.6 27.3 20.6  7
75 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 49.7 91.9 20.6 27.3 20.6  7
80 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 52.8 91.9 20.6 27.3 20.6  7
85 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 55.9 91.9 20.6 27.3 20.6  7
90 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 59.0 91.9 20.6 27.3 20.6  7
95 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 62.1 91.9 20.6 27.3 20.6  7
100 km/hr         B75.2096.809.0009.000 20 1 2 1
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TAcIDES(JICA) Yr2000 4/4 LDDV/T,HDDV,MC
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0.0440.0270.0230.0780.0980.1040.1160.1600.0460.030
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1 1 3 71 94 3.4400 0.0000 0.0000
1 1 3 95 95 0.5000 0.0700 0.2050
1 1 3 96 98 0.2070 0.0830 0.1940
1 1 3 99 03 0.1290 0.0830 0.1950
1 1 3 04 11 0.0770 0.0830 0.1950
1 5 3 71 94 1.8430 0.0400 0.0000
1 5 3 95 95 1.8430 0.0400 0.0000
1 5 3 96 00 1.6250 0.0400 0.0000
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1 5 3 01 03 1.3190 0.0300 0.0000
1 5 3 04 11 1.1770 0.0300 0.0000
1 6 3 71 94 2.4890 0.0800 0.0000
1 6 3 95 96 2.4890 0.0800 0.0000
1 6 3 97 00 1.3560 0.0300 0.0000
1 6 3 01 03 1.1770 0.0300 0.0000
1 6 3 04 11 0.9160 0.0300 0.0000
1 7 3 71 97 20.380 0.0570 0.0000
1 7 3 98 99 16.740 0.0000 0.0000
1 7 3 00 05 14.650 0.0000 0.0000
1 7 3 06 11 10.464 0.0000 0.0000
1 8 3 76 94 0.0800 0.0000 0.0000
1 8 3 95 95 0.0900 0.0000 0.0000
1 8 3 96 96 0.1000 0.0000 0.0000
1 8 3 97 97 0.1200 0.0000 0.0000
1 8 3 98 98 0.1900 0.0000 0.0000
1 8 3 99 99 0.2200 0.0000 0.0000
1 8 3 00 00 0.2800 0.0000 0.0000
1 8 3 01 01 0.3100 0.0000 0.0000
1 8 3 02 02 0.3300 0.0000 0.0000
1 8 3 03 03 0.3500 0.0000 0.0000
1 8 3 04 11 0.3700 0.0000 0.0000
1 00 3.11 91.9 20.6 27.3 20.6  7
5 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 6.21 91.9 20.6 27.3 20.6  7
10 km/hr         B75.2096.809.0009.000 20 1 2 1
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1 00 9.32 91.9 20.6 27.3 20.6  7
15 km/hr         B75.2096.809.0009.000 20 1 2 1
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20 km/hr         B75.2096.809.0009.000 20 1 2 1
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25 km/hr         B75.2096.809.0009.000 20 1 2 1
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30 km/hr         B75.2096.809.0009.000 20 1 2 1
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45 km/hr         B75.2096.809.0009.000 20 1 2 1
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50 km/hr         B75.2096.809.0009.000 20 1 2 1
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1 00 34.2 91.9 20.6 27.3 20.6  7
55 km/hr         B75.2096.809.0009.000 20 1 2 1
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60 km/hr          B75.2096.809.0009.000 20 1 2 1
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65 km/hr          B75.2096.809.0009.000 20 1 2 1
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70 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 46.6 91.9 20.6 27.3 20.6  7
75 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 49.7 91.9 20.6 27.3 20.6  7
