

Table D5.1.4 Wind Direction Distribution

STATION : JM2

PERIOD : 1993/5/16~1994/5/15

PERIOD	WIND DIRECTION (%)																CLM (%)	A-WS (M/S)	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW			
NON-HEATING SEASON	MORNING	33.5	17.5	5.7	3.1	3.4	3.9	2.6	3.8	4.6	5.9	4.7	1.3	0.6	0.3	0.5	2.3	6.3	2.0
	AFTERNOON	7.0	10.7	7.0	5.7	6.5	6.0	5.6	6.9	8.3	12.2	9.7	5.3	2.6	2.0	2.0	2.1	0.2	2.9
HEATING SEASON	EVENING	12.0	7.8	3.9	2.3	3.2	2.2	2.0	3.8	5.9	7.8	8.3	6.5	5.4	3.9	3.0	8.2	13.9	1.8
	MIDNIGHT	35.6	4.4	0.9	0.5	0.3	0.2	0.4	1.5	3.6	3.8	5.6	3.7	3.4	1.9	1.3	13.5	19.6	1.3
ALL SEASON	DAY	22.1	9.5	4.2	2.8	3.2	2.9	2.6	3.9	5.6	7.3	7.1	4.3	3.1	2.1	1.7	7.0	10.6	2.0
	MORNING	29.2	8.1	3.0	2.0	0.8	1.0	1.9	4.0	7.9	10.1	8.4	4.2	2.4	0.9	0.7	4.8	10.4	2.3
HEATING SEASON	AFTERNOON	16.0	10.5	4.4	3.2	2.9	2.2	2.5	5.8	7.6	13.9	11.5	3.9	2.4	2.8	2.3	2.6	5.4	2.7
	EVENING	24.0	3.6	1.2	1.0	1.0	0.9	0.8	2.9	6.5	9.5	11.0	6.2	3.5	1.8	2.3	10.7	13.1	2.0
ALL SEASON	MIDNIGHT	31.7	3.7	2.1	0.9	0.6	0.5	0.7	2.1	7.5	9.3	9.1	4.0	2.1	1.5	1.5	9.6	13.1	2.1
	DAY	25.3	6.3	2.6	1.7	1.3	1.1	1.4	3.7	7.4	10.7	10.1	4.6	2.6	1.8	1.7	7.1	10.6	2.3
ALL SEASON	MORNING	31.3	12.8	4.4	2.6	2.1	2.4	2.2	3.9	6.2	8.0	6.6	2.7	1.5	0.6	0.6	3.6	8.3	2.2
	AFTERNOON	11.5	10.6	5.7	4.4	4.7	4.1	4.1	6.4	8.0	13.1	10.6	4.6	2.5	2.4	2.2	2.3	2.8	2.8
ALL SEASON	EVENING	18.0	5.7	2.5	1.6	2.1	1.6	1.4	3.4	6.2	8.6	9.7	6.3	4.4	2.8	2.6	9.4	13.5	1.9
	MIDNIGHT	33.7	4.1	1.5	0.7	0.5	0.3	0.5	1.8	5.6	6.5	7.4	3.8	2.8	1.7	1.4	11.5	16.3	1.7
ALL SEASON	DAY	23.7	7.9	3.4	2.2	2.3	2.0	2.0	3.8	6.5	9.0	8.6	4.4	2.9	1.9	1.7	7.0	10.6	2.1

Table D5.1.5 Wind Direction Distribution

STATION : MISKOLC

PERIOD : 1993/5/16~1994/5/15

PERIOD	WIND DIRECTION (%)																CLM (%)	A-WS (M/S)
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
MORNING	9.9	8.3	9.5	5.6	6.1	5.0	8.6	13.2	9.3	3.9	2.2	0.7	1.5	2.1	6.1	5.2	2.6	1.6
AFTERNOON	4.1	3.6	5.7	5.3	5.0	4.7	4.9	9.8	16.3	6.2	7.2	3.3	3.3	4.9	9.4	5.7	0.5	2.2
EVENING	5.2	4.1	4.5	3.7	2.6	1.5	2.6	5.5	11.0	8.4	5.6	2.4	4.2	11.5	16.8	8.2	2.4	1.5
MIDNIGHT	9.0	4.6	3.2	1.7	1.1	1.6	2.4	3.0	7.0	4.6	2.9	1.1	1.5	7.7	25.6	15.9	7.1	1.2
DAY	7.0	5.0	5.5	3.9	3.5	3.1	4.4	7.4	10.8	5.8	4.5	1.9	2.6	6.8	15.3	9.2	3.3	1.6
MORNING	9.5	5.7	6.0	1.6	2.5	2.3	4.4	8.2	18.6	5.6	3.3	0.5	0.7	3.2	11.8	7.3	8.8	1.8
AFTERNOON	5.1	4.5	5.8	3.3	4.7	3.1	5.2	12.9	15.8	9.4	4.5	1.2	1.5	3.1	10.8	4.9	4.1	2.0
EVENING	6.8	5.1	3.3	0.7	1.5	1.3	3.8	4.9	11.0	8.6	7.4	2.1	3.3	7.7	13.4	8.7	10.4	1.4
MIDNIGHT	10.5	4.1	3.3	0.9	1.9	1.9	2.6	5.2	13.5	7.7	4.5	0.5	2.0	6.7	14.0	10.4	10.6	1.3
DAY	8.0	4.8	4.5	1.6	2.6	2.1	3.9	7.7	14.5	7.9	5.0	1.1	1.9	5.3	12.6	7.9	8.6	1.6
MORNING	9.7	7.0	7.8	3.6	4.3	3.7	6.5	10.7	13.9	4.8	2.7	0.6	1.1	2.6	8.9	6.2	5.7	1.7
AFTERNOON	4.6	4.1	5.8	4.3	4.8	3.9	5.1	11.4	16.1	7.8	5.8	2.2	2.4	4.0	10.1	5.3	2.3	2.1
EVENING	6.0	4.6	3.9	2.2	2.0	1.4	3.2	5.2	11.0	8.5	6.5	2.2	3.7	9.6	15.1	8.4	6.4	1.4
MIDNIGHT	9.7	4.3	3.2	1.3	1.5	1.8	2.5	4.1	10.3	6.1	3.7	0.8	1.7	7.2	19.8	13.2	8.8	1.3
DAY	7.5	4.9	5.0	2.8	3.0	2.6	4.2	7.6	12.7	6.9	4.7	1.5	2.3	6.0	13.9	8.6	5.9	1.6

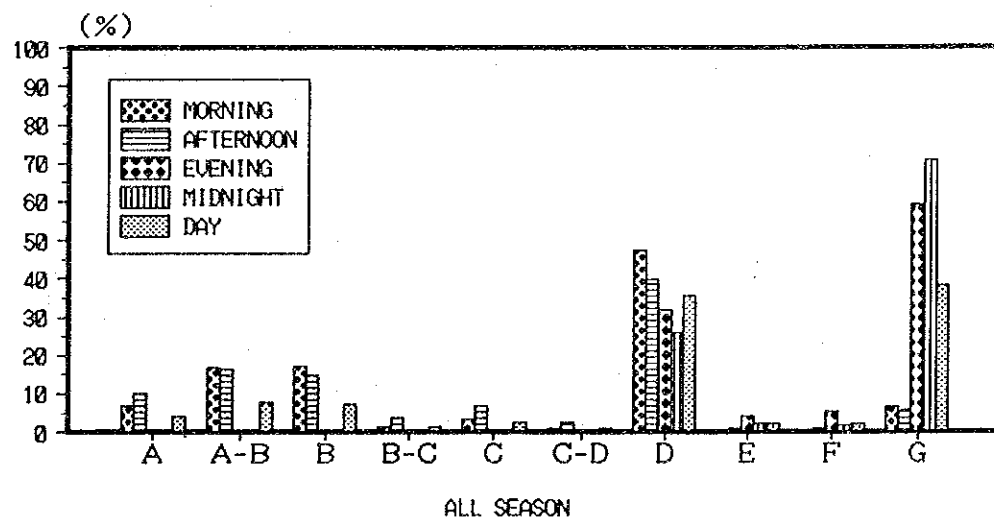
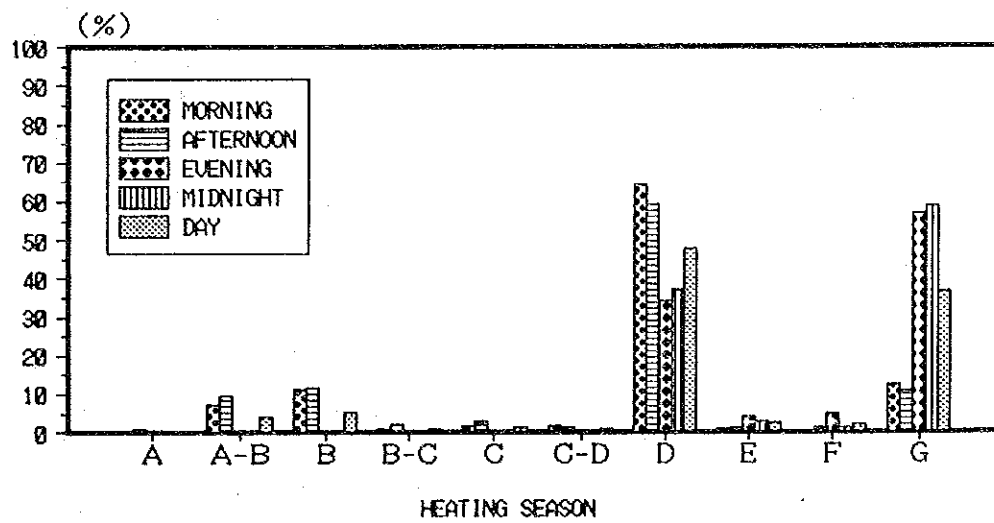
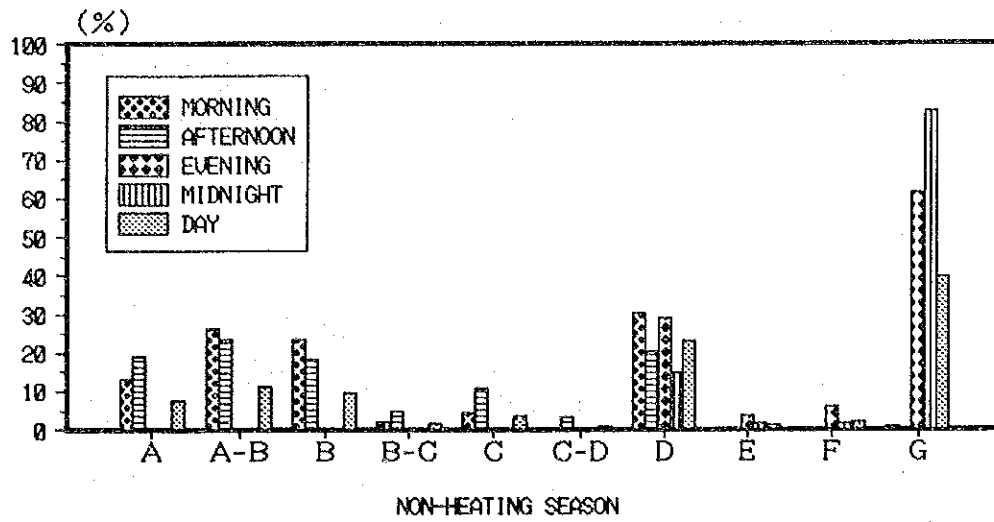


