

**Data Report on the Acid Deposition  
in the East Asian Region  
2003**

**November 2004  
Network Center for EANET**

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## **Introduction**

The East Asian region faces increasing risks of problems related to excessive deposition of acidic substances as a result of enforced industrialization for last decades. At this background the First Session of the Intergovernmental Meeting on the Acid Deposition Monitoring Network in East Asia (EANET) was held in March 1998 with remarkable decision to start the preparatory-phase activities of the Network on an interim basis from 1998. During this preparatory-phase participating countries had launched the monitoring of acid deposition as well as the ecological impact monitoring. The main technical documents were prepared to conduct continuous monitoring as well as some proposals was carried out to enhance the results at the common level. The Second Session of the Intergovernmental Meeting held in October 2000 concluded that the preparatory-phase activities had been successful, and the participating countries had developed the basis to start the monitoring on a regular basis using their experiences obtained through preparatory-phase activities from 1998 to 2000. And it was decided that the participating countries would cooperatively start the activities of EANET on the regular basis from January 2001.

Acid deposition monitoring of EANET covers four environmental items – wet deposition, dry deposition (started as air concentration monitoring), soil and vegetation, and inland aquatic environment. Monitoring of wet and dry deposition has been implemented in order to observe concentrations and to evaluate fluxes of acidic substances onto the land surface, while monitoring for soil/vegetation and inland aquatic environment was put into action to assess adverse impacts on terrestrial and aquatic ecosystems. These monitoring data will be utilized to evaluate the state of acid deposition as well as impacts on ecosystems.

The participating countries were requested to submit their data and related information obtained through the monitoring activities of EANET for the calendar year 2003 to the Network Center (NC) by 30 June 2004 based on the “Work program and Budget for EANET in 2004” adopted at the Fifth Session of the Intergovernmental Meeting. NC had prepared a draft Data Report on the Acid Deposition Monitoring Network in East Asian Region 2003 with data from the participating countries by the Fourth Session of Scientific Advisory Committee (SAC4) held in November 2004 in Siem Reap, Cambodia. The draft Data Report was considered at SAC4 by the experts from participating countries. Following the comments and guidance at SAC4, NC has elaborated and finalized the report.

This report presents the EANET monitoring data in 2003 as the third one based on the regular-phase activities of EANET.

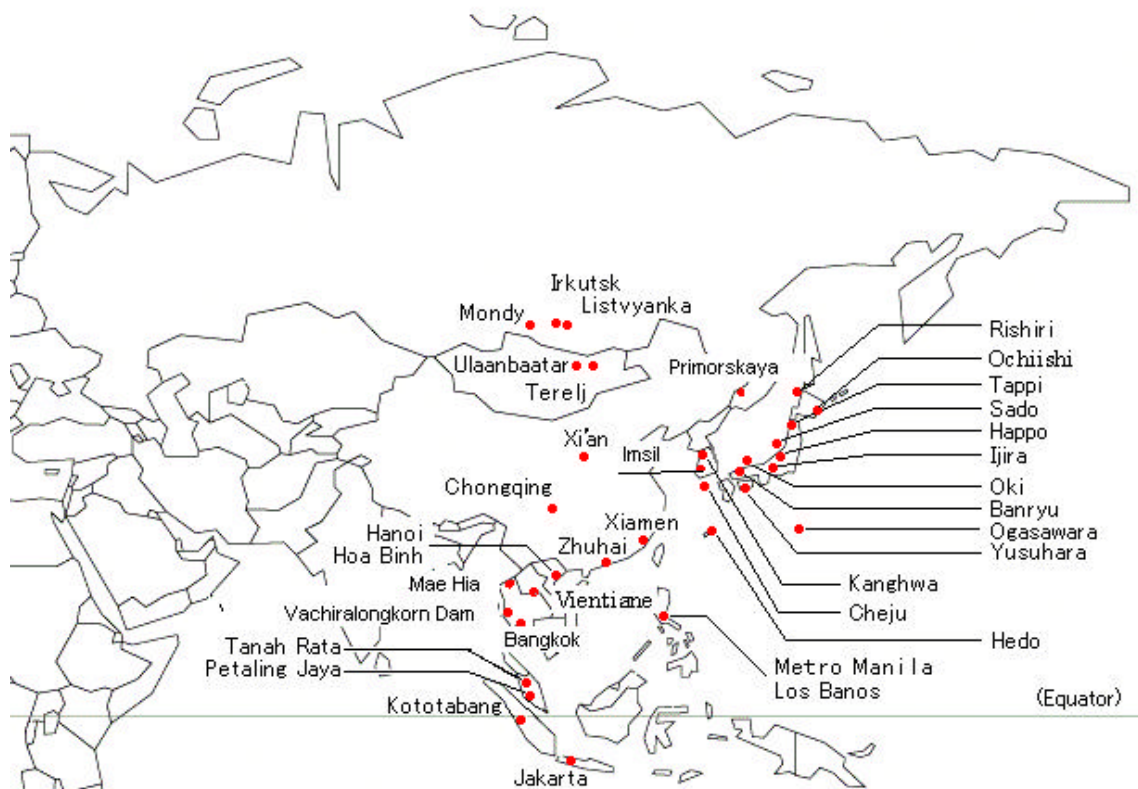
## **2. Network Description**

Twelve countries conducted a regular monitoring of the regular-phase activities of EANET during 2003, namely, China, Japan, Mongolia, Republic of Korea and Russian Federation from the North-East Asian region, and Cambodia, Indonesia, Malaysia, Lao PDR, Philippines,

Thailand and Vietnam from the South-East Asian region. EANET monitoring sites were classified into two categories under their purposes: Acid Deposition Monitoring Site and Ecological Survey Site, with criteria presented in [Table 2.1](#). The list of Acid deposition monitoring sites in 2003 is presented in [Table 2.2](#) and their locations are indicated at [Fig.2.1](#). Forty-five EANET monitoring sites are located within a vast area of East Asia between 51° N to 6° S across ten participating countries, including 17 “remote”, 12 “rural”, and 16 “urban” sites. As described in [Table 2.3](#), wet deposition monitoring was conducted at 44 sites. The equipment for filter pack measurements of pollutant concentrations for dry deposition monitoring were in operation at 26 sites. Automatic or manual gas monitor for NO<sub>x</sub> and SO<sub>2</sub> were operated at 17 sites, and 13 sites were equipped with monitor for ozone concentration measurement. Concentrations of particulate matter as PM<sub>10</sub> were measured by automatic or manual instruments at the 16 sites. Meteorological conditions such as wind speed, wind direction, air temperature, relative humidity, and solar radiation were measured by equipments installed at the sites or nearby at the meteorological observatories. Ecological survey sites established for soil and vegetation monitoring and inland aquatic monitoring are basically located in the vicinity of the Acid Deposition Monitoring Site. Information on the ecological survey sites is presented further in the chapter 5 and 6.

**Table 2.1. Classification of Monitoring Sites**

Site Category	Site Classification	Main Purpose and Site Criteria
<b>Acid Deposition Monitoring Site</b> for wet deposition and dry deposition monitoring	Urban Site	<ul style="list-style-type: none"> <li>- Assessment of the state of acid deposition in urban areas</li> <li>- Data can be used for evaluation of acid deposition on buildings and historical monuments</li> <li>- Urbanized and industrial areas, and the areas immediately outside the urban boundaries</li> </ul>
	Rural Site	<ul style="list-style-type: none"> <li>- Assessment of the state of acid deposition in rural areas and/or hinterlands</li> <li>- Data can be used for the evaluation of acid deposition on agricultural crops, forests and etc.</li> <li>- More than 20km apart from large pollution sources like cities, power plants and highways</li> </ul>
	Remote Site	<ul style="list-style-type: none"> <li>- Assessment of the state of acid deposition in background areas</li> <li>- Data can be used for evaluation of long-range transport and deposition models</li> <li>- More than 50km apart from large pollution sources like cities, power plants and highways</li> <li>- More than 500m apart from main roads (more than 500 vehicles per day)</li> </ul>
<b>Ecological Survey Site</b> for soil and vegetation monitoring and Inland aquatic monitoring	Basic survey site	<ul style="list-style-type: none"> <li>- Accumulation of basic data on soil, forest, and inland aquatic environment and disclose trends in their properties</li> <li>- In the vicinity of the acid deposition monitoring site</li> </ul>
	Ecosystem analysis site	<ul style="list-style-type: none"> <li>- Assessment of acid deposition impacts on whole ecosystem through application of terrestrial ecosystem analysis and/or catchment analysis</li> <li>- Area which sensitive to changes in atmospheric acidity and ecologically conserved area</li> </ul>



**Fig. 2.1 Locations of acid deposition monitoring sites of EANET 2003**

(Note: “Xi’an” includes 3 sites, and “Chongqing”, “Xiamen”, “Zhuhai” includes 2 sites, respectively. “Jakarta” includes also nearby “Serpong” and “Bandung” sites, and “Bangkok” includes also nearby “Samutprakarn” and “Patumthani” sites. “Metro Manila”/“Los Banos” and “Hanoi”/“Hoa Binh” are described as one point, respectively. Khao Lam Dam was renamed into Vachiralongkorn Dam in 2002.)

**Table 2.2 Profile of Wet and Dry Deposition (Air Concentration) Monitoring Sites**

Country	Name of sites	Characteristics of sites	Latitude	Longitude	Height above sea
China	Chongqing	Urban	29° 34' N	106° 31' E	262m
	-Guanyinqiao	Rural	29° 49' N	106° 22' E	800m
	- Jinyunshan				
	Xi'an	Urban	34° 14' N	108° 57' E	400m
	- Shizhan	Rural	34° 22' N	108° 51' E	366m
	-Weishuiyuan	Remote	33° 50' N	108° 48' E	1,800m
	- Jiwozi				
	Xiamen	Urban	24° 8' N	118° 08' E	50m
	-Hongwen	Remote	24° 51' N	118° 02' E	686m
	-Xiaoping				
Zhuhai	Urban	22 16' N	113° 34' E	40m	
- Xiang Zhou	Urban	22 22' N	113° 31' E	45m	
-Zhuxian Cavern					
Indonesia	Jakarta	Urban	6° 11' S	106° 50' E	7m
	Serpong	Rural	6° 15' S	106° 34' E	46m
	Kototabang	Remote	0° 12' S	100° 19' E	864m
	Bandung	Urban	6° 54' S	107° 35' E	743m
Japan	Rishiri	Remote	45° 07' N	141° 14' E	40m
	Ochiishi	Remote	43° 09' N	145° 30' E	49m
	Tappi	Remote	41° 15' N	141° 21' E	105m
	Ogasawara	Remote	27° 50' N	142° 13' E	230m
	Sado-seki	Remote	38° 14' N	138° 24' E	110m
	Happo	Remote	36° 41' N	137° 48' E	1,850m
	Oki	Remote	36° 17' N	133° 11' E	90m
	Yusuhara	Remote	33° 22' N	132° 56' E	225m
	Hedo	Remote	26° 51' N	128° 15' E	50m
	Ijira	Rural	35° 43' N	136° 41' E	140m
	Banryu	Urban	34° 40' N	131° 48' E	60m
Lao PDR	Vientiane	Urban	17° N	102° E	
Malaysia	Petaling Jaya	Urban	03° 06' N	101° 39' E	87m
	Tanah Rata	Remote	04° 28' N	101° 23' E	1,470m
Mongolia	Ulaanbaatar	Urban	47° 54' N	106° 49' E	1,282m
	Terej	Remote	47° 59' N	107° 29' E	1,540m
Philippines	Metro Manila	Urban	14° 38' N	121° 04' E	54m
	Los Banos	Rural	14° 11' N	121° 15' E	35m
Republic of Korea	Kanghwa	Rural	37° 42' N	126° 17' E	150m
	Cheju(Kosan)	Remote	33° 18' N	126° 10' E	72m
	Imsil	Rural	35° 36' N	127° 11' E	-m
Russia	Mondy	Remote	51° 40' N	101° 0' E	2,000m
	Listvyanka	Rural	51° 51' N	104° 54' E	700m
	Irkutsk	Urban	52° 14' N	104° 15' E	400m
	Primorskaya	Rural	43° 42' N	132° 07' E	84m
Thailand	Bangkok	Urban	13° 46' N	100° 32' E	2m
	Samutprakarn	Urban	13° 44' N	100° 34' E	2m
	Patumthani	Rural	14° 02' N	100° 46' E	2m
	Vachiralongkorn Dam	Remote	14° 46' N	98° 35' E	170m
	Mae Hia	Rural	18° 46' N	98° 56' E	350m
Vietnam	Hanoi	Urban	21° 01' N	105° 51' E	5m
	Hoa Binh	Rural	20° 49' N	105° 20' E	23m

(Note) AS: Aerosol sampler, PS: Passive sampler

**Table 2.3 Outline of Wet and Dry Deposition (Air Concentration) Monitoring**

Country	Name of sites	Characteristics of sites	Wet Dep.	Dry Dep.			
				Automatic			Filter Pack
				SO <sub>2</sub> ,NO <sub>x</sub>	O <sub>3</sub>	PM	
China	Chongqing	Urban	○	None	None	None	None
	-Guanyinqiao	Rural	○	○	None	None	None
	-Jinyunshan						
	Xi'an	Urban	○	None	None	None	None
	-Shizhan	Rural	○	○	None	○	None
	-Weishuiyuan	Remote	○	None	None	None	None
	-Jiwozi						
	Xiamen	Urban	○	○	None	○	None
	-Hongwen	Remote	○	None	None	None	None
	-Xiaoping						
Zhuhai	Urban	○	○	None	○	None	
-Xiang Zhou	Urban	○	None	None	None	None	
-Zhuxiandong							
Indonesia	Jakarta	Urban	○	None	None	None	None
	Serpong	Rural	○	None	None	None	○
	Kototabang	Remote	○	None	None	None	None
	Bandung	Urban	○	None	None	None	None
Japan	Rishiri	Remote	○	○	○	○	○
	Ochiishi	Remote	○	None	None	None	None
	Tappi	Remote	○	○	○	○	○
	Ogasawara	Remote	○	○	○	○	○
	Sado-seki	Remote	○	○	○	○	○
	Happo	Remote	○	○	○	○	○
	Oki	Remote	○	○	○	○	○
	Yusuhara	Remote	○	○	○	○	○
	Hedo	Remote	○	○	○	○	○
	Ijira	Rural	○	○	○	○	○
	Banryu	Urban	○	○	○	○	○
Lao PDR	Vientiane	Urban	○	None	None	None	None
Malaysia	Petaling Jaya	Urban	○	None	None	○	AS,PS
	Tanah Rata	Remote	○	None	None	None	○
Mongolia	Ulaanbaatar	Urban	○	None	None	None	○
	Terej	Remote	○	None	None	None	○
Philippines	Metro Manila	Urban	○	None	None	None	○
	Los Banos	Rural	○	None	None	None	○
Republic of Korea	Kanghwa	Rural	○	○	○	○	○
	Cheju(Kosan)	Remote	○	○	○	○	○
	Imsil	Rural	○	○	○	○	○
Russia	Mondy	Remote	○	None	○	None	○
	Listvyanka	Rural	○	None	None	None	○
	Irkutsk	Urban	○	None	None	None	○
	Primorskaya	Rural	○	None	None	None	○
Thailand	Bangkok	Urban	○	○	None	None	○
	Samutprakarn	Urban	None	○	○	None	None
	Patumthani	Rural	○	None	None	None	None
	Vachiralongkorn Dam	Remote	○	None	None	None	○
	Mae Hia	Rural	○	○	○	○	○
Vietnam	Hanoi	Urban	○	None	None	None	○
	Hoa Binh	Rural	○	None	None	None	○

(Note) AS: Aerosol sampler, PS: Passive sampler

### 3. Wet Deposition Monitoring

#### 3.1 Method

To obtain the equivalent quality of monitoring data, each participating country carries out acid deposition monitoring fundamentally by common methodologies specified in the "Technical Documents for Wet deposition Monitoring in East Asia" adopted at The Second Interim Scientific Advisory group Meeting in March 2000. An example of the flow chart that was carried out by participating countries is described in Fig.3.1.

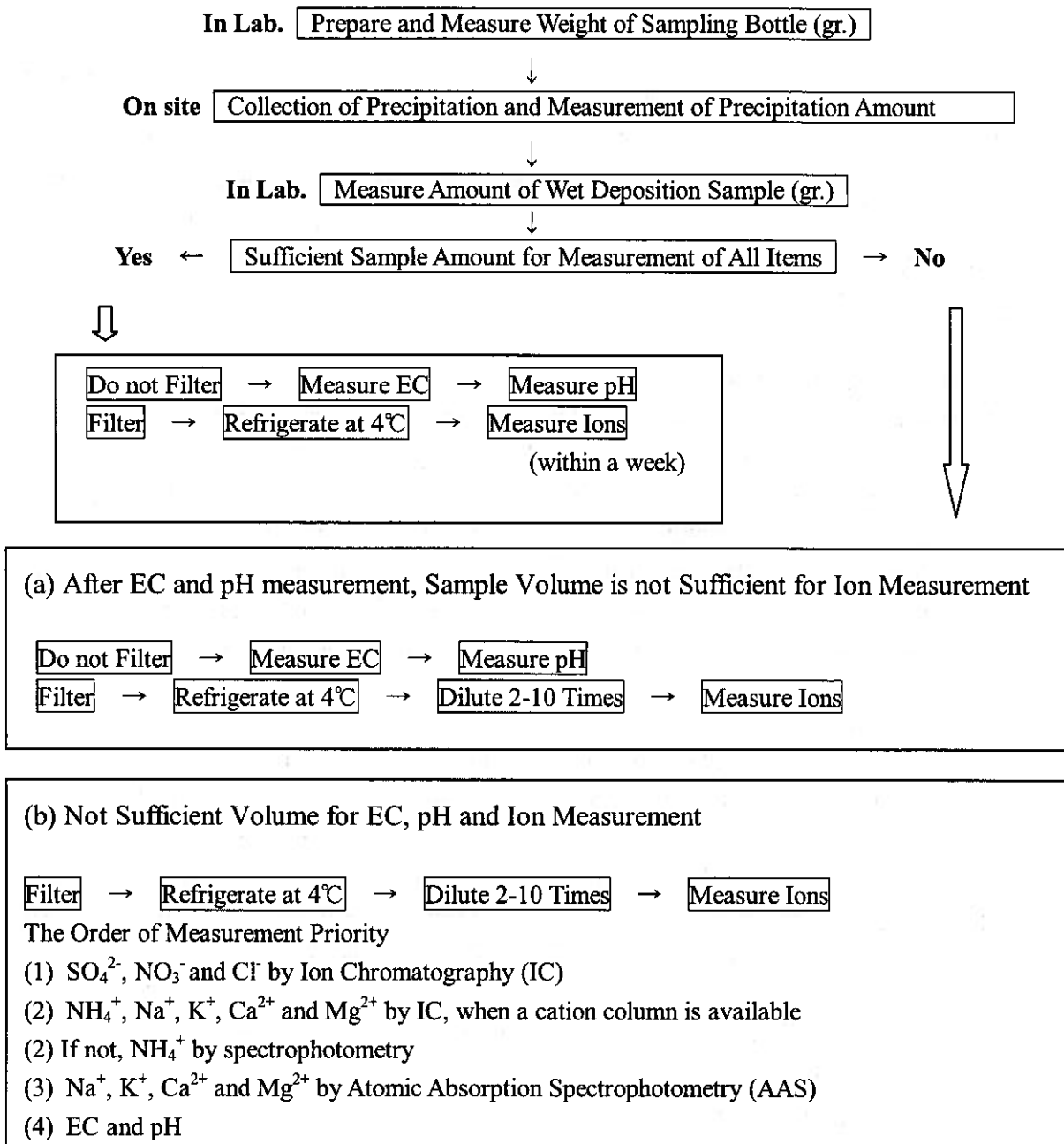


Fig. 3.1 Flow chart of sampling and chemical analysis of wet deposition

### **1) Field Operation**

Most of the participating countries use the wet-only sampler designed to collect precipitation samples during the period of rainfall only by installing the precipitation sensor and motor-driven tightfitting lid to cover a collecting bucket or funnel. The wet-only sampler is a recommended method for sampling of precipitation. However, a manual sampler is installed at some sites with collection of rainwater by manual operation. Precipitation samples are collected on a daily basis at 29 sites of 44, while weekly collecting is performed at 10 sites and samples of every precipitation events are taken at other 5 sites, as presented in [Table 3.1](#). For wet deposition samples collected in a tropical region, a preservation of samples from microbial decomposition should be considered. Biocides such as Thymol are added for that purpose when a refrigerator is not available during sampling, shipping and storage periods. On the other hand, sampling of wet deposition in the higher latitude region such as Mongolia and Russia during winter seasons faces difficulties because of low air temperature has falling sometimes below minus 10 to 20 °C. Collected samples without biocides were shipped to laboratories in charge of chemical analysis by cooling box to keep the sample temperature low enough to preserve the sample chemistry.

### **2) Laboratory Operation**

Procedures suggested for rainwater major constituent analysis by the manual are shown in [Table 3.2](#). Ion Chromatography is a major analytical method adopted by the participating countries for chemical analysis of both anions and cations contained in precipitation samples ([Table 3.3](#)). Atomic Absorption Spectrometry for  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^{2+}$ , and  $\text{Mg}^{2+}$ , and Spectrophotometry for  $\text{NH}_4^+$  are also useful tools for the determination of these cations. However, some countries have to solve a problem of poor detection limit because of they use traditional methods with not enough analytical sensitivity, such as titration ones.

### **3) Data Management**

Analytical data of precipitation samples were submitted from the participating laboratories to the National Centers. Then each National Center submitted the data to the Network Center. All the data were checked using ion balance and conductivity agreement by calculating ion balance ( $R_1$ ) and conductivity agreement ( $R_2$ ). If a sample or individual datum has problems including “insufficient sample volume” or “low precision”, the flags corresponding to the problems were attached to the data. Details of data management are described in the “Quality Assurance/Quality Control (QA/QC) Program for Wet Deposition Monitoring in East Asia” adopted at the Second Interim Scientific Advisory group Meeting in March 2000.

### **4) Meteorological Measurement**

Wind direction/speed, temperature, humidity, precipitation amount and solar radiation in relation to wet deposition should be measured at the nearest meteorological station in accordance with the measurement frequencies and methods of the meteorological monitoring system of each country.

**Table 3.1 Sampling Method for Wet Deposition Monitoring**

Country	Name of sites	Characteristics of sites	Sampling Interval	Starting Month
China	Guanyinqiao (Chongqing)	Urban	Daily	April '99
	Jinyunshan (Chongqing)	Rural	Daily	April '99
	Shizhan (Xi'an)	Urban	Daily	April '99
	Weishuiyuan (Xi'an)	Rural	Daily	April '99
	Jiwozi (Xi'an)	Remote	Daily	April '99
	Hongwen (Xiamen)	Urban	Daily	April '99
	Xiaoping (Xiamen)	Remote	Daily	April '99
	Xiang Zhou (Zhuhai)	Urban	Daily	April '99
	Zhuxian Cavern (Zhuhai)	Urban	Daily	December '99
Indonesia	Jakarta	Urban	Weekly	April '98
	Serpong	Rural	Event	April '98
	Kototabang	Remote	Weekly	April '98
	Bandung	Urban	Event	January '99
Japan	Rishiri	Remote	Daily	April '98
	Tappi	Remote	Daily	April '98
	Ogasawara	Remote	Daily	May '99
	Sado-seki	Remote	Daily	April '99
	Happo	Remote	Daily	April '98
	Oki	Remote	Daily	April '98
	Yusuhara	Remote	Daily	December '99
	Hedo	Remote	Daily	December '99
	Ijira	Rural.	Weekly	June '99
	Banryu	Urban	Weekly	May '99
Ochiishi	Remote	Daily	January '03	
Lao PDR	Vientian	Urban	Event	October '03
Malaysia	Petaling Jaya	Urban	Weekly	April '98
	Tanah Rata	Remote	Weekly	January '99
Mongolia	Ulaanbaatar	Urban	Daily	August '98
	Terej	Remote	Daily	September '98
Philippines	Metro Manila	Urban	Weekly	April '99
	Los Banos	Rural	Weekly	April '99
Republic of Korea	Kanghwa	Rural	Daily	March '99
	Cheju (Kosan)	Remote	Daily	April '99
	Imsil	Rural	Daily	January '01
Russia	Mondy	Remote	Daily	May '99
	Listvyanka	Rural	Daily	January '00
	Irkutsk	Urban	Event	January '00
	Primorskaya	Rural	Event	February '02
Thailand	Bangkok	Urban	Daily	April '99
	Patumthani	Rural	Daily	March '99
	Vachiralongkorn Dam	Remote	Daily	April '99
	Mae Hia	Rural	Daily	January '01
Vietnam	Hanoi	Urban	Weekly	August '99
	Hoa Binh	Rural	Weekly	August '99

**Table 3.2 Procedures suggested for rainwater major constituent analysis**

Analysis	Instrumental Method
Electric Conductivity (EC)	Conductivity Cell
pH	Glass electrode (preferably with the Electrode of non-leak inner cell)
Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> , NO <sub>2</sub> <sup>-</sup> , F <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup>	Ion Chromatography (preferably with suppressor) Spectrophotometry
NH <sub>4</sub> <sup>+</sup>	Ion Chromatography Spectrophotometry (Indophenol blue)*
Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>2+</sup> , Mg <sup>2+</sup>	Ion Chromatography Atomic Absorption/ Emission Spectrometry
Heavy Metals, Al Hg	Atomic Absorption Spectrometry with Graphite Furnace, ICP Emission Spectrometry, ICP/MS, Mercury Analyzer With a Gold Trap
Organic Acids	Ion Chromatography

\* Not recommended if the biocide, thymol, is used in sample collection.

**Table 3.3 Analytical Method for Wet Deposition Monitoring**

Country	Name of sites	Characteristics of sites	Anion Analysis	Cation Analysis	
				NH <sub>4</sub> <sup>+</sup>	Other Cations
China	Guanyinqiao (Chongqing)	Urban	IC	IC	IC
	Jinyunshan (Chongqing)	Rural	IC	IC	IC
	Shizhan (Xi'an)	Urban	IC	IC	IC
	Weishuiyuan (Xi'an)	Rural	IC	IC	IC
	Jiwozi (Xi'an)	Remote	IC	IC	IC
	Hongwen (Xiamen)	Urban	IC	SP	IC
	Xiaoping (Xiamen)	Remote	IC	SP	IC
	Xiang Zhou (Zhuhai)	Urban	IC	IC	IC
	Zhuxian Cavern (Zhuhai)	Urban	IC	IC	IC
Indonesia	Jakarta	Urban	IC	SP	AAS
	Serpong	Rural	IC	SP	AAS
	Kototabang	Remote	IC	SP	AAS
	Bandung	Urban	IC	SP	AAS
Japan	Rishiri	Remote	IC	IC	IC
	Tappi	Remote	IC	IC	IC
	Ogasawara	Remote	IC	IC	IC
	Sado-seki	Remote	IC	IC	IC
	Happo	Remote	IC	IC	IC
	Oki	Remote	IC	IC	IC
	Yusuhara	Remote	IC	IC	IC
	Hedo	Remote	IC	IC	IC
	Ijira	Rural	IC	IC	IC
	Banryu	Urban	IC	IC	IC
	Ochiishi	Remote	IC	IC	IC
Lao PDR	Vientian	Urban	-	-	-
Malaysia	Petaling Jaya	Urban	IC	IC	IC
	Tanah Rata	Remote	IC	IC	IC
Mongolia	Ulaanbaatar	Urban	IC	IC	IC
	Terej	Remote	IC	IC	IC
Philippines	Metro Manila	Urban	IC	SP	AAS
	Los Banos	Rural	IC	SP	AAS
Republic of Korea	Kanghwa	Rural	IC	IC	IC
	Cheju (Kosan)	Remote	IC	IC	IC
	Imsil	Rural	IC	IC	IC
Russia	Mondy	Remote	LC	SP	AAS, FP
	Listvyanka	Rural	LC	SP	AAS, FP
	Irkutsk	Urban	LC	SP	AAS, FP
	Primorskaya	Rural	SP, TI	SP	AAS, FP
Thailand	Bangkok	Urban	IC	IC	IC
	Patumthani	Rural	IC	IC	IC
	Vachiralongkorn Dam	Remote	IC	IC	IC
	Mae Hia	Rural	IC	IC	IC
Vietnam	Hanoi	Urban	SP, TI	IC	IC
	Hoa Binh	Rural	SP, TI	IC	IC

(Note)

AAS: Atomic Absorption Spectrometry, FP: Flame Photometry, IC: Ion Chromatography, SP: Spectrophotometry, TI: Titration, LC: Liquid Chromatography, -: not analyzed

### 3.2 Results of Monitoring

The monthly summaries of each monitoring site in 2003 are shown in Table 3.6 through Table 3.49. The annual summaries of wet deposition monitoring in 2003 are shown in Table 3.50 through Table 3.52. The ion balance (R1) and the conductivity agreement (R2) of each monitoring site are shown in Fig.3.2 through Fig 3.44 and Table 3.53. The summaries of annual data from 2000 to 2003 are shown in Table 3.54 through Table 3.78. The data in 2000 is based on the preparatory-phase activities of EANET. The summaries contain the precipitation amount weighted average, the maximum and minimum data reported over the year, data completeness (%PCL, %TP), the wet deposition amount, and the results of ion balance and conductivity agreement check.