80 km/hr          B75.2096.809.0009.000 20 1 2 1
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85 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 55.9 91.9 20.6 27.3 20.6  7
90 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 59.0 91.9 20.6 27.3 20.6  7
95 km/hr          B75.2096.809.0009.000 20 1 2 1
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1 00 62.1 91.9 20.6 27.3 20.6  7
100 km/hr         B75.2096.809.0009.000 20 1 2 1
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1                    MOBILE5a - (DATED 93085)

                     IBM-PC VERSION (1.00) MOBILE5a
                     (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
                     SERIAL NUMBER  8242 SOLD TO SECOT CO. LTD

 Run Began on 10/24/2002 at 18:18:31


1TAciDES(JICA) Yr2000 1/4 LDGV
 MOBILE5a (26-Mar-93)
OReplacement Tampering and Misfueling Rates Input by User:
0                                        Non-I/M Case
+
0                                        MYG1:pre1981
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component     |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+------------------+-------------------------------------------------------
 Air Pump          | 0.0000 0.0000 0.0320 0.0767 0.0320 0.0767 0.0320 0.0767
 Catalyst          | 0.0000 0.0000 0.0785 0.0444 0.0785 0.0444 0.0785 0.0444
 Fuel Inlet        | 0.0000 0.0000 0.1519 0.0297 0.1519 0.0297 0.1519 0.0297
 Other Misfueling  | 0.0000 0.0000-0.1519-0.0297-0.1519-0.0297-0.1519-0.0297
 EGR System        | 0.0000 0.0000-0.2435 0.1198-0.2435 0.1198-0.2435 0.1198
 Evap Canister     | 0.0000 0.0000-0.0195 0.0438-0.0195 0.0438-0.0195 0.0438
 PCV System        | 0.0000 0.0000 0.0000 0.0073 0.0000 0.0073 0.0000 0.0073
 Cap               | 0.0000 0.0000-0.1849 0.0839-0.1849 0.0839-0.1849 0.0839
 All Misfueling    | 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
0                                        MYG2:1981-83
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component     |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+------------------+-------------------------------------------------------
 Air Pump          | 0.0000 0.0000-0.0389 0.0299-0.0389 0.0299-0.0389 0.0299
 Catalyst          | 0.0000 0.0000-0.0018 0.0258-0.0018 0.0258-0.0018 0.0258
 Fuel Inlet        | 0.0000 0.0000 0.0017 0.0188 0.0017 0.0188 0.0017 0.0188
 Other Misfueling  | 0.0000 0.0000 0.0080 -0.0173 0.0080 -0.0173 0.0080 -0.0173
 EGR System        | 0.0000 0.0000-0.0204 0.0258-0.0204 0.0258-0.0204 0.0258
 Evap Canister     | 0.0000 0.0000 0.0009 0.0057 0.0009 0.0057 0.0009 0.0057
 PCV System        | 0.0000 0.0000 0.0145 0.0003 0.0145 0.0003 0.0145 0.0003
 Cap               | 0.0000 0.0000-0.0590 0.0270-0.0590 0.0270-0.0590 0.0270
 All Misfueling    | 0.0000 0.0000 0.0097 0.0015 0.0097 0.0015 0.0097 0.0015
0                                        MYG2: 1984+
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component     |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+------------------+-------------------------------------------------------
 Air Pump          | 0.0000 0.0000-0.0039 0.0088-0.0039 0.0088-0.0039 0.0088