Figure D5.1.6 Appearance Frequency of Atmospheric Stability (JF1)

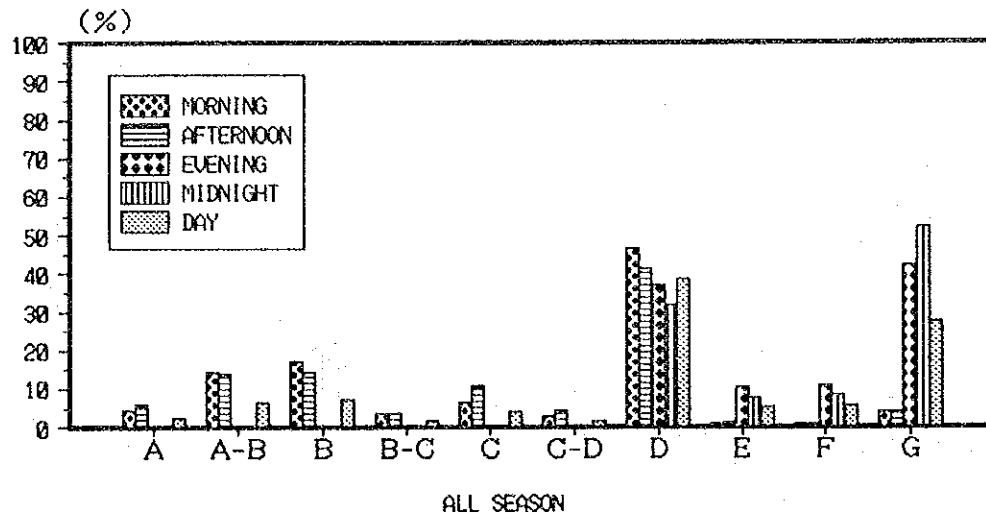
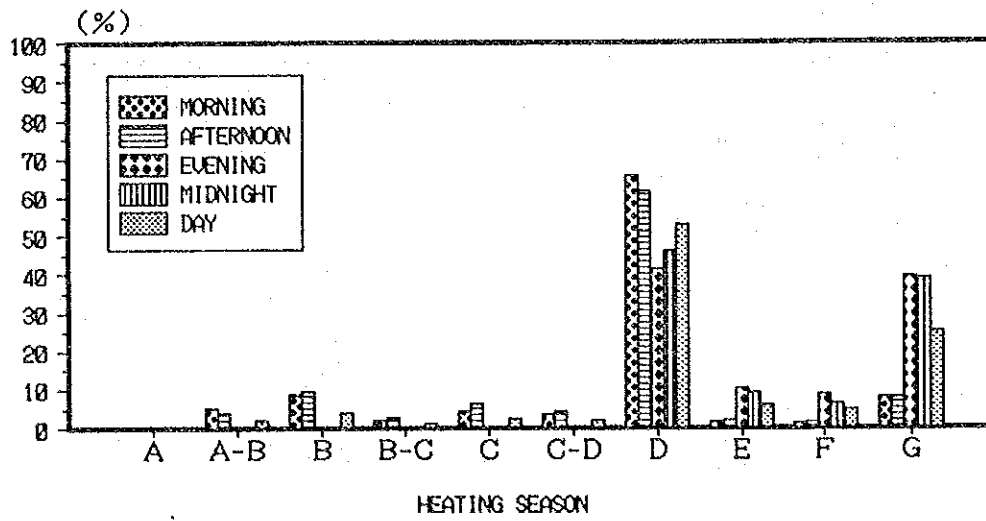
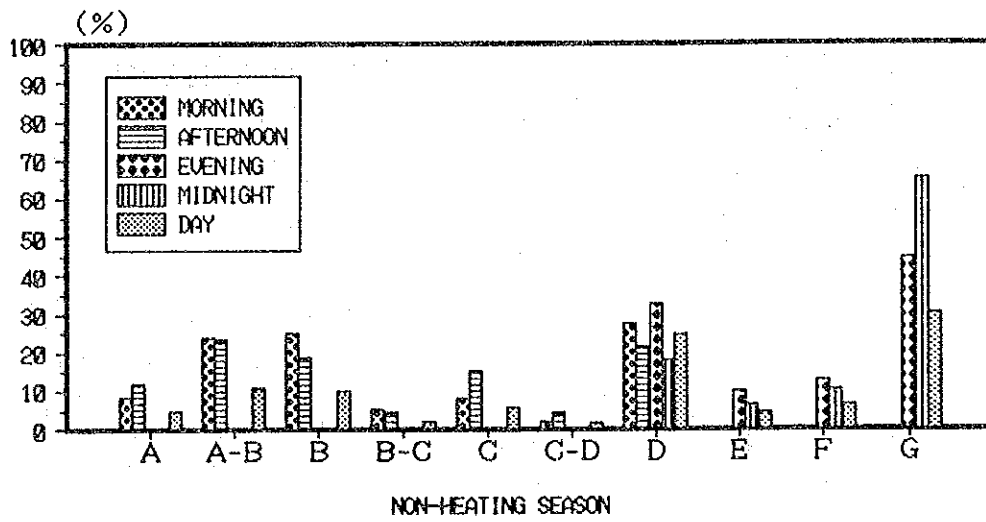


Figure D5.1.7 Appearance Frequency of Atmospheric Stability (JF2)

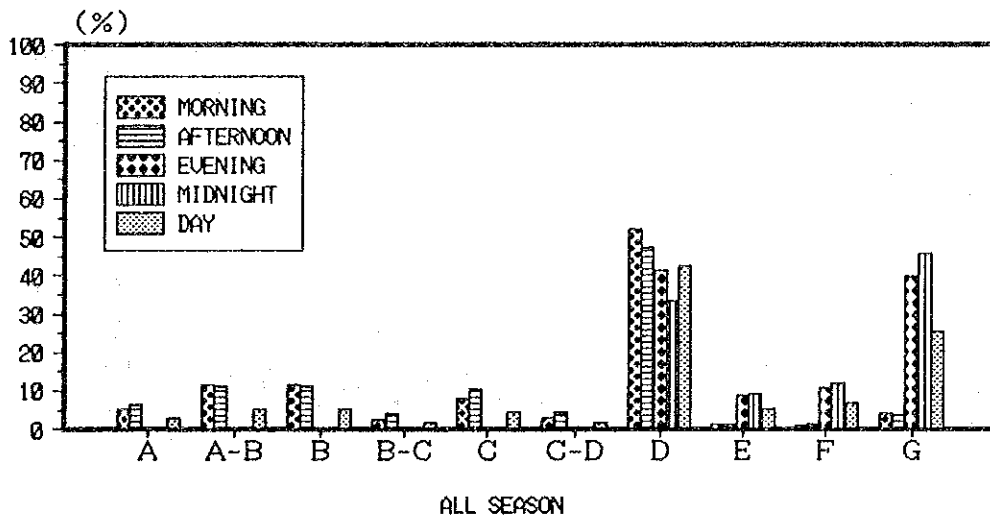
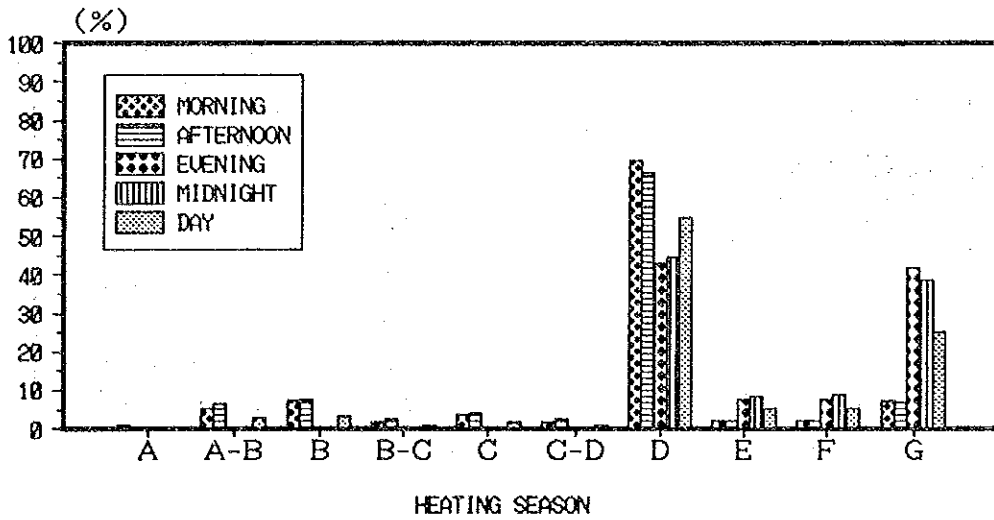
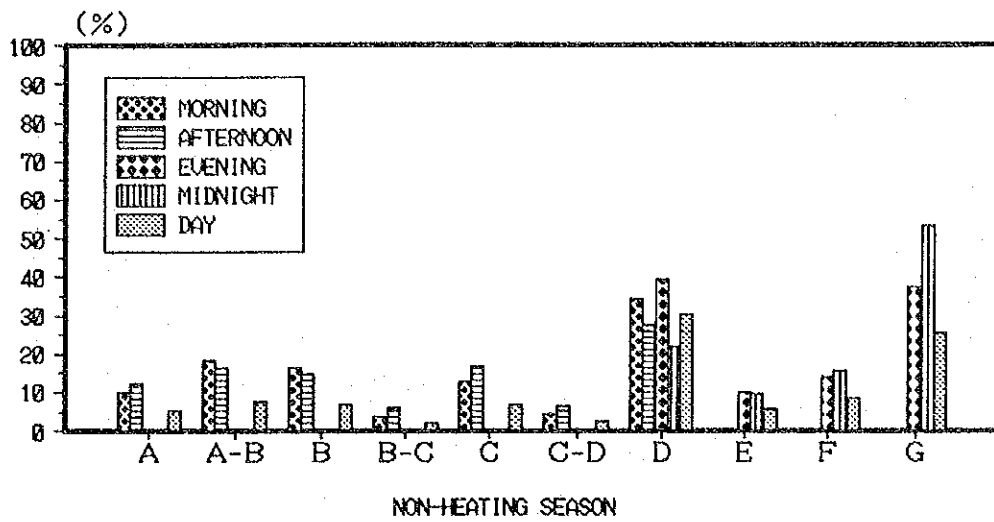