#### 1) Overview of the statistics and definition

An Overview of the statistics and definition is given below.

**Weighted average:** the precipitation amount average concentration ( $\mu\text{mol/L}$ ) over the summary period. Calculated as:

$$\hat{C} = \frac{\sum C_i P_i}{\sum P_i}$$

Where  $\hat{C}$ : precipitation amount weighted average concentration

$C_i$  : measured valid concentration for sample  $i$

$P_i$  : precipitation amount for the same sample  $i$  with valid concentration

**Deposition amount:** the wet deposition amount ( $\text{mmol/m}^2$ ) for the summary period. Calculated as:

$$\text{Deposition amount} = \hat{C} * (\text{total precipitation amount for the summary period})$$

The concentrations for the sampling periods with missing data have consequently been assumed to be equal to the weighted average of the summary period.

**Non-sea-salt sulfate and non-sea-salt calcium ( $\mu\text{mol/L}$ ):** Equal to the measured sulfate (calcium) in the sample minus the sulfate (calcium) contributed by sea salt. Sea salt sulfate (calcium) is estimated from the concentration of sodium.

$$[\text{nss-SO}_4^{2-}] = [\text{SO}_4^{2-}] - 0.06028 * [\text{Na}^+]$$

$$[\text{nss-Ca}^{2+}] = [\text{Ca}^{2+}] - 0.02161 * [\text{Na}^+]$$

( $\text{Na}^+$  : 468.3 mmol/L,  $\text{SO}_4^{2-}$  : 28.23 mmol/L,  $\text{Ca}^{2+}$  : 10.12 mmol/L; "Guide to maritime observation" Oceanographic Society of Japan)

**Data completeness:**

- (i) **Percent precipitation coverage length (%PCL):** Percentage of days with measured precipitation plus no precipitation days in the summary period. Calculated as:

$$\%PCL = [(Number\ of\ days\ in\ the\ summary\ period) - (Number\ of\ days\ with\ missing\ or\ unknown\ precipitation)] / (Number\ of\ days\ in\ the\ summary\ period) * 100$$

- (ii) **Percent total precipitation (%TP):** Percentage of total precipitation amount over the summary period represented by valid component measurements. Calculated as:

$$\%TP = (Sum\ of\ precipitation\ amounts\ for\ samples\ with\ valid\ sample\ component\ measurements) / (Sum\ of\ precipitation\ amounts\ for\ all\ samples) * 100$$

- (iii) **Data completeness criteria for monthly and annual summaries:**

$$\%PCL \geq 80\%,\ and\ \%TP \geq 80\%$$

The low values on data completeness were caused by some trouble, such as contamination of sample and malfunction of the wet-only sampler or the rain gauge.

**Ion balance (R<sub>1</sub>):** Calculated as:

$$R_1 = (C - A) / (C + A) * 100 (\%)$$

Where C: total cation equivalent concentration (μeq/L)

A: total anion equivalent concentration (μeq/L)

$$C = 10^{(6-pH)} / 1.008 + \sum C_{Ci} \cdot V_i$$

Where C<sub>Ci</sub>: the concentration of i-th cation (μmol/L)

V<sub>i</sub>: the valence of the given ion

$$A = \sum C_{Ai} \cdot V_i$$

Where C<sub>Ai</sub>: the concentration of i-th anion (μmol/L)

If pH is greater than 6, hydrogen carbonate (HCO<sub>3</sub><sup>-</sup>) concentration is included for the computation of R<sub>1</sub> and R<sub>2</sub>. The HCO<sub>3</sub><sup>-</sup> concentration is calculated from the dissociation constant, K<sub>a</sub> and pH. (If the HCO<sub>3</sub><sup>-</sup> concentration is measured, the measured data is considered in the evaluation of R<sub>1</sub> and R<sub>2</sub>). Calculated as:

$$[HCO_3^-] = P_{CO_2} H_{CO_2} K_{a1} / [H^+] = (360 * 10^{-6}) * (3.4 * 10^{-2}) * 10^{(pH-6.35+6)} = 1.24 * 10^{(pH-5.35)}$$

Air concentration of CO<sub>2</sub> in equilibrium with precipitation samples is assumed to be 360ppm.

Dissociation constant in terms of pK<sub>a</sub> for carbonic acid is 6.35.

**Required criteria for R<sub>1</sub>:** The required ion balances of precipitation analyses are given in Table 3.4.

**Table 3.4 Required criteria for R<sub>1</sub>**

(C+A) (μeq/L)	R <sub>1</sub> (%)
<50	± 30
50 – 100	± 15
>100	± 8

**Conductivity agreement (R<sub>2</sub>)** : Calculated as:

$$R_2 = (\Lambda_{\text{calc}} - \Lambda_{\text{meas}}) / (\Lambda_{\text{calc}} + \Lambda_{\text{meas}}) * 100 (\%)$$

Where  $\Lambda_{\text{calc}}$  : the calculated conductivity (mS/m)

$\Lambda_{\text{meas}}$  : the measured conductivity (mS/m)

$$\Lambda_{\text{calc}} = \sum C_i \Lambda_i^0 * 10^{-4}$$

Where  $C_i$  : the ionic concentration of i-th ion ( $\mu\text{mol/L}$ )

$\Lambda_i^0$  : the molar conductivity at infinite dilution and 25 °C ( $\text{Scm}^2/\text{mol}$ )

$$\Lambda_{\text{calc}} = \{349.7 * 10^{(6-\text{pH})} + 80.0 * 2c(\text{SO}_4^{2-}) + 71.5c(\text{NO}_3^-) + 76.3c(\text{Cl}^-) + 73.5c(\text{NH}_4^+) + 50.1c(\text{Na}^+) + 73.5c(\text{K}^+) + 59.8 * 2c(\text{Ca}^{2+}) + 53.3 * 2c(\text{Mg}^{2+})\} / 10000$$

Where  $c(\ )$  : the ionic concentrations ( $\mu\text{mol/L}$ )

The constants are the molar conductivity of the individual ion at infinite dilution at 25 °C ( $\text{Scm}^2/\text{mol}$ ).

**Required criteria for R<sub>2</sub>** : The required conductivity comparison criteria are given in Table 3.5.

**Table 3.5 Required criteria for R<sub>2</sub>**

$\Lambda_{\text{meas}}$ (mS/m)	R <sub>2</sub> (%)
<0.5	± 20
0.5 – 3	± 13
>3	± 9

## 2) Terms and abbreviations

Terms and abbreviations indicate the followings:

- Data in hatched column (▨) : Rejected monthly (annual) value by the criteria [%PCL<80% and/or %TP<80%]
  - [--] : Precipitation was 0 mm.
  - [\*] : The constituent was not measured although precipitation was not 0 mm. [%TP<80%]
  - [\*\*] : Precipitation was not measured. [%PCL<80%]
- (In Table 3.54 through Table 3.78 Annual summaries from 2000 to 2003,)
- [\*\*\*] : No data or not measured
  - Black column (■) : Monitoring was not carried out.

In Table 3.6 -Table 3.49 Monthly weighted averages / precipitation / deposition

- Max: Maximum monitoring data for a year
- Min: Minimum monitoring data for a year

For H<sup>+</sup> concentration,

- [<0.1] : <0.1  $\mu\text{mol/L}$

For concentration of other constituent,

- [<0.2], [<0.4], [<1.0] : The values are lower than each Recommended Minimum Detectable Amount (MDA) given by the technical manual for wet deposition monitoring

- $\text{SO}_4^{2-}$ , nss- $\text{SO}_4^{2-}$ ,  $\text{NO}_3^-$ ,  $\text{Cl}^-$ ,  $\text{NH}_4^+$ ,  $\text{Na}^+$ ,  $\text{K}^+$  :  $<1.0\mu\text{mol/L}$
- $\text{Ca}^{2+}$ , nss- $\text{Ca}^{2+}$  :  $<0.2\mu\text{mol/L}$
- $\text{Mg}^{2+}$  :  $<0.4\mu\text{mol/L}$

For deposition,

- [0.00] : Deposition amount is zero. (Precipitation was 0 mm.)
- [ $<0.01$ ] :  $<0.01\text{mmol/m}^2$

In Table 3.53 Results of ion balance (R<sub>1</sub>) and conductivity agreement check (R<sub>2</sub>),

- Sample (N) : Number of samples
- R<sub>1</sub> (N) : Number of samples measured and calculated ion balance (R<sub>1</sub>)
- R<sub>1</sub> (AA) : Number of samples within allowable ranges for R<sub>1</sub>
- R<sub>2</sub> (N) : Number of samples measured and calculated conductivity agreement (R<sub>2</sub>)
- R<sub>2</sub> (AA) : Number of samples within allowable ranges for R<sub>2</sub>
- R<sub>1</sub>&R<sub>2</sub> (N) : Number of samples measured and calculated both R<sub>1</sub> and R<sub>2</sub>
- R<sub>1</sub>&R<sub>2</sub> (AA) : Number of samples within allowable ranges of both R<sub>1</sub> and R<sub>2</sub>

In Table 3.79 Site identification code

In Fig.3.2 - 3.44 descriptions are as follows.

(1) Ion Balance (R<sub>1</sub>)

- (C + A) is logarithm scale
- Horizontal bar : The allowable range of R<sub>1</sub> in each concentration range

(2) Conductivity Agreement (R<sub>2</sub>)

- ( $\wedge_{\text{meas}}$ ) is logarithm scale
- Horizontal bar : The allowable range of R<sub>2</sub> in each conductivity range

R<sub>1</sub> and R<sub>2</sub> were calculated including the following items:

- Guanyinqiao (China):  $\text{F}^-$
- Jinyunshan (China):  $\text{F}^-$
- Mondy (Russia):  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$ ,  $\text{Br}^-$
- Listvjanka (Russia):  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$ ,  $\text{Br}^-$
- Irkutsk (Russia):  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$ ,  $\text{Br}^-$
- Primorskaya (Russia):  $\text{HCO}_3^-$
- Petaling Jaya (Malaysia): Formic acid, Acetic acid, Oxalic acid
- Tanah Rata (Malaysia): Formic acid, Acetic acid, Oxalic acid

**Table 3.6 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	342	342	111	35.0	326	11.3	40.5	178	178	15.7	143	3.84	15.0	12.9
Feb	185	185	79.7	18.2	222	4.4	17.4	102	101	8.5	88.6	4.05	8.78	7.6
Mar	344	343	142	54.7	481	12.9	32.6	231	231	15.2	29.9	4.52	13.1	12.5
Apr	148	147	52.8	11.5	128	9.1	12.2	143	143	10.7	3.0	5.52	5.87	71.5
May	79.0	78.8	29.7	11.1	111	3.0	7.2	35.3	35.2	2.0	32.3	4.49	3.76	198.9
Jun	80.7	80.6	25.8	10.5	101	2.4	7.5	26.3	26.2	2.3	51.6	4.29	4.20	298.9
Jul	71.1	70.9	18.1	11.4	58.6	2.8	6.2	58.9	58.8	2.5	17.7	4.75	3.02	148.1
Aug	123	122	37.8	18.1	153	4.3	9.6	59.5	59.4	4.1	18.8	4.73	5.00	34.1
Sep	87.0	86.8	30.2	13.2	95.2	3.7	6.9	75.5	75.4	4.0	5.1	5.29	3.70	76.8
Oct	169	168	54.7	35.9	213	7.9	20.4	96.1	96.0	8.0	38.2	4.42	7.18	44.1
Nov	191	190	65.2	25.3	226	14.1	19.4	132	132	9.4	8.7	5.06	6.98	56.1
Dec	321	319	192	89.1	547	21.7	59.9	208	207	16.6	38.9	4.41	14.6	25.2
<b>Annual</b>	<b>110</b>	<b>109</b>	<b>38.9</b>	<b>16.2</b>	<b>132</b>	<b>4.9</b>	<b>11.0</b>	<b>65.4</b>	<b>65.3</b>	<b>4.5</b>	<b>32.2</b>	<b>4.49</b>	<b>4.89</b>	<b>986.7</b>
Max.	946	944	293	157	760	51.0	120	621	620	35.0	331	7.11	37.0	
Min.	38.6	38.5	2.4	1.2	2.8	<1.0	1.3	6.6	6.5	<0.4	<0.1	3.48	1.89	

**Table 3.6 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	4.42	4.41	1.43	0.45	4.21	0.15	0.52	2.30	2.30	0.20	1.85
Feb	1.41	1.41	0.61	0.14	1.69	0.03	0.13	0.77	0.77	0.06	0.67
Mar	4.30	4.29	1.78	0.68	6.02	0.16	0.41	2.89	2.88	0.19	0.37
Apr	10.6	10.5	3.77	0.82	9.12	0.65	0.87	10.2	10.2	0.76	0.21
May	15.7	15.7	5.90	2.21	22.2	0.61	1.43	7.02	7.01	0.39	6.43
Jun	24.1	24.1	7.70	3.15	30.3	0.72	2.24	7.85	7.84	0.69	15.4
Jul	10.5	10.5	2.68	1.69	8.68	0.41	0.91	8.72	8.71	0.36	2.61
Aug	4.19	4.18	1.29	0.62	5.21	0.15	0.33	2.03	2.03	0.14	0.64
Sep	6.68	6.67	2.32	1.01	7.31	0.28	0.53	5.80	5.79	0.31	0.39
Oct	7.45	7.43	2.41	1.58	9.41	0.35	0.90	4.24	4.23	0.35	1.68
Nov	10.7	10.7	3.66	1.42	12.7	0.79	1.09	7.42	7.40	0.53	0.49
Dec	8.08	8.05	4.83	2.25	13.8	0.55	1.51	5.23	5.22	0.42	0.98
<b>Annual</b>	<b>108</b>	<b>108</b>	<b>38.4</b>	<b>16.0</b>	<b>131</b>	<b>4.85</b>	<b>10.9</b>	<b>64.5</b>	<b>64.4</b>	<b>4.40</b>	<b>31.7</b>

**Table 3.6 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.7 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	178	177	86.0	31.1	239	6.1	18.9	69.5	69.4	4.7	151	3.82	10.4	12.8
Feb	146	146	61.7	19.3	123	5.1	13.5	57.7	57.5	3.7	115	3.94	8.00	14.2
Mar	421	420	160	37.8	335	12.1	31.7	222	222	17.4	63.7	4.20	14.7	28.6
Apr	104	103	41.7	11.5	110	7.5	10.1	37.4	37.2	6.5	55.8	4.25	4.81	72.8
May	81.7	81.4	31.4	12.0	86.5	4.9	8.1	23.0	22.9	2.8	66.2	4.18	4.55	211.5
Jun	51.4	51.3	24.3	7.7	69.9	2.2	5.0	15.9	15.9	1.5	25.4	4.59	2.45	359.2
Jul	44.9	44.7	13.7	4.8	42.3	3.3	4.5	16.4	16.3	1.0	27.7	4.56	2.10	200.9
Aug	75.6	75.3	21.7	7.5	59.8	4.5	6.6	30.2	30.1	1.8	51.7	4.29	3.75	53.0
Sep	72.0	71.6	26.2	8.4	58.2	6.7	7.7	39.7	39.6	3.1	25.7	4.59	3.20	106.3
Oct	94.7	94.2	45.1	10.2	75.4	8.0	11.5	29.6	29.4	2.9	104	3.98	6.50	79.7
Nov	127	127	59.0	14.0	141	9.4	17.0	40.8	40.6	4.0	83.4	4.08	7.18	77.5
Dec	296	295	166	37.7	307	16.0	44.5	113	113	9.5	223	3.65	16.9	16.0
<b>Annual</b>	<b>83.2</b>	<b>82.9</b>	<b>34.4</b>	<b>10.3</b>	<b>85.6</b>	<b>5.0</b>	<b>8.6</b>	<b>30.7</b>	<b>30.6</b>	<b>2.9</b>	<b>50.3</b>	<b>4.30</b>	<b>4.19</b>	<b>1232.5</b>
Max.	768	766	309	71.7	622	28.0	75.2	458	457	37.3	389	6.14	27.7	
Min.	25.2	25.1	7.6	2.7	3.9	1.0	1.7	3.7	3.7	<0.4	0.7	3.41	1.10	

**Table 3.7 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	2.27	2.27	1.10	0.40	3.06	0.08	0.24	0.89	0.89	0.06	1.93
Feb	2.08	2.07	0.88	0.27	1.74	0.07	0.19	0.82	0.82	0.05	1.63
Mar	12.0	12.0	4.57	1.08	9.57	0.35	0.91	6.35	6.34	0.50	1.82
Apr	7.56	7.53	3.03	0.84	8.01	0.55	0.73	2.72	2.71	0.48	4.06
May	17.3	17.2	6.64	2.54	18.3	1.05	1.71	4.87	4.85	0.60	14.0
Jun	18.5	18.4	8.73	2.75	25.1	0.81	1.81	5.72	5.70	0.55	9.14
Jul	9.02	8.98	2.74	0.97	8.50	0.67	0.89	3.30	3.28	0.21	5.56
Aug	4.01	3.99	1.15	0.40	3.17	0.24	0.35	1.60	1.60	0.09	2.74
Sep	7.65	7.61	2.79	0.89	6.19	0.72	0.82	4.22	4.21	0.33	2.73
Oct	7.55	7.51	3.60	0.81	6.01	0.64	0.91	2.36	2.35	0.23	8.31
Nov	9.87	9.83	4.57	1.09	10.9	0.73	1.32	3.16	3.15	0.31	6.46
Dec	4.73	4.72	2.66	0.60	4.92	0.26	0.71	1.81	1.80	0.15	3.57
<b>Annual</b>	<b>103</b>	<b>102</b>	<b>42.5</b>	<b>12.6</b>	<b>106</b>	<b>6.15</b>	<b>10.6</b>	<b>37.8</b>	<b>37.7</b>	<b>3.56</b>	<b>62.0</b>

**Table 3.7 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.8 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	2030	2010	352	769	386	275	57.0	1150	1150	111	0.3	6.59	32.9	8.4
Feb	362	359	182	62.3	383	52.8	28.2	270	268	27.0	1.1	5.94	12.8	26.6
Mar	1220	1220	225	114	460	104	47.5	1340	1330	106	0.5	6.33	36.0	10.6
Apr	256	247	90.0	51.6	185	146	36.9	447	444	39.3	0.3	6.60	12.0	99.1
May	137	132	49.5	127	162	84.5	27.6	267	265	33.2	0.4	6.40	7.13	68.0
Jun	235	229	84.6	136	145	108	35.6	416	414	47.9	<0.1	7.76	9.95	58.8
Jul	170	166	61.8	72.0	97.4	66.0	20.0	176	174	36.1	1.1	5.94	6.07	206.9
Aug	212	206	71.5	61.6	194	91.7	13.7	278	276	36.7	1.7	5.78	6.76	168.3
Sep	154	150	54.9	117	80.7	62.8	12.2	163	161	35.8	1.4	5.87	3.95	223.9
Oct	141	139	46.6	56.0	160	31.1	12.6	204	203	21.7	0.8	6.09	6.55	292.1
Nov	234	231	69.2	70.3	82.4	43.5	15.4	287	286	26.6	1.3	5.88	9.96	94.1
Dec	110	108	117	34.6	110	27.6	12.2	300	300	27.7	0.2	6.70	10.1	16.4
<b>Annual</b>	<b>203</b>	<b>199</b>	<b>68.0</b>	<b>83.3</b>	<b>144</b>	<b>69.2</b>	<b>18.7</b>	<b>258</b>	<b>257</b>	<b>33.5</b>	<b>1.0</b>	<b>6.00</b>	<b>7.50</b>	<b>1273.2</b>
Max.	2890	2870	354	825	642	380	75.1	1670	1670	144	4.0	7.76	46.8	
Min.	54.6	53.2	21.6	12.3	18.3	7.7	3.8	123	122	10.9	<0.1	5.40	2.06	

**Table 3.8 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	17.0	16.9	2.96	6.46	3.24	2.31	0.48	9.68	9.63	0.93	<0.01
Feb	9.63	9.54	4.84	1.66	10.2	1.41	0.75	7.17	7.14	0.72	0.03
Mar	13.0	12.9	2.39	1.21	4.88	1.10	0.50	14.2	14.1	1.13	<0.01
Apr	25.3	24.5	8.92	5.12	18.3	14.4	3.65	44.3	44.0	3.90	0.02
May	9.32	8.98	3.36	8.61	11.0	5.74	1.88	18.1	18.0	2.25	0.03
Jun	13.8	13.4	4.98	8.00	8.54	6.34	2.09	24.5	24.3	2.82	<0.01
Jul	35.1	34.3	12.8	14.9	20.2	13.6	4.13	36.4	36.1	7.47	0.24
Aug	35.7	34.7	12.0	10.4	32.7	15.4	2.30	46.8	46.5	6.17	0.28
Sep	34.4	33.6	12.3	26.2	18.1	14.1	2.73	36.4	36.1	8.01	0.31
Oct	41.1	40.5	13.6	16.4	46.6	9.08	3.68	59.6	59.4	6.34	0.24
Nov	22.0	21.8	6.51	6.61	7.75	4.09	1.45	27.0	26.9	2.50	0.13
Dec	1.80	1.78	1.91	0.57	1.81	0.45	0.20	4.92	4.91	0.45	<0.01
<b>Annual</b>	<b>258</b>	<b>253</b>	<b>86.6</b>	<b>106</b>	<b>183</b>	<b>88.1</b>	<b>23.9</b>	<b>329</b>	<b>327</b>	<b>42.7</b>	<b>1.27</b>

**Table 3.8 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.9 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	961	951	183	521	253	162	47.5	1040	1040	65.3	0.3	6.59	26.0	6.5
Feb	814	807	432	142	734	118	64.5	648	645	62.9	0.9	6.07	30.4	11.1
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Apr	186	184	66.4	67.8	186	32.9	15.9	170	170	23.2	0.4	6.43	7.48	44.0
May	221	193	71.6	123	208	465	24.9	515	505	37.5	0.5	6.32	13.6	48.6
Jun	116	110	57.9	132	192	98.8	25.9	358	356	30.9	0.1	6.87	8.01	82.5
Jul	97.3	92.9	28.0	79.4	92.2	72.9	17.1	119	117	74.3	0.8	6.10	5.41	218.7
Aug	150	144	55.3	105	182	84.3	10.9	231	229	31.4	1.5	5.83	10.3	147.1
Sep	135	126	52.7	124	118	150	27.0	236	233	41.5	0.9	6.04	7.20	528.5
Oct	114	113	44.5	28.6	153	17.8	8.2	207	206	11.5	0.1	6.91	6.16	138.7
Nov	156	155	66.1	31.7	176	27.4	8.8	312	311	14.7	0.9	6.06	8.32	76.4
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>143</b>	<b>136</b>	<b>54.1</b>	<b>99.4</b>	<b>144</b>	<b>113</b>	<b>20.3</b>	<b>241</b>	<b>238</b>	<b>40.0</b>	<b>0.8</b>	<b>6.11</b>	<b>7.80</b>	<b>1302.1</b>
Max.	961	951	432	521	734	800	134	1040	1040	415	2.3	7.87	30.4	
Min.	47.3	43.3	17.5	23.5	26.5	12.5	4.6	88.8	86.2	7.2	<0.1	5.64	2.47	

**Table 3.9 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	6.25	6.18	1.19	3.39	1.64	1.06	0.31	6.76	6.74	0.42	<0.01
Feb	9.04	8.96	4.79	1.58	8.15	1.31	0.72	7.19	7.16	0.70	<0.01
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	8.17	8.08	2.92	2.98	8.18	1.45	0.70	7.50	7.47	1.02	0.02
May	10.7	9.37	3.48	5.97	10.1	22.6	1.21	25.1	24.6	1.82	0.02
Jun	9.56	9.07	4.78	10.9	15.8	8.15	2.14	29.6	29.4	2.55	0.01
Jul	21.3	20.3	6.13	17.4	20.2	15.9	3.74	26.0	25.7	16.2	0.17
Aug	22.0	21.3	8.14	15.4	26.8	12.4	1.60	34.0	33.7	4.62	0.22
Sep	71.3	66.5	27.8	65.4	62.3	79.4	14.3	125	123	21.9	0.49
Oct	15.8	15.7	6.18	3.97	21.2	2.47	1.14	28.7	28.6	1.60	0.02
Nov	11.9	11.8	5.05	2.42	13.5	2.09	0.67	23.8	23.8	1.12	0.07
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>186</b>	<b>177</b>	<b>70.5</b>	<b>129</b>	<b>188</b>	<b>147</b>	<b>26.5</b>	<b>313</b>	<b>310</b>	<b>52.0</b>	<b>1.02</b>

**Table 3.9 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.10 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	62.5	60.8	29.5	33.5	108	28.3	9.1	79.1	78.5	13.3	1.0	6.01	2.69	36.0
Apr	89.1	84.6	54.4	69.6	64.3	75.3	19.0	191	189	30.5	0.7	6.17	3.97	122.5
May	64.5	59.4	46.1	148	98.8	84.4	26.4	166	164	26.5	0.6	6.20	2.83	54.5
Jun	137	132	63.3	163	58.2	76.8	23.4	243	242	39.3	<0.1	7.20	8.00	25.5
Jul	132	127	30.6	96.6	21.5	89.9	32.1	204	202	53.8	1.7	5.76	6.25	25.0
Aug	58.0	46.8	36.2	83.9	92.4	185	13.0	150	146	25.2	1.7	5.76	1.69	72.0
Sep	112	103	42.0	63.1	55.5	155	30.2	284	281	52.1	1.0	5.98	5.67	166.3
Oct	103	101	44.6	21.0	183	41.6	14.6	393	392	24.0	0.4	6.35	12.0	71.0
Nov	46.0	44.2	20.8	12.5	65.6	28.9	13.2	204	203	14.0	0.4	6.40	4.17	38.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>90.6</b>	<b>84.5</b>	<b>42.8</b>	<b>70.1</b>	<b>82.7</b>	<b>102</b>	<b>21.3</b>	<b>230</b>	<b>227</b>	<b>33.9</b>	<b>0.9</b>	<b>6.05</b>	<b>5.19</b>	<b>610.8</b>
Max.	182	173	129	237	251	248	62.6	463	462	70.2	2.0	7.39	14.9	
Min.	44.4	32.5	18.0	12.5	19.1	23.1	7.9	79.1	78.5	13.3	<0.1	5.69	1.16	