 Catalyst          | 0.0000 0.0000 0.0024 0.0035 0.0024 0.0035 0.0024 0.0035
 Fuel Inlet        | 0.0000 0.0000 0.0075 0.0006 0.0075 0.0006 0.0075 0.0006
 Other Misfueling  | 0.0000 0.0000-0.0150 0.0045-0.0150 0.0045-0.0150 0.0045
 EGR System        | 0.0000 0.0000-0.0019 0.0053-0.0019 0.0053-0.0019 0.0053
 Evap Canister     | 0.0000 0.0000 0.0100 0.0011 0.0100 0.0011 0.0100 0.0011
 PCV System        | 0.0000 0.0000 0.0011 0.0009 0.0011 0.0009 0.0011 0.0009
 Cap               | 0.0000 0.0000 0.0092 0.0047 0.0092 0.0047 0.0092 0.0047
 All Misfueling    | 0.0000 0.0000-0.0075 0.0051-0.0075 0.0051-0.0075 0.0051
0              Emission Factor Modification Profile
+
0Equation  Reg  Veh  Pol  First MY  Last MY    Base     DR    50K DR  Altered
+--------  ---  ---  ---  --------  -------  ------  ------  ------  --------
       1    1    1    3      1971     1994    3.44    0.00    0.00     Yes
       2    1    1    3      1995     1995    0.50    0.08    0.22     Yes
       3    1    1    3      1996     1998    0.21    0.08    0.19     Yes
       4    1    1    3      1999     2003    0.13    0.08    0.19     Yes
       5    1    1    3      2004     2011    0.08    0.08    0.19     Yes
       6    1    5    3      1971     1994    1.84    0.04             Yes
       7    1    5    3      1995     1995    1.84    0.04             Yes
       8    1    5    3      1996     2000    1.63    0.04             Yes
       9    1    5    3      2001     2003    1.32    0.03             Yes
      10    1    5    3      2004     2011    1.18    0.03             Yes
      11    1    6    3      1971     1994    2.49    0.08             Yes
      12    1    6    3      1995     1996    2.49    0.08             Yes
      13    1    6    3      1997     2000    1.36    0.03             Yes
```

14	1	6	3	2001	2003	1.18	0.03	Yes
15	1	6	3	2004	2011	0.92	0.03	Yes
16	1	7	3	1971	1997	51.44	0.14	Yes
17	1	7	3	1998	1999	34.09	0.12	Yes
18	1	7	3	2000	2011	29.83	0.12	Yes
19	1	8	3	1976	1994	0.08	0.00	Yes
20	1	8	3	1995	1995	0.09	0.00	Yes
21	1	8	3	1996	1996	0.10	0.00	Yes
22	1	8	3	1997	1997	0.12	0.00	Yes
23	1	8	3	1998	1998	0.19	0.00	Yes
24	1	8	3	1999	1999	0.22	0.00	Yes
25	1	8	3	2000	2000	0.28	0.00	Yes
26	1	8	3	2001	2001	0.31	0.00	Yes
27	1	8	3	2002	2002	0.33	0.00	Yes
28	1	8	3	2003	2003	0.35	0.00	Yes
29	1	8	3	2004	2011	0.37	0.00	Yes

```
0Replacement Diesel Sales Fractions Input by User:
0        1976  1977  1978  1979  1980  1981  1982  1983  1984  1985
+        ____  ____  ____  ____  ____  ____  ____  ____  ____  ____
 LDDV:   0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010
 LDDT:   0.000 0.000 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010
0        1986  1987  1988  1989  1990  1991  1992  1993  1994  1995
+        ____  ____  ____  ____  ____  ____  ____  ____  ____  ____
 LDDV:   0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010
 LDDT:   0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010
0        1996  1997  1998  1999  2000
+        ____  ____  ____  ____  ____
 LDDV:   0.010 0.010 0.010 0.010 0.010
 LDDT:   0.010 0.010 0.010 0.010 0.010
0Total HC emission factors include evaporative HC emission factors.