Figure D5.1.8 Appearance Frequency of Atmospheric Stability (JM1)

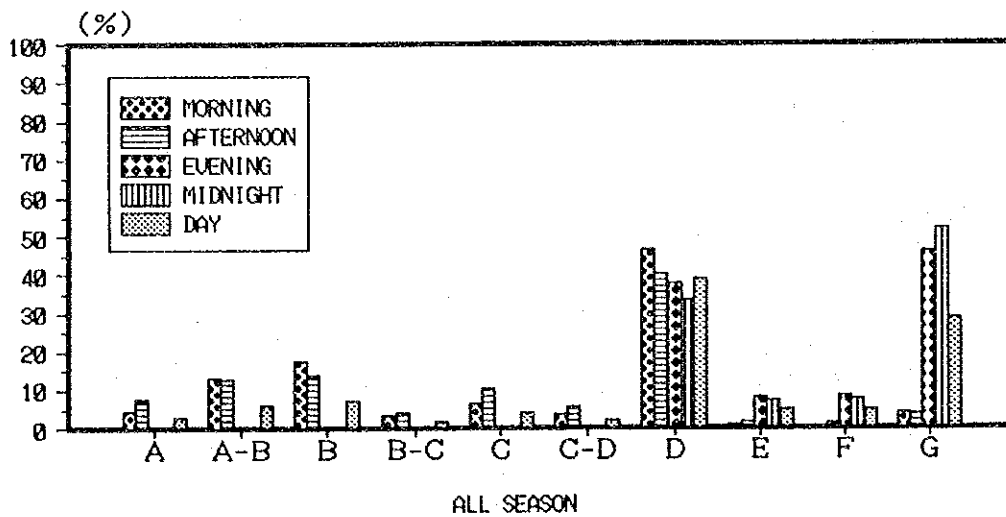
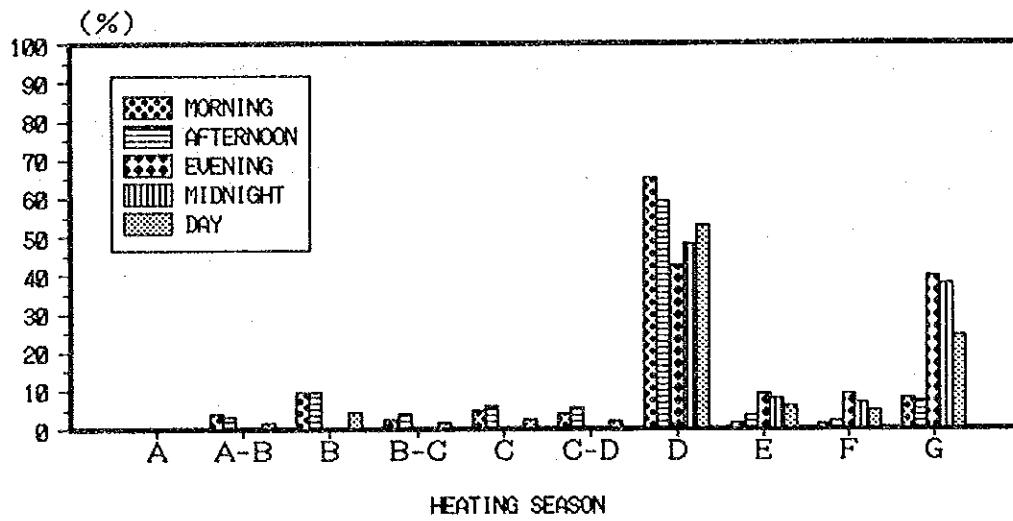
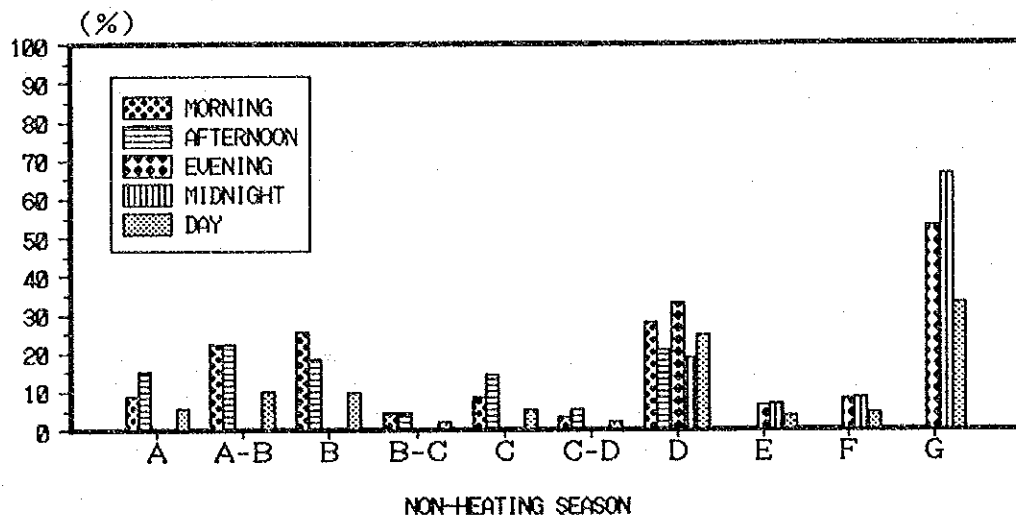


Figure D5.1.9 Appearance Frequency of Atmospheric Stability (JM2)

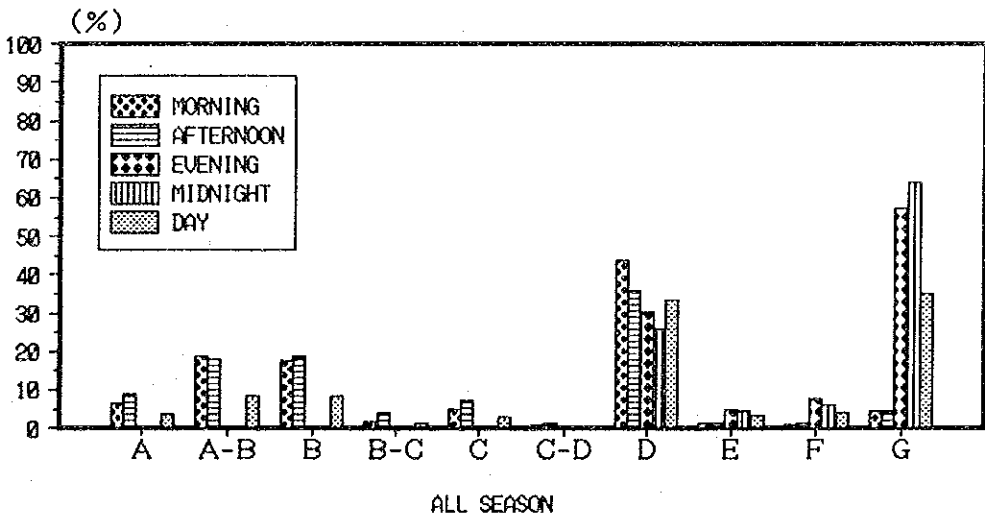
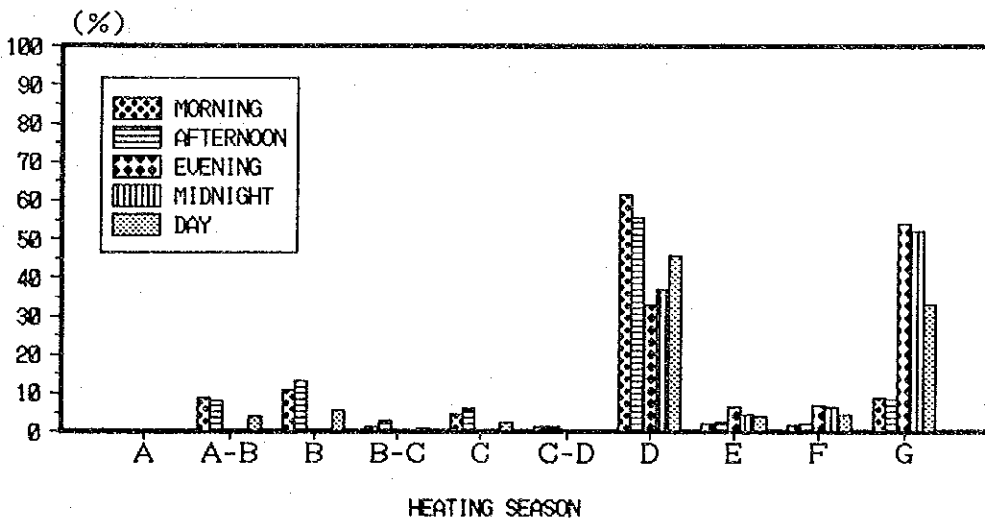
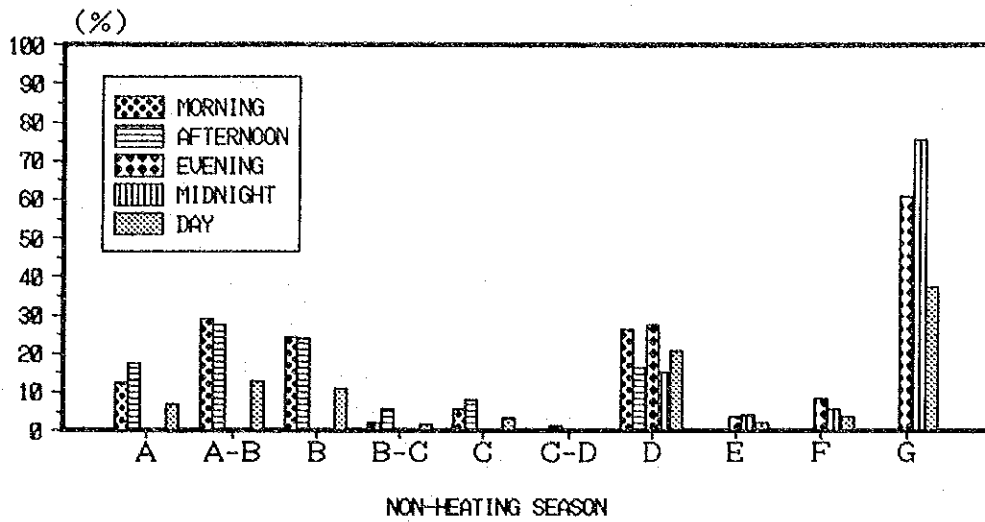


Figure D5.1.10 Appearance Frequency of Atmospheric Stability (MISKOLC)