**Table 3.10 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	2.25	2.19	1.06	1.21	3.89	1.02	0.33	2.85	2.83	0.48	0.04
Apr	10.9	10.4	6.66	8.53	7.88	9.22	2.33	23.4	23.2	3.74	0.08
May	3.51	3.24	2.51	8.04	5.39	4.60	1.44	9.04	8.94	1.44	0.03
Jun	3.49	3.37	1.61	4.15	1.48	1.96	0.60	6.21	6.17	1.00	<0.01
Jul	3.31	3.17	0.77	2.41	0.54	2.25	0.80	5.09	5.04	1.34	0.04
Aug	4.17	3.37	2.61	6.04	6.65	13.3	0.94	10.8	10.5	1.81	0.12
Sep	18.6	17.1	6.98	10.5	9.23	25.7	5.02	47.2	46.7	8.67	0.17
Oct	7.34	7.16	3.16	1.49	13.0	2.96	1.03	27.9	27.9	1.70	0.03
Nov	1.75	1.68	0.79	0.48	2.49	1.10	0.50	7.73	7.71	0.53	0.02
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>55.3</b>	<b>51.6</b>	<b>26.2</b>	<b>42.8</b>	<b>50.5</b>	<b>62.2</b>	<b>13.0</b>	<b>140</b>	<b>139</b>	<b>20.7</b>	<b>0.54</b>

**Table 3.10 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.11 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	65.0	61.8	40.0	54.7	49.3	52.8	6.4	15.4	14.2	5.6	19.0	4.72	4.13	63.1
Feb	98.0	92.7	58.7	97.5	57.2	88.7	10.8	108	106	19.6	4.8	5.32	5.40	13.9
Mar	96.6	92.4	63.2	52.7	45.9	70.9	8.1	124	123	16.3	25.7	4.59	6.01	79.0
Apr	45.5	44.3	35.7	26.3	27.7	19.5	3.9	29.1	28.7	4.1	58.3	4.23	2.44	196.6
May	29.4	28.3	24.8	9.5	24.9	18.6	3.5	22.7	22.3	3.3	53.4	4.27	3.04	204.6
Jun	23.8	22.6	20.6	26.2	37.5	19.4	3.7	18.3	17.9	4.5	19.8	4.70	1.50	272.2
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Aug	21.9	19.0	16.6	84.5	7.9	48.7	3.3	5.7	4.7	5.5	17.5	4.76	2.30	311.8
Sep	41.7	38.6	76.7	120	50.3	50.7	4.1	14.9	13.8	5.0	76.6	4.12	4.80	104.9
Oct	41.5	39.9	40.0	35.2	32.2	25.7	4.9	57.5	56.9	7.1	4.8	5.32	2.50	52.8
Nov	20.8	15.3	960	1110	228	92.6	96.4	2500	2500	220	1.4	5.84	32.3	2.4
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>36.9</b>	<b>34.8</b>	<b>33.6</b>	<b>51.3</b>	<b>29.4</b>	<b>34.8</b>	<b>4.3</b>	<b>30.7</b>	<b>30.0</b>	<b>6.0</b>	<b>34.4</b>	<b>4.46</b>	<b>2.88</b>	<b>1301.3</b>
Max.	596	561	960	1110	261	591	96.4	2500	2500	220	162	6.74	32.3	
Min.	4.5	3.1	1.9	3.1	1.4	<1.0	<1.0	0.3	<0.2	0.4	0.2	3.79	0.73	

**Table 3.11 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	4.10	3.90	2.52	3.45	3.11	3.33	0.41	0.97	0.90	0.35	1.20
Feb	1.37	1.29	0.82	1.36	0.80	1.24	0.15	1.51	1.48	0.27	0.07
Mar	7.63	7.30	5.00	4.16	3.63	5.60	0.64	9.81	9.69	1.29	2.03
Apr	8.94	8.71	7.02	5.17	5.44	3.84	0.77	5.73	5.65	0.81	11.5
May	6.01	5.78	5.07	1.94	5.11	3.80	0.71	4.65	4.57	0.68	10.9
Jun	6.47	6.15	5.60	7.12	10.2	5.28	1.00	4.98	4.87	1.24	5.39
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	6.84	5.93	5.19	26.3	2.46	15.2	1.03	1.78	1.48	1.71	5.46
Sep	4.37	4.05	8.05	12.5	5.28	5.32	0.43	1.56	1.44	0.52	8.03
Oct	2.19	2.11	2.11	1.86	1.70	1.36	0.26	3.04	3.01	0.37	0.25
Nov	0.05	0.04	2.27	2.62	0.54	0.22	0.23	5.91	5.90	0.52	<0.01
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>48.0</b>	<b>45.3</b>	<b>43.7</b>	<b>66.7</b>	<b>38.3</b>	<b>45.2</b>	<b>5.63</b>	<b>40.0</b>	<b>39.0</b>	<b>7.76</b>	<b>44.8</b>

**Table 3.11 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	99	99	99	99	99	99	99	99	99	99	99	99	99	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.12 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	18.6	13.0	13.5	16.4	52.6	92.9	10.3	113	111	23.3	33.5	4.48	1.88	85.4
Feb	78.2	77.1	95.2	31.5	125	17.4	24.1	15.3	14.9	3.8	61.4	4.21	5.64	48.7
Mar	31.7	31.0	32.2	15.9	40.3	11.2	5.4	9.8	9.5	2.3	39.8	4.40	2.66	169.2
Apr	29.1	28.8	34.0	12.2	28.5	5.7	3.2	5.5	5.4	1.0	31.2	4.51	1.96	187.2
May	29.8	29.3	34.7	14.3	25.2	8.1	7.6	4.5	4.4	1.2	43.9	4.36	2.15	207.3
Jun	35.9	35.5	28.0	11.3	57.0	7.3	1.3	2.6	2.5	1.2	60.9	4.22	2.62	113.8
Jul	12.8	12.0	10.7	26.9	27.0	13.8	2.7	2.2	1.9	1.8	36.2	4.44	1.54	286.4
Aug	14.7	11.9	10.6	29.1	31.5	46.4	3.4	28.5	27.5	6.3	48.6	4.31	1.92	529.2
Sep	26.7	26.3	23.4	45.1	61.4	5.9	4.0	4.0	3.9	1.2	19.5	4.71	2.47	140.8
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>23.6</b>	<b>22.1</b>	<b>22.6</b>	<b>23.5</b>	<b>38.2</b>	<b>24.7</b>	<b>4.7</b>	<b>17.3</b>	<b>16.8</b>	<b>4.0</b>	<b>41.4</b>	<b>4.38</b>	<b>2.15</b>	<b>1767.8</b>
Max.	155	153	144	75.8	251	170	31.3	155	151	37.3	112	5.87	9.76	
Min.	6.8	3.5	2.3	3.1	2.2	<1.0	<1.0	0.3	<0.2	0.4	1.3	3.95	0.66	

**Table 3.12 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.59	1.11	1.15	1.40	4.50	7.94	0.88	9.61	9.44	1.99	2.86
Feb	3.81	3.76	4.63	1.53	6.11	0.85	1.17	0.75	0.73	0.18	2.99
Mar	5.37	5.25	5.44	2.69	6.81	1.89	0.91	1.66	1.61	0.39	6.74
Apr	5.45	5.39	6.36	2.29	5.33	1.07	0.61	1.03	1.01	0.19	5.83
May	6.17	6.07	7.19	2.97	5.23	1.69	1.57	0.94	0.91	0.25	9.10
Jun	4.08	4.04	3.19	1.28	6.49	0.83	0.15	0.30	0.28	0.14	6.93
Jul	3.66	3.43	3.07	7.71	7.72	3.95	0.76	0.63	0.54	0.52	10.4
Aug	7.78	6.30	5.61	15.4	16.7	24.5	1.78	15.1	14.6	3.33	25.7
Sep	3.75	3.70	3.29	6.34	8.65	0.83	0.56	0.56	0.55	0.16	2.74
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>41.7</b>	<b>39.0</b>	<b>39.9</b>	<b>41.6</b>	<b>67.5</b>	<b>43.6</b>	<b>8.39</b>	<b>30.6</b>	<b>29.6</b>	<b>7.15</b>	<b>73.2</b>

**Table 3.12 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.13 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	110	103	178	149	209	120	39.1	206	204	48.2	37.2	4.43	8.51	79.5
Apr	86.7	81.7	107	106	125	82.6	12.7	22.3	20.5	12.2	8.6	5.07	8.03	56.5
May	8.7	7.5	8.9	6.2	7.7	19.9	5.9	5.8	5.4	3.3	0.8	6.11	1.06	308.5
Jun	5.2	4.6	9.6	16.3	12.4	15.9	1.0	16.0	15.7	2.6	3.3	5.48	0.99	553.6
Jul	28.7	5.8	1.8	397	38.3	381	13.9	25.8	17.5	37.8	4.3	5.37	6.62	37.0
Aug	35.1	32.7	21.6	59.1	44.9	38.8	7.5	11.9	11.1	6.4	19.7	4.71	3.39	273.8
Sep	12.8	11.0	2.5	59.2	20.6	36.7	2.4	15.5	14.7	5.3	5.7	5.24	1.24	323.8
Oct	8.5	7.9	6.1	21.1	49.8	10.8	1.5	16.5	16.3	4.3	2.0	5.71	1.71	90.3
Nov	177	161	135	372	276	266	67.8	94.3	88.6	30.4	166	3.78	16.3	3.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>20.5</b>	<b>18.3</b>	<b>20.9</b>	<b>47.4</b>	<b>34.0</b>	<b>39.1</b>	<b>5.7</b>	<b>22.8</b>	<b>21.9</b>	<b>7.1</b>	<b>7.9</b>	<b>5.10</b>	<b>2.19</b>	<b>1726.0</b>
Max.	249	248	386	1040	276	831	67.8	302	298	81.9	166	7.01	18.2	
Min.	<1.0	<1.0	<1.0	<1.0	2.8	2.2	<1.0	0.2	<0.2	0.4	<0.1	3.78	0.31	

**Table 3.13 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	8.77	8.19	14.2	11.8	16.6	9.53	3.11	16.4	16.2	3.83	2.95
Apr	4.90	4.62	6.05	6.01	7.06	4.67	0.72	1.26	1.16	0.69	0.48
May	2.68	2.31	2.75	1.91	2.36	6.14	1.83	1.80	1.67	1.03	0.24
Jun	2.88	2.53	5.30	9.05	6.87	8.81	0.57	8.87	8.68	1.43	1.83
Jul	1.06	0.21	0.07	14.7	1.42	14.1	0.51	0.95	0.65	1.40	0.16
Aug	9.60	8.96	5.91	16.2	12.3	10.6	2.06	3.26	3.03	1.74	5.38
Sep	4.13	3.57	0.81	19.2	6.66	11.9	0.76	5.02	4.76	1.72	1.85
Oct	0.77	0.71	0.55	1.91	4.50	0.98	0.13	1.49	1.47	0.39	0.18
Nov	0.53	0.48	0.40	1.12	0.83	0.80	0.20	0.28	0.27	0.09	0.50
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>35.3</b>	<b>31.6</b>	<b>36.0</b>	<b>81.8</b>	<b>58.7</b>	<b>67.5</b>	<b>9.91</b>	<b>39.3</b>	<b>37.9</b>	<b>12.3</b>	<b>13.6</b>

**Table 3.13 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.14 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	77.4	70.6	93.8	117	156	113	39.0	164	161	38.2	37.3	4.43	7.08	81.9
Apr	64.3	59.9	47.2	59.0	87.1	72.5	12.2	18.8	17.2	10.2	8.5	5.07	7.43	57.5
May	11.1	9.8	6.7	7.0	7.6	21.1	7.4	6.4	5.9	4.7	1.1	5.97	1.47	324.7
Jun	6.4	5.7	3.0	16.7	12.4	16.0	1.7	15.3	14.9	3.1	3.0	5.52	1.19	557.8
Jul	21.1	3.1	2.2	294	33.2	299	9.8	20.0	13.5	32.0	7.2	5.14	6.52	39.3
Aug	29.6	27.4	14.3	57.6	40.3	37.4	7.9	12.3	11.5	7.5	21.4	4.67	4.25	258.7
Sep	15.2	13.3	2.6	47.2	24.1	31.3	4.4	12.3	11.6	6.3	5.5	5.26	1.46	330.6
Oct	10.6	9.8	6.7	25.9	44.2	13.5	2.4	19.5	19.2	5.9	1.7	5.76	1.91	100.1
Nov	156	143	147	301	295	223	54.3	88.4	83.6	22.5	107	3.97	15.2	4.3
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>18.5</b>	<b>16.4</b>	<b>11.5</b>	<b>40.2</b>	<b>29.9</b>	<b>36.0</b>	<b>6.6</b>	<b>20.2</b>	<b>19.4</b>	<b>7.4</b>	<b>7.9</b>	<b>5.10</b>	<b>2.42</b>	<b>1754.9</b>
Max.	247	235	164	889	295	748	65.1	253	250	66.6	129	7.11	16.3	
Min.	1.0	<1.0	<1.0	1.1	5.2	3.2	1.0	1.2	1.1	1.3	<0.1	3.89	0.44	

**Table 3.14 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	6.34	5.78	7.68	9.62	12.7	9.24	3.20	13.4	13.2	3.13	3.05
Apr	3.70	3.45	2.71	3.39	5.01	4.17	0.70	1.08	0.99	0.59	0.49
May	3.60	3.19	2.17	2.26	2.45	6.84	2.39	2.07	1.92	1.54	0.35
Jun	3.55	3.17	1.67	9.32	6.92	8.91	0.96	8.53	8.34	1.72	1.68
Jul	0.83	0.12	0.09	11.5	1.30	11.8	0.39	0.78	0.53	1.26	0.28
Aug	7.67	7.09	3.70	14.9	10.4	9.67	2.05	3.19	2.98	1.94	5.53
Sep	5.03	4.40	0.87	15.6	7.98	10.3	1.46	4.06	3.84	2.07	1.82
Oct	1.06	0.98	0.67	2.60	4.42	1.35	0.24	1.95	1.92	0.59	0.17
Nov	0.67	0.61	0.63	1.30	1.27	0.96	0.23	0.38	0.36	0.10	0.46
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>32.4</b>	<b>28.8</b>	<b>20.2</b>	<b>70.5</b>	<b>52.5</b>	<b>63.2</b>	<b>11.6</b>	<b>35.5</b>	<b>34.1</b>	<b>12.9</b>	<b>13.8</b>

**Table 3.14 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.15 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	50.2	48.8	9.8	16.9	*	22.9	6.4	29.8	29.3	4.3	1.4	5.85	2.01	174.0
Mar	92.9	90.9	54.8	52.3	*	33.5	9.5	59.6	58.9	11.0	8.3	5.08	3.77	360.0
Apr	69.0	67.2	115	41.5	*	29.5	34.6	64.6	64.0	12.7	25.7	4.59	5.15	12.0
May	127	126	82.7	39.0	*	21.9	*	99.6	99.1	12.9	18.4	4.74	4.80	61.3
Jun	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Sep	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Oct	78.2	75.5	93.5	101	*	43.3	*	197	196	29.9	14.5	4.84	8.00	426.0
Nov	51.1	50.1	50.7	17.7	*	16.2	*	216	215	10.1	1.7	5.77	8.60	188.0
Dec	35.9	35.3	43.7	33.6	20.8	11.4	9.6	14.7	14.5	0.7	0.3	6.56	1.63	396.0
<b>Annual</b>	<b>66.7</b>	<b>65.1</b>	<b>58.4</b>	<b>52.2</b>	<b>20.8</b>	<b>27.1</b>	<b>9.3</b>	<b>101</b>	<b>101</b>	<b>12.7</b>	<b>7.0</b>	<b>5.16</b>	<b>4.78</b>	<b>1617.3</b>
Max.	177	175	123	116	25.1	103	34.6	380	377	46.5	39.8	6.73	15.9	
Min.	11.2	9.4	6.3	<1.0	19.3	2.7	2.8	9.9	9.9	0.5	0.2	4.40	1.37	

**Table 3.15 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	8.73	8.49	1.70	2.94	*	3.98	1.11	5.18	5.09	0.75	0.25
Mar	33.4	32.7	19.7	18.8	*	12.1	3.43	21.5	21.2	3.95	2.98
Apr	0.83	0.81	1.38	0.50	*	0.35	0.42	0.78	0.77	0.15	0.31
May	7.79	7.71	5.07	2.39	*	1.34	*	6.10	6.07	0.79	1.13
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	33.3	32.2	39.8	43.2	*	18.5	*	83.9	83.5	12.8	6.17
Nov	9.61	9.42	9.52	3.33	*	3.04	*	40.6	40.5	1.90	0.32
Dec	14.2	14.0	17.3	13.3	8.23	4.52	3.80	5.82	5.72	0.28	0.11
<b>Annual</b>	<b>108</b>	<b>105</b>	<b>94.5</b>	<b>84.4</b>	<b>33.6</b>	<b>43.8</b>	<b>15.0</b>	<b>164</b>	<b>163</b>	<b>20.6</b>	<b>11.3</b>

**Table 3.15 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	35
Feb	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	0	100	100	100	100	100	100	100	100	100
May	100	100	100	100	0	100	0	100	100	100	100	100	100	100
Jun	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Sep	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Oct	100	100	100	100	0	100	0	100	100	100	100	100	100	100
Nov	100	100	100	100	0	100	0	100	100	100	100	100	100	100
Dec	100	100	100	100	90	100	90	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>22</b>	<b>100</b>	<b>56</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>95</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.16 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	18.1	17.5	16.5	14.3	31.0	9.4	2.1	3.3	3.1	4.5	20.1	4.70	1.34	63.5
Feb	12.4	11.8	9.6	18.7	19.7	10.2	2.3	1.8	1.5	3.3	13.6	4.87	1.06	269.7
Mar	20.3	19.7	20.5	17.5	42.6	9.1	2.1	6.4	6.2	1.6	13.4	4.87	1.72	291.6
Apr	26.1	25.5	32.5	25.1	45.9	10.4	10.9	6.2	6.0	3.4	25.7	4.59	2.36	357.8
May	28.0	27.5	40.6	20.5	60.7	8.2	2.6	7.0	6.8	1.9	37.4	4.43	3.06	204.6
Jun	19.0	18.1	28.7	32.6	71.1	15.2	5.4	3.8	3.5	0.8	1.1	5.94	1.85	62.4
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Aug	48.4	44.8	121	59.9	97.2	59.2	13.5	47.6	46.3	10.8	34.7	4.46	6.19	44.6
Sep	31.6	30.7	41.8	42.5	66.0	13.6	6.6	9.3	9.0	7.1	33.0	4.48	2.87	158.0
Oct	23.2	22.8	31.7	22.0	47.6	5.8	1.9	7.7	7.6	0.6	28.8	4.54	2.50	346.2
Nov	32.0	31.5	49.9	18.3	50.4	8.7	3.8	4.6	4.4	1.9	42.4	4.37	2.95	161.3
Dec	13.0	11.8	19.3	65.1	20.9	19.9	43.3	3.7	3.5	2.0	11.9	4.92	1.67	183.1
<b>Annual</b>	<b>23.1</b>	<b>22.4</b>	<b>30.8</b>	<b>27.2</b>	<b>45.0</b>	<b>11.3</b>	<b>8.0</b>	<b>6.6</b>	<b>6.4</b>	<b>2.7</b>	<b>24.1</b>	<b>4.62</b>	<b>2.26</b>	<b>2142.8</b>
Max.	87.0	85.1	148	897	156	59.2	833	47.6	46.3	14.6	102	6.40	15.8	
Min.	2.6	1.8	2.6	2.1	7.7	1.3	<1.0	<0.2	<0.2	<0.4	0.4	3.99	0.40	

**Table 3.16 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.15	1.11	1.05	0.91	1.97	0.60	0.13	0.21	0.19	0.29	1.27
Feb	3.34	3.18	2.58	5.06	5.32	2.74	0.61	0.47	0.41	0.90	3.66
Mar	5.91	5.75	5.97	5.11	12.4	2.66	0.63	1.86	1.81	0.46	3.91
Apr	9.35	9.12	11.6	8.97	16.4	3.71	3.92	2.21	2.13	1.23	9.20
May	5.73	5.63	8.31	4.20	12.4	1.67	0.53	1.43	1.39	0.39	7.65
Jun	1.19	1.13	1.79	2.03	4.44	0.95	0.34	0.24	0.22	0.05	0.07
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	2.16	2.00	5.41	2.67	4.33	2.64	0.60	2.12	2.07	0.48	1.55
Sep	4.99	4.86	6.61	6.71	10.4	2.14	1.04	1.48	1.43	1.11	5.21
Oct	8.02	7.90	11.0	7.60	16.5	2.00	0.66	2.67	2.63	0.20	9.97
Nov	5.17	5.08	8.04	2.96	8.13	1.41	0.61	0.74	0.71	0.30	6.85
Dec	2.39	2.17	3.53	11.9	3.82	3.64	7.93	0.67	0.64	0.36	2.18
<b>Annual</b>	<b>49.5</b>	<b>48.0</b>	<b>66.1</b>	<b>58.2</b>	<b>96.4</b>	<b>24.2</b>	<b>17.0</b>	<b>14.1</b>	<b>13.7</b>	<b>5.76</b>	<b>51.6</b>

**Table 3.16 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	97	97	97	97	97	97	97	97	97	97	97	97	97	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

Table 3.17 a) Weighted averages / Precipitation (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	10.9	10.3	123	33.5	*	10.3	47.0	6.6	6.4	14.1	1.0	6.02	4.06	313.2
Mar	14.3	13.3	223	50.7	*	16.4	70.1	10.0	9.7	19.3	0.9	6.06	5.81	296.7
Apr	8.3	7.9	29.3	14.3	*	5.4	14.6	3.2	3.1	6.6	1.5	5.82	1.71	320.7
May	8.8	8.1	33.3	14.0	*	11.7	14.9	4.8	4.6	5.2	12.8	4.89	2.25	138.0
Jun	5.4	5.1	21.1	12.5	*	4.8	28.9	7.9	7.8	12.2	10.5	4.98	1.98	144.1
Jul	5.1	4.7	18.4	9.8	*	6.0	8.2	7.5	7.4	5.0	10.3	4.99	1.48	211.2
Aug	4.1	3.9	13.9	11.1	*	1.8	2.9	0.9	0.9	2.7	3.4	5.47	0.62	349.2
Sep	7.8	7.1	9.7	4.6	*	12.2	11.1	6.8	6.5	3.6	6.5	5.19	1.47	189.0
Oct	9.9	9.2	25.5	33.2	*	11.9	9.2	6.0	5.7	2.7	4.0	5.40	1.00	373.4
Nov	17.0	16.0	13.6	70.3	<1.0	16.4	10.5	7.1	6.7	5.0	8.4	5.07	0.96	415.4
Dec	2.0	1.8	<1.0	3.9	2.3	3.3	4.6	1.5	1.4	1.2	5.0	5.30	0.58	375.8
<b>Annual</b>	<b>9.2</b>	<b>8.6</b>	<b>49.3</b>	<b>27.8</b>	<b>1.8</b>	<b>9.7</b>	<b>20.0</b>	<b>5.5</b>	<b>5.3</b>	<b>6.8</b>	<b>5.0</b>	<b>5.30</b>	<b>1.96</b>	<b>3126.7</b>
Max.	22.3	22.3	314	92.8	5.5	42.9	72.5	13.0	12.8	25.6	20.0	6.27	6.37	
Min.	<1.0	<1.0	<1.0	2.0	<1.0	<1.0	1.2	<0.2	<0.2	0.5	0.5	4.70	0.50	

Table 3.17 b) Wet deposition (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	3.41	3.21	38.6	10.5	*	3.22	14.7	2.07	2.00	4.41	0.30
Mar	4.24	3.94	66.2	15.1	*	4.88	20.8	2.98	2.87	5.73	0.26
Apr	2.65	2.55	9.39	4.60	*	1.72	4.68	1.02	0.98	2.13	0.48
May	1.21	1.12	4.59	1.93	*	1.62	2.05	0.67	0.63	0.72	1.76
Jun	0.77	0.73	3.04	1.80	*	0.69	4.16	1.14	1.12	1.76	1.51
Jul	1.07	1.00	3.88	2.07	*	1.26	1.73	1.59	1.57	1.05	2.17
Aug	1.41	1.38	4.86	3.89	*	0.63	1.00	0.32	0.31	0.93	1.17
Sep	1.48	1.34	1.83	0.87	*	2.30	2.11	1.28	1.23	0.68	1.22
Oct	3.71	3.44	9.52	12.4	*	4.45	3.43	2.24	2.14	1.00	1.48
Nov	7.06	6.65	5.65	29.2	0.23	6.81	4.35	2.94	2.79	2.08	3.51
Dec	0.74	0.67	0.00	1.48	0.88	1.22	1.74	0.55	0.53	0.44	1.87
<b>Annual</b>	<b>28.7</b>	<b>26.9</b>	<b>154</b>	<b>87.0</b>	<b>5.78</b>	<b>30.2</b>	<b>62.6</b>	<b>17.3</b>	<b>16.6</b>	<b>21.1</b>	<b>15.6</b>

Table 3.17 c) Data completeness (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	0	100	100	100	100	100	100	100	100	100
May	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Jun	58	58	58	58	0	58	58	58	58	58	58	58	58	100
Jul	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Aug	61	61	61	61	0	61	61	61	61	61	61	61	61	100
Sep	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	0	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	34	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>17</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.18 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	18.4	18.1	17.5	15.7	38.4	5.6	7.4	18.4	18.2	2.6	5.8	5.24	1.35	66.9
Feb	26.8	26.5	17.4	8.5	20.4	5.3	9.6	9.8	9.6	1.9	18.2	4.74	1.87	202.4
Mar	15.7	15.1	18.0	16.1	16.6	10.6	3.2	9.8	9.5	1.2	10.4	4.98	1.27	397.0
Apr	16.5	16.0	17.1	13.1	26.1	8.6	1.9	15.7	15.5	2.0	1.2	5.92	1.22	151.5
May	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Jun	11.8	9.8	73.5	54.1	93.9	32.9	11.4	11.2	10.5	2.2	0.7	6.15	2.70	31.0
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Aug	30.0	29.7	19.7	16.3	68.6	5.4	4.2	8.1	8.0	1.4	9.5	5.02	2.02	99.7
Sep	36.2	35.9	34.6	15.6	82.1	5.2	4.9	18.4	18.3	2.6	12.0	4.92	2.57	57.8
Oct	20.2	19.8	18.5	7.8	29.9	5.7	1.4	9.7	9.5	1.3	12.7	4.90	1.36	209.8
Nov	21.8	21.5	30.4	9.6	49.7	5.5	2.8	9.5	9.4	2.6	5.2	5.28	1.51	112.7
Dec	19.0	18.8	17.0	10.2	32.4	2.8	3.6	9.8	9.7	1.6	10.2	4.99	1.32	277.4
<b>Annual</b>	<b>20.4</b>	<b>20.0</b>	<b>20.4</b>	<b>13.0</b>	<b>32.7</b>	<b>7.1</b>	<b>4.1</b>	<b>10.9</b>	<b>10.7</b>	<b>1.7</b>	<b>10.0</b>	<b>5.00</b>	<b>1.50</b>	<b>1606.1</b>
Max.	94.9	94.1	116	76.9	200	33.5	48.2	156	155	11.7	148	6.79	7.63	
Min.	4.9	4.0	4.1	1.3	3.1	<1.0	<1.0	<0.2	<0.2	<0.4	0.2	3.83	0.59	