0_____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                   I/M Program: No        Ambient Temp:   92.0 (F)
            Anti-tam. Program: No      Operating Mode:    20.6 / 27.3 / 20.6
             Reformulated Gas: No
05 km/hr
                 Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                 Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+           _____  _____  _____  _____  _____  _____  _____  _____  _____  _____
 Veh. Spd.:  3.1    3.1    3.1           3.1    3.1    3.1    3.1    3.1
   VMT Mix: 0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  3.48   0.00   0.00   0.00   0.00   3.64   4.89  86.11   0.10  17.85
 _____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                   I/M Program: No        Ambient Temp:   92.0 (F)
            Anti-tam. Program: No      Operating Mode:    20.6 / 27.3 / 20.6
             Reformulated Gas: No
010 km/hr
                 Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                 Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+           _____  _____  _____  _____  _____  _____  _____  _____  _____  _____
 Veh. Spd.:  6.2    6.2    6.2           6.2    6.2    6.2    6.2    6.2
   VMT Mix: 0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.91   0.00   0.00   0.00   0.00   3.20   4.30  75.74   0.09  15.64
 _____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                   I/M Program: No        Ambient Temp:   92.0 (F)
            Anti-tam. Program: No      Operating Mode:    20.6 / 27.3 / 20.6
             Reformulated Gas: No
015 km/hr
                 Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                 Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
```

```
+
 Veh. Spd.:  9.3    9.3    9.3          9.3    9.3    9.3    9.3    9.3
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.72   0.00   0.00   0.00  0.00   2.85   3.84  67.51   0.08  14.00

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:  20.6 / 27.3 / 20.6
                Reformulated Gas: No
020 km/hr
                  Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                  Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.:  12.4   12.4   12.4         12.4   12.4   12.4   12.4   12.4
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.62   0.00   0.00   0.00  0.00   2.58   3.47  61.07   0.08  12.73

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:  20.6 / 27.3 / 20.6
                Reformulated Gas: No
025 km/hr
                  Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                  Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.:  15.5   15.5   15.5         15.5   15.5   15.5   15.5   15.5
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.56   0.00   0.00   0.00  0.00   2.37   3.18  55.96   0.09  11.74

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:  20.6 / 27.3 / 20.6
                Reformulated Gas: No
030 km/hr
                  Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                  Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.:  18.6   18.6   18.6         18.6   18.6   18.6   18.6   18.6
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.52   0.00   0.00   0.00  0.00   2.20   2.95  51.98   0.09  10.96

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000  ,       Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:  20.6 / 27.3 / 20.6
                Reformulated Gas: No
035 km/hr
                  Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                  Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.:  21.7   21.7   21.7         21.7   21.7   21.7   21.7   21.7
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.55   0.00   0.00   0.00  0.00   2.07   2.78  48.95   0.10  10.40

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
```

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                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
040 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 24.8   24.8   24.8         24.8  24.8  24.8  24.8  24.8
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.58   0.00   0.00   0.00   0.00   1.98   2.65  46.72   0.10   9.99
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
045 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 28.0   28.0   28.0         28.0  28.0  28.0  28.0  28.0
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.61   0.00   0.00   0.00   0.00   1.91   2.57  45.18   0.11   9.71
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
050 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 31.1   31.1   31.1         31.1  31.1  31.1  31.1  31.1
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.64   0.00   0.00   0.00   0.00   1.87   2.52  44.34   0.11   9.57
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
055 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 34.2   34.2   34.2         34.2  34.2  34.2  34.2  34.2
   VMT Mix:  0.430  0.000  0.000        0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.66   0.00   0.00   0.00   0.00   1.87   2.51  44.12   0.12   9.53
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
060 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
```

```
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 37.3   37.3   37.3          37.3   37.3   37.3   37.3   37.3
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.67   0.00   0.00   0.00   0.00   1.88   2.53  44.50   0.12   9.61

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:   20.6 / 27.3 / 20.6
                Reformulated Gas: No
065 km/hr
                   Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                   Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 40.4   40.4   40.4          40.4   40.4   40.4   40.4   40.4
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.69   0.00   0.00   0.00   0.00   1.92   2.58  45.50   0.12   9.81

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:   20.6 / 27.3 / 20.6
                Reformulated Gas: No
070 km/hr
                   Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                   Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 43.5   43.5   43.5          43.5   43.5   43.5   43.5   43.5
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.71   0.00   0.00   0.00   0.00   1.99   2.68  47.16   0.12  10.13

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:   20.6 / 27.3 / 20.6
                Reformulated Gas: No
075 km/hr
                   Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                   Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 46.6   46.6   46.6          46.6   46.6   46.6   46.6   46.6
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.72   0.00   0.00   0.00   0.00   2.10   2.81  49.55   0.13  10.59

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
            mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                  I/M Program: No        Ambient Temp:   92.0 (F)
               Anti-tam. Program: No     Operating Mode:   20.6 / 27.3 / 20.6
                Reformulated Gas: No
080 km/hr
                   Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                   Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 49.7   49.7   49.7          49.7   49.7   49.7   49.7   49.7
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.88   0.00   0.00   0.00   0.00   2.23   3.00  52.78   0.14  11.28

0Emission factors are as of July 1st of the indicated calendar year.