Table D5.1.6 Appearance Frequency of Atmospheric Stability

PERIOD : 1993/5/16~1994/5/15

STATION : JF1

PERIOD	ATOMOSPHERIC STABILITY (PASQUILL)											TOTAL
	A	A-B	B	B-C	C	C-D	D	E	F	G		
NON-HEATING SEASON	MORNING	228 13.2	451 26.1	402 23.3	37 2.1	74 4.3	3 0.2	521 30.2			11 0.6	1,727 100.0
	AFTERNOON	400 19.1	487 23.3	379 18.1	103 4.9	228 10.9	68 3.3	423 20.2			1 0.0	2,089 100.0
	EVENING							603 29.0	76 3.7	120 5.8	1280 61.6	2,079 100.0
	MIDNIGHT							356 14.6	35 1.4	36 1.5	2004 82.4	2,431 100.0
HEATING SEASON	DAY	528 7.5	938 11.3	781 9.4	140 1.7	302 3.6	71 0.9	1,903 22.9	111 1.3	156 1.9	3,296 39.6	8,326 100.0
	MORNING	8 0.5	125 7.2	192 11.0	11 0.6	31 1.8	25 1.4	1,119 54.2	13 0.7	5 0.3	213 12.2	1,742 100.0
	AFTERNOON	18 0.9	193 9.3	237 11.5	39 1.9	57 2.8	28 1.4	1,218 59.0	26 1.3	25 1.2	224 10.8	2,065 100.0
	EVENING							717 34.3	85 4.1	99 4.7	1,187 56.8	2,088 100.0
ALL SEASON	MIDNIGHT							908 37.1	67 2.7	34 1.4	1,438 58.8	2,447 100.0
	DAY	26 0.3	318 3.8	429 5.1	50 0.6	88 1.1	53 0.6	3,962 47.5	191 2.3	163 2.0	3,062 36.7	8,342 100.0
	MORNING	236 6.8	576 16.6	594 17.1	48 1.4	105 3.0	28 0.8	1,640 47.3	13 0.4	5 0.1	224 6.5	3,469 100.0
	AFTERNOON	418 10.1	680 16.4	616 14.8	142 3.4	285 6.9	96 2.3	1,641 39.5	26 0.6	25 0.6	225 5.4	4,154 100.0
ALL SEASON	EVENING							1,320 31.7	161 3.9	219 5.3	2,467 59.2	4,167 100.0
	MIDNIGHT							1,264 25.9	102 2.1	70 1.4	3,442 70.6	4,878 100.0
ALL SEASON	DAY	654 3.9	1,256 7.5	1,210 7.3	190 1.1	390 2.3	124 0.7	5,865 35.2	302 1.8	319 1.9	6,358 38.1	16,668 100.0

STATION : JF2
 Table D5.1.7 Appearance Frequency of Atmospheric Stability
 PERIOD : 1993/5/16~1994/5/15

PERIOD	ATMOSPHERIC STABILITY (PASQUILL)											TOTAL
	A	A-B	B	B-C	C	C-D	D	E	F	G		
NON-HEATING SEASON	MORNING	150	427	448	92	142	36	496	2	2	7	1,802
		8.3	23.7	24.9	5.1	7.9	2.0	27.5	0.1	0.1	0.4	100.0
	AFTERNOON	257	508	406	95	328	94	466			1	2,155
		11.9	23.6	18.8	4.4	15.2	4.4	21.6			0.0	100.0
	EVENING							699	216	270	954	2,139
								32.7	10.1	12.6	44.6	100.0
HEATING SEASON	MIDNIGHT					2	448	163	259	1637	2,509	
					0.1		17.9	6.5	10.3	65.2	100.0	
	DAY	407	935	854	187	472	130	2,109	381	531	2,599	8,605
		4.7	10.9	9.9	2.2	5.5	1.5	24.5	4.4	6.2	30.2	100.0
	MORNING	2	90	156	32	80	60	1160	31	22	140	1,773
		0.1	5.1	8.8	1.8	4.5	3.4	65.4	1.7	1.2	7.9	100.0
ALL SEASON	AFTERNOON	2	88	200	58	132	93	1303	44	31	165	2,116
		0.1	4.2	9.5	2.7	6.2	4.4	61.6	2.1	1.5	7.8	100.0
	EVENING						890	226	191	847	2,154	
							41.3	10.5	8.9	39.3	100.0	
	MIDNIGHT						1151	224	156	974	2,505	
							45.9	8.9	6.2	38.9	100.0	
ALL SEASON	DAY	4	178	356	90	212	153	4,504	525	400	2,126	8,548
		0.0	2.1	4.2	1.1	2.5	1.8	52.7	6.1	4.7	24.9	100.0
	MORNING	152	517	604	124	222	96	1656	33	24	147	3,575
		4.3	14.5	16.9	3.5	6.2	2.7	46.3	0.9	0.7	4.1	100.0
	AFTERNOON	259	596	606	153	460	187	1759	44	31	166	4,271
		6.1	14.0	14.2	3.6	10.8	4.4	41.4	1.0	0.7	3.9	100.0
ALL SEASON	EVENING						1589	442	461	1801	4,293	
							37.0	10.3	10.7	42.0	100.0	
	MIDNIGHT					2	1599	387	415	2611	5,014	
					0.0		31.9	7.7	8.3	52.1	100.0	
	DAY	411	1,113	1,210	277	684	283	6,613	906	931	4,725	17,153
		2.4	6.5	7.1	1.6	4.0	1.6	38.6	5.3	5.4	27.5	100.0

Table D5.1.8 Appearance Frequency of Atmospheric Stability

STATION : JMI

PERIOD : 1993/5/16~1994/5/15

PERIOD	ATMOSPHERIC STABILITY (PASQUILL)											TOTAL	
	A	A-B	B	B-C	C	C-D	D	E	F	G			
NON-HEATING SEASON	MORNING	169	311	280	52	214	77	580	1			9	1,703
		9.9	18.3	16.4	3.6	12.6	4.5	34.1	0.1			0.5	100.0
	AFTERNOON	256	334	301	120	347	134	568	1				2,061
		12.4	16.2	14.6	5.8	16.8	6.5	27.6	0.0				100.0
HEATING SEASON	EVENING							850	213	297	807	2,167	
								39.2	9.8	13.7	37.2	100.0	
	MIDNIGHT							555	240	393	1349	2,537	
								21.9	9.5	15.5	53.2	100.0	
ALL SEASON	DAY	425	645	581	182	561	211	2,553	455	690	2,165	8,468	
		5.0	7.6	6.9	2.1	6.6	2.5	30.1	5.4	8.1	25.6	100.0	
	MORNING	11	93	124	25	66	26	1227	37	32	130	1,771	
		0.6	5.3	7.0	1.4	3.7	1.5	69.3	2.1	1.8	7.3	100.0	
NON-HEATING SEASON	AFTERNOON	8	132	163	47	85	47	1404	43	43	142	2,114	
		0.4	6.2	7.7	2.2	4.0	2.2	66.4	2.0	2.0	6.7	100.0	
	EVENING							939	163	168	911	2,181	
								43.1	7.5	7.7	41.8	100.0	
ALL SEASON	MIDNIGHT							1131	214	218	974	2,537	
								44.6	8.4	8.6	38.4	100.0	
	DAY	19	225	287	72	151	73	4,701	457	461	2,157	8,603	
		0.2	2.6	3.3	0.8	1.8	0.8	54.6	5.3	5.4	25.1	100.0	
NON-HEATING SEASON	MORNING	180	404	404	87	280	103	1807	38	32	139	3,474	
		5.2	11.6	11.6	2.5	8.1	3.0	52.0	1.1	0.9	4.0	100.0	
	AFTERNOON	264	466	464	167	432	181	1972	44	43	142	4,175	
		6.3	11.2	11.1	4.0	10.3	4.3	47.2	1.1	1.0	3.4	100.0	
ALL SEASON	EVENING							1789	376	465	1718	4,348	
								41.1	8.6	10.7	39.5	100.0	
	MIDNIGHT							1686	454	611	2323	5,074	
								33.2	8.9	12.0	45.8	100.0	
ALL SEASON	DAY	444	870	868	254	712	284	7,254	912	1,151	4,322	17,071	
		2.6	5.1	5.1	1.5	4.2	1.7	42.5	5.3	6.7	25.3	100.0	

Table D5.1.9 Appearance Frequency of Atmospheric Stability

PERIOD : 1993/5/16~1994/5/15

STATION : JM2

PERIOD	ATMOSPHERIC STABILITY (PASQUILL)											TOTAL
	A	A-B	B	B-C	C	C-D	D	E	F	G		
NON-HEATING SEASON	MORNING	155	391	447	79	147	53	494	1	1	5	1,773
		8.7	22.1	25.2	4.5	8.3	3.0	27.9	0.1	0.1	0.3	100.0
	AFTERNOON	319	478	388	92	305	112	439			1	2,134
		14.9	22.4	18.2	4.3	14.3	5.2	20.6			0.0	100.0
EVENING							716	142	170	1151	2,179	
							32.9	6.5	7.8	52.8	100.0	
MIDNIGHT			2				475	170	213	1691	2,551	
			0.1				18.6	6.7	8.3	66.3	100.0	
DAY	474	869	837	171	452	165	2,124	313	384	2,848	8,637	
	5.5	10.1	9.7	2.0	5.2	1.9	24.6	3.6	4.4	33.0	100.0	
MORNING	1	74	167	39	82	70	1158	31	18	141	1,781	
	0.1	4.2	9.4	2.2	4.6	3.9	65.0	1.7	1.0	7.9	100.0	
AFTERNOON	2	71	203	81	128	117	1265	72	44	150	2,133	
	0.1	3.3	9.5	3.8	6.0	5.5	59.3	3.4	2.1	7.0	100.0	
EVENING							919	197	197	859	2,172	
							42.3	9.1	9.1	39.5	100.0	
MIDNIGHT							1213	198	168	949	2,528	
							48.0	7.8	6.6	37.5	100.0	
DAY	3	145	370	120	210	187	4,555	498	427	2,099	8,614	
	0.0	1.7	4.3	1.4	2.4	2.2	52.9	5.8	5.0	24.4	100.0	
MORNING	156	465	614	118	229	123	1652	32	19	146	3,554	
	4.4	13.1	17.3	3.3	6.4	3.5	46.5	0.9	0.5	4.1	100.0	
AFTERNOON	321	549	591	173	433	229	1704	72	44	151	4,267	
	7.5	12.9	13.9	4.1	10.1	5.4	39.9	1.7	1.0	3.5	100.0	
EVENING							1635	339	367	2010	4,351	
							37.6	7.8	8.4	46.2	100.0	
MIDNIGHT			2				1688	368	381	2640	5,079	
			0.0				33.2	7.2	7.5	52.0	100.0	
DAY	477	1,014	1,207	291	662	352	6,679	811	811	4,947	17,251	
	2.8	5.9	7.0	1.7	3.8	2.0	38.7	4.7	4.7	28.7	100.0	