**Table 3.18 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.23	1.21	1.17	1.05	2.57	0.38	0.49	1.23	1.22	0.17	0.39
Feb	5.43	5.37	3.53	1.72	4.14	1.06	1.94	1.97	1.95	0.39	3.69
Mar	6.24	5.99	7.15	6.40	6.58	4.21	1.27	3.87	3.78	0.48	4.12
Apr	2.51	2.43	2.59	1.98	3.95	1.31	0.29	2.38	2.35	0.31	0.18
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.37	0.30	2.28	1.68	2.91	1.02	0.35	0.35	0.33	0.07	0.02
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	2.99	2.96	1.97	1.62	6.84	0.54	0.42	0.81	0.80	0.14	0.95
Sep	2.10	2.08	2.00	0.90	4.75	0.30	0.28	1.07	1.06	0.15	0.69
Oct	4.24	4.16	3.88	1.64	6.28	1.20	0.28	2.03	2.00	0.27	2.67
Nov	2.45	2.42	3.42	1.08	5.60	0.62	0.31	1.07	1.06	0.30	0.59
Dec	5.27	5.22	4.71	2.82	8.99	0.77	0.99	2.71	2.69	0.45	2.84
<b>Annual</b>	<b>32.8</b>	<b>32.1</b>	<b>32.7</b>	<b>20.9</b>	<b>52.6</b>	<b>11.4</b>	<b>6.63</b>	<b>17.5</b>	<b>17.2</b>	<b>2.73</b>	<b>16.1</b>

**Table 3.18 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.19 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	67.2	30.5	20.5	675	34.3	609	14.4	21.6	8.4	73.7	21.1	4.68	11.1	41.5
Feb	28.1	21.1	15.8	119	18.9	116	2.9	7.1	4.6	18.4	14.2	4.85	3.21	10.5
Mar	26.4	20.3	11.8	112	21.0	101	3.2	9.2	7.1	12.2	17.9	4.75	3.04	43.9
Apr	29.4	27.1	31.5	35.1	35.2	38.0	3.5	25.2	24.4	6.9	7.0	5.15	2.22	30.5
May	38.6	36.5	40.9	33.3	70.7	35.4	3.8	12.1	11.4	6.4	24.6	4.61	3.38	19.0
Jun	10.2	8.2	16.1	35.9	28.1	32.3	1.9	3.3	2.6	4.2	10.3	4.99	1.56	27.5
Jul	8.8	8.5	10.6	7.4	15.6	5.1	<1.0	1.7	1.6	0.9	11.0	4.96	0.92	25.1
Aug	10.1	7.2	7.0	53.6	10.3	47.9	1.6	2.1	1.0	5.5	10.0	5.00	1.44	140.9
Sep	8.3	5.1	5.7	59.0	8.1	52.2	1.2	2.0	0.9	5.4	8.3	5.08	1.38	84.5
Oct	21.5	8.0	8.5	260	14.3	224	6.1	6.5	1.9	24.4	10.3	4.99	4.30	158.5
Nov	52.1	18.2	20.8	662	26.2	562	14.4	18.9	6.8	64.1	20.8	4.68	10.2	60.2
Dec	27.8	17.0	10.1	201	14.3	179	4.8	6.1	2.2	20.8	21.2	4.67	4.13	66.5
<b>Annual</b>	<b>23.5</b>	<b>12.9</b>	<b>12.2</b>	<b>201</b>	<b>18.3</b>	<b>176</b>	<b>4.9</b>	<b>7.7</b>	<b>4.0</b>	<b>20.3</b>	<b>13.3</b>	<b>4.88</b>	<b>3.80</b>	<b>708.6</b>
Max.	301	275	574	1850	574	1590	49.3	275	266	178	81.3	6.82	25.6	
Min.	1.3	<1.0	1.3	1.7	1.2	1.4	<1.0	0.2	<0.2	<0.4	0.2	4.09	0.30	

**Table 3.19 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	2.79	1.26	0.85	28.0	1.42	25.3	0.60	0.90	0.35	3.06	0.87
Feb	0.30	0.22	0.17	1.25	0.20	1.22	0.03	0.07	0.05	0.19	0.15
Mar	1.16	0.89	0.52	4.89	0.92	4.44	0.14	0.41	0.31	0.54	0.79
Apr	0.90	0.83	0.96	1.07	1.07	1.16	0.11	0.77	0.74	0.21	0.21
May	0.73	0.69	0.78	0.63	1.34	0.67	0.07	0.23	0.22	0.12	0.47
Jun	0.28	0.23	0.44	0.99	0.77	0.89	0.05	0.09	0.07	0.11	0.28
Jul	0.22	0.21	0.27	0.19	0.39	0.13	0.01	0.04	0.04	0.02	0.28
Aug	1.42	1.01	0.99	7.55	1.45	6.74	0.23	0.29	0.15	0.77	1.41
Sep	0.70	0.43	0.48	4.99	0.68	4.41	0.10	0.17	0.07	0.46	0.70
Oct	3.40	1.26	1.35	41.2	2.27	35.5	0.97	1.03	0.29	3.87	1.64
Nov	3.13	1.09	1.25	39.9	1.58	33.9	0.87	1.14	0.41	3.86	1.25
Dec	1.85	1.13	0.67	13.3	0.95	11.9	0.32	0.40	0.15	1.38	1.41
<b>Annual</b>	<b>16.6</b>	<b>9.12</b>	<b>8.65</b>	<b>142</b>	<b>12.9</b>	<b>125</b>	<b>3.47</b>	<b>5.49</b>	<b>2.82</b>	<b>14.4</b>	<b>9.43</b>

**Table 3.19 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	82	82	82	82	82	82	82	82	82	82	82	82	82	100
Feb	48	48	48	48	48	48	48	48	48	48	48	48	48	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	98	98	98	98	98	98	98	98	98	98	98	98	98	100
May	97	97	97	97	97	97	97	97	97	97	100	100	100	100
Jun	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Jul	84	84	84	84	84	84	84	84	84	84	84	84	84	100
Aug	97	97	97	97	97	97	97	97	97	97	97	97	97	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.20 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	61.6	9.2	17.2	929	14.1	871	18.3	21.4	2.6	98.5	28.9	4.54	14.9	56.6
Feb	34.8	19.0	28.8	298	16.0	262	6.1	10.9	5.2	36.1	48.5	4.31	6.69	14.8
Mar	74.3	71.6	105	55.1	97.3	43.9	6.1	36.7	35.7	11.5	60.9	4.22	5.89	62.5
Apr	24.9	18.3	21.6	129	18.4	110	2.8	14.2	11.8	14.0	23.9	4.62	3.38	146.5
May	21.3	20.0	15.9	25.3	17.6	21.1	<1.0	2.1	1.6	2.8	41.9	4.38	2.35	82.1
Jun	7.7	5.3	6.2	44.7	10.6	40.5	2.1	1.4	0.5	5.0	12.4	4.91	1.37	128.6
Jul	8.9	5.8	8.3	56.5	10.3	51.9	<1.0	1.4	0.3	6.0	17.8	4.75	1.74	84.0
Aug	18.6	17.6	22.0	18.8	22.5	16.4	<1.0	1.5	1.2	2.5	44.3	4.35	2.64	133.5
Sep	16.5	14.1	12.5	44.3	18.0	39.7	1.2	1.9	1.0	4.8	29.7	4.53	2.25	139.5
Oct	17.2	8.7	14.2	158	12.5	141	3.2	5.2	2.2	16.5	24.0	4.62	3.54	106.1
Nov	8.7	4.4	5.8	83.0	2.8	71.6	1.4	3.3	1.7	8.9	10.9	4.96	1.79	101.2
Dec	33.1	12.9	20.3	357	14.7	335	7.7	10.4	3.2	38.9	28.1	4.55	6.89	94.0
<b>Annual</b>	<b>21.8</b>	<b>13.4</b>	<b>16.9</b>	<b>154</b>	<b>16.2</b>	<b>141</b>	<b>3.4</b>	<b>7.0</b>	<b>3.9</b>	<b>16.8</b>	<b>27.0</b>	<b>4.57</b>	<b>3.74</b>	<b>1149.6</b>
Max.	336	144	197	6110	206	5670	121	128	72.8	663	132	6.39	98.1	
Min.	3.9	<1.0	<1.0	3.8	1.5	3.3	<1.0	0.3	<0.2	0.5	0.4	3.88	0.53	

**Table 3.20 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	3.49	0.52	0.97	52.6	0.80	49.4	1.04	1.21	0.15	5.58	1.64
Feb	0.51	0.28	0.43	4.40	0.24	3.87	0.09	0.16	0.08	0.53	0.72
Mar	4.64	4.48	6.59	3.44	6.08	2.75	0.38	2.29	2.23	0.72	3.81
Apr	3.65	2.68	3.17	18.9	2.69	16.1	0.41	2.07	1.73	2.05	3.50
May	1.75	1.64	1.31	2.07	1.44	1.73	0.05	0.17	0.13	0.23	3.44
Jun	0.99	0.68	0.80	5.74	1.36	5.21	0.27	0.18	0.07	0.65	1.59
Jul	0.75	0.49	0.69	4.75	0.87	4.36	0.08	0.12	0.03	0.51	1.50
Aug	2.48	2.35	2.93	2.52	3.01	2.19	0.09	0.20	0.15	0.34	5.92
Sep	2.30	1.97	1.75	6.18	2.51	5.53	0.17	0.26	0.14	0.67	4.14
Oct	1.82	0.92	1.50	16.8	1.32	15.0	0.34	0.55	0.23	1.75	2.54
Nov	0.88	0.44	0.59	8.40	0.28	7.24	0.14	0.33	0.18	0.90	1.10
Dec	3.11	1.21	1.91	33.6	1.38	31.5	0.72	0.98	0.30	3.66	2.65
<b>Annual</b>	<b>25.1</b>	<b>15.4</b>	<b>19.4</b>	<b>178</b>	<b>18.6</b>	<b>162</b>	<b>3.97</b>	<b>8.02</b>	<b>4.53</b>	<b>19.3</b>	<b>31.0</b>

**Table 3.20 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	74	74	74	74	74	74	74	74	74	74	74	74	74	90
Feb	100	100	100	100	100	100	100	100	100	100	98	98	98	100
Mar	22	22	22	22	22	22	22	22	22	22	22	22	22	97
Apr	99	99	99	99	99	99	99	99	99	99	99	99	99	100
May	91	91	91	91	91	91	91	91	91	91	91	91	91	100
Jun	87	87	87	87	87	87	87	87	87	87	87	87	87	100
Jul	97	97	97	97	97	97	97	97	97	97	97	97	97	100
Aug	59	59	59	59	59	59	59	59	59	59	59	59	59	100
Sep	39	39	39	39	39	39	39	39	39	39	39	39	39	100
Oct	84	84	84	84	84	84	84	84	84	84	84	84	84	100
Nov	31	31	31	31	31	31	31	31	31	31	31	31	31	60
Dec	98	98	98	98	98	98	98	98	98	98	98	98	98	100
<b>Annual</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>96</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.21 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	37.7	12.7	17.8	455	8.0	414	8.2	15.1	6.1	48.7	31.1	4.51	8.17	29.5
Feb	88.0	36.5	18.3	962	29.0	855	17.9	26.7	8.2	99.7	52.9	4.28	16.3	1.0
Mar	98.2	81.8	74.8	305	112	272	11.9	36.7	30.8	38.2	61.3	4.21	9.18	16.5
Apr	14.7	10.0	15.4	90.2	10.6	79.5	2.4	7.0	5.3	9.8	20.3	4.69	2.28	134.2
May	13.3	9.0	10.8	78.6	11.5	70.5	1.7	3.6	2.1	8.4	21.4	4.67	2.04	50.5
Jun	18.5	12.7	15.2	110	19.6	95.0	3.0	5.1	3.0	11.6	23.6	4.63	3.02	71.4
Jul	9.3	8.5	11.0	15.6	13.9	13.1	<1.0	2.0	1.7	2.1	18.3	4.74	1.25	231.2
Aug	11.5	10.5	13.4	19.0	16.8	16.6	<1.0	1.5	1.1	2.4	23.8	4.62	1.60	153.3
Sep	12.9	8.9	11.3	76.0	12.7	66.9	1.7	3.4	2.0	8.1	20.4	4.69	2.16	103.0
Oct	25.1	9.3	11.5	299	13.3	262	5.6	8.3	2.7	29.8	19.0	4.72	5.15	94.7
Nov	35.3	22.5	17.9	239	39.4	213	10.1	18.7	14.1	25.4	*	*	*	123.2
Dec	105	24.7	48.3	1550	52.0	1340	31.8	42.6	13.7	153	22.2	4.65	21.6	117.9
<b>Annual</b>	<b>16.5</b>	<b>10.9</b>	<b>13.9</b>	<b>107</b>	<b>15.6</b>	<b>93.8</b>	<b>2.5</b>	<b>5.1</b>	<b>3.1</b>	<b>11.3</b>	<b>21.5</b>	<b>4.67</b>	<b>2.65</b>	<b>1126.3</b>
Max.	4380	180	366	81700	639	71300	1520	1680	151	8150	129	6.61	74.5	
Min.	1.2	<1.0	2.9	<1.0	3.3	1.0	<1.0	<0.2	<0.2	0.4	0.2	3.89	0.38	

**Table 3.21 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.11	0.37	0.53	13.4	0.24	12.2	0.24	0.44	0.18	1.44	0.92
Feb	0.09	0.04	0.02	0.96	0.03	0.85	0.02	0.03	<0.01	0.10	0.05
Mar	1.62	1.35	1.23	5.04	1.85	4.49	0.20	0.61	0.51	0.63	1.01
Apr	1.98	1.34	2.07	12.1	1.43	10.7	0.32	0.94	0.71	1.31	2.73
May	0.67	0.46	0.55	3.97	0.58	3.56	0.09	0.18	0.11	0.43	1.08
Jun	1.32	0.91	1.08	7.88	1.40	6.79	0.21	0.36	0.21	0.83	1.69
Jul	2.15	1.97	2.54	3.61	3.21	3.03	0.11	0.47	0.40	0.48	4.24
Aug	1.77	1.62	2.05	2.91	2.57	2.55	0.10	0.23	0.17	0.36	3.64
Sep	1.33	0.92	1.17	7.83	1.31	6.89	0.17	0.35	0.20	0.83	2.10
Oct	2.38	0.88	1.08	28.3	1.26	24.8	0.53	0.79	0.25	2.82	1.80
Nov	4.35	2.77	2.20	29.5	4.85	26.2	1.24	2.30	1.74	3.13	*
Dec	12.4	2.91	5.70	183	6.13	157	3.75	5.02	1.62	18.0	2.61
<b>Annual</b>	<b>18.6</b>	<b>12.3</b>	<b>15.7</b>	<b>121</b>	<b>17.6</b>	<b>106</b>	<b>2.78</b>	<b>5.72</b>	<b>3.44</b>	<b>12.7</b>	<b>24.2</b>

**Table 3.21 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	19	19	19	19	19	19	19	19	19	19	17	17	17	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	58	58	58	58	58	58	58	58	58	58	55	55	55	100
Apr	100	100	100	100	100	100	100	100	100	100	99	99	99	100
May	98	98	98	98	98	98	98	98	98	98	96	96	96	100
Jun	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Jul	63	63	63	63	63	63	63	63	63	63	63	63	63	100
Aug	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Sep	87	87	87	87	87	87	87	87	87	87	86	86	86	100
Oct	100	100	100	100	100	100	100	100	100	100	98	98	98	100
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Dec	6	6	6	6	6	6	6	6	6	6	5	5	5	81
<b>Annual</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>98</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

Table 3.22 a) Weighted averages / Precipitation (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	11.2	10.5	7.0	13.7	7.2	10.7	<1.0	1.4	1.2	1.7	19.1	4.72	1.11	161.0
Feb	12.1	11.9	10.9	5.8	9.8	3.1	<1.0	4.5	4.4	1.5	15.5	4.81	0.95	51.0
Mar	21.3	20.8	12.6	9.9	21.1	6.8	1.3	8.0	7.9	2.3	15.0	4.82	1.22	110.5
Apr	4.1	4.0	4.6	2.0	3.7	<1.0	<1.0	2.3	2.3	0.8	6.6	5.18	0.37	329.7
May	6.3	6.2	6.7	2.2	8.2	<1.0	<1.0	1.7	1.6	0.6	10.8	4.97	0.56	91.0
Jun	3.8	3.8	5.3	2.2	4.6	<1.0	<1.0	1.0	1.0	0.7	8.5	5.07	0.44	235.0
Jul	6.9	6.9	7.4	2.9	8.5	<1.0	<1.0	1.4	1.4	1.1	11.7	4.93	0.60	227.8
Aug	5.1	5.0	5.5	2.5	4.7	<1.0	<1.0	1.1	1.1	0.7	10.6	4.97	0.51	435.9
Sep	6.4	6.2	6.8	5.4	3.9	2.9	<1.0	1.0	0.9	1.0	15.2	4.82	0.70	159.0
Oct	7.2	6.9	5.6	6.8	4.6	4.6	<1.0	1.2	1.1	1.1	13.5	4.87	0.66	95.0
Nov	7.7	7.4	5.4	6.9	5.1	4.5	<1.0	2.0	1.9	1.2	13.0	4.88	0.69	309.5
Dec	14.0	12.5	9.8	32.7	9.0	25.7	1.2	2.3	1.8	3.3	21.2	4.67	1.44	256.0
<b>Annual</b>	<b>7.5</b>	<b>7.2</b>	<b>6.6</b>	<b>7.3</b>	<b>6.4</b>	<b>4.8</b>	<b>&lt;1.0</b>	<b>1.9</b>	<b>1.8</b>	<b>1.2</b>	<b>12.4</b>	<b>4.91</b>	<b>0.69</b>	<b>2461.4</b>
Max.	70.3	70.0	113	234	77.6	171	7.8	40.5	39.8	27.0	123	5.97	7.90	
Min.	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	0.4	<0.2	<0.4	1.1	3.91	0.11	

Table 3.22 b) Wet deposition (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.80	1.69	1.13	2.21	1.16	1.72	0.08	0.23	0.19	0.28	3.07
Feb	0.62	0.61	0.56	0.29	0.50	0.16	0.03	0.23	0.23	0.08	0.79
Mar	2.35	2.30	1.39	1.09	2.33	0.76	0.14	0.89	0.87	0.26	1.66
Apr	1.35	1.33	1.53	0.67	1.21	0.21	0.07	0.75	0.75	0.28	2.18
May	0.57	0.57	0.61	0.20	0.74	0.09	0.02	0.15	0.15	0.05	0.98
Jun	0.90	0.89	1.24	0.52	1.08	0.22	0.05	0.23	0.23	0.17	2.00
Jul	1.58	1.57	1.69	0.66	1.94	0.18	0.08	0.32	0.31	0.26	2.67
Aug	2.22	2.20	2.41	1.11	2.04	0.33	0.06	0.48	0.47	0.30	4.64
Sep	1.01	0.99	1.08	0.85	0.62	0.45	0.03	0.15	0.14	0.16	2.42
Oct	0.68	0.66	0.53	0.64	0.44	0.44	0.03	0.12	0.11	0.11	1.28
Nov	2.39	2.30	1.66	2.14	1.57	1.41	0.09	0.62	0.59	0.37	4.04
Dec	3.59	3.19	2.51	8.37	2.31	6.58	0.30	0.60	0.46	0.84	5.43
<b>Annual</b>	<b>18.5</b>	<b>17.8</b>	<b>16.2</b>	<b>17.9</b>	<b>15.7</b>	<b>11.8</b>	<b>0.94</b>	<b>4.72</b>	<b>4.46</b>	<b>3.06</b>	<b>30.5</b>

Table 3.22 c) Data completeness (Monthly)

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	56	56	56	56	56	56	56	56	56	56	56	56	56	100
Feb	99	99	99	99	99	99	99	99	99	99	99	96	96	100
Mar	90	90	90	90	90	90	90	90	90	90	86	86	86	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	99	99	99	99	99	99	99	99	99	99	97	97	97	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	94	94	94	94	94	94	94	94	94	94	92	92	92	100
<b>Annual</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.23 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	38.8	14.8	22.7	426	12.3	399	10.1	11.3	2.7	44.9	35.6	4.45	7.62	152.2
Feb	26.7	17.3	15.1	171	17.2	157	5.6	7.4	4.0	18.8	22.6	4.65	3.18	75.4
Mar	36.7	19.2	22.1	296	16.6	267	7.3	17.1	10.7	35.4	22.6	4.65	5.50	88.5
Apr	13.3	10.8	13.7	45.2	8.9	42.6	2.1	3.7	2.8	5.4	18.5	4.73	1.76	158.7
May	18.7	10.7	7.2	99.3	11.2	96.8	6.2	4.2	1.3	15.2	14.5	4.84	2.39	153.0
Jun	8.8	4.3	6.8	82.0	2.4	74.3	4.3	3.3	1.7	9.5	7.6	5.12	1.64	126.5
Jul	8.6	7.1	8.6	28.2	7.8	26.1	1.4	1.6	1.0	2.9	11.0	4.96	1.10	283.8
Aug	7.0	5.2	7.0	34.3	4.4	29.8	<1.0	0.8	0.2	3.1	11.0	4.96	1.11	189.8
Sep	10.6	7.7	9.4	54.1	4.2	48.2	2.3	5.2	4.2	5.9	11.2	4.95	1.49	117.6
Oct	31.5	15.6	21.5	289	15.4	262	7.9	10.7	5.1	30.1	20.6	4.69	5.25	56.7
Nov	19.5	8.8	10.5	201	4.4	178	4.7	5.0	1.1	20.3	19.5	4.71	3.75	126.5
Dec	113	20.6	31.3	1690	18.0	1570	36.3	43.6	9.8	169	34.6	4.46	27.0	68.4
<b>Annual</b>	<b>21.5</b>	<b>10.3</b>	<b>12.9</b>	<b>201</b>	<b>8.8</b>	<b>185</b>	<b>5.4</b>	<b>6.9</b>	<b>2.9</b>	<b>21.2</b>	<b>17.5</b>	<b>4.76</b>	<b>3.82</b>	<b>1596.9</b>
Max.	573	158	192	8220	1060	7790	400	246	100	999	209	6.20	127	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<0.2	<0.2	<0.4	0.6	3.68	0.19	

**Table 3.23 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	5.90	2.25	3.45	64.8	1.88	60.7	1.54	1.71	0.41	6.83	5.41
Feb	2.01	1.31	1.14	12.9	1.30	11.9	0.42	0.56	0.30	1.42	1.71
Mar	3.25	1.70	1.96	26.2	1.47	23.6	0.64	1.51	0.95	3.14	2.00
Apr	2.12	1.71	2.18	7.17	1.41	6.75	0.33	0.59	0.45	0.86	2.93
May	2.85	1.64	1.10	15.2	1.72	14.8	0.94	0.65	0.19	2.32	2.22
Jun	1.11	0.54	0.86	10.4	0.30	9.40	0.54	0.42	0.21	1.20	0.97
Jul	2.45	2.00	2.44	8.00	2.22	7.40	0.41	0.46	0.30	0.83	3.13
Aug	1.33	0.99	1.33	6.51	0.84	5.65	0.17	0.16	0.04	0.58	2.09
Sep	1.24	0.90	1.10	6.35	0.49	5.67	0.27	0.62	0.49	0.69	1.32
Oct	1.78	0.89	1.22	16.4	0.87	14.9	0.45	0.61	0.29	1.71	1.17
Nov	2.46	1.12	1.32	25.4	0.56	22.5	0.59	0.63	0.14	2.56	2.46
Dec	7.71	1.41	2.14	116	1.23	108	2.48	2.98	0.67	11.5	2.37
<b>Annual</b>	<b>34.3</b>	<b>16.4</b>	<b>20.7</b>	<b>321</b>	<b>14.1</b>	<b>296</b>	<b>8.70</b>	<b>11.0</b>	<b>4.55</b>	<b>33.9</b>	<b>27.9</b>

**Table 3.23 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Feb	98	98	98	98	98	98	98	98	98	98	96	96	96	100
Mar	99	99	99	99	99	99	99	99	99	99	98	98	98	100
Apr	100	100	100	100	100	100	100	100	100	100	99	99	99	100
May	51	51	51	51	51	51	51	51	51	51	51	51	51	100
Jun	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Nov	99	99	99	99	99	99	99	99	99	99	99	99	99	100
Dec	97	97	97	97	97	97	97	97	97	97	95	95	95	100
<b>Annual</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>94</b>	<b>94</b>	<b>94</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.24 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	19.9	15.1	19.3	85.4	12.7	78.7	2.3	5.2	3.5	9.3	26.1	4.58	2.62	134.0
Feb	21.6	20.7	20.2	18.1	18.6	13.7	1.2	2.3	2.0	2.1	39.2	4.41	2.45	87.0
Mar	11.6	11.4	6.8	6.3	7.2	4.5	<1.0	2.2	2.1	0.9	20.5	4.69	1.21	147.0
Apr	10.2	9.7	7.3	9.9	7.3	8.3	<1.0	2.7	2.5	1.5	17.1	4.77	1.08	247.9
May	6.3	5.7	4.6	11.1	4.4	10.7	<1.0	1.4	1.1	1.6	12.5	4.90	0.81	586.5
Jun	10.3	9.7	6.1	8.7	7.0	8.9	<1.0	1.1	0.9	1.2	21.7	4.66	1.18	371.5
Jul	14.2	14.0	7.3	4.9	10.4	3.4	<1.0	0.8	0.7	0.6	30.2	4.52	1.55	258.0
Aug	4.6	3.2	4.3	26.5	2.8	23.3	<1.0	0.6	<0.2	2.6	9.5	5.02	0.82	323.1
Sep	3.1	2.8	3.1	7.7	1.4	6.4	<1.0	<0.2	<0.2	0.8	8.5	5.07	0.54	208.0
Oct	8.0	7.3	4.9	12.1	1.6	10.9	<1.0	0.5	0.3	1.1	21.6	4.67	1.05	149.0
Nov	8.1	7.2	6.7	16.8	3.3	15.6	<1.0	1.2	0.9	1.6	17.2	4.76	1.12	271.2
Dec	19.5	17.9	22.2	32.3	14.3	25.8	1.1	2.7	2.2	3.2	44.5	4.35	2.61	56.0
<b>Annual</b>	<b>9.3</b>	<b>8.5</b>	<b>6.9</b>	<b>16.0</b>	<b>6.0</b>	<b>14.4</b>	<b>&lt;1.0</b>	<b>1.4</b>	<b>1.1</b>	<b>1.8</b>	<b>18.4</b>	<b>4.73</b>	<b>1.16</b>	<b>2839.3</b>
Max.	224	216	445	526	379	494	44.2	35.4	32.4	48.1	200	5.73	16.2	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.4	1.9	3.70	0.15	