```

```
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
085 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 52.8   52.8   52.8           52.8   52.8   52.8   52.8   52.8
   VMT Mix:  0.430  0.000  0.000          0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  3.17   0.00   0.00   0.00   0.00   2.41   3.24  56.99   0.15  12.20
```

```
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
090 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 55.9   55.9   55.9           55.9   55.9   55.9   55.9   55.9
   VMT Mix:  0.430  0.000  0.000          0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  3.45   0.00   0.00   0.00   0.00   2.64   3.54  62.39   0.16  13.35
```

```
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
095 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 59.0   59.0   59.0           59.0   59.0   59.0   59.0   59.0
   VMT Mix:  0.430  0.000  0.000          0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  3.74   0.00   0.00   0.00   0.00   2.93   3.93  69.23   0.17  14.78
```

```
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
0100 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2   LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 62.1   62.1   62.1           62.1   62.1   62.1   62.1   62.1
   VMT Mix:  0.430  0.000  0.000          0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  4.03   0.00   0.00   0.00   0.00   3.29   4.42  77.89   0.19  16.54
```

```
1                    MOBILE5a - (DATED 93085)

                     IBM-PC VERSION (1.00) MOBILE5a
                     (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
                     SERIAL NUMBER  8242 SOLD TO SECOT CO. LTD

 Run Began on 10/24/2002 at 18:18:31


1TAciDES(JICA) Yr2000 2/4 Taxi(G)
 MOBILE5a (26-Mar-93)
OReplacement Tampering and Misfueling Rates Input by User:
0                                        Non-I/M Case
+
0                                        MYG1:pre1981
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component      |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+-------------------+-------------------------------------------------------
 Air Pump           | 0.0000 0.0000 0.0320 0.0767 0.0320 0.0767 0.0320 0.0767
 Catalyst           | 0.0000 0.0000 0.0785 0.0444 0.0785 0.0444 0.0785 0.0444
 Fuel Inlet         | 0.0000 0.0000 0.1519 0.0297 0.1519 0.0297 0.1519 0.0297
 Other Misfueling   | 0.0000 0.0000-0.1519 -0.0297-0.1519 -0.0297-0.1519 -0.0297
 EGR System         | 0.0000 0.0000-0.2435 0.1198-0.2435 0.1198-0.2435 0.1198
 Evap Canister      | 0.0000 0.0000-0.0195 0.0438-0.0195 0.0438-0.0195 0.0438
 PCV System         | 0.0000 0.0000 0.0000 0.0073 0.0000 0.0073 0.0000 0.0073
 Cap                | 0.0000 0.0000-0.1849 0.0839-0.1849 0.0839-0.1849 0.0839
 All Misfueling     | 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
0                                        MYG2:1981-83
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component      |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+-------------------+-------------------------------------------------------
 Air Pump           | 0.0000 0.0000-0.0389 0.0299-0.0389 0.0299-0.0389 0.0299
 Catalyst           | 0.0000 0.0000-0.0018 0.0258-0.0018 0.0258-0.0018 0.0258
 Fuel Inlet         | 0.0000 0.0000 0.0017 0.0188 0.0017 0.0188 0.0017 0.0188
 Other Misfueling   | 0.0000 0.0000 0.0080 -0.0173 0.0080 -0.0173 0.0080 -0.0173
 EGR System         | 0.0000 0.0000-0.0204 0.0258-0.0204 0.0258-0.0204 0.0258
 Evap Canister      | 0.0000 0.0000 0.0009 0.0057 0.0009 0.0057 0.0009 0.0057
 PCV System         | 0.0000 0.0000 0.0145 0.0003 0.0145 0.0003 0.0145 0.0003
 Cap                | 0.0000 0.0000-0.0590 0.0270-0.0590 0.0270-0.0590 0.0270
 All Misfueling     | 0.0000 0.0000 0.0097 0.0015 0.0097 0.0015 0.0097 0.0015
0                                        MYG2: 1984+
+
0                        LDGV          LDGT1          LDGT2          HDGV