Table D5.1.10 Appearance Frequency of Atmospheric Stability

STATION : MISKOLC (AVAS) PERIOD : 1993/5/16~1994/5/15

PERIOD	ATMOSPHERIC STABILITY (PASQUILL)										TOTAL	
	A	A-B	B	B-C	C	C-D	D	E	F	G		
NON-HEATING SEASON	MORNING	222	519	433	35	98	9	475	1		10	1,802
		12.3	28.8	24.0	1.9	5.4	0.5	26.4	0.1		0.6	100.0
	AFTERNOON	377	589	514	118	175	29	354			1	2,157
		17.5	27.3	23.8	5.5	8.1	1.3	16.4			0.0	100.0
	EVENING							597	77	184	1323	2,181
								27.4	3.5	8.4	60.7	100.0
HEATING SEASON	MIDNIGHT					2	383	104	143	1921	2,553	
					0.1		15.0	4.1	5.6	75.2	100.0	
	DAY	599	1,108	947	153	275	38	1,809	182	327	3,255	8,693
		6.9	12.7	10.9	1.8	3.2	0.4	20.8	2.1	3.8	37.4	100.0
	MORNING	5	155	196	21	78	20	1103	37	28	154	1,797
		0.3	8.6	10.9	1.2	4.3	1.1	61.4	2.1	1.6	8.6	100.0
HEATING SEASON	AFTERNOON	6	172	285	60	127	24	1189	55	45	180	2,143
		0.3	8.0	13.3	2.8	5.9	1.1	55.5	2.6	2.1	8.4	100.0
	EVENING							718	135	149	1180	2,182
								32.9	6.2	6.8	54.1	100.0
	MIDNIGHT							941	110	164	1326	2,541
								37.0	4.3	6.5	52.2	100.0
ALL SEASON	DAY	11	327	481	81	205	44	3,951	337	386	2,840	8,663
		0.1	3.8	5.6	0.9	2.4	0.5	45.6	3.9	4.5	32.8	100.0
	MORNING	227	674	629	56	176	29	1578	38	28	164	3,599
		6.3	18.7	17.5	1.6	4.9	0.8	43.8	1.1	0.8	4.6	100.0
	AFTERNOON	383	761	799	178	302	53	1543	55	45	181	4,300
		8.9	17.7	18.6	4.1	7.0	1.2	35.9	1.3	1.0	4.2	100.0
ALL SEASON	EVENING							1315	212	333	2503	4,353
								30.1	4.9	7.6	57.4	100.0
	MIDNIGHT					2		1324	214	307	3247	5,094
					0.0			26.0	4.2	6.0	63.7	100.0
	DAY	610	1,435	1,428	234	480	82	5,760	519	713	6,095	17,356
		3.5	8.3	8.2	1.3	2.8	0.5	33.2	3.0	4.1	35.1	100.0

unit: $\mu\text{g}/\text{m}^3$

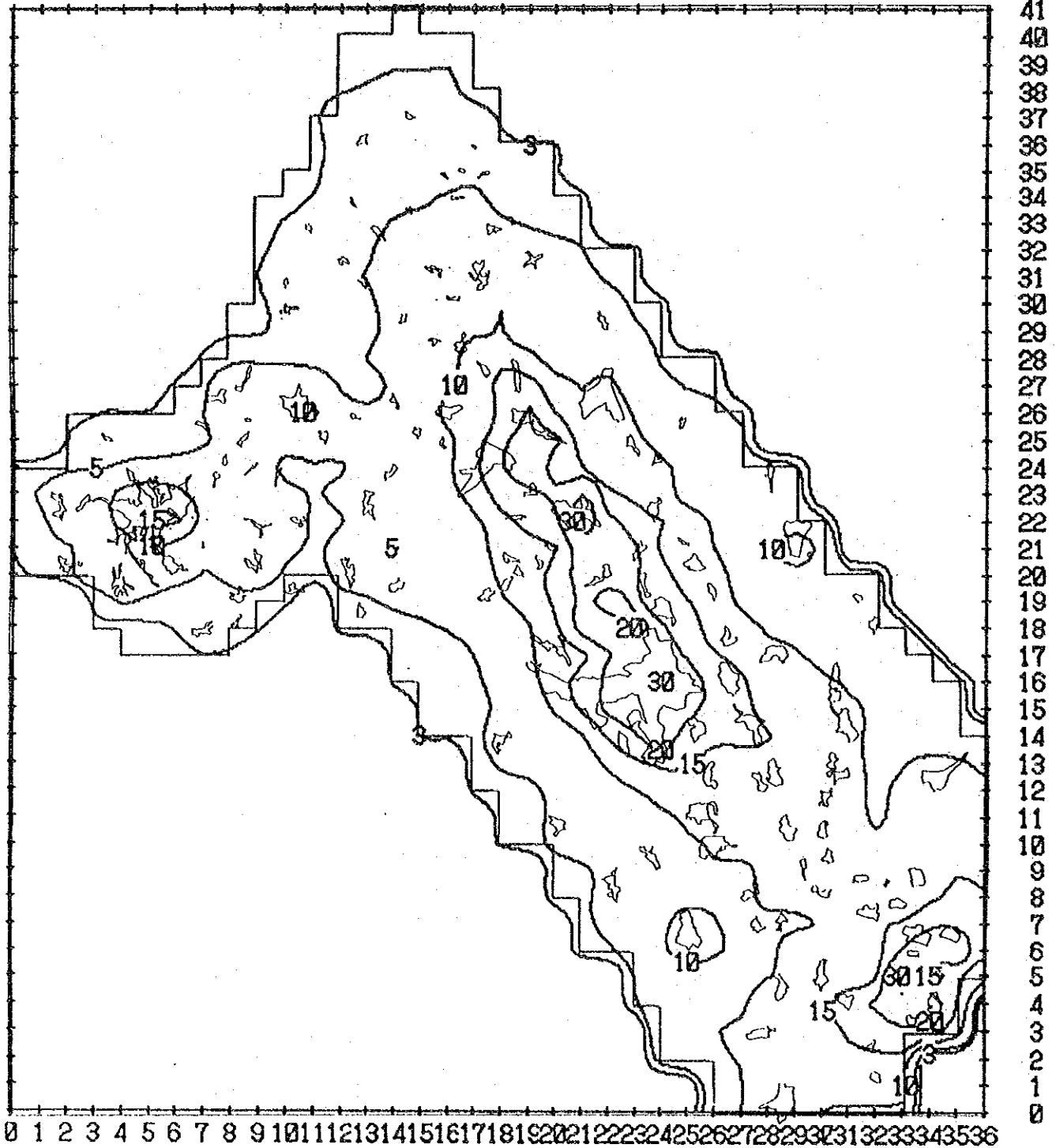


Figure D5.2.1 Average Concentration Isopleth for SO2 in Non-heating Season (1993, All Sources)

unit: $\mu\text{g}/\text{m}^3$

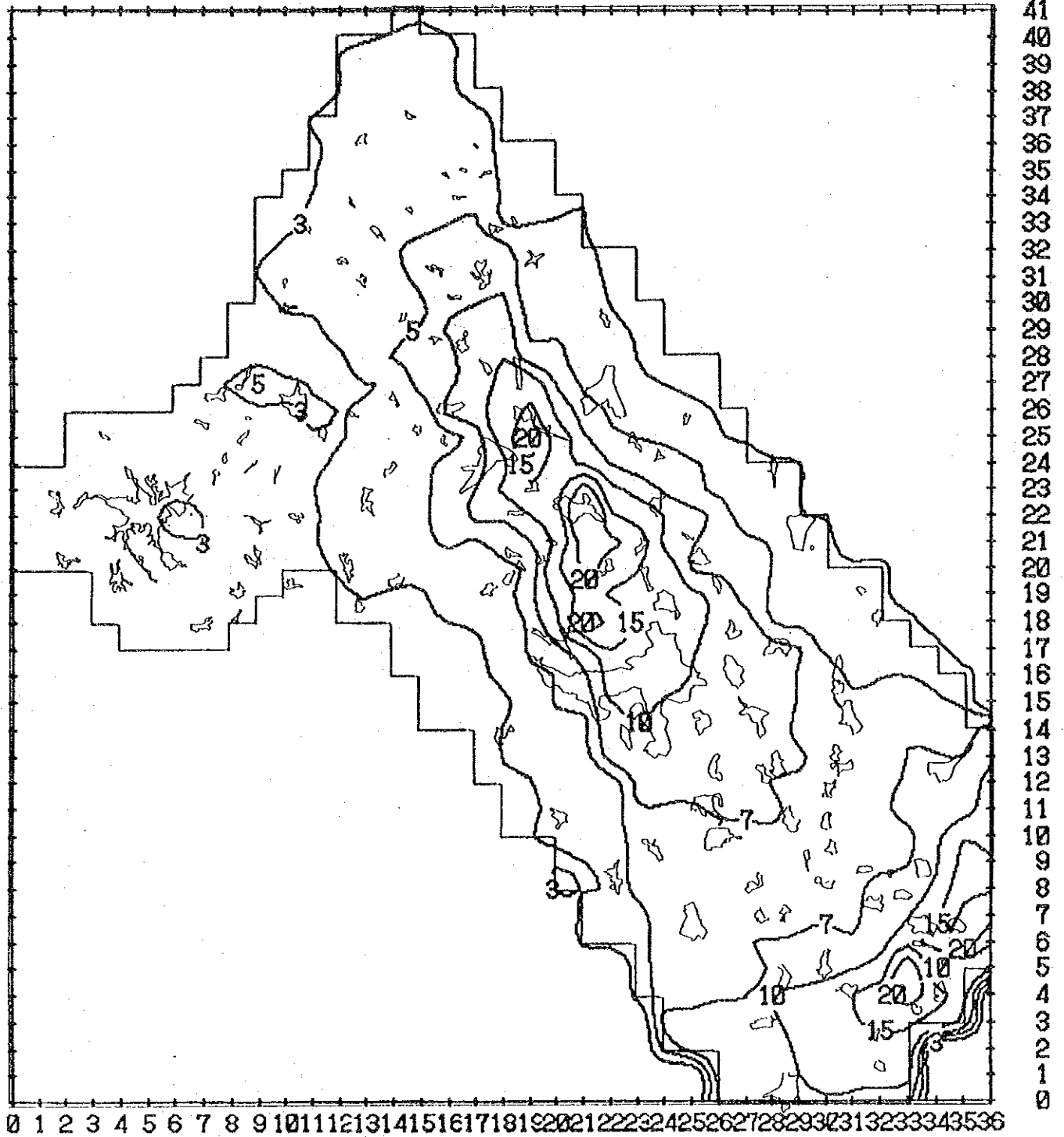


Figure D5.2.2 Annual Average Concentration Isopleth for SO₂ in 1993 (Industries)