**Table 3.24 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	2.66	2.03	2.58	11.4	1.71	10.5	0.31	0.69	0.46	1.25	3.50
Feb	1.88	1.80	1.76	1.57	1.62	1.19	0.11	0.20	0.17	0.18	3.41
Mar	1.71	1.67	1.00	0.93	1.06	0.67	0.07	0.33	0.31	0.13	3.02
Apr	2.53	2.40	1.81	2.46	1.81	2.05	0.11	0.66	0.62	0.37	4.25
May	3.71	3.33	2.73	6.50	2.61	6.27	0.10	0.79	0.66	0.93	7.32
Jun	3.82	3.62	2.28	3.24	2.58	3.29	0.11	0.41	0.34	0.46	8.05
Jul	3.68	3.62	1.90	1.27	2.67	0.87	0.06	0.20	0.18	0.14	7.79
Aug	1.49	1.04	1.40	8.58	0.90	7.52	0.17	0.19	0.05	0.84	3.07
Sep	0.65	0.57	0.64	1.60	0.28	1.32	0.00	0.03	0.03	0.16	1.78
Oct	1.18	1.09	0.73	1.81	0.24	1.63	0.01	0.07	0.05	0.16	3.21
Nov	2.20	1.95	1.82	4.56	0.90	4.23	0.19	0.33	0.25	0.43	4.66
Dec	1.09	1.00	1.24	1.81	0.80	1.45	0.06	0.15	0.12	0.18	2.49
<b>Annual</b>	<b>26.5</b>	<b>24.0</b>	<b>19.7</b>	<b>45.4</b>	<b>17.1</b>	<b>40.7</b>	<b>1.30</b>	<b>4.04</b>	<b>3.23</b>	<b>5.21</b>	<b>52.3</b>

**Table 3.24 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	98	98	98	98	98	98	98	98	98	98	97	97	97	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	99	99	99	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	97
Dec	86	86	86	86	86	86	86	86	86	86	86	86	86	97
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>99</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.25 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	14.1	4.1	3.2	193	2.7	166	3.4	5.2	1.6	20.5	9.5	5.02	3.09	66.0
Feb	39.6	18.0	11.3	407	17.1	359	8.4	12.6	4.8	44.7	20.2	4.69	6.48	23.0
Mar	8.8	4.1	3.8	90.1	4.8	78.2	2.0	2.3	0.8	10.4	7.4	5.13	1.62	148.5
Apr	14.2	9.6	28.6	85.2	12.0	75.5	2.5	3.6	1.9	10.0	13.8	4.86	2.08	105.5
May	13.2	7.9	4.2	93.1	4.9	87.0	2.0	2.7	0.9	11.5	20.6	4.69	2.39	107.5
Jun	5.8	4.9	1.6	21.4	1.6	18.8	<1.0	0.6	0.2	2.8	11.5	4.94	0.90	202.5
Jul	6.4	5.0	5.6	24.5	4.5	22.3	<1.0	1.8	1.3	3.2	10.8	4.97	0.98	114.0
Aug	2.5	<1.0	<1.0	36.2	1.0	30.3	<1.0	0.6	<0.2	5.2	6.2	5.21	0.82	62.5
Sep	51.0	<1.0	<1.0	1070	1.3	940	19.5	29.8	9.6	114	2.8	5.55	14.4	266.4
Oct	5.7	1.4	2.1	84.3	1.5	70.2	2.5	2.2	0.7	9.6	4.7	5.33	1.30	184.0
Nov	20.6	2.2	3.8	353	3.4	305	6.7	8.1	1.5	35.4	7.0	5.16	5.05	41.5
Dec	21.0	7.0	4.1	270	4.2	233	5.9	6.3	1.2	31.4	13.7	4.86	3.95	77.0
<b>Annual</b>	<b>18.0</b>	<b>4.1</b>	<b>4.7</b>	<b>286</b>	<b>3.6</b>	<b>251</b>	<b>5.6</b>	<b>8.0</b>	<b>2.6</b>	<b>31.1</b>	<b>9.1</b>	<b>5.04</b>	<b>4.31</b>	<b>1398.4</b>
Max.	222	48.3	118	4610	54.9	4080	82.8	118	36.5	479	100	6.14	60.4	
Min.	<1.0	<1.0	<1.0	1.6	<1.0	1.4	<1.0	<0.2	<0.2	0.4	0.7	4.00	0.22	

**Table 3.25 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.93	0.27	0.21	12.7	0.18	10.9	0.22	0.34	0.10	1.35	0.63
Feb	0.91	0.41	0.26	9.35	0.39	8.26	0.19	0.29	0.11	1.03	0.46
Mar	1.31	0.61	0.57	13.4	0.71	11.6	0.29	0.34	0.12	1.54	1.10
Apr	1.49	1.01	3.02	8.99	1.27	7.96	0.26	0.37	0.20	1.06	1.45
May	1.42	0.85	0.45	10.0	0.53	9.35	0.22	0.29	0.09	1.23	2.21
Jun	1.18	0.98	0.33	4.32	0.33	3.82	0.11	0.12	0.04	0.56	2.33
Jul	0.73	0.57	0.64	2.80	0.52	2.54	0.11	0.21	0.15	0.37	1.23
Aug	0.15	0.04	0.06	2.26	0.06	1.90	0.04	0.03	<0.01	0.32	0.39
Sep	13.6	0.05	0.13	285	0.35	251	5.19	7.95	2.55	30.4	0.74
Oct	1.04	0.27	0.39	15.5	0.28	12.9	0.46	0.41	0.13	1.76	0.86
Nov	0.85	0.09	0.16	14.7	0.14	12.7	0.28	0.34	0.06	1.47	0.29
Dec	1.62	0.54	0.32	20.8	0.32	17.9	0.45	0.48	0.10	2.42	1.06
<b>Annual</b>	<b>25.2</b>	<b>5.71</b>	<b>6.55</b>	<b>400</b>	<b>5.07</b>	<b>351</b>	<b>7.82</b>	<b>11.2</b>	<b>3.68</b>	<b>43.5</b>	<b>12.7</b>

**Table 3.25 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	98	98	98	98	98	98	98	98	98	98	99	99	99	100
Feb	100	100	100	100	100	100	100	100	100	100	96	96	96	100
Mar	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Apr	100	100	100	100	100	100	100	100	100	100	99	99	99	100
May	100	100	100	100	100	100	100	100	100	100	97	97	97	100
Jun	100	100	100	100	100	100	100	100	100	100	98	98	98	100
Jul	100	100	100	100	100	100	100	100	100	100	96	96	96	100
Aug	100	100	100	100	100	100	100	100	100	100	98	98	98	100
Sep	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Oct	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Nov	95	95	95	95	95	95	95	95	95	95	94	94	94	100
Dec	100	100	100	100	100	100	100	100	100	100	98	98	98	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.26 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	73.9	12.4	15.6	1300	43.4	1090	24.5	27.6	4.5	117	14.4	4.84	18.1	52.5
Feb	36.2	14.5	12.8	377	18.8	360	8.8	10.8	3.0	40.2	19.1	4.72	6.42	93.0
Mar	68.0	31.2	37.4	655	54.7	610	18.3	38.7	25.5	72.3	16.0	4.79	11.3	54.0
Apr	16.9	11.0	19.1	117	20.8	98.3	3.9	7.9	5.8	11.9	11.1	4.96	2.40	72.6
May	15.1	12.4	10.7	53.2	12.2	45.6	1.4	2.1	1.1	5.1	15.7	4.80	1.59	194.0
Jun	19.7	11.2	3.5	151	7.4	140	2.8	4.5	1.4	16.3	9.3	5.03	2.73	246.1
Jul	8.5	6.0	9.3	47.4	5.3	40.4	1.3	3.2	2.3	4.9	15.0	4.82	1.41	33.5
Aug	755	198	10.0	9060	1.6	9230	113	243	43.0	1140	3.1	5.51	132	75.5
Sep	42.6	2.2	3.0	838	3.0	822	23.5	9.4	1.8	91.0	8.7	5.06	11.5	225.7
Oct	13.9	5.2	6.6	153	2.6	151	4.0	4.4	1.2	17.2	10.4	4.98	2.66	175.8
Nov	24.1	10.0	12.4	246	9.0	232	4.9	7.6	2.6	28.7	19.0	4.72	5.47	152.5
Dec	104	8.6	31.6	1860	5.6	1670	43.7	47.7	11.5	177	24.7	4.61	29.2	17.5
<b>Annual</b>	<b>35.2</b>	<b>11.3</b>	<b>9.5</b>	<b>451</b>	<b>10.9</b>	<b>430</b>	<b>10.1</b>	<b>10.9</b>	<b>3.5</b>	<b>49.3</b>	<b>12.5</b>	<b>4.90</b>	<b>7.10</b>	<b>1392.6</b>
Max.	1000	475	136	11800	375	12000	217	314	125	1480	112	7.18	171	
Min.	2.1	<1.0	<1.0	14.8	<1.0	13.2	<1.0	0.5	<0.2	1.5	<0.1	3.95	0.63	

**Table 3.26 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	3.88	0.65	0.82	68.4	2.28	57.5	1.28	1.45	0.24	6.16	0.75
Feb	3.37	1.35	1.19	35.0	1.75	33.5	0.82	1.00	0.28	3.74	1.77
Mar	3.67	1.68	2.02	35.4	2.95	33.0	0.99	2.09	1.38	3.90	0.87
Apr	1.23	0.80	1.39	8.50	1.51	7.14	0.28	0.57	0.42	0.86	0.80
May	2.93	2.40	2.08	10.3	2.37	8.84	0.27	0.40	0.22	0.99	3.05
Jun	4.85	2.76	0.86	37.2	1.81	34.5	0.69	1.10	0.35	4.00	2.29
Jul	0.28	0.20	0.31	1.59	0.18	1.35	0.04	0.11	0.08	0.16	0.50
Aug	57.0	14.9	0.76	684	0.12	697	8.57	18.3	3.25	86.0	0.23
Sep	9.62	0.49	0.68	189	0.68	185	5.30	2.11	0.41	20.5	1.96
Oct	2.45	0.92	1.16	26.8	0.45	26.5	0.70	0.77	0.20	3.01	1.83
Nov	3.67	1.53	1.89	37.5	1.37	35.4	0.74	1.16	0.40	4.37	2.90
Dec	1.82	0.15	0.55	32.5	0.10	29.3	0.77	0.83	0.20	3.10	0.43
<b>Annual</b>	<b>49.0</b>	<b>15.7</b>	<b>13.2</b>	<b>628</b>	<b>15.2</b>	<b>599</b>	<b>14.0</b>	<b>15.1</b>	<b>4.84</b>	<b>68.7</b>	<b>17.4</b>

**Table 3.26 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	10	10	10	10	10	10	10	10	10	10	10	10	10	57
Mar	93	93	93	93	93	93	93	93	93	93	91	91	91	100
Apr	88	88	88	88	88	88	88	88	88	88	84	84	84	100
May	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	16	16	16	16	16	16	16	16	16	16	16	16	16	97
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>89</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>96</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.27 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	11.4	8.5	13.2	55.3	7.6	47.9	1.7	3.9	3.0	5.8	16.1	4.79	1.63	171.0
Feb	9.3	9.0	16.5	6.1	6.3	4.8	1.0	3.4	3.3	<0.4	22.1	4.66	1.30	107.5
Mar	21.0	20.3	23.9	12.5	11.4	11.8	2.0	6.8	6.5	2.2	36.8	4.43	2.15	83.0
Apr	15.8	14.7	19.6	26.0	16.7	17.4	1.6	4.4	4.1	3.3	22.8	4.64	1.80	443.0
May	26.5	25.6	21.4	21.8	22.8	14.8	2.1	3.9	3.5	2.8	43.5	4.36	2.47	217.5
Jun	21.1	20.8	29.2	7.9	23.7	5.3	1.3	2.5	2.4	0.8	50.8	4.29	2.48	329.0
Jul	30.1	29.6	28.9	12.4	25.7	7.5	<1.0	2.1	2.0	1.3	67.3	4.17	3.17	604.5
Aug	17.8	17.1	24.2	16.6	25.2	11.6	1.5	2.3	2.0	2.1	33.8	4.47	1.91	432.5
Sep	8.5	8.3	9.6	5.7	8.5	3.3	<1.0	1.2	1.2	0.6	17.8	4.75	0.92	180.0
Oct	10.0	9.3	10.5	17.4	7.2	10.7	<1.0	1.3	1.1	1.8	24.6	4.61	1.24	84.0
Nov	11.9	11.4	15.4	12.7	5.5	7.8	<1.0	1.4	1.3	1.0	32.2	4.49	1.43	230.0
Dec	15.9	12.8	16.3	79.5	7.8	51.6	2.2	4.4	3.3	8.0	26.8	4.57	2.46	85.0
<b>Annual</b>	<b>19.1</b>	<b>18.3</b>	<b>21.7</b>	<b>19.1</b>	<b>18.1</b>	<b>13.3</b>	<b>1.2</b>	<b>2.9</b>	<b>2.6</b>	<b>2.2</b>	<b>38.7</b>	<b>4.41</b>	<b>2.12</b>	<b>2967.0</b>
Max.	128	124	169	115	101	74.2	9.5	16.6	16.3	13.6	275	5.15	14.3	
Min.	<1.0	3.5	4.6	1.0	<1.0	<1.0	<1.0	0.7	<0.2	<0.4	7.1	3.56	0.47	

**Table 3.27 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.96	1.46	2.25	9.45	1.30	8.19	0.30	0.67	0.51	0.99	2.75
Feb	1.00	0.97	1.78	0.66	0.68	0.52	0.11	0.36	0.35	0.04	2.38
Mar	1.75	1.69	1.98	1.04	0.95	0.98	0.16	0.56	0.54	0.18	3.06
Apr	6.99	6.53	8.69	11.5	7.38	7.70	0.69	1.97	1.80	1.47	10.1
May	5.76	5.56	4.65	4.75	4.96	3.21	0.46	0.84	0.77	0.62	9.45
Jun	6.94	6.83	9.61	2.60	7.81	1.75	0.42	0.83	0.79	0.27	16.7
Jul	18.2	17.9	17.5	7.49	15.5	4.54	0.48	1.29	1.19	0.78	40.7
Aug	7.68	7.38	10.5	7.16	10.9	5.01	0.67	0.98	0.87	0.90	14.6
Sep	1.54	1.50	1.73	1.03	1.53	0.59	0.05	0.22	0.21	0.11	3.20
Oct	0.84	0.78	0.88	1.46	0.60	0.90	0.05	0.11	0.09	0.15	2.07
Nov	2.73	2.62	3.54	2.91	1.27	1.79	0.12	0.33	0.29	0.24	7.40
Dec	1.35	1.09	1.39	6.76	0.67	4.39	0.18	0.38	0.28	0.68	2.27
<b>Annual</b>	<b>56.7</b>	<b>54.3</b>	<b>64.5</b>	<b>56.6</b>	<b>53.6</b>	<b>39.4</b>	<b>3.69</b>	<b>8.55</b>	<b>7.71</b>	<b>6.42</b>	<b>115</b>

**Table 3.27 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	98	98	98	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	95	95	95	95	95	95	95	95	95	95	95	95	95	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.28 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	57.7	28.0	46.9	581	40.6	494	12.8	15.0	4.4	57.4	57.2	4.24	11.1	113.5
Feb	15.8	9.4	21.3	114	14.4	105	3.2	4.3	2.0	12.6	23.9	4.62	3.06	149.5
Mar	26.4	20.4	19.2	105	19.2	101	3.3	9.4	7.2	12.7	24.7	4.61	3.16	72.0
Apr	16.4	14.5	17.9	36.6	16.3	32.4	1.6	3.9	3.2	4.1	22.7	4.64	1.93	183.0
May	10.7	5.2	4.3	104	4.0	90.0	2.2	2.2	0.3	9.9	8.7	5.06	1.91	205.0
Jun	8.0	7.6	13.9	8.5	10.7	6.4	<1.0	0.9	0.8	0.6	12.5	4.90	0.85	95.0
Jul	10.5	9.8	11.0	13.8	9.7	10.7	1.1	1.0	0.7	0.8	17.0	4.77	1.11	369.5
Aug	11.3	10.3	9.9	17.6	7.1	15.7	<1.0	0.7	0.3	1.7	19.0	4.72	1.24	260.5
Sep	25.4	24.3	20.4	23.6	15.1	16.9	1.1	1.7	1.3	2.1	48.1	4.32	2.76	51.0
Oct	18.2	10.4	15.2	146	9.8	130	3.3	4.4	1.6	15.0	19.4	4.71	3.05	16.1
Nov	16.3	11.6	15.5	86.4	6.5	78.1	1.9	2.4	0.7	9.0	28.0	4.55	2.62	167.0
Dec	36.1	23.1	33.4	236	22.7	217	6.4	9.1	4.4	24.7	46.1	4.34	5.79	70.0
<b>Annual</b>	<b>17.4</b>	<b>12.5</b>	<b>15.9</b>	<b>92.5</b>	<b>12.5</b>	<b>80.9</b>	<b>2.5</b>	<b>3.4</b>	<b>1.7</b>	<b>9.3</b>	<b>23.3</b>	<b>4.63</b>	<b>2.56</b>	<b>1752.1</b>
Max.	171	158	371	1370	238	1150	32.0	87.9	63.1	133	105	5.20	20.6	
Min.	4.5	3.2	1.8	4.2	1.6	3.0	<1.0	0.3	<0.2	<0.4	6.3	3.98	0.48	

**Table 3.28 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	6.55	3.18	5.32	66.0	4.60	56.0	1.45	1.71	0.49	6.52	6.49
Feb	2.36	1.41	3.18	17.1	2.16	15.7	0.47	0.64	0.30	1.88	3.57
Mar	1.90	1.47	1.38	7.53	1.38	7.26	0.24	0.68	0.52	0.92	1.78
Apr	3.00	2.65	3.28	6.69	2.99	5.93	0.29	0.71	0.59	0.74	4.15
May	2.19	1.08	0.88	21.2	0.81	18.4	0.45	0.45	0.06	2.04	1.79
Jun	0.76	0.72	1.32	0.81	1.02	0.61	0.06	0.09	0.08	0.06	1.19
Jul	3.86	3.62	4.06	5.09	3.58	3.94	0.39	0.35	0.27	0.31	6.27
Aug	2.94	2.69	2.59	4.59	1.86	4.09	0.16	0.17	0.08	0.44	4.94
Sep	1.29	1.24	1.04	1.21	0.77	0.86	0.06	0.09	0.07	0.11	2.45
Oct	0.29	0.17	0.25	2.36	0.16	2.10	0.05	0.07	0.03	0.24	0.31
Nov	2.73	1.94	2.59	14.4	1.08	13.0	0.33	0.41	0.12	1.50	4.68
Dec	2.53	1.61	2.34	16.5	1.59	15.2	0.45	0.64	0.31	1.73	3.23
<b>Annual</b>	<b>30.5</b>	<b>22.0</b>	<b>27.9</b>	<b>162</b>	<b>21.9</b>	<b>142</b>	<b>4.36</b>	<b>5.95</b>	<b>2.89</b>	<b>16.3</b>	<b>40.7</b>

**Table 3.28 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Feb	59	59	59	59	59	59	59	59	59	59	59	59	59	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	97	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.29 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	252	3.9	17.6	5070	9.5	4360	87.6	97.4	4.9	467	0.5	6.29	68.8	17.6
Feb	119	42.6	126	1370	30.3	1260	29.4	30.7	3.4	130	*	*	*	1.0
Mar	25.2	10.2	11.8	294	11.1	249	6.8	12.4	7.0	30.1	6.1	5.21	4.65	26.0
Apr	22.9	16.2	15.2	122	19.7	110	3.4	9.3	7.0	14.0	15.3	4.82	2.69	66.8
May	24.3	22.1	17.6	38.1	23.2	36.7	2.1	3.4	2.6	4.8	26.5	4.58	2.19	50.5
Jun	4.7	3.4	4.4	23.4	3.6	22.2	<1.0	0.6	0.2	2.1	7.6	5.12	0.67	190.0
Jul	7.5	4.1	4.4	63.4	3.6	56.4	1.6	1.5	0.3	5.9	10.5	4.98	1.33	91.5
Aug	16.2	13.6	14.3	50.9	13.3	43.9	2.6	1.9	0.9	4.9	25.9	4.59	2.07	62.5
Sep	8.7	5.1	4.4	64.5	5.0	59.1	1.5	1.3	<0.2	5.9	9.7	5.01	1.38	140.5
Oct	20.9	4.3	10.1	303	5.2	274	5.8	6.2	1.2	29.6	13.3	4.88	4.86	30.5
Nov	29.0	6.2	5.2	445	3.1	379	8.6	11.3	3.1	46.7	11.9	4.93	5.94	64.9
Dec	23.3	5.5	6.8	339	5.2	295	6.5	9.0	2.6	36.1	8.5	5.07	4.58	40.0
<b>Annual</b>	<b>19.1</b>	<b>7.5</b>	<b>8.0</b>	<b>227</b>	<b>7.6</b>	<b>198</b>	<b>4.6</b>	<b>5.7</b>	<b>1.6</b>	<b>22.1</b>	<b>12.2</b>	<b>4.91</b>	<b>3.45</b>	<b>781.8</b>
Max.	853	106	126	14300	169	13400	258	391	119	1430	107	6.99	172	
Min.	1.5	<1.0	<1.0	8.2	<1.0	5.6	<1.0	0.2	<0.2	0.6	0.1	3.97	0.35	

**Table 3.29 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	4.44	0.07	0.31	89.3	0.17	76.8	1.55	1.72	0.09	8.24	<0.01
Feb	0.12	0.04	0.13	1.37	0.03	1.26	0.03	0.03	<0.01	0.13	*
Mar	0.66	0.27	0.31	7.64	0.29	6.47	0.18	0.32	0.18	0.78	0.16
Apr	1.53	1.08	1.02	8.11	1.31	7.37	0.23	0.62	0.47	0.94	1.02
May	1.23	1.12	0.89	1.92	1.17	1.86	0.11	0.17	0.13	0.24	1.34
Jun	0.90	0.65	0.84	4.45	0.68	4.21	0.12	0.12	0.04	0.40	1.44
Jul	0.68	0.37	0.40	5.80	0.33	5.16	0.15	0.13	0.03	0.54	0.96
Aug	1.01	0.85	0.89	3.18	0.83	2.74	0.16	0.12	0.06	0.31	1.62
Sep	1.22	0.72	0.62	9.07	0.70	8.31	0.21	0.18	0.02	0.83	1.36
Oct	0.64	0.13	0.31	9.25	0.16	8.37	0.18	0.19	0.04	0.90	0.41
Nov	1.88	0.40	0.34	28.9	0.20	24.6	0.56	0.73	0.20	3.03	0.77
Dec	0.93	0.22	0.27	13.6	0.21	11.8	0.26	0.36	0.10	1.44	0.34
<b>Annual</b>	<b>14.9</b>	<b>5.84</b>	<b>6.22</b>	<b>178</b>	<b>5.98</b>	<b>155</b>	<b>3.62</b>	<b>4.49</b>	<b>1.25</b>	<b>17.3</b>	<b>9.53</b>

**Table 3.29 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	94	94	94	94	94	94	94	94	94	94	82	82	82	100
Feb	100	100	100	100	100	100	100	100	100	100	0	0	0	100
Mar	25	25	25	25	25	25	25	25	25	25	25	25	25	100
Apr	98	98	98	98	98	98	98	98	98	98	96	96	96	100
May	100	100	100	100	100	100	100	100	100	100	99	99	99	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	98	98	98	98	98	98	98	98	98	98	97	97	97	100
Aug	94	94	94	94	94	94	94	94	94	94	93	93	93	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99	99	99	99	99	99	99	99	99	99	98	98	98	100
Dec	99	99	99	99	99	99	99	99	99	99	95	95	95	100
<b>Annual</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>96</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.30 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	**
May	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Jun	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Jul	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Sep	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Oct	*	*	*	*	*	*	*	*	*	*	0.3	6.51	20.7	88.6
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	**
<b>Annual</b>	*	*	*	*	*	*	*	*	*	*	<b>0.3</b>	<b>6.51</b>	<b>20.7</b>	<b>88.6</b>
Max.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.4	0.7	6.74	23.8	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.4	0.2	6.15	17.2	

**Table 3.30 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	**	**	**	**	**	**	**	**	**	**	**
Feb	**	**	**	**	**	**	**	**	**	**	**
Mar	**	**	**	**	**	**	**	**	**	**	**
Apr	**	**	**	**	**	**	**	**	**	**	**
May	**	**	**	**	**	**	**	**	**	**	**
Jun	**	**	**	**	**	**	**	**	**	**	**
Jul	**	**	**	**	**	**	**	**	**	**	**
Aug	**	**	**	**	**	**	**	**	**	**	**
Sep	**	**	**	**	**	**	**	**	**	**	**
Oct	*	*	*	*	*	*	*	*	*	*	0.03
Nov	**	**	**	**	**	**	**	**	**	**	**
Dec	**	**	**	**	**	**	**	**	**	**	**
<b>Annual</b>	*	*	*	*	*	*	*	*	*	*	<b>0.03</b>

**Table 3.30 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Feb	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Mar	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Apr	**	**	**	**	**	**	**	**	**	**	**	**	**	0
May	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Jun	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Jul	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Aug	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Sep	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Oct	0	0	0	0	0	0	0	0	0	0	100	100	100	100
Nov	**	**	**	**	**	**	**	**	**	**	**	**	**	0
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	0
<b>Annual</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>8</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.31 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	13.3	13.0	37.3	10.2	20.9	6.3	1.7	10.9	10.8	0.6	42.4	4.37	2.21	177.5
Feb	29.3	28.8	55.6	14.5	25.2	9.7	1.9	13.0	12.8	1.2	75.6	4.12	3.55	107.5
Mar	25.7	25.3	44.4	8.9	15.2	6.6	1.6	9.6	9.5	0.8	59.7	4.22	2.77	224.9
Apr	16.6	16.5	45.5	5.0	10.7	2.3	1.3	7.3	7.3	0.4	65.0	4.19	2.84	324.3
May	29.4	29.1	38.3	8.8	19.4	4.4	1.6	6.6	6.5	0.6	70.0	4.15	2.82	194.3
Jun	34.8	33.8	30.7	30.3	23.0	16.5	30.4	8.9	8.6	1.2	43.3	4.36	2.73	220.2
Jul	19.0	18.7	21.0	7.8	2.3	5.9	1.2	8.0	7.9	0.8	40.7	4.39	1.75	297.2
Aug	25.0	24.6	31.9	10.4	13.8	6.6	1.6	9.4	9.2	1.2	49.4	4.31	2.40	201.5
Sep	27.0	26.5	31.4	13.1	15.1	9.3	1.5	10.0	9.8	1.7	48.4	4.31	2.43	169.0
Oct	16.2	15.9	20.0	7.3	2.7	3.5	1.1	4.7	4.7	0.4	43.6	4.36	1.71	358.6
Nov	22.3	22.1	32.9	5.7	13.1	3.4	1.1	7.4	7.3	0.4	54.5	4.26	2.15	462.6
Dec	10.1	9.9	26.5	6.0	7.9	3.7	1.2	5.5	5.4	0.5	45.0	4.35	1.92	302.9
<b>Annual</b>	<b>21.0</b>	<b>20.7</b>	<b>32.9</b>	<b>9.2</b>	<b>12.2</b>	<b>5.6</b>	<b>3.0</b>	<b>7.8</b>	<b>7.7</b>	<b>0.7</b>	<b>52.1</b>	<b>4.28</b>	<b>2.32</b>	<b>3040.5</b>
Max.	56.3	53.5	115	96.8	98.6	46.5	132	28.7	28.1	4.1	148	5.88	6.74	
Min.	<1.0	<1.0	4.8	3.2	<1.0	1.3	<1.0	1.2	1.1	0.4	1.3	3.83	0.93	