+
0    Component      |  ZML    DET    ZML    DET    ZML    DET    ZML    DET
+-------------------+-------------------------------------------------------
 Air Pump           | 0.0000 0.0000-0.0039 0.0088-0.0039 0.0088-0.0039 0.0088
 Catalyst           | 0.0000 0.0000 0.0024 0.0035 0.0024 0.0035 0.0024 0.0035
 Fuel Inlet         | 0.0000 0.0000 0.0075 0.0006 0.0075 0.0006 0.0075 0.0006
 Other Misfueling   | 0.0000 0.0000-0.0150 0.0045-0.0150 0.0045-0.0150 0.0045
 EGR System         | 0.0000 0.0000-0.0019 0.0053-0.0019 0.0053-0.0019 0.0053
 Evap Canister      | 0.0000 0.0000 0.0100 0.0011 0.0100 0.0011 0.0100 0.0011
 PCV System         | 0.0000 0.0000 0.0011 0.0009 0.0011 0.0009 0.0011 0.0009
 Cap                | 0.0000 0.0000 0.0092 0.0047 0.0092 0.0047 0.0092 0.0047
 All Misfueling     | 0.0000 0.0000-0.0075 0.0051-0.0075 0.0051-0.0075 0.0051
0              Emission Factor Modification Profile
+
OEquation  Reg  Veh  Pol  First MY  Last MY    Base     DR    50K DR  Altered
+---------  ---  ---  ---  --------  -------  ------  ------  ------  -------
        1    1    1    3      1971     1994    3.44    0.00    0.00      Yes
        2    1    1    3      1995     1995    0.50    0.08    0.22      Yes
        3    1    1    3      1996     1998    0.21    0.08    0.19      Yes
        4    1    1    3      1999     2003    0.13    0.08    0.19      Yes
        5    1    1    3      2004     2011    0.08    0.08    0.19      Yes
        6    1    5    3      1971     1994    1.84    0.04              Yes
        7    1    5    3      1995     1995    1.84    0.04              Yes
        8    1    5    3      1996     2000    1.63    0.04              Yes
        9    1    5    3      2001     2003    1.32    0.03              Yes
       10    1    5    3      2004     2011    1.18    0.03              Yes
       11    1    6    3      1971     1994    2.49    0.08              Yes
       12    1    6    3      1995     1996    2.49    0.08              Yes
       13    1    6    3      1997     2000    1.37    0.03              Yes
```

```
    14      1    6    3     2001     2003      1.18    0.03          Yes
    15      1    6    3     2004     2011      0.92    0.03          Yes
    16      1    7    3     1971     1997     51.43    0.43          Yes
    17      1    7    3     1998     1999     34.08    0.35          Yes
    18      1    7    3     2000     2011     29.83    0.35          Yes
    19      1    8    3     1976     1994      0.08    0.00          Yes
    20      1    8    3     1995     1995      0.09    0.00          Yes
    21      1    8    3     1996     1996      0.10    0.00          Yes
    22      1    8    3     1997     1997      0.12    0.00          Yes
    23      1    8    3     1998     1998      0.19    0.00          Yes
    24      1    8    3     1999     1999      0.22    0.00          Yes
    25      1    8    3     2000     2000      0.28    0.00          Yes
    26      1    8    3     2001     2001      0.31    0.00          Yes
    27      1    8    3     2002     2002      0.33    0.00          Yes
    28      1    8    3     2003     2003      0.35    0.00          Yes
    29      1    8    3     2004     2011      0.37    0.00          Yes
0Replacement Diesel Sales Fractions Input by User:
0          1976   1977   1978   1979   1980   1981   1982   1983   1984   1985
+
 LDDV:    0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010
 LDDT:    0.000  0.000  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010
0          1986   1987   1988   1989   1990   1991   1992   1993   1994   1995
+
 LDDV:    0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010
 LDDT:    0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010  0.010
0          1996   1997   1998   1999   2000
+
 LDDV:    0.010  0.010  0.010  0.010  0.010
 LDDT:    0.010  0.010  0.010  0.010  0.010
0Total HC emission factors include evaporative HC emission factors.