unit: $\mu\text{g}/\text{m}^3$

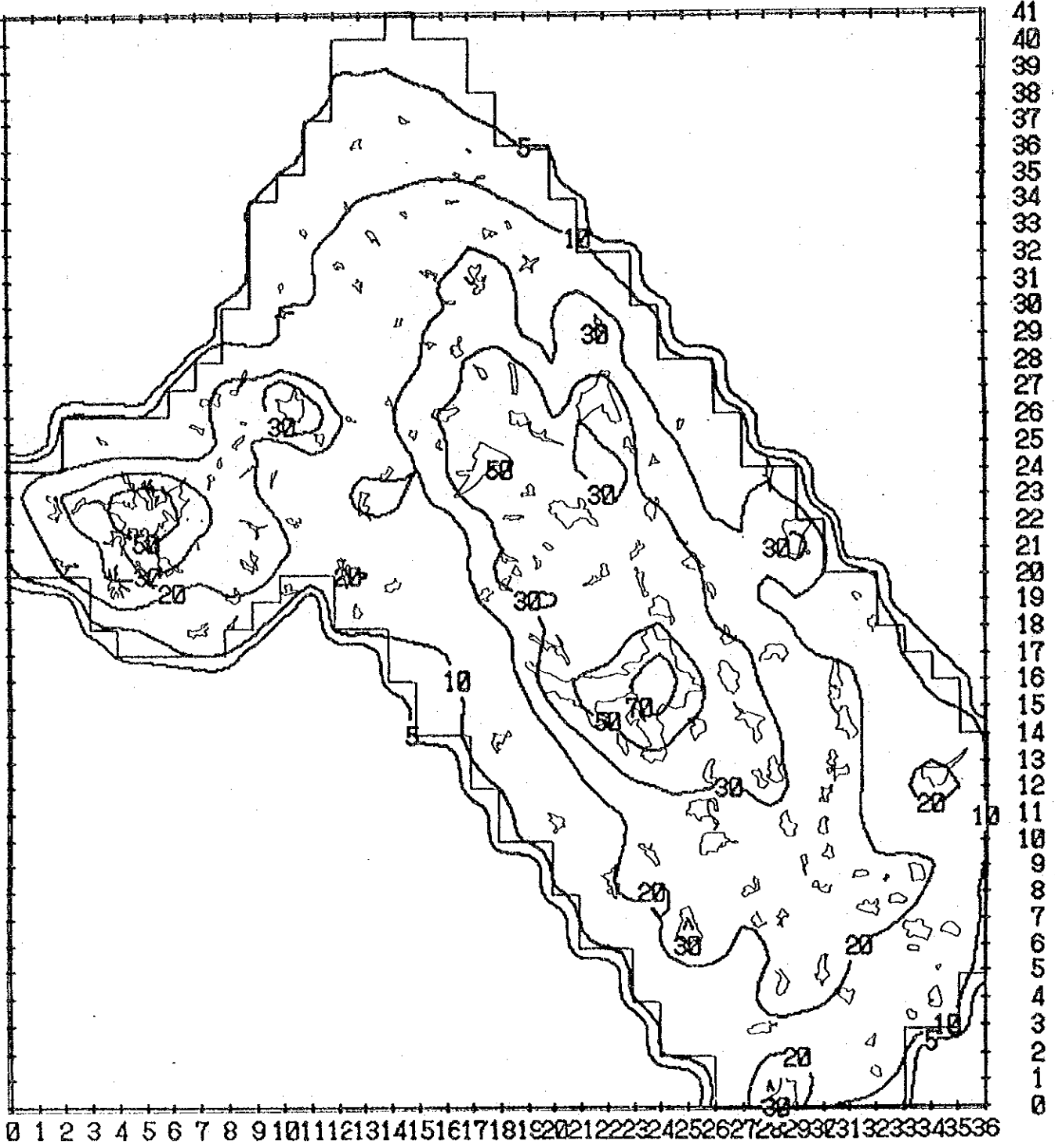


Figure D5.2.3 Annual Average Concentration Isopleth for SO₂ in 1993 (Communal Sources)

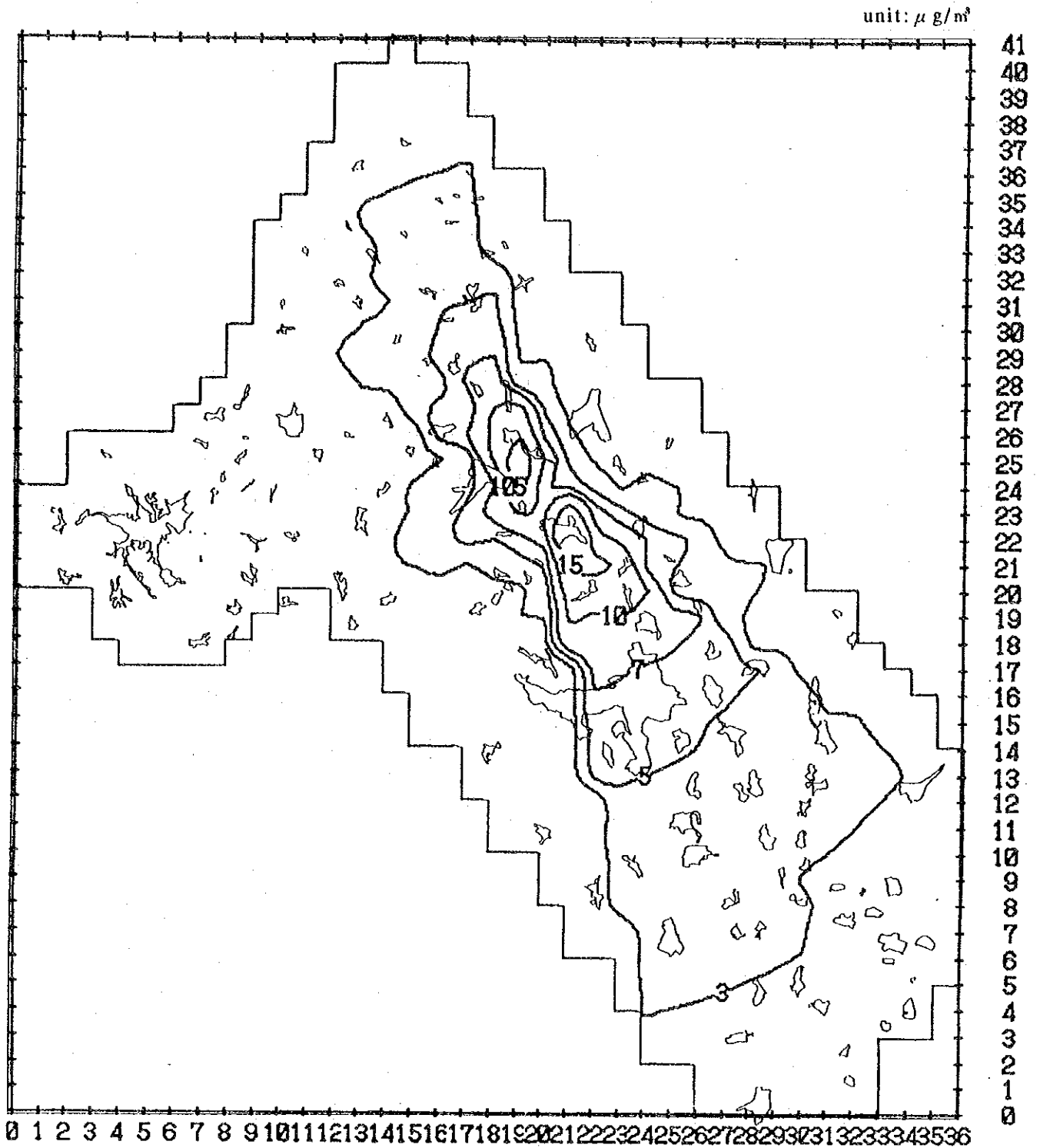


Figure D5.2.4 Annual Average Concentration Isopleth for SO2 in 1993 (Borsod P.S.)

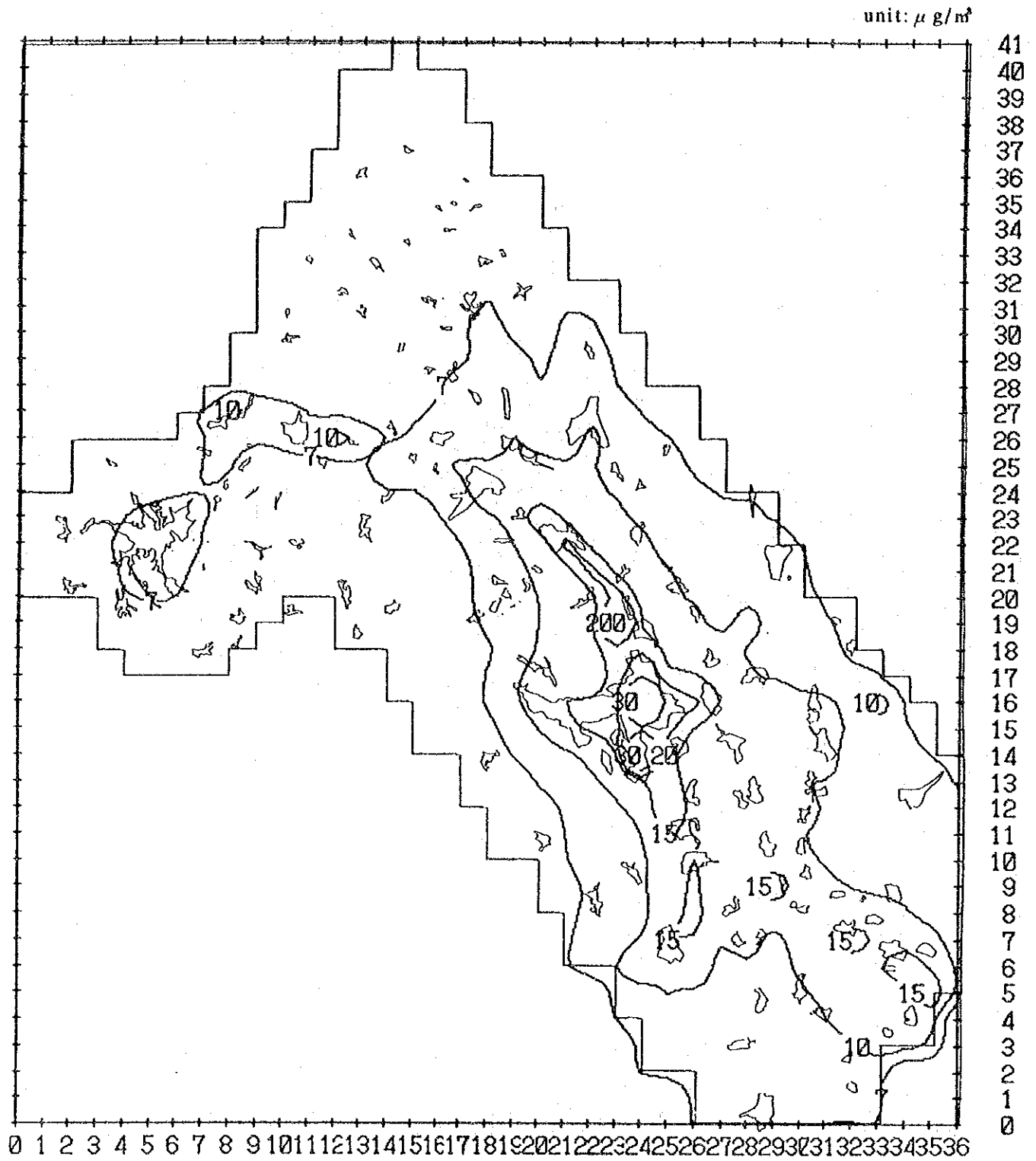


Figure D5.2.5 Average Concentration Isopleth for NOx in Non-heating Season (1993, All Sources)