**Table 3.31 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	2.36	2.31	6.63	1.81	3.71	1.13	0.30	1.94	1.91	0.10	7.52
Feb	3.15	3.10	5.98	1.56	2.71	1.04	0.21	1.40	1.38	0.13	8.12
Mar	5.78	5.69	9.98	2.00	3.42	1.48	0.36	2.16	2.13	0.18	13.4
Apr	5.39	5.34	14.7	1.62	3.48	0.76	0.42	2.38	2.36	0.14	21.1
May	5.71	5.66	7.44	1.72	3.76	0.86	0.31	1.29	1.27	0.11	13.6
Jun	7.66	7.44	6.76	6.67	5.07	3.64	6.69	1.96	1.89	0.26	9.53
Jul	5.66	5.55	6.25	2.32	0.69	1.75	0.35	2.37	2.34	0.24	12.1
Aug	5.03	4.95	6.43	2.09	2.77	1.32	0.32	1.89	1.86	0.25	9.95
Sep	4.57	4.47	5.31	2.21	2.54	1.58	0.25	1.69	1.65	0.29	8.19
Oct	5.79	5.72	7.17	2.61	0.97	1.26	0.38	1.70	1.67	0.14	15.6
Nov	10.3	10.2	15.2	2.62	6.04	1.58	0.52	3.42	3.39	0.19	25.2
Dec	3.05	3.00	8.03	1.82	2.39	1.12	0.37	1.66	1.64	0.14	13.6
<b>Annual</b>	<b>63.9</b>	<b>62.9</b>	<b>100</b>	<b>28.1</b>	<b>37.1</b>	<b>17.0</b>	<b>9.25</b>	<b>23.8</b>	<b>23.4</b>	<b>2.15</b>	<b>158</b>

**Table 3.31 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	88	88	88	100
Feb	100	100	100	100	100	100	100	100	100	100	93	93	93	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	79	79	79	79	79	79	79	79	79	79	79	79	79	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.32 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	3.1	3.0	2.5	3.3	<1.0	2.3	1.2	5.3	5.2	0.4	10.4	4.98	0.52	143.5
Feb	7.2	7.0	9.6	3.7	6.6	3.6	1.3	5.9	5.8	0.4	11.0	4.96	0.77	112.9
Mar	2.9	2.7	3.0	3.1	<1.0	3.2	<1.0	4.8	4.7	0.4	6.2	5.21	0.46	264.2
Apr	5.0	4.9	3.6	1.9	1.9	1.6	1.2	5.3	5.3	0.4	10.6	4.98	0.58	178.4
May	3.3	3.2	3.3	2.5	<1.0	1.2	<1.0	3.6	3.6	0.4	8.6	5.07	0.45	242.7
Jun	8.2	8.1	15.2	3.5	11.2	2.5	1.3	2.6	2.5	0.4	26.9	4.57	1.18	300.7
Jul	3.3	3.2	3.9	1.0	<1.0	1.1	<1.0	2.5	2.5	0.9	8.3	5.08	0.45	286.7
Aug	4.3	4.3	4.8	1.9	4.2	1.1	<1.0	3.0	3.0	0.4	14.5	4.84	0.66	369.0
Sep	4.6	4.4	7.3	2.6	1.2	2.3	<1.0	4.3	4.3	0.5	18.2	4.74	0.86	152.1
Oct	2.3	2.2	2.9	2.7	<1.0	1.5	<1.0	2.5	2.5	0.4	9.9	5.00	0.50	522.8
Nov	1.9	1.8	1.0	1.7	<1.0	2.5	<1.0	2.1	2.1	0.4	12.4	4.91	0.46	295.7
Dec	1.9	1.8	<1.0	1.5	<1.0	1.4	<1.0	2.5	2.5	0.4	17.7	4.75	0.65	140.8
<b>Annual</b>	<b>3.8</b>	<b>3.7</b>	<b>4.7</b>	<b>2.4</b>	<b>2.3</b>	<b>1.9</b>	<b>&lt;1.0</b>	<b>3.3</b>	<b>3.3</b>	<b>0.5</b>	<b>12.7</b>	<b>4.90</b>	<b>0.61</b>	<b>3009.5</b>
Max.	18.9	18.2	88.1	12.5	24.9	11.3	4.3	10.2	10.1	1.7	79.4	5.67	2.13	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.5	0.4	0.4	2.1	4.10	0.18	

**Table 3.32 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.45	0.43	0.35	0.48	0.03	0.33	0.17	0.76	0.75	0.06	1.49
Feb	0.81	0.79	1.08	0.41	0.75	0.40	0.15	0.67	0.66	0.05	1.25
Mar	0.75	0.70	0.79	0.81	0.21	0.85	0.13	1.26	1.24	0.11	1.63
Apr	0.89	0.87	0.65	0.33	0.33	0.28	0.21	0.95	0.94	0.07	1.89
May	0.79	0.77	0.80	0.60	0.12	0.29	0.21	0.88	0.87	0.10	2.09
Jun	2.47	2.43	4.56	1.04	3.38	0.75	0.39	0.77	0.75	0.12	8.09
Jul	0.93	0.92	1.12	0.30	0.06	0.31	0.03	0.72	0.71	0.25	2.38
Aug	1.60	1.58	1.79	0.69	1.53	0.39	0.25	1.12	1.11	0.15	5.37
Sep	0.69	0.67	1.11	0.39	0.19	0.36	0.10	0.66	0.65	0.08	2.77
Oct	1.21	1.17	1.52	1.41	0.10	0.81	0.20	1.33	1.31	0.21	5.18
Nov	0.56	0.52	0.31	0.51	0.20	0.74	0.17	0.63	0.62	0.12	3.67
Dec	0.26	0.25	0.08	0.21	0.04	0.19	0.14	0.35	0.35	0.06	2.49
<b>Annual</b>	<b>11.4</b>	<b>11.1</b>	<b>14.1</b>	<b>7.19</b>	<b>6.92</b>	<b>5.70</b>	<b>2.15</b>	<b>10.1</b>	<b>9.95</b>	<b>1.36</b>	<b>38.3</b>

**Table 3.32 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	96	96	96	96	96	96	96	96	96	96	96	96	96	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.33 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	*	*	*	*	*	*	*	*	*	*	*	*	*	1.4
Feb	*	*	*	*	*	*	*	*	*	*	*	*	*	6.2
Mar	*	*	*	*	*	*	*	*	*	*	*	*	*	1.3
Apr	*	*	*	*	*	*	*	*	*	*	*	*	*	3.3
May	19.8	19.4	17.5	8.8	62.2	6.3	3.9	30.5	30.4	4.1	1.7	5.77	1.90	56.3
Jun	21.9	21.0	26.7	21.8	70.8	15.5	6.1	100	99.9	5.2	1.2	5.90	3.63	14.3
Jul	26.2	26.1	18.9	6.2	57.9	1.7	3.5	21.0	21.0	4.0	3.7	5.43	1.70	97.4
Aug	7.0	6.9	6.2	5.5	19.3	1.6	1.6	16.9	16.8	1.2	0.2	6.65	0.74	48.0
Sep	17.7	17.5	12.8	7.2	32.6	3.9	3.4	21.3	21.2	4.6	0.6	6.25	1.13	53.0
Oct	16.7	16.2	11.1	10.4	4.4	7.8	4.6	6.7	6.6	1.6	<0.1	7.20	1.77	2.9
Nov	*	*	*	*	*	*	*	*	*	*	*	*	*	6.3
Dec	*	*	*	*	*	*	*	*	*	*	*	*	*	6.8
<b>Annual</b>	<b>19.5</b>	<b>19.3</b>	<b>15.5</b>	<b>7.6</b>	<b>47.5</b>	<b>3.8</b>	<b>3.4</b>	<b>26.5</b>	<b>26.4</b>	<b>3.7</b>	<b>1.9</b>	<b>5.72</b>	<b>1.56</b>	<b>297.2</b>
Max.	228	218	276	186	181	161	39.4	560	559	42.8	12.6	8.17	15.5	
Min.	3.4	3.4	2.9	2.3	4.4	<1.0	<1.0	5.2	5.2	0.4	<0.1	4.90	0.36	

**Table 3.33 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	*	*	*	*	*	*	*	*	*	*	*
Feb	*	*	*	*	*	*	*	*	*	*	*
Mar	*	*	*	*	*	*	*	*	*	*	*
Apr	*	*	*	*	*	*	*	*	*	*	*
May	1.11	1.09	0.98	0.49	3.50	0.36	0.22	1.72	1.71	0.23	0.09
Jun	0.31	0.30	0.38	0.31	1.02	0.22	0.09	1.44	1.43	0.07	0.02
Jul	2.55	2.54	1.84	0.60	5.64	0.17	0.34	2.05	2.05	0.39	0.36
Aug	0.34	0.33	0.30	0.26	0.93	0.08	0.08	0.81	0.81	0.06	0.01
Sep	0.94	0.93	0.68	0.38	1.73	0.21	0.18	1.13	1.12	0.24	0.03
Oct	0.05	0.05	0.03	0.03	0.01	0.02	0.01	0.02	0.02	<0.01	<0.01
Nov	*	*	*	*	*	*	*	*	*	*	*
Dec	*	*	*	*	*	*	*	*	*	*	*
<b>Annual</b>	<b>5.80</b>	<b>5.73</b>	<b>4.62</b>	<b>2.27</b>	<b>14.1</b>	<b>1.14</b>	<b>1.01</b>	<b>7.88</b>	<b>7.85</b>	<b>1.10</b>	<b>0.56</b>

**Table 3.33 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	28	28	28	28	28	28	28	28	28	28	28	28	28	100
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	100
<b>Annual</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.34 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	58.3	57.3	42.4	9.9	47.1	16.1	10.2	66.6	66.3	13.2	0.5	6.29	3.07	0.3
Feb	22.9	21.2	10.8	14.2	22.8	28.2	12.6	45.9	45.2	5.0	0.5	6.29	1.98	5.2
Mar	5.0	4.6	7.2	5.7	4.9	7.2	3.0	11.2	11.0	1.5	1.4	5.87	0.56	8.3
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
May	10.5	10.0	14.0	10.1	36.7	9.4	6.6	15.4	15.2	4.0	3.0	5.53	1.23	85.1
Jun	9.7	9.6	18.7	5.4	54.4	2.1	3.8	11.6	11.6	1.7	12.0	4.92	1.79	47.6
Jul	10.2	10.1	16.4	6.8	41.2	2.8	3.5	9.0	8.9	2.8	5.0	5.30	1.20	47.7
Aug	3.4	3.4	7.8	4.7	17.5	<1.0	1.9	5.2	5.2	0.7	1.4	5.86	0.50	69.6
Sep	6.7	6.6	7.8	3.5	16.8	1.3	2.5	5.7	5.6	1.3	1.6	5.80	0.58	35.9
Oct	6.6	6.1	7.0	9.9	8.8	8.3	5.7	9.9	9.7	1.8	0.4	6.45	0.72	1.3
Nov	3.8	3.6	3.8	1.9	9.7	4.3	4.3	8.9	8.8	0.9	0.4	6.41	0.51	8.6
Dec	16.2	16.2	6.8	5.1	42.7	1.3	4.6	13.0	12.9	1.7	0.6	6.22	1.10	2.1
<b>Annual</b>	<b>8.3</b>	<b>8.0</b>	<b>12.4</b>	<b>6.6</b>	<b>31.6</b>	<b>4.5</b>	<b>4.1</b>	<b>10.7</b>	<b>10.6</b>	<b>2.3</b>	<b>4.0</b>	<b>5.40</b>	<b>1.05</b>	<b>311.7</b>
Max.	58.3	57.3	51.6	27.4	185	46.5	23.0	78.3	78.1	13.2	36.3	7.25	3.28	
Min.	<1.0	<1.0	1.9	<1.0	1.1	<1.0	<1.0	0.8	0.8	<0.4	<0.1	4.44	0.20	

**Table 3.34 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.02	0.02	0.01	<0.01	0.01	<0.01	<0.01	0.02	0.02	<0.01	<0.01
Feb	0.12	0.11	0.06	0.07	0.12	0.15	0.07	0.24	0.23	0.03	<0.01
Mar	0.04	0.04	0.06	0.05	0.04	0.06	0.03	0.09	0.09	0.01	0.01
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.89	0.85	1.19	0.86	3.12	0.80	0.56	1.31	1.29	0.34	0.25
Jun	0.46	0.45	0.89	0.26	2.59	0.10	0.18	0.55	0.55	0.08	0.57
Jul	0.49	0.48	0.78	0.32	1.97	0.13	0.17	0.43	0.43	0.13	0.24
Aug	0.24	0.23	0.54	0.33	1.22	0.06	0.13	0.36	0.36	0.05	0.10
Sep	0.24	0.24	0.28	0.12	0.61	0.05	0.09	0.20	0.20	0.05	0.06
Oct	<0.01	<0.01	<0.01	0.01	0.01	0.01	<0.01	0.01	0.01	<0.01	<0.01
Nov	0.03	0.03	0.03	0.02	0.08	0.04	0.04	0.08	0.08	<0.01	<0.01
Dec	0.03	0.03	0.01	0.01	0.09	<0.01	<0.01	0.03	0.03	<0.01	<0.01
<b>Annual</b>	<b>2.57</b>	<b>2.49</b>	<b>3.87</b>	<b>2.06</b>	<b>9.86</b>	<b>1.40</b>	<b>1.28</b>	<b>3.32</b>	<b>3.29</b>	<b>0.71</b>	<b>1.24</b>

**Table 3.34 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	--	--	--	--	--	--	--	--	--	--	--	--	--	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.35 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	17.2	15.8	22.5	19.1	65.7	22.3	7.7	19.3	18.8	3.2	0.6	6.19	1.40	20.5
Feb	35.7	34.6	22.7	20.9	159	18.6	11.9	17.6	17.2	2.8	0.3	6.60	3.22	6.8
Mar	55.5	54.4	34.0	19.9	78.2	17.3	<1.0	32.9	32.6	2.3	0.4	6.36	2.98	9.6
Apr	18.8	17.4	24.1	16.6	52.0	23.9	6.3	6.8	6.3	2.3	2.0	5.70	1.67	22.1
May	10.2	8.0	2.3	43.2	9.2	36.8	1.9	2.1	1.3	3.4	34.0	4.47	1.17	444.2
Jun	17.4	16.6	6.2	15.6	28.4	13.2	1.8	2.7	2.5	1.6	48.8	4.31	1.27	289.9
Jul	21.6	20.3	21.5	23.9	36.0	21.7	1.2	8.7	8.2	2.3	52.0	4.28	1.93	236.4
Aug	13.9	13.0	9.4	23.0	13.6	13.8	2.0	4.1	3.9	2.6	34.5	4.46	1.01	585.2
Sep	21.4	21.1	17.9	9.5	29.9	5.5	<1.0	3.9	3.8	1.5	44.1	4.36	1.53	296.8
Oct	27.2	26.7	40.1	13.1	44.1	9.1	5.2	40.1	40.0	8.2	26.3	4.58	1.90	161.5
Nov	18.6	17.3	13.2	36.4	25.3	22.2	9.6	34.3	33.8	4.2	5.3	5.28	1.33	131.8
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>17.1</b>	<b>16.0</b>	<b>13.1</b>	<b>24.3</b>	<b>23.7</b>	<b>18.4</b>	<b>2.5</b>	<b>8.8</b>	<b>8.4</b>	<b>3.0</b>	<b>36.2</b>	<b>4.44</b>	<b>1.36</b>	<b>2204.8</b>
Max.	88.3	86.3	138	71.1	159	46.1	187	68.6	67.7	39.9	126	6.60	5.41	
Min.	6.2	5.8	2.1	4.3	<1.0	1.9	<1.0	<0.2	<0.2	<0.4	0.3	3.90	0.29	

**Table 3.35 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.35	0.32	0.46	0.39	1.35	0.46	0.16	0.40	0.39	0.06	0.01
Feb	0.24	0.24	0.15	0.14	1.08	0.13	0.08	0.12	0.12	0.02	<0.01
Mar	0.53	0.52	0.33	0.19	0.75	0.17	<0.01	0.32	0.31	0.02	<0.01
Apr	0.42	0.38	0.53	0.37	1.15	0.53	0.14	0.15	0.14	0.05	0.04
May	4.55	3.56	1.02	19.2	4.07	16.4	0.86	0.92	0.57	1.53	15.1
Jun	5.05	4.82	1.80	4.52	8.24	3.84	0.52	0.80	0.71	0.48	14.1
Jul	5.11	4.80	5.07	5.66	8.52	5.13	0.27	2.06	1.95	0.55	12.3
Aug	8.11	7.62	5.51	13.4	7.95	8.05	1.20	2.42	2.31	1.54	20.2
Sep	6.36	6.26	5.31	2.83	8.88	1.64	0.28	1.15	1.13	0.44	13.1
Oct	4.40	4.31	6.48	2.11	7.13	1.47	0.84	6.48	6.45	1.32	4.24
Nov	2.46	2.28	1.74	4.80	3.33	2.92	1.26	4.52	4.45	0.56	0.70
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>37.6</b>	<b>35.2</b>	<b>28.8</b>	<b>53.5</b>	<b>52.2</b>	<b>40.5</b>	<b>5.55</b>	<b>19.3</b>	<b>18.5</b>	<b>6.60</b>	<b>79.8</b>

**Table 3.35 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Feb	76	76	76	76	76	76	76	76	76	76	76	76	76	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	96	96	96	96	96	96	96	96	96	96	96	96	96	100
Jun	88	88	88	88	88	88	88	88	88	88	88	88	88	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	99	99	99	99	99	99	99	99	99	99	99	99	99	100
Nov	91	91	91	91	91	91	91	91	91	91	91	91	91	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	32
<b>Annual</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>97</b>	<b>94</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.36 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	9.7	<1.0	2.9	71.1	199	739	121	73.1	57.1	67.5	0.3	6.55	1.20	12.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	14.1	12.8	15.3	22.4	43.5	21.6	3.0	5.7	5.2	3.0	9.8	5.01	1.76	10.2
Apr	10.4	7.7	11.8	31.9	37.3	44.8	3.6	2.0	1.0	3.0	3.0	5.53	1.44	19.6
May	5.5	4.5	3.4	15.3	4.7	15.0	<1.0	1.4	1.0	1.3	39.9	4.40	5.95	353.8
Jun	16.9	13.5	9.3	36.5	17.7	57.7	10.7	3.9	3.0	6.4	23.4	4.63	1.12	133.0
Jul	3.6	3.4	2.3	5.0	6.9	3.6	<1.0	3.7	3.6	0.4	25.3	4.60	0.52	350.7
Aug	8.8	8.3	5.3	10.9	11.2	6.9	<1.0	<0.2	<0.2	1.3	63.6	4.20	0.88	238.0
Sep	15.4	14.9	13.1	11.6	48.0	7.8	4.0	4.1	3.9	2.3	33.8	4.47	1.26	137.6
Oct	5.3	4.6	3.5	17.2	6.8	12.1	1.1	26.0	25.8	2.4	11.7	4.93	0.68	80.7
Nov	5.4	4.6	4.6	18.8	11.1	12.8	1.3	22.8	22.5	4.1	18.5	4.73	0.72	226.9
Dec	13.8	8.4	4.1	111	54.6	89.4	11.0	27.9	26.0	21.0	2.7	5.56	2.72	45.7
<b>Annual</b>	<b>7.1</b>	<b>6.2</b>	<b>4.9</b>	<b>16.2</b>	<b>14.5</b>	<b>15.3</b>	<b>1.8</b>	<b>7.8</b>	<b>7.5</b>	<b>2.6</b>	<b>32.5</b>	<b>4.49</b>	<b>1.99</b>	<b>1608.2</b>
Max.	58.9	57.4	42.3	175	199	739	121	73.1	57.1	67.5	282	6.55	7.65	
Min.	1.5	<1.0	<1.0	3.3	<1.0	1.5	<1.0	<0.2	<0.2	<0.4	0.3	3.55	0.35	

**Table 3.36 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.12	0.00	0.03	0.85	2.38	8.87	1.45	0.88	0.69	0.81	<0.01
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.14	0.13	0.16	0.23	0.44	0.22	0.03	0.06	0.05	0.03	0.10
Apr	0.20	0.15	0.23	0.62	0.73	0.88	0.07	0.04	0.02	0.06	0.06
May	1.93	1.61	1.20	5.41	1.66	5.32	0.09	0.49	0.37	0.45	14.1
Jun	2.25	1.79	1.24	4.85	2.36	7.68	1.42	0.51	0.39	0.85	3.12
Jul	1.26	1.18	0.81	1.76	2.43	1.27	0.09	1.30	1.27	0.15	8.87
Aug	2.08	1.98	1.27	2.60	2.67	1.65	0.21	0.00	0.00	0.31	15.1
Sep	2.12	2.06	1.80	1.59	6.60	1.07	0.55	0.56	0.54	0.32	4.65
Oct	0.43	0.37	0.28	1.39	0.55	0.98	0.09	2.10	2.08	0.19	0.95
Nov	1.23	1.05	1.03	4.26	2.51	2.91	0.29	5.18	5.11	0.93	4.19
Dec	0.63	0.38	0.19	5.06	2.50	4.09	0.50	1.28	1.19	0.96	0.13
<b>Annual</b>	<b>11.4</b>	<b>10.0</b>	<b>7.84</b>	<b>26.1</b>	<b>23.3</b>	<b>24.6</b>	<b>2.94</b>	<b>12.5</b>	<b>12.0</b>	<b>4.18</b>	<b>52.2</b>

**Table 3.36 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	33	33	33	33	33	33	33	33	33	33	33	33	33	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	91	91	91	91	91	91	91	91	91	91	91	91	91	100
Jun	20	20	20	20	20	20	20	20	20	20	20	20	20	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	99	99	99	99	100	99	99	99	99	99	99	99	99	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	99	99	99	99	99	99	99	99	99	99	99	99	99	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.37 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	52.9	51.1	182	56.1	161	31.1	10.6	46.2	45.5	11.2	12.6	4.90	5.32	2.0
Feb	53.9	51.5	50.7	204	124	40.5	57.5	30.9	30.1	5.7	20.0	4.70	5.52	23.1
Mar	86.1	83.5	104	88.5	100	43.2	32.9	57.2	56.3	10.9	11.8	4.93	5.43	16.4
Apr	56.6	55.2	51.4	106	98.9	22.8	10.1	44.6	44.1	8.9	11.6	4.94	3.90	139.8
May	38.4	37.6	46.2	83.6	89.8	14.6	5.2	35.4	35.1	2.7	6.9	5.16	3.29	82.0
Jun	32.1	31.3	42.2	41.8	94.4	12.8	13.9	9.0	8.7	3.6	14.3	4.84	2.73	150.5
Jul	23.7	21.9	28.3	51.0	53.1	29.4	8.8	6.4	5.8	2.7	16.2	4.79	2.21	305.5
Aug	16.8	15.2	12.0	56.5	58.1	27.6	7.4	1.8	1.2	0.9	9.3	5.03	1.68	442.5
Sep	13.7	12.4	11.7	52.0	10.6	20.8	6.5	3.8	3.3	1.0	51.5	4.29	2.53	296.5
Oct	27.1	23.4	43.9	70.2	24.7	62.7	14.7	21.2	19.9	8.6	34.4	4.46	3.46	51.0
Nov	35.7	34.4	41.3	39.9	62.8	22.2	5.3	10.0	9.5	3.3	38.3	4.42	3.03	64.0
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	**
<b>Annual</b>	<b>26.1</b>	<b>24.6</b>	<b>27.3</b>	<b>61.3</b>	<b>57.6</b>	<b>25.4</b>	<b>9.4</b>	<b>11.3</b>	<b>10.8</b>	<b>2.9</b>	<b>21.3</b>	<b>4.67</b>	<b>2.54</b>	<b>1573.3</b>
Max.	135	133	182	204	175	80.6	57.5	92.8	91.9	21.7	75.9	5.90	7.50	
Min.	11.0	9.8	5.6	23.2	6.9	4.7	2.8	0.9	0.5	<0.4	1.3	4.12	1.00	

**Table 3.37 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.11	0.10	0.36	0.11	0.32	0.06	0.02	0.09	0.09	0.02	0.03
Feb	1.24	1.19	1.17	4.72	2.87	0.94	1.33	0.71	0.69	0.13	0.46
Mar	1.41	1.37	1.71	1.45	1.65	0.71	0.54	0.94	0.92	0.18	0.19
Apr	7.91	7.72	7.19	14.9	13.8	3.19	1.41	6.24	6.17	1.25	1.62
May	3.15	3.08	3.79	6.86	7.36	1.20	0.43	2.90	2.88	0.22	0.56
Jun	4.83	4.71	6.35	6.29	14.2	1.92	2.09	1.36	1.32	0.55	2.15
Jul	7.24	6.69	8.64	15.6	16.2	8.99	2.68	1.97	1.77	0.82	4.94
Aug	7.44	6.71	5.30	25.0	25.7	12.2	3.26	0.80	0.53	0.39	4.11
Sep	4.05	3.68	3.48	15.4	3.13	6.16	1.92	1.12	0.99	0.29	15.3
Oct	1.38	1.19	2.24	3.58	1.26	3.20	0.75	1.08	1.01	0.44	1.75
Nov	2.29	2.20	2.64	2.55	4.02	1.42	0.34	0.64	0.61	0.21	2.45
Dec	**	**	**	**	**	**	**	**	**	**	**
<b>Annual</b>	<b>41.1</b>	<b>38.6</b>	<b>42.9</b>	<b>96.4</b>	<b>90.6</b>	<b>40.0</b>	<b>14.8</b>	<b>17.9</b>	<b>17.0</b>	<b>4.50</b>	<b>33.5</b>

**Table 3.37 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	97
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	**	**	**	**	**	**	**	**	**	**	**	**	**	0
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>91</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.38 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	68.4	53.6	66.2	170	40.1	246	19.3	35.1	29.8	32.6	15.7	4.80	5.75	34.5
Feb	60.1	48.9	53.0	311	64.2	185	12.7	28.1	24.1	34.0	27.1	4.57	6.88	42.0
Mar	28.2	24.0	26.7	107	41.3	68.5	5.5	15.3	13.8	10.3	15.8	4.80	2.77	64.0
Apr	25.2	22.9	27.0	55.7	34.9	37.3	4.7	11.5	10.7	4.7	17.3	4.76	2.19	73.3
May	14.4	12.8	18.6	18.7	20.2	26.9	5.5	4.7	4.2	1.7	6.1	5.22	1.01	263.6
Jun	19.5	18.6	22.0	23.2	41.4	13.7	5.6	7.1	6.8	4.1	9.7	5.01	1.39	310.5
Jul	31.0	27.5	25.3	101	58.9	58.0	10.0	3.0	1.8	4.1	32.3	4.49	3.36	136.1
Aug	14.6	11.3	12.7	93.9	44.1	54.6	11.0	5.9	4.8	2.3	17.5	4.76	2.26	235.4
Sep	17.1	14.0	22.5	46.0	4.8	52.2	11.6	2.7	1.6	5.8	18.2	4.74	1.80	21.0
Oct	27.9	25.8	31.0	66.5	73.1	34.6	14.2	8.7	8.0	6.3	22.6	4.65	2.72	30.1
Nov	23.0	21.2	18.9	90.0	77.7	29.5	9.2	7.6	7.0	7.4	13.0	4.89	2.68	72.8
Dec	49.8	45.2	69.1	135	34.9	75.0	23.0	16.3	14.7	44.1	29.7	4.53	4.28	8.0
<b>Annual</b>	<b>22.7</b>	<b>19.9</b>	<b>23.0</b>	<b>68.5</b>	<b>41.9</b>	<b>46.7</b>	<b>8.2</b>	<b>8.1</b>	<b>7.1</b>	<b>5.9</b>	<b>15.0</b>	<b>4.83</b>	<b>2.22</b>	<b>1291.3</b>
Max.	120	111	114	466	138	366	78.8	106	103	95.2	79.4	6.30	10.8	
Min.	3.2	1.0	2.4	9.5	3.6	5.9	2.8	0.4	<0.2	<0.4	0.5	4.10	0.60	