0_____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
05 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.:  3.1    3.1    3.1           3.1    3.1    3.1    3.1    3.1
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  3.49   0.00   0.00   0.00   0.00   3.41   4.55  88.26   0.10  18.17
_____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
010 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.:  6.2    6.2    6.2           6.2    6.2    6.2    6.2    6.2
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.90   0.00   0.00   0.00   0.00   3.00   4.00  77.63   0.09  15.91
_____________________________________________________________________________
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates, basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
015 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
```

```
+
 Veh. Spd.:  9.3   9.3   9.3          9.3   9.3   9.3   9.3   9.3
   VMT Mix:  0.430 0.000 0.000        0.000 0.070 0.155 0.178 0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.71  0.00  0.00  0.00  0.00  2.68  3.56 69.20  0.08 14.23

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
020 km/hr
                    Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                    Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 12.4   12.4   12.4         12.4  12.4  12.4  12.4  12.4
   VMT Mix:  0.430 0.000 0.000        0.000 0.070 0.155 0.178 0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.61  0.00  0.00  0.00  0.00  2.42  3.22 62.59  0.08 12.95

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
025 km/hr
                    Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                    Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 15.5   15.5   15.5         15.5  15.5  15.5  15.5  15.5
   VMT Mix:  0.430 0.000 0.000        0.000 0.070 0.155 0.178 0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.55  0.00  0.00  0.00  0.00  2.22  2.95 57.35  0.09 11.93

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
030 km/hr
                    Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                    Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 18.6   18.6   18.6         18.6  18.6  18.6  18.6  18.6
   VMT Mix:  0.430 0.000 0.000        0.000 0.070 0.155 0.178 0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.51  0.00  0.00  0.00  0.00  2.06  2.74 53.28  0.09 11.15

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
              mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                    I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
035 km/hr
                    Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                    Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT  HDGV  LDDV  LDDT  HDDV  MC  All Veh
+
 Veh. Spd.: 21.7   21.7   21.7         21.7  21.7  21.7  21.7  21.7
   VMT Mix:  0.430 0.000 0.000        0.000 0.070 0.155 0.178 0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.54  0.00  0.00  0.00  0.00  1.94  2.58 50.17  0.10 10.57

0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
```

```
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
040 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 24.8   24.8   24.8          24.8   24.8   24.8   24.8   24.8
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.58   0.00   0.00   0.00   0.00   1.85   2.47  47.89   0.10  10.16
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
045 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 28.0   28.0   28.0          28.0   28.0   28.0   28.0   28.0
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.61   0.00   0.00   0.00   0.00   1.79   2.38  46.31   0.11   9.88
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
050 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 31.1   31.1   31.1          31.1   31.1   31.1   31.1   31.1
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.63   0.00   0.00   0.00   0.00   1.76   2.34  45.45   0.11   9.73
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
055 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
0Veh. Type:  LDGV  LDGT1  LDGT2  LDGT   HDGV   LDDV   LDDT   HDDV   MC   All Veh
+
 Veh. Spd.: 34.2   34.2   34.2          34.2   34.2   34.2   34.2   34.2
   VMT Mix:  0.430  0.000  0.000         0.000  0.070  0.155  0.178  0.167
0Composite Emission Factors (Gm/Mile)
 Exhst NOX:  2.65   0.00   0.00   0.00   0.00   1.75   2.33  45.22   0.12   9.69
-------------------------------------------------------------------------------
0Emission factors are as of July 1st of the indicated calendar year.
0User supplied tampering and misfueling rates,  basic exhaust emissions rates,
                mileage accrual distributions, veh registration distributions.
0Cal. Year: 2000          Region: Low          Altitude:  500. Ft.
                     I/M Program: No        Ambient Temp:   92.0 (F)
                Anti-tam. Program: No      Operating Mode:   20.6 / 27.3 / 20.6
                 Reformulated Gas: No
060 km/hr
                     Minimum Temp: 75. (F)   Maximum Temp: 97. (F)
                     Period 1 RVP:  9.0      Period 2 RVP:  9.0 Period 2 Yr: 2020
```