unit: $\mu\text{g}/\text{m}^3$

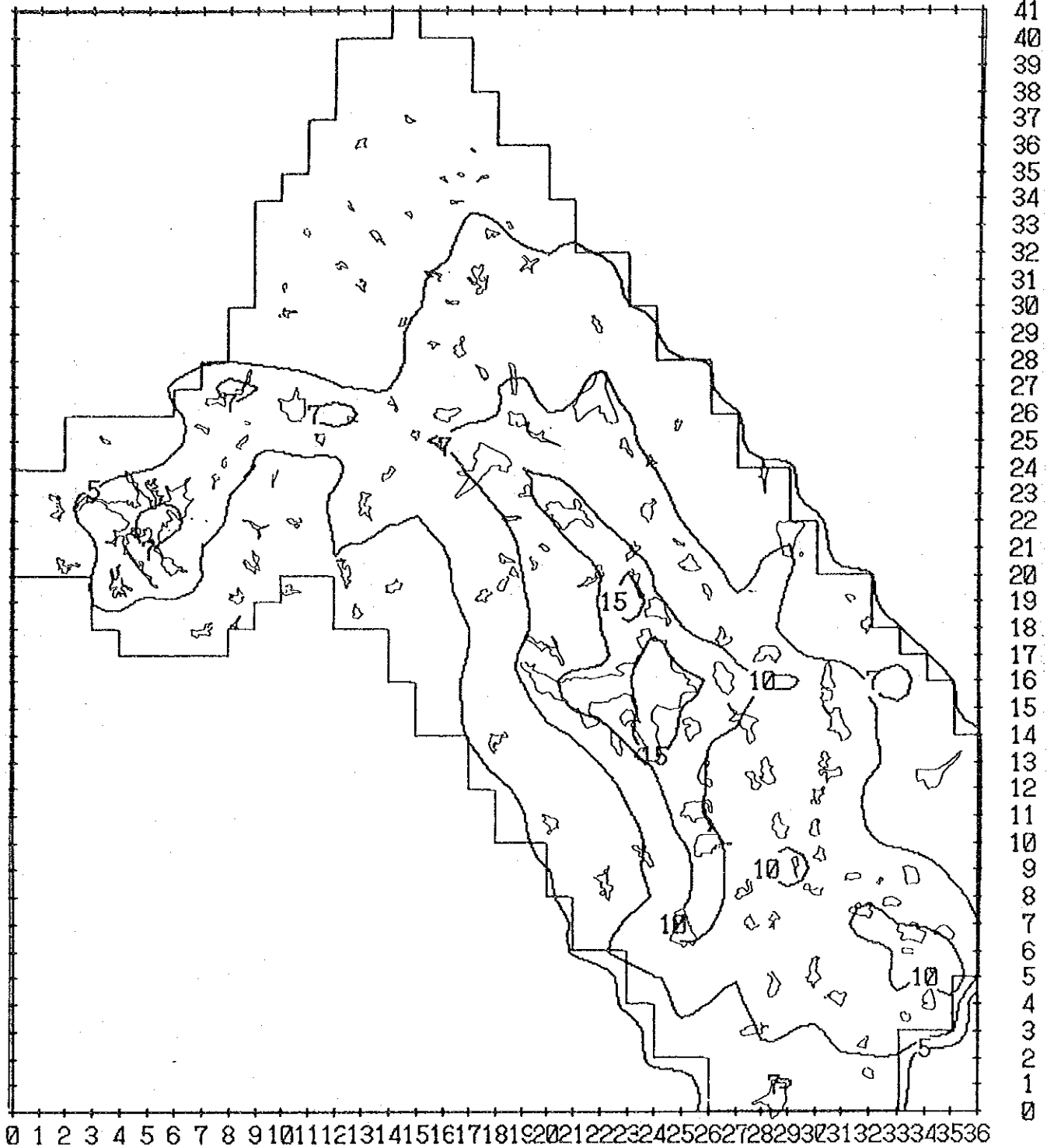


Figure D5.2.6 Average Concentration Isopleth for NO₂ in Non-heating Season (1993 ,All Sources)

unit: $\mu\text{g}/\text{m}^3$

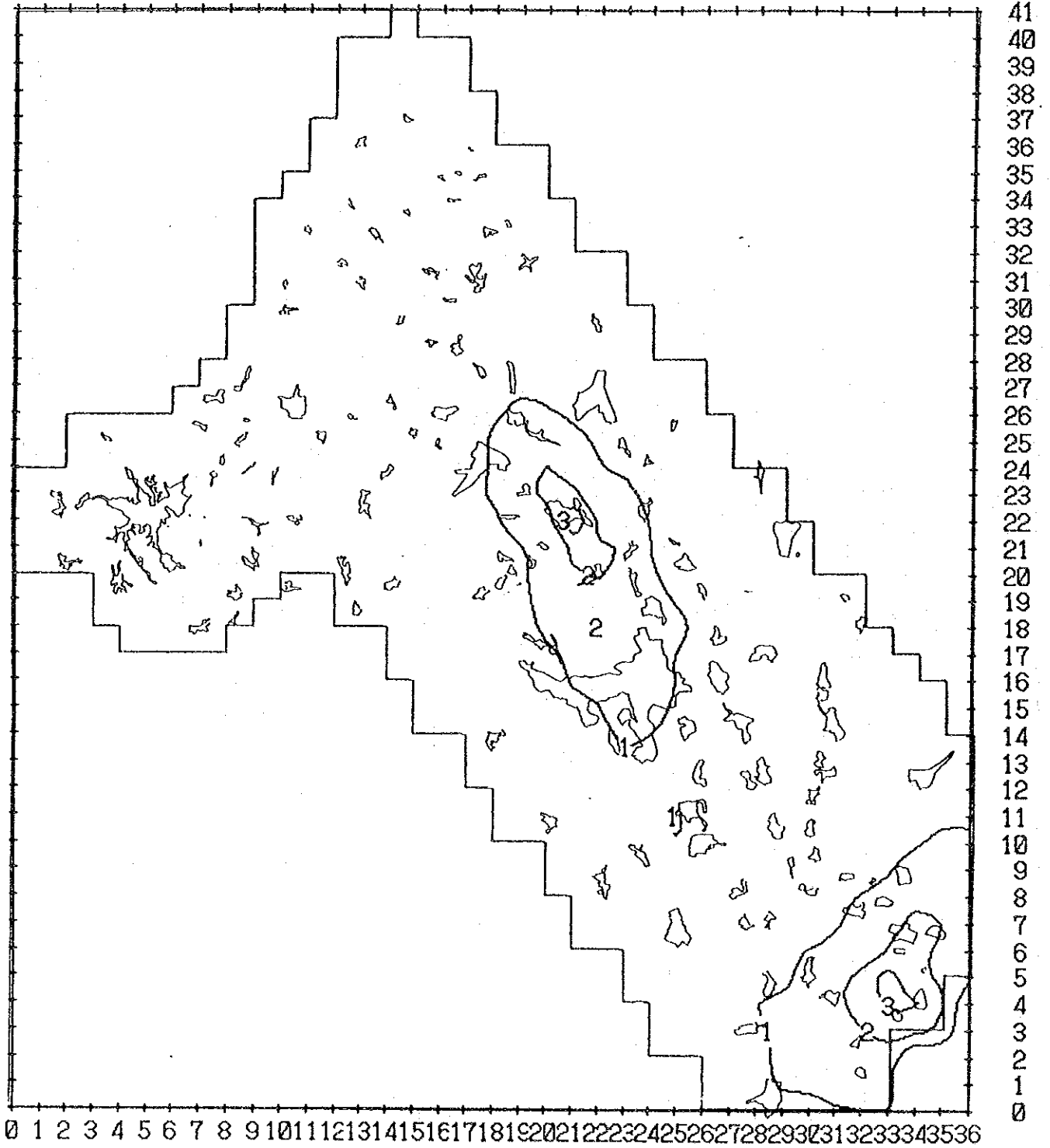


Figure D5.2.7 Annual Average Concentration Isopleth for NO2 in 1993 (Industries)