**Table 3.38 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	2.36	1.85	2.29	5.87	1.39	8.48	0.66	1.21	1.03	1.13	0.54
Feb	2.52	2.05	2.22	13.0	2.70	7.79	0.53	1.18	1.01	1.43	1.14
Mar	1.80	1.54	1.71	6.86	2.64	4.38	0.36	0.98	0.88	0.66	1.01
Apr	1.85	1.68	1.98	4.08	2.56	2.73	0.35	0.84	0.78	0.34	1.26
May	3.80	3.37	4.90	4.93	5.33	7.08	1.44	1.25	1.09	0.45	1.60
Jun	6.04	5.78	6.82	7.21	12.9	4.27	1.72	2.19	2.10	1.27	3.00
Jul	4.21	3.74	3.44	13.7	8.02	7.90	1.36	0.41	0.24	0.56	4.40
Aug	3.44	2.66	2.98	22.1	10.4	12.8	2.60	1.40	1.12	0.54	4.12
Sep	0.36	0.29	0.47	0.97	0.10	1.10	0.24	0.06	0.03	0.12	0.38
Oct	0.84	0.78	0.93	2.00	2.20	1.04	0.43	0.26	0.24	0.19	0.68
Nov	1.67	1.54	1.38	6.56	5.66	2.15	0.67	0.56	0.51	0.54	0.95
Dec	0.40	0.36	0.55	1.08	0.28	0.60	0.18	0.13	0.12	0.35	0.24
<b>Annual</b>	<b>29.3</b>	<b>25.6</b>	<b>29.7</b>	<b>88.4</b>	<b>54.1</b>	<b>60.3</b>	<b>10.5</b>	<b>10.5</b>	<b>9.16</b>	<b>7.57</b>	<b>19.3</b>

**Table 3.38 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	95	95	95	95	95	95	95	95	95	95	95	95	95	97
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.39 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	31.2	27.8	37.1	37.6	15.5	55.8	18.8	25.4	24.2	10.5	5.4	5.26	2.17	26.2
Feb	37.4	34.1	38.7	63.3	18.1	54.0	21.7	30.5	29.4	11.3	18.3	4.74	3.01	35.5
Mar	31.0	29.6	39.1	36.4	36.8	22.6	26.0	13.4	12.9	3.7	15.0	4.82	2.32	30.5
Apr	25.5	24.4	28.2	24.3	43.1	17.6	20.7	7.2	6.8	2.2	8.6	5.06	1.72	249.0
May	12.4	11.8	18.2	19.3	37.2	9.9	5.9	2.1	1.8	0.6	2.2	5.66	0.92	137.5
Jun	12.6	12.0	14.8	21.0	33.2	8.6	5.2	4.3	4.1	0.9	4.0	5.40	0.93	113.0
Jul	15.0	13.5	13.0	41.2	25.1	26.2	9.3	5.1	4.6	1.1	9.3	5.03	1.36	689.5
Aug	10.7	9.6	10.6	39.1	39.2	19.5	9.0	1.3	0.9	<0.4	7.7	5.11	1.22	299.1
Sep	10.8	9.1	10.6	47.7	28.9	28.6	10.9	3.1	2.5	0.5	2.1	5.67	1.12	217.0
Oct	10.3	9.3	10.5	15.0	12.3	15.3	5.8	3.2	2.9	0.6	1.9	5.73	0.67	27.5
Nov	24.2	22.8	29.3	77.7	57.9	24.0	10.8	7.9	7.4	4.8	31.5	4.50	2.30	34.5
Dec	58.9	56.5	79.3	156	98.3	38.6	22.2	26.8	25.9	22.0	70.3	4.15	7.66	16.2
<b>Annual</b>	<b>16.3</b>	<b>14.9</b>	<b>16.9</b>	<b>38.1</b>	<b>32.5</b>	<b>22.8</b>	<b>11.2</b>	<b>5.4</b>	<b>4.9</b>	<b>1.6</b>	<b>8.3</b>	<b>5.08</b>	<b>1.42</b>	<b>1875.5</b>
Max.	85.9	83.2	116	176	128	70.9	41.4	41.2	39.8	39.1	200	6.60	16.6	
Min.	2.0	<1.0	2.8	6.6	4.0	4.3	2.7	0.2	<0.2	<0.4	0.3	3.70	0.30	

**Table 3.39 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.82	0.73	0.97	0.99	0.41	1.46	0.49	0.67	0.63	0.27	0.14
Feb	1.33	1.21	1.37	2.25	0.64	1.92	0.77	1.08	1.04	0.40	0.65
Mar	0.94	0.90	1.19	1.11	1.12	0.69	0.79	0.41	0.39	0.11	0.46
Apr	6.35	6.08	7.03	6.05	10.7	4.37	5.17	1.79	1.69	0.54	2.15
May	1.71	1.62	2.50	2.65	5.12	1.36	0.81	0.28	0.25	0.08	0.30
Jun	1.42	1.36	1.67	2.37	3.75	0.97	0.59	0.48	0.46	0.10	0.45
Jul	10.4	9.28	8.96	28.4	17.3	18.0	6.41	3.55	3.16	0.74	6.45
Aug	3.21	2.86	3.16	11.7	11.7	5.83	2.69	0.38	0.25	0.10	2.31
Sep	2.35	1.97	2.29	10.4	6.28	6.20	2.36	0.67	0.54	0.11	0.46
Oct	0.28	0.26	0.29	0.41	0.34	0.42	0.16	0.09	0.08	0.02	0.05
Nov	0.84	0.79	1.01	2.68	2.00	0.83	0.37	0.27	0.25	0.16	1.09
Dec	0.95	0.92	1.29	2.52	1.59	0.62	0.36	0.43	0.42	0.36	1.14
<b>Annual</b>	<b>30.6</b>	<b>28.0</b>	<b>31.7</b>	<b>71.5</b>	<b>61.0</b>	<b>42.7</b>	<b>21.0</b>	<b>10.1</b>	<b>9.18</b>	<b>3.00</b>	<b>15.7</b>

**Table 3.39 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	97
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.40 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	11.5	11.2	9.8	6.7	10.8	6.1	4.8	31.1	31.0	4.9	0.3	6.49	1.19	12.9
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Apr	13.2	13.0	12.7	1.2	16.0	4.0	3.0	13.4	13.3	3.0	2.1	5.68	0.89	14.0
May	6.8	6.7	<1.0	<1.0	29.4	1.7	1.3	3.2	3.2	0.4	2.3	5.63	0.49	8.0
Jun	6.2	6.0	11.2	7.7	17.6	2.9	2.0	4.8	4.7	1.1	5.0	5.30	0.74	67.5
Jul	18.5	18.4	9.1	2.3	36.9	2.5	1.8	2.0	1.9	0.5	3.6	5.44	0.83	98.1
Aug	2.8	2.7	3.6	1.5	1.5	<1.0	<1.0	0.8	0.8	<0.4	5.5	5.26	0.30	136.3
Sep	7.8	7.6	4.7	2.6	6.7	3.2	1.8	2.1	2.1	<0.4	6.2	5.21	0.56	47.8
Oct	8.6	8.2	2.2	11.1	1.9	6.7	5.4	7.3	7.1	2.4	2.2	5.67	0.52	6.3
Nov	1.8	1.8	2.1	<1.0	5.1	1.1	2.2	7.7	7.7	1.7	1.0	6.02	0.34	7.8
Dec	3.5	3.4	7.1	<1.0	2.3	1.5	1.4	10.4	10.3	1.9	0.9	6.03	0.42	9.8
<b>Annual</b>	<b>8.5</b>	<b>8.4</b>	<b>6.8</b>	<b>3.1</b>	<b>14.7</b>	<b>2.3</b>	<b>1.6</b>	<b>3.8</b>	<b>3.8</b>	<b>0.8</b>	<b>4.5</b>	<b>5.35</b>	<b>0.59</b>	<b>408.5</b>
Max.	51.5	51.1	39.5	13.0	94.4	15.2	8.7	37.9	37.9	6.2	17.4	6.53	3.19	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	0.2	<0.4	0.3	4.76	0.26	

**Table 3.40 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.15	0.14	0.13	0.09	0.14	0.08	0.06	0.40	0.40	0.06	<0.01
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.19	0.18	0.18	0.02	0.22	0.06	0.04	0.19	0.19	0.04	0.03
May	0.05	0.05	0.00	0.00	0.24	0.01	0.01	0.03	0.03	<0.01	0.02
Jun	0.42	0.40	0.76	0.52	1.18	0.20	0.14	0.32	0.32	0.07	0.34
Jul	1.82	1.80	0.90	0.23	3.61	0.25	0.17	0.19	0.19	0.05	0.36
Aug	0.38	0.37	0.49	0.20	0.20	0.12	0.08	0.11	0.11	0.03	0.75
Sep	0.37	0.36	0.22	0.12	0.32	0.15	0.09	0.10	0.10	<0.01	0.29
Oct	0.05	0.05	0.01	0.07	0.01	0.04	0.03	0.05	0.05	0.02	0.01
Nov	0.01	0.01	0.02	<0.01	0.04	<0.01	0.02	0.06	0.06	0.01	<0.01
Dec	0.03	0.03	0.07	<0.01	0.02	0.01	0.01	0.10	0.10	0.02	<0.01
<b>Annual</b>	<b>3.48</b>	<b>3.42</b>	<b>2.78</b>	<b>1.25</b>	<b>6.00</b>	<b>0.93</b>	<b>0.66</b>	<b>1.55</b>	<b>1.53</b>	<b>0.32</b>	<b>1.83</b>

**Table 3.40 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.41 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	22.9	22.5	59.4	3.2	32.3	6.1	3.1	24.3	24.2	6.0	10.7	4.97	1.80	57.2
Feb	48.3	47.7	113	3.3	18.9	9.4	3.3	60.5	60.3	12.7	13.8	4.86	3.47	40.9
Mar	35.8	35.4	81.1	<1.0	54.1	6.3	3.4	42.2	42.0	9.0	7.6	5.12	2.34	4.8
Apr	32.6	32.1	41.6	7.1	43.9	8.5	4.7	21.8	21.6	4.7	6.4	5.20	1.92	10.3
May	26.0	25.9	35.5	14.0	71.7	2.6	1.7	4.5	4.4	1.0	28.1	4.55	2.56	24.1
Jun	26.6	26.5	31.5	9.8	67.2	1.9	2.1	8.8	8.7	2.0	16.2	4.79	1.99	27.8
Jul	16.0	15.9	15.4	10.0	48.6	1.5	1.2	3.7	3.7	0.8	6.2	5.20	1.24	35.5
Aug	10.2	9.8	4.8	2.2	5.4	5.2	1.7	3.4	3.3	0.6	7.3	5.14	0.63	151.3
Sep	29.0	28.8	14.2	6.5	24.2	4.1	5.6	11.5	11.4	3.5	19.2	4.72	1.60	42.5
Oct	16.0	15.8	9.4	7.3	14.1	3.4	7.5	13.7	13.6	5.2	1.5	5.83	0.84	20.6
Nov	12.9	12.6	28.7	<1.0	4.8	5.9	2.1	15.2	15.1	5.2	4.1	5.38	1.00	75.3
Dec	10.1	9.8	26.3	1.4	2.1	5.1	2.0	9.9	9.8	3.3	7.2	5.15	0.88	49.8
<b>Annual</b>	<b>19.1</b>	<b>18.8</b>	<b>29.8</b>	<b>4.1</b>	<b>20.8</b>	<b>5.1</b>	<b>2.6</b>	<b>14.3</b>	<b>14.1</b>	<b>3.6</b>	<b>9.7</b>	<b>5.01</b>	<b>1.36</b>	<b>540.1</b>
Max.	105	103	136	84.3	279	90.0	69.1	100	99.6	33.7	51.3	6.40	5.17	
Min.	5.6	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	0.5	0.4	<0.4	0.4	4.29	0.39	

**Table 3.41 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.31	1.29	3.40	0.18	1.85	0.35	0.18	1.39	1.38	0.34	0.61
Feb	1.97	1.95	4.63	0.14	0.77	0.39	0.13	2.47	2.47	0.52	0.56
Mar	0.17	0.17	0.39	0.00	0.26	0.03	0.02	0.20	0.20	0.04	0.04
Apr	0.34	0.33	0.43	0.07	0.45	0.09	0.05	0.22	0.22	0.05	0.07
May	0.63	0.62	0.85	0.34	1.73	0.06	0.04	0.11	0.11	0.02	0.68
Jun	0.74	0.74	0.88	0.27	1.87	0.05	0.06	0.24	0.24	0.06	0.45
Jul	0.57	0.57	0.55	0.36	1.72	0.05	0.04	0.13	0.13	0.03	0.22
Aug	1.54	1.49	0.73	0.34	0.82	0.79	0.26	0.51	0.49	0.10	1.10
Sep	1.23	1.22	0.60	0.28	1.03	0.18	0.24	0.49	0.49	0.15	0.82
Oct	0.33	0.32	0.19	0.15	0.29	0.07	0.15	0.28	0.28	0.11	0.03
Nov	0.97	0.95	2.16	0.04	0.36	0.44	0.15	1.15	1.14	0.39	0.31
Dec	0.50	0.49	1.31	0.07	0.10	0.25	0.10	0.49	0.49	0.16	0.36
<b>Annual</b>	<b>10.3</b>	<b>10.1</b>	<b>16.1</b>	<b>2.23</b>	<b>11.3</b>	<b>2.76</b>	<b>1.42</b>	<b>7.70</b>	<b>7.64</b>	<b>1.97</b>	<b>5.24</b>

**Table 3.41 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.42 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L			
Jan	39.2	38.5	32.3	13.1	13.5	11.5	5.0	67.3	67.1	13.6	0.4	6.44	2.78	24.0
Feb	134	128	61.0	112	70.6	105	7.3	191	189	33.0	0.1	6.96	8.07	2.7
Mar	326	293	147	448	144	544	16.6	354	343	59.5	<0.1	7.13	16.9	0.9
Apr	81.8	80.2	59.3	29.2	41.7	25.7	7.0	90.7	90.2	12.5	0.6	6.25	4.19	4.9
May	42.4	40.8	48.6	119	91.5	24.9	13.5	78.6	78.0	12.6	12.1	4.92	4.53	10.6
Jun	29.1	28.8	25.5	31.5	48.2	4.6	2.6	30.0	29.9	5.0	7.6	5.12	1.95	30.3
Jul	23.7	23.6	17.4	30.3	77.0	2.3	1.9	12.0	12.0	2.0	3.2	5.50	1.73	124.5
Aug	14.3	14.2	8.2	<1.0	17.4	1.1	<1.0	5.9	5.9	0.7	6.1	5.21	0.74	151.5
Sep	23.5	23.2	14.6	2.1	22.9	4.3	2.8	17.5	17.5	3.8	3.3	5.48	1.19	69.7
Oct	35.3	34.5	17.1	6.3	32.4	14.2	5.5	41.1	40.8	5.3	0.8	6.12	2.06	13.6
Nov	56.2	54.5	41.0	34.9	51.8	28.0	8.3	99.3	98.7	16.9	0.2	6.69	4.26	10.2
Dec	62.7	61.7	30.2	16.4	83.7	15.1	6.4	79.8	79.5	22.0	0.2	6.70	3.79	13.8
<b>Annual</b>	<b>26.3</b>	<b>25.9</b>	<b>17.8</b>	<b>17.7</b>	<b>42.1</b>	<b>6.6</b>	<b>2.6</b>	<b>23.9</b>	<b>23.7</b>	<b>4.3</b>	<b>4.2</b>	<b>5.37</b>	<b>1.67</b>	<b>456.7</b>
Max.	326	293	213	742	483	544	116	651	648	59.5	20.9	7.90	22.1	
Min.	5.2	5.2	1.5	<1.0	3.3	<1.0	<1.0	1.5	1.5	<0.4	<0.1	4.68	0.35	

**Table 3.42 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.94	0.92	0.77	0.31	0.32	0.27	0.12	1.61	1.61	0.33	<0.01
Feb	0.35	0.34	0.16	0.30	0.19	0.28	0.02	0.51	0.50	0.09	<0.01
Mar	0.30	0.27	0.13	0.41	0.13	0.50	0.02	0.32	0.31	0.05	<0.01
Apr	0.40	0.39	0.29	0.14	0.20	0.13	0.03	0.44	0.44	0.06	<0.01
May	0.45	0.43	0.51	1.26	0.97	0.26	0.14	0.83	0.83	0.13	0.13
Jun	0.88	0.87	0.77	0.95	1.46	0.14	0.08	0.91	0.90	0.15	0.23
Jul	2.95	2.94	2.17	3.78	9.59	0.28	0.24	1.50	1.49	0.25	0.39
Aug	2.17	2.16	1.25	0.09	2.64	0.16	0.11	0.89	0.89	0.10	0.93
Sep	1.64	1.62	1.02	0.15	1.60	0.30	0.20	1.22	1.22	0.26	0.23
Oct	0.48	0.47	0.23	0.09	0.44	0.19	0.07	0.56	0.55	0.07	0.01
Nov	0.57	0.56	0.42	0.36	0.53	0.29	0.08	1.01	1.01	0.17	<0.01
Dec	0.86	0.85	0.42	0.23	1.15	0.21	0.09	1.10	1.09	0.30	<0.01
<b>Annual</b>	<b>12.0</b>	<b>11.8</b>	<b>8.15</b>	<b>8.07</b>	<b>19.2</b>	<b>3.01</b>	<b>1.20</b>	<b>10.9</b>	<b>10.8</b>	<b>1.97</b>	<b>1.94</b>

**Table 3.42 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP			
Jan	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	99	100	100	100	100	100	99	99	100	100
Jun	99	99	99	99	99	99	99	99	99	99	100	100	99	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	99	99	99	99	99	99	99	99	99	99	100	100	100	100
Oct	96	96	96	96	96	96	96	96	96	96	100	100	100	100
Nov	98	98	98	98	98	98	98	98	98	98	100	100	98	100
Dec	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)



**Table 3.44 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	61.7	60.5	119	26.0	103	20.4	6.6	51.6	51.2	6.6	14.8	4.83	4.03	23.0
Mar	50.4	49.5	74.9	20.4	85.5	13.7	8.0	26.6	26.3	5.3	115	3.94	4.60	169.4
Apr	23.4	22.9	30.9	9.7	38.7	9.2	3.1	18.1	17.9	2.6	29.9	4.52	1.77	24.4
May	15.5	14.9	22.1	5.9	28.2	10.8	2.7	13.8	13.6	2.1	85.1	4.07	1.16	172.0
Jun	10.0	9.6	10.2	7.9	30.4	6.7	2.7	8.1	8.0	3.2	6.0	5.22	0.82	173.8
Jul	14.0	13.6	10.8	8.0	35.6	6.6	1.3	10.5	10.4	1.7	1.1	5.96	0.82	308.6
Aug	7.4	7.0	5.6	6.3	17.9	5.7	1.3	5.0	4.9	1.3	1.2	5.91	2.18	243.0
Sep	11.7	11.5	15.2	3.4	26.1	3.4	1.4	6.5	6.4	1.1	7.0	5.15	0.88	172.4
Oct	19.3	19.1	17.1	5.0	29.8	3.4	<1.0	4.7	4.7	1.0	10.6	4.98	1.08	98.1
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>18.5</b>	<b>18.0</b>	<b>23.1</b>	<b>8.7</b>	<b>37.5</b>	<b>7.6</b>	<b>2.6</b>	<b>11.9</b>	<b>11.7</b>	<b>2.3</b>	<b>29.5</b>	<b>4.53</b>	<b>1.67</b>	<b>1384.7</b>
Max.	68.1	64.0	246	42.3	127	109	157	117	117	61.7	372	6.51	7.93	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	0.2	0.4	0.3	3.43	0.04	

**Table 3.44 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	1.42	1.39	2.74	0.60	2.36	0.47	0.15	1.19	1.18	0.15	0.34
Mar	8.53	8.39	12.7	3.46	14.5	2.31	1.35	4.50	4.45	0.90	19.5
Apr	0.57	0.56	0.75	0.24	0.94	0.22	0.07	0.44	0.44	0.06	0.73
May	2.67	2.56	3.80	1.02	4.85	1.86	0.46	2.38	2.34	0.36	14.6
Jun	1.74	1.67	1.77	1.37	5.29	1.17	0.46	1.41	1.38	0.55	1.05
Jul	4.31	4.18	3.35	2.47	11.0	2.05	0.39	3.24	3.20	0.52	0.34
Aug	1.79	1.71	1.37	1.52	4.35	1.39	0.31	1.22	1.19	0.32	0.30
Sep	2.02	1.99	2.63	0.59	4.51	0.59	0.24	1.12	1.11	0.19	1.21
Oct	1.90	1.88	1.68	0.49	2.93	0.34	0.08	0.46	0.46	0.09	1.04
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>25.6</b>	<b>24.9</b>	<b>31.9</b>	<b>12.0</b>	<b>51.9</b>	<b>10.6</b>	<b>3.63</b>	<b>16.5</b>	<b>16.2</b>	<b>3.22</b>	<b>40.8</b>

**Table 3.44 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	95	95	95	95	95	95	95	95	95	95	95	95	95	100
Jun	94	94	94	94	94	94	94	94	94	94	94	94	94	100
Jul	97	97	97	97	97	97	97	97	97	97	97	97	97	100
Aug	84	84	84	84	84	84	84	84	84	84	84	84	84	100
Sep	95	95	95	95	95	95	95	95	95	95	95	95	95	100
Oct	80	80	80	80	80	80	80	80	80	80	80	80	80	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.45 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	36.7	35.5	54.3	23.4	77.4	19.6	4.3	16.7	16.3	3.9	44.7	4.35	3.68	31.5
Mar	17.6	17.1	33.8	13.5	58.3	8.1	4.1	12.4	12.2	1.7	50.5	4.30	3.26	59.0
Apr	21.7	21.3	40.5	8.3	56.8	6.0	2.2	7.0	6.9	1.4	32.2	4.49	2.52	51.4
May	17.8	17.5	23.5	6.8	38.1	5.4	<1.0	6.0	5.8	1.1	24.9	4.60	1.86	181.8
Jun	12.1	11.8	16.0	6.7	34.4	4.9	<1.0	8.5	8.4	1.4	5.8	5.24	1.02	289.6
Jul	9.9	9.7	10.4	5.2	21.3	4.1	<1.0	4.1	4.0	0.7	6.2	5.21	0.83	214.2
Aug	8.9	8.6	8.6	7.8	18.8	5.4	<1.0	5.2	5.1	1.2	6.3	5.20	0.78	258.1
Sep	11.1	11.0	18.9	3.6	24.9	2.7	<1.0	6.5	6.4	0.7	12.8	4.89	1.11	374.4
Oct	9.5	9.2	11.2	4.4	17.8	3.6	2.0	2.9	2.8	0.8	14.0	4.85	0.99	187.2
Nov	9.3	8.8	12.1	13.5	41.5	8.4	4.2	9.6	9.5	1.7	3.5	5.45	1.17	10.8
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>12.4</b>	<b>12.1</b>	<b>17.2</b>	<b>6.4</b>	<b>29.1</b>	<b>4.7</b>	<b>1.2</b>	<b>6.3</b>	<b>6.2</b>	<b>1.1</b>	<b>13.7</b>	<b>4.86</b>	<b>1.24</b>	<b>1658.0</b>
Max.	78.0	75.7	208	52.8	147	73.5	10.9	64.3	63.9	10.1	74.1	6.16	7.55	
Min.	2.0	1.8	3.8	1.7	3.1	<1.0	<1.0	0.8	0.8	<0.4	0.7	4.13	0.33	

**Table 3.45 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	1.16	1.12	1.71	0.74	2.44	0.62	0.14	0.53	0.51	0.12	1.41
Mar	1.04	1.01	1.99	0.79	3.44	0.48	0.24	0.73	0.72	0.10	2.98
Apr	1.12	1.10	2.08	0.42	2.92	0.31	0.11	0.36	0.35	0.07	1.66
May	3.24	3.19	4.28	1.23	6.93	0.98	0.17	1.08	1.06	0.19	4.52
Jun	3.51	3.43	4.64	1.95	9.95	1.43	0.24	2.47	2.44	0.40	1.67
Jul	2.12	2.07	2.22	1.11	4.56	0.87	0.11	0.87	0.85	0.16	1.32
Aug	2.31	2.22	2.21	2.02	4.86	1.39	0.22	1.34	1.31	0.30	1.63
Sep	4.17	4.11	7.06	1.35	9.31	1.01	0.28	2.42	2.40	0.25	4.80
Oct	1.77	1.73	2.10	0.83	3.34	0.67	0.38	0.54	0.53	0.15	2.63
Nov	0.10	0.09	0.13	0.15	0.45	0.09	0.05	0.10	0.10	0.02	0.04
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>20.5</b>	<b>20.1</b>	<b>28.4</b>	<b>10.6</b>	<b>48.2</b>	<b>7.84</b>	<b>1.93</b>	<b>10.5</b>	<b>10.3</b>	<b>1.76</b>	<b>22.7</b>

**Table 3.45 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.46 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	3.6	2.1	5.7	3.8	65.6	31.2	7.1	61.5	60.9	10.8	5.7	5.24	0.26	80.9
Apr	12.5	11.8	26.6	7.8	38.8	12.0	6.2	8.6	8.4	2.3	47.1	4.33	1.06	37.0
May	6.1	5.2	9.1	15.2	14.6	14.1	2.8	10.1	9.7	2.4	1.6	5.78	0.61	166.4
Jun	4.1	3.5	7.3	11.7	10.2	10.2	2.3	5.3	5.1	2.1	1.8	5.74	0.39	212.0
Jul	2.3	2.0	2.0	4.5	6.7	4.5	<1.0	2.4	2.3	0.7	1.6	5.79	0.21	441.3
Aug	2.7	2.1	2.4	9.9	4.2	8.8	<1.0	2.9	2.8	1.3	1.4	5.84	0.30	324.2
Sep	2.5	2.0	2.3	7.7	3.7	7.4	1.4	2.5	2.4	1.6	1.6	5.81	0.31	229.7
Oct	*	*	*	*	*	*	*	*	*	*	*	*	*	135.4
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>3.6</b>	<b>3.0</b>	<b>4.9</b>	<b>8.8</b>	<b>12.5</b>	<b>10.3</b>	<b>2.0</b>	<b>8.4</b>	<b>8.2</b>	<b>2.2</b>	<b>3.5</b>	<b>5.46</b>	<b>0.35</b>	<b>1626.9</b>
Max.	22.7	20.1	43.4	79.3	121	71.3	20.7	137	136	19.7	74.1	6.55	1.70	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.2	0.2	0.4	0.3	4.13	0.13	

**Table 3.46 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.29	0.17	0.46	0.31	5.30	2.52	0.58	4.98	4.92	0.87	0.46
Apr	0.46	0.44	0.98	0.29	1.43	0.44	0.23	0.32	0.31	0.09	1.74
May	1.01	0.87	1.51	2.53	2.44	2.35	0.47	1.67	1.62	0.41	0.27
Jun	0.87	0.74	1.54	2.47	2.17	2.15	0.49	1.12	1.07	0.46	0.38
Jul	1.00	0.88	0.88	2.00	2.97	1.99	0.30	1.04	1.00	0.29	0.72
Aug	0.87	0.69	0.78	3.22	1.36	2.87	0.29	0.95	0.89	0.42	0.47
Sep	0.56	0.46	0.52	1.76	0.86	1.70	0.32	0.58	0.54	0.37	0.36
Oct	*	*	*	*	*	*	*	*	*	*	*
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>5.78</b>	<b>4.81</b>	<b>7.96</b>	<b>14.3</b>	<b>20.3</b>	<b>16.7</b>	<b>3.29</b>	<b>13.7</b>	<b>13.4</b>	<b>3.63</b>	<b>5.65</b>