unit: $\mu\text{g}/\text{m}^3$

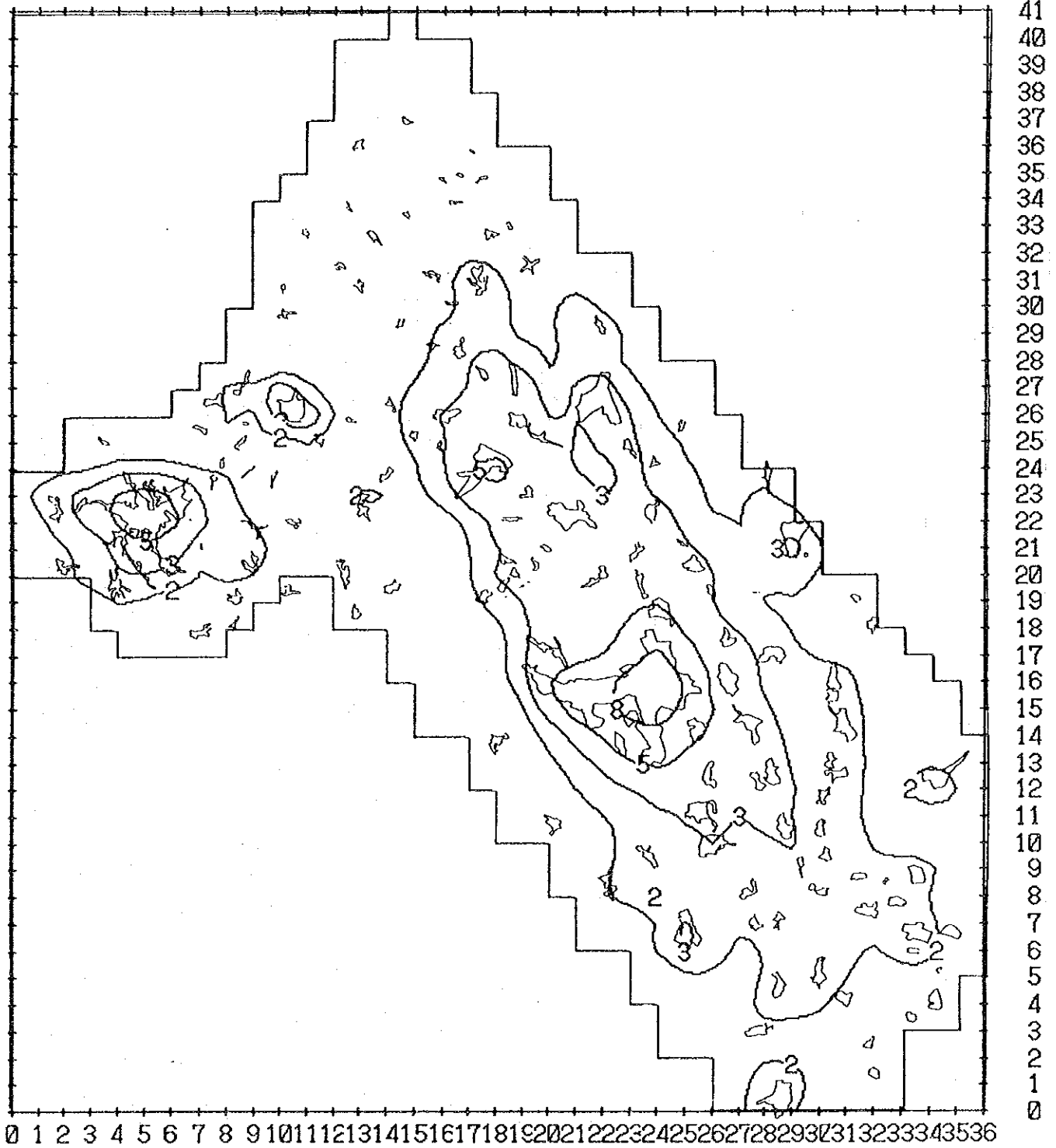


Figure D5.2.8 Annual Average Concentration Isopleth for NO2 in 1993 (Communal Sources)

unit: $\mu\text{g}/\text{m}^3$

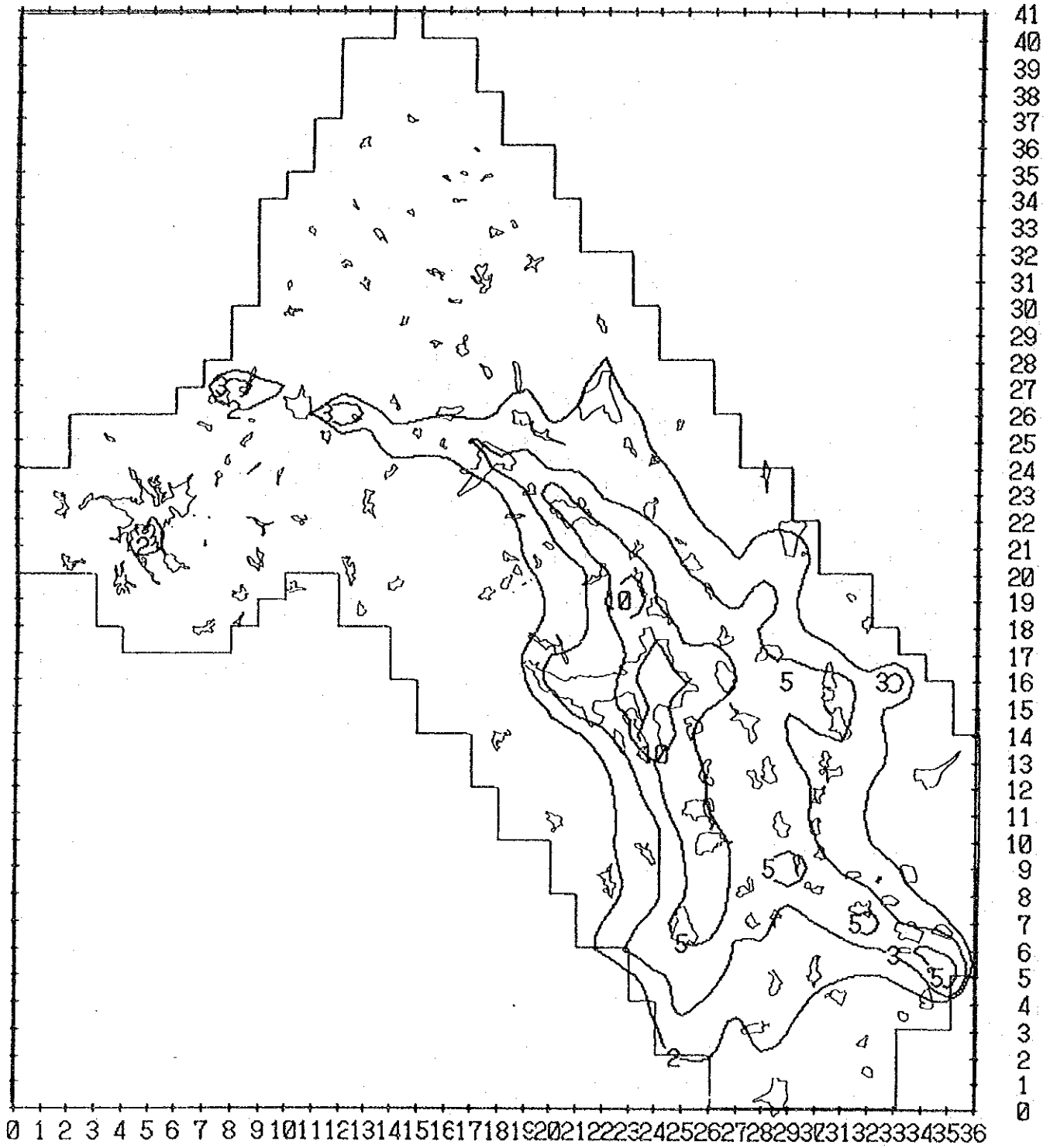


Figure D5.2.9 Annual Average Concentration Isopleth for NO₂ in 1993 (Motor Vehicles)

unit: $\mu\text{g}/\text{m}^3$

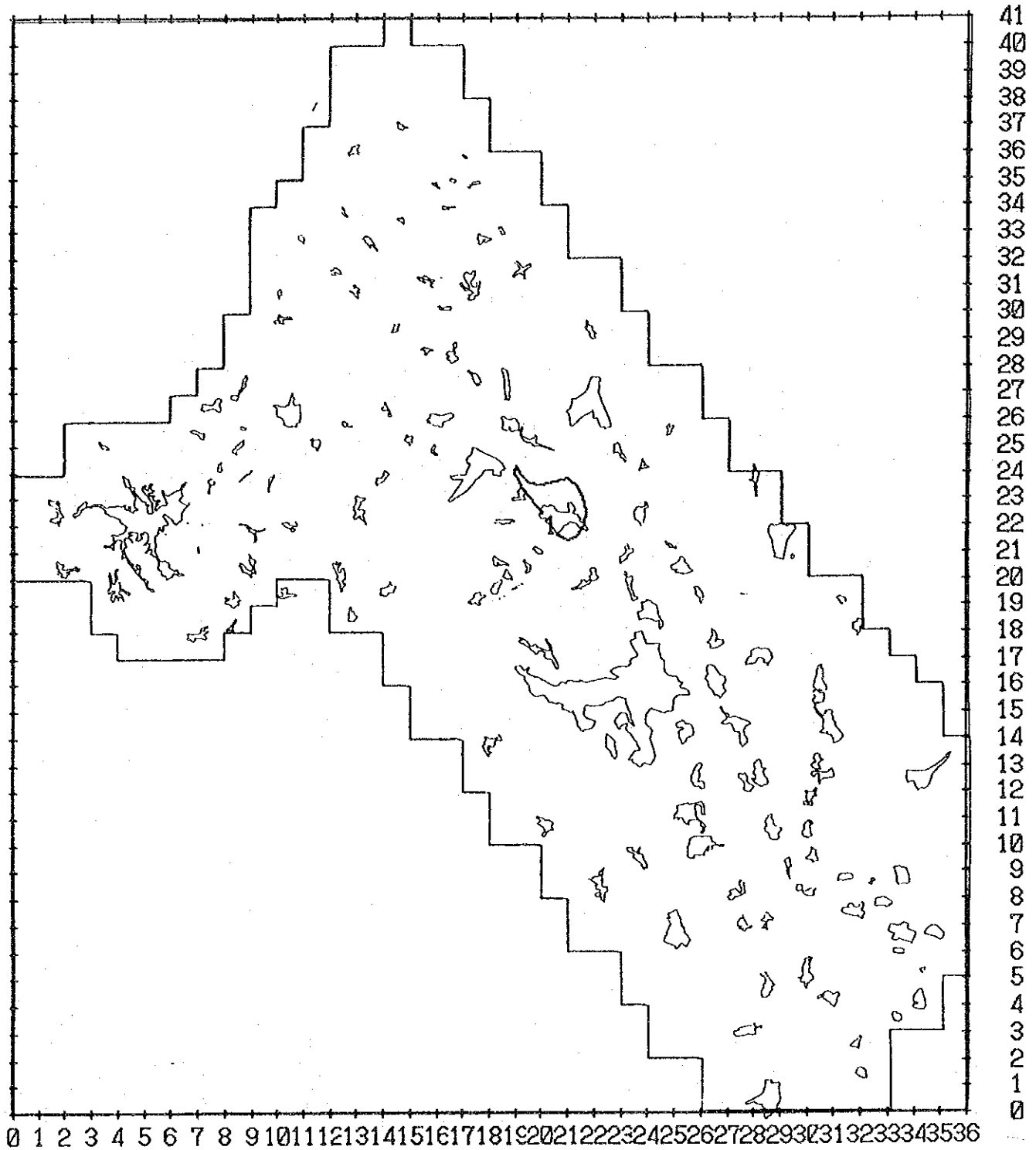


Figure D5.2.10 Annual Average Concentration Isopleth for NO2 in 1993 (Borsod P.S.)