**Table 3.46 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	60	60	60	60	60	60	60	60	60	60	60	60	60	100
Jun	94	94	94	94	94	94	94	94	94	94	94	94	94	100
Jul	48	48	48	48	48	48	48	48	48	48	48	48	48	100
Aug	88	88	88	88	88	88	88	88	88	88	88	88	88	100
Sep	72	72	72	72	72	72	72	72	72	72	72	72	72	100
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>66</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.47 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Apr	11.0	11.0	15.7	7.0	38.1	<1.0	4.9	10.4	10.4	3.8	6.0	5.22	1.17	80.9
May	4.8	4.8	10.6	2.6	24.3	<1.0	3.3	2.9	2.9	4.0	1.5	5.82	0.62	84.8
Jun	3.5	3.4	8.7	3.7	22.6	2.3	3.8	3.6	3.5	2.5	3.5	5.46	0.50	115.3
Jul	2.0	1.4	6.2	5.6	17.3	16.2	5.8	7.7	7.4	5.7	1.3	5.89	0.36	51.6
Aug	2.2	1.9	2.7	5.9	8.9	4.2	6.4	10.1	10.0	1.5	1.6	5.78	0.35	166.0
Sep	2.6	2.6	3.0	3.2	5.5	1.1	1.5	1.9	1.8	0.5	1.8	5.73	0.27	291.3
Oct	22.7	20.4	36.4	38.6	63.4	38.5	26.9	49.6	48.8	3.7	3.1	5.51	0.90	9.5
Nov	22.3	22.2	12.7	4.3	54.3	1.6	1.2	4.1	4.1	<0.4	9.5	5.02	0.50	8.6
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
<b>Annual</b>	<b>4.1</b>	<b>4.0</b>	<b>6.5</b>	<b>4.7</b>	<b>15.8</b>	<b>3.2</b>	<b>4.0</b>	<b>5.7</b>	<b>5.6</b>	<b>2.1</b>	<b>2.5</b>	<b>5.61</b>	<b>0.46</b>	<b>808.0</b>
Max.	58.5	55.3	137	280	229	83.1	201	138	137	87.8	14.8	7.32	6.12	
Min.	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.4	<0.1	4.83	0.16	

**Table 3.47 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.89	0.89	1.27	0.57	3.08	0.05	0.39	0.84	0.84	0.31	0.48
May	0.41	0.41	0.90	0.22	2.06	0.04	0.28	0.25	0.24	0.34	0.13
Jun	0.40	0.39	1.01	0.43	2.61	0.26	0.44	0.41	0.41	0.29	0.40
Jul	0.10	0.07	0.32	0.29	0.89	0.83	0.30	0.40	0.38	0.30	0.07
Aug	0.36	0.32	0.45	0.97	1.47	0.70	1.07	1.67	1.66	0.25	0.27
Sep	0.76	0.74	0.87	0.92	1.59	0.33	0.45	0.54	0.54	0.16	0.54
Oct	0.22	0.19	0.35	0.37	0.60	0.37	0.26	0.47	0.47	0.04	0.03
Nov	0.19	0.19	0.11	0.04	0.47	0.01	0.01	0.04	0.03	<0.01	0.08
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Annual</b>	<b>3.34</b>	<b>3.21</b>	<b>5.27</b>	<b>3.81</b>	<b>12.8</b>	<b>2.60</b>	<b>3.19</b>	<b>4.62</b>	<b>4.57</b>	<b>1.68</b>	<b>2.00</b>

**Table 3.47 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Feb	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Mar	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	99	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	98	100
Jul	100	100	100	100	100	100	100	100	100	100	97	97	97	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	42	42	42	100
Nov	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dec	--	--	--	--	--	--	--	--	--	--	--	--	--	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>99</b>	<b>99</b>	<b>99</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.48 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	48.2	48.1	33.2	19.4	95.7	2.3	6.6	11.5	11.4	2.2	18.6	4.73	2.83	40.9
Feb	53.0	51.7	81.9	75.0	154	21.8	13.6	32.6	32.1	7.3	1.8	5.76	3.73	36.4
Mar	408	399	47.1	416	620	157	7.6	203	200	40.4	0.6	6.24	18.1	11.8
Apr	93.2	91.3	80.2	121	205	31.8	7.5	65.9	65.2	15.5	0.2	6.63	5.71	45.6
May	13.1	12.8	12.3	13.2	26.1	4.5	1.5	11.5	11.4	2.5	0.4	6.39	0.94	284.9
Jun	23.2	23.0	16.8	9.7	53.1	3.0	1.8	13.6	13.5	1.1	0.6	6.22	1.27	273.5
Jul	23.9	23.2	27.1	21.1	48.8	11.4	1.7	13.3	13.0	2.7	1.4	5.86	1.55	269.0
Aug	20.3	20.0	26.1	9.8	40.9	5.3	1.1	12.1	12.0	2.7	1.5	5.82	1.25	354.1
Sep	30.8	30.2	18.4	13.6	38.1	8.9	3.8	15.1	14.9	4.6	1.2	5.90	1.47	250.9
Oct	79.2	77.1	43.8	22.3	27.7	34.4	<1.0	70.1	69.4	11.4	0.8	6.08	3.19	12.8
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0
Dec	429	425	193	103	312	58.7	32.1	294	293	45.3	18.7	4.73	17.0	5.7
<b>Annual</b>	<b>30.1</b>	<b>29.6</b>	<b>24.8</b>	<b>21.3</b>	<b>55.1</b>	<b>9.0</b>	<b>2.6</b>	<b>17.8</b>	<b>17.6</b>	<b>3.6</b>	<b>1.5</b>	<b>5.81</b>	<b>1.70</b>	<b>1585.6</b>
Max.	543	525	193	432	757	288	52.7	321	314	67.6	18.7	6.73	21.0	
Min.	4.6	4.6	5.3	3.2	9.9	<1.0	<1.0	4.9	4.9	0.5	0.2	4.73	0.42	

**Table 3.48 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.97	1.97	1.36	0.79	3.92	0.09	0.27	0.47	0.47	0.09	0.76
Feb	1.93	1.88	2.98	2.73	5.62	0.80	0.50	1.19	1.17	0.27	0.06
Mar	4.82	4.71	0.56	4.91	7.32	1.86	0.09	2.40	2.36	0.48	<0.01
Apr	4.25	4.16	3.66	5.50	9.36	1.45	0.34	3.00	2.97	0.71	0.01
May	3.74	3.66	3.52	3.77	7.42	1.28	0.42	3.28	3.25	0.72	0.12
Jun	6.35	6.30	4.61	2.65	14.5	0.81	0.50	3.72	3.70	0.29	0.16
Jul	6.43	6.24	7.30	5.69	13.1	3.06	0.45	3.57	3.50	0.72	0.37
Aug	7.19	7.08	9.23	3.46	14.5	1.88	0.39	4.27	4.23	0.94	0.53
Sep	7.72	7.58	4.62	3.42	9.55	2.24	0.95	3.78	3.74	1.16	0.31
Oct	1.01	0.99	0.56	0.29	0.35	0.44	<0.01	0.90	0.89	0.15	0.01
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	2.44	2.42	1.10	0.59	1.78	0.33	0.18	1.68	1.67	0.26	0.11
<b>Annual</b>	<b>47.7</b>	<b>46.9</b>	<b>39.4</b>	<b>33.7</b>	<b>87.4</b>	<b>14.2</b>	<b>4.08</b>	<b>28.2</b>	<b>27.8</b>	<b>5.77</b>	<b>2.45</b>

**Table 3.48 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	99	99	99	99	99	99	99	99	99	99	99	99	99	100
Feb	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	100	100	100	100	100	100	100	100	100	100	100	100	100	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	91	91	91	91	91	91	91	91	91	91	91	91	91	100
Nov	--	--	--	--	--	--	--	--	--	--	--	--	--	100
Dec	98	98	98	98	98	98	98	98	98	98	98	98	98	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET

(%PCL<80% or %TP<80%)

**Table 3.49 a) Weighted averages / Precipitation (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L		mS/m	mm
Jan	58.3	58.1	39.2	85.3	49.9	3.5	4.5	91.1	91.1	11.1	0.5	6.33	3.82	31.9
Feb	34.7	34.1	24.4	13.6	47.9	10.4	5.5	13.0	12.8	2.2	8.9	5.05	1.73	40.7
Mar	34.1	33.7	22.6	69.0	103	6.7	<1.0	17.0	16.9	4.5	2.5	5.61	2.25	9.7
Apr	21.5	20.8	71.3	17.5	63.1	11.2	7.5	18.2	17.9	5.2	1.9	5.73	1.88	47.1
May	16.3	16.1	20.9	7.1	28.7	3.3	1.5	11.1	11.1	2.0	1.1	5.95	0.92	413.2
Jun	14.0	13.9	6.3	2.5	17.4	<1.0	<1.0	9.5	9.5	0.8	1.4	5.87	0.67	245.6
Jul	15.7	15.7	6.2	3.8	21.7	<1.0	<1.0	5.2	5.2	0.8	4.4	5.36	0.80	328.9
Aug	14.7	14.7	5.9	2.5	16.7	<1.0	<1.0	6.7	6.7	0.8	3.7	5.44	0.69	234.7
Sep	47.8	47.6	9.3	3.8	44.2	2.3	1.4	18.0	18.0	5.0	10.3	4.99	1.96	251.7
Oct	10.9	10.8	5.2	4.3	16.5	1.5	2.0	4.4	4.3	0.8	2.4	5.61	0.57	75.5
Nov	52.4	52.1	8.9	4.3	47.1	5.4	3.0	19.0	18.9	4.8	17.7	4.75	2.36	3.6
Dec	187	184	54.2	36.3	154	40.8	31.8	74.1	73.3	10.3	68.0	4.17	8.66	8.7
<b>Annual</b>	<b>22.5</b>	<b>22.3</b>	<b>13.4</b>	<b>6.9</b>	<b>28.7</b>	<b>2.4</b>	<b>1.5</b>	<b>12.0</b>	<b>11.9</b>	<b>2.1</b>	<b>4.2</b>	<b>5.38</b>	<b>1.12</b>	<b>1691.3</b>
Max.	233	232	142	566	213	52.2	68.2	343	342	34.6	153	7.05	12.7	
Min.	7.1	7.1	2.6	1.1	4.4	<1.0	<1.0	3.7	3.6	<0.4	<0.1	3.82	0.50	

**Table 3.49 b) Wet deposition (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
Jan	1.86	1.85	1.25	2.72	1.59	0.11	0.14	2.91	2.90	0.35	0.01
Feb	1.41	1.39	0.99	0.55	1.95	0.42	0.22	0.53	0.52	0.09	0.36
Mar	0.33	0.33	0.22	0.67	1.00	0.07	<0.01	0.16	0.16	0.04	0.02
Apr	1.01	0.98	3.36	0.82	2.97	0.53	0.35	0.86	0.85	0.24	0.09
May	6.75	6.66	8.64	2.94	11.9	1.37	0.63	4.61	4.58	0.84	0.46
Jun	3.43	3.42	1.55	0.62	4.28	0.07	0.13	2.33	2.33	0.20	0.33
Jul	5.16	5.15	2.04	1.25	7.13	0.25	0.06	1.72	1.72	0.25	1.45
Aug	3.45	3.44	1.40	0.58	3.92	0.13	0.17	1.58	1.58	0.18	0.86
Sep	12.0	12.0	2.35	0.95	11.1	0.58	0.36	4.54	4.53	1.26	2.60
Oct	0.82	0.82	0.39	0.33	1.25	0.11	0.15	0.33	0.33	0.06	0.18
Nov	0.19	0.19	0.03	0.02	0.17	0.02	0.01	0.07	0.07	0.02	0.06
Dec	1.63	1.60	0.47	0.32	1.34	0.35	0.28	0.64	0.64	0.09	0.59
<b>Annual</b>	<b>38.0</b>	<b>37.8</b>	<b>22.6</b>	<b>11.7</b>	<b>48.5</b>	<b>3.98</b>	<b>2.50</b>	<b>20.2</b>	<b>20.1</b>	<b>3.62</b>	<b>7.02</b>

**Table 3.49 c) Data completeness (Monthly)**

2003	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	pre.
	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%TP	%PCL
Jan	98	98	98	98	98	98	98	98	98	98	98	98	98	100
Feb	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Mar	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Apr	98	98	98	98	98	98	98	98	98	98	98	98	98	100
May	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jun	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Jul	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Aug	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Sep	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Oct	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Nov	94	94	94	94	94	94	94	94	94	94	94	94	94	100
Dec	98	98	98	98	98	98	98	98	98	98	98	98	98	100
<b>Annual</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

[--] for averages and completeness: Precipitation was 0mm.

[0.00] for deposition: The deposition was 0 mmol/m<sup>2</sup> because precipitation was 0 mm.

[\*] for averages and deposition: The constituent was not measured although precipitation was not 0 mm. (%TP=0%)

[\*\*] for all: Precipitation was not measured. (%PCL=0%)

Data in hatched column for averages and deposition: Rejected monthly (annual) value by the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.50 Annual precipitation and weighted averages in 2003**

Country	Name of sites	Code	Precip.	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC
			mm	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L	μmol/L
China	Guanyinqiao	CN 11001	986.7	110	109	38.9	16.2	132	4.9	11.0	65.4	65.3	4.5	32.2	4.49	4.89
	Jinyunshan	CN 11003	1232.5	83.2	82.9	34.4	10.3	85.6	5.0	8.6	30.7	30.6	2.9	50.3	4.30	4.19
	Shizhan	CN 11004	1273.2	203	199	68.0	83.3	144	69.2	18.7	258	257	33.5	1.0	6.00	7.50
	Weishuiyuan	CN 11005	1302.1	143	136	54.1	99.4	144	113	20.3	241	238	40.0	0.8	6.11	7.80
	Jiwozi	CN 11007	610.8	90.6	84.5	42.8	70.1	82.7	102	21.3	230	227	33.9	0.9	6.05	5.19
	Hongwen	CN 11008	1301.3	36.9	34.8	33.6	51.3	29.4	34.8	4.3	30.7	30.0	6.0	34.4	4.46	2.88
	Xiaoping	CN 11009	1767.8	23.6	22.1	22.6	23.5	38.2	24.7	4.7	17.3	16.8	4.0	41.4	4.38	2.15
	Xiang Zhou	CN 11010	1726.0	20.5	18.3	20.9	47.4	34.0	39.1	5.7	22.8	21.9	7.1	7.9	5.10	2.19
Zhuxian Cavern	CN 11011	1754.9	18.5	16.4	11.5	40.2	29.9	36.0	6.6	20.2	19.4	7.4	7.9	5.10	2.42	
Indonesia	Jakarta	ID 11012	1617.3	66.7	65.1	58.4	52.2	20.8	27.1	9.3	101	101	12.7	7.0	5.16	4.78
	Serpong	ID 11013	2142.8	23.1	22.4	30.8	27.2	45.0	11.3	8.0	6.6	6.4	2.7	24.1	4.62	2.26
	Kototabang	ID 11014	3126.7	9.2	8.6	49.3	27.8	1.8	9.7	20.0	5.5	5.3	6.8	5.0	5.30	1.96
	Bandung	ID 11015	1606.1	20.4	20.0	20.4	13.0	32.7	7.1	4.1	10.9	10.7	1.7	10.0	5.00	1.50
Japan	Rishiri	JP 11016	708.6	23.5	12.9	12.2	201	18.3	176	4.9	7.7	4.0	20.3	13.3	4.88	3.80
	Tappi	JP 11017	1149.6	21.8	13.4	16.9	154	16.2	141	3.4	7.0	3.9	16.8	27.0	4.57	3.74
	Sado-seki	JP 11019	1126.3	16.5	10.9	13.9	107	15.6	93.8	2.5	5.1	3.1	11.3	21.5	4.67	2.65
	Happo	JP 11021	2461.4	7.5	7.2	6.6	7.3	6.4	4.8	<1.0	1.9	1.8	1.2	12.4	4.91	0.69
	Oki	JP 11023	1596.9	21.5	10.3	12.9	201	8.8	185	5.4	6.9	2.9	21.2	17.5	4.76	3.82
	Yusuhara	JP 11025	2839.3	9.3	8.5	6.9	16.0	6.0	14.4	<1.0	1.4	1.1	1.8	18.4	4.73	1.16
	Ogasawara	JP 11018	1398.4	18.0	4.1	4.7	286	3.6	251	5.6	8.0	2.6	31.1	9.1	5.04	4.31
	Hedo	JP 11027	1392.6	35.2	11.3	9.5	451	10.9	430	10.1	10.9	3.5	49.3	12.5	4.90	7.10
	Ijira	JP 11022	2967.0	19.1	18.3	21.7	19.1	18.1	13.3	1.2	2.9	2.6	2.2	38.7	4.41	2.12
	Banryu	JP 11024	1752.1	17.4	12.5	15.9	92.5	12.5	80.9	2.5	3.4	1.7	9.3	23.3	4.63	2.56
Ochiishi	JP 11050	781.8	19.1	7.5	8.0	227	7.6	198	4.6	5.7	1.6	22.1	12.2	4.91	3.45	
Lao PDR	Vientian	LA 11051		***	***	***	***	***	***	***	***	***	***	0.3	6.51	20.7
Malaysia	Petaling Jaya	MY 11029	3040.5	21.0	20.7	32.9	9.2	12.2	5.6	3.0	7.8	7.7	0.7	52.1	4.28	2.32
	Tanah Rata	MY 11030	3009.5	3.8	3.7	4.7	2.4	2.3	1.9	<1.0	3.3	3.3	0.5	12.7	4.90	0.61
Mongolia	Ulaanbaatar	MN 11031	297.2	19.5	19.3	15.5	7.6	47.5	3.8	3.4	26.5	26.4	3.7	1.9	5.72	1.56
	Terelj	MN 11032	311.7	8.3	8.0	12.4	6.6	31.6	4.5	4.1	10.7	10.6	2.3	4.0	5.40	1.05
Philippines	Metro Manila	PH 11033	2204.8	17.1	16.0	13.1	24.3	23.7	18.4	2.5	8.8	8.4	3.0	36.2	4.44	1.36
	Los Banos	PH 11034	1608.2	7.1	6.2	4.9	16.2	14.5	15.3	1.8	7.8	7.5	2.6	32.5	4.49	1.99
Republic of Korea	Kanghwa	KR 11035	1573.3	26.1	24.6	27.3	61.3	57.6	25.4	9.4	11.3	10.8	2.9	21.3	4.67	2.54
	Cheju	KR 11036	1291.3	22.7	19.9	23.0	68.5	41.9	46.7	8.2	8.1	7.1	5.9	15.0	4.83	2.22
	Imsil	KR 11037	1875.5	16.3	14.9	16.9	38.1	32.5	22.8	11.2	5.4	4.9	1.6	8.3	5.08	1.42
Russia	Mondy	RU 11038	408.5	8.5	8.4	6.8	3.1	14.7	2.3	1.6	3.8	3.8	0.8	4.5	5.35	0.59
	Listvyanka	RU 11039	540.1	19.1	18.8	29.8	4.1	20.8	5.1	2.6	14.3	14.1	3.6	9.7	5.01	1.36
	Irkutsk	RU 11040	456.7	26.3	25.9	17.8	17.7	42.1	6.6	2.6	23.9	23.7	4.3	4.2	5.37	1.67
	Primorskaya	RU 11041	322.7	43.1	41.1	15.4	35.6	39.1	33.7	10.1	25.3	24.6	11.2	13.2	4.88	2.66
Thailand	Bangkok	TH 11042	1384.7	18.5	18.0	23.1	8.7	37.5	7.6	2.6	11.9	11.7	2.3	29.5	4.53	1.67
	Patumthani	TH 11044	1658.0	12.4	12.1	17.2	6.4	29.1	4.7	1.2	6.3	6.2	1.1	13.7	4.86	1.24
	Vachiralongkorn Dam	TH 11045	1626.9	3.6	3.0	4.9	8.8	12.5	10.3	2.0	8.4	8.2	2.2	3.5	5.46	0.35
	Mae Hia	TH 11046	808.0	4.1	4.0	6.5	4.7	15.8	3.2	4.0	5.7	5.6	2.1	2.5	5.61	0.46
Vietnam	Hanoi	VN 11047	1585.6	30.1	29.6	24.8	21.3	55.1	9.0	2.6	17.8	17.6	3.6	1.5	5.81	1.70
	Hoa Binh	VN 11048	1691.3	22.5	22.3	13.4	6.9	28.7	2.4	1.5	12.0	11.9	2.1	4.2	5.38	1.12

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

[\*\*\*] Not measured

**Table 3.51 Annual deposition in 2003**

Country	Name of sites	Code	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>
			mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>	mmol/m <sup>2</sup>
China	Guanyinqiao	CN 11001	108	108	38.4	16.0	131	4.85	10.9	64.5	64.4	4.40	31.7
	Jinyunshan	CN 11003	103	102	42.5	12.6	106	6.15	10.6	37.8	37.7	3.56	62.0
	Shizhan	CN 11004	258	253	86.6	106	183	88.1	23.9	329	327	42.7	1.27
	Weishuiyuan	CN 11005	186	177	70.5	129	188	147	26.5	313	310	52.0	1.02
	Jiwozi	CN 11007	55.3	51.6	26.2	42.8	50.5	62.2	13.0	140	139	20.7	0.54
	Hongwen	CN 11008	48.0	45.3	43.7	66.7	38.3	45.2	5.63	40.0	39.0	7.76	44.8
	Xiaoping	CN 11009	41.7	39.0	39.9	41.6	67.5	43.6	8.39	30.6	29.6	7.15	73.2
	Xiang Zhou	CN 11010	35.3	31.6	36.0	81.8	58.7	67.5	9.91	39.3	37.9	12.3	13.6
Zhuxian Cavern	CN 11011	32.4	28.8	20.2	70.5	52.5	63.2	11.6	35.5	34.1	12.9	13.8	
Indonesia	Jakarta	ID 11012	108	105	94.5	84.4	33.6	43.8	15.0	164	163	20.6	11.3
	Serpong	ID 11013	49.5	48.0	66.1	58.2	96.4	24.2	17.0	14.1	13.7	5.76	51.6
	Kototabang	ID 11014	28.7	26.9	154	87.0	5.78	30.2	62.6	17.3	16.6	21.1	15.6
	Bandung	ID 11015	32.8	32.1	32.7	20.9	52.6	11.4	6.63	17.5	17.2	2.73	16.1
Japan	Rishiri	JP 11016	16.6	9.12	8.65	142	12.9	125	3.47	5.49	2.82	14.4	9.43
	Tappi	JP 11017	25.1	15.4	19.4	178	18.6	162	3.97	8.02	4.53	19.3	31.0
	Sado-seki	JP 11019	18.6	12.3	15.7	121	17.6	106	2.78	5.72	3.44	12.7	24.2
	Happo	JP 11021	18.5	17.8	16.2	17.9	15.7	11.8	0.94	4.72	4.46	3.06	30.5
	Oki	JP 11023	34.3	16.4	20.7	321	14.1	296	8.70	11.0	4.55	33.9	27.9
	Yusuhara	JP 11025	26.5	24.0	19.7	45.4	17.1	40.7	1.30	4.04	3.23	5.21	52.3
	Ogasawara	JP 11018	25.2	5.71	6.55	400	5.07	351	7.82	11.2	3.68	43.5	12.7
	Hedo	JP 11027	49.0	15.7	13.2	628	15.2	599	14.0	15.1	4.84	68.7	17.4
	Ijira	JP 11022	56.7	54.3	64.5	56.6	53.6	39.4	3.69	8.55	7.71	6.42	115
	Banryu	JP 11024	30.5	22.0	27.9	162	21.9	142	4.36	5.95	2.89	16.3	40.7
	Ochiishi	JP 11050	14.9	5.84	6.22	178	5.98	155	3.62	4.49	1.25	17.3	9.53
Lao PDR	Vientian	LA 11051	***	***	***	***	***	***	***	***	***	***	0.03
Malaysia	Petaling Jaya	MY 11029	63.9	62.9	100	28.1	37.1	17.0	9.25	23.8	23.4	2.15	158
	Tanah Rata	MY 11030	11.4	11.1	14.1	7.19	6.92	5.70	2.15	10.1	9.95	1.36	38.3
Mongolia	Ulaanbaatar	MN 11031	5.80	5.73	4.62	2.27	14.1	1.14	1.01	7.88	7.85	1.10	0.56
	Terej	MN 11032	2.57	2.49	3.87	2.06	9.86	1.40	1.28	3.32	3.29	0.71	1.24
Philippines	Metro Manila	PH 11033	37.6	35.2	28.8	53.5	52.2	40.5	5.55	19.3	18.5	6.60	79.8
	Los Banos	PH 11034	11.4	10.0	7.84	26.1	23.3	24.6	2.94	12.5	12.0	4.18	52.2
Republic of Korea	Kanghwa	KR 11035	41.1	38.6	42.9	96.4	90.6	40.0	14.8	17.9	17.0	4.50	33.5
	Cheju	KR 11036	29.3	25.6	29.7	88.4	54.1	60.3	10.5	10.5	9.16	7.57	19.3
	Imsil	KR 11037	30.6	28.0	31.7	71.5	61.0	42.7	21.0	10.1	9.18	3.00	15.7
Russia	Mondy	RU 11038	3.48	3.42	2.78	1.25	6.00	0.93	0.66	1.55	1.53	0.32	1.83
	Listvyanka	RU 11039	10.3	10.1	16.1	2.23	11.3	2.76	1.42	7.70	7.64	1.97	5.24
	Irkutsk	RU 11040	12.0	11.8	8.15	8.07	19.2	3.01	1.20	10.9	10.8	1.97	1.94
	Primorskaya	RU 11041	13.9	13.3	4.97	11.5	12.6	10.9	3.25	8.16	7.92	3.60	4.27
Thailand	Bangkok	TH 11042	25.6	24.9	31.9	12.0	51.9	10.6	3.63	16.5	16.2	3.22	40.8
	Patumthani	TH 11044	20.5	20.1	28.4	10.6	48.2	7.84	1.93	10.5	10.3	1.76	22.7
	Vachiralongkorn Dam	TH 11045	5.78	4.81	7.96	14.3	20.3	16.7	3.29	13.7	13.4	3.63	5.65
	Mae Hia	TH 11046	3.34	3.21	5.27	3.81	12.8	2.60	3.19	4.62	4.57	1.68	2.00
Vietnam	Hanoi	VN 11047	47.7	46.9	39.4	33.7	87.4	14.2	4.08	28.2	27.8	5.77	2.45
	Hoa Binh	VN 11048	38.0	37.8	22.6	11.7	48.5	3.98	2.50	20.2	20.1	3.62	7.02

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

[\*\*\*] Not measured

**Table 3.52 Data completeness for annual summaries in 2003 (%PCL, %TP)**

Country	Name of sites	Code	Precip.	SO <sub>4</sub> <sup>2-</sup>	nss-SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	nss-Ca <sup>2+</sup>	Mg <sup>2+</sup>	H <sup>+</sup>	pH	EC	
			%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
China	Guanyinqiao	CN 11001	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Jinyunshan	CN 11003	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Shizhan	CN 11004	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Weishuiyuan	CN 11005	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Jiwozi	CN 11007	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Hongwen	CN 11008	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Xiaoping	CN 11009	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Xiang Zhou	CN 11010	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Zhuxian Cavern	CN 11011	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
Indonesia	Jakarta	ID 11012	95	100	100	100	100	22	100	56	100	100	100	100	100	100	
	Serpong	ID 11013	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Kototabang	ID 11014	100	94	94	94	94	17	94	94	94	94	94	94	94	94	
	Bandung	ID 11015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Japan	Rishiri	JP 11016	100	97	97	97	97	97	97	97	97	97	97	97	97	97	
	Tappi	JP 11017	96	72	72	72	72	72	72	72	72	72	72	72	72	72	
	Sado-seki	JP 11019	98	67	67	67	67	67	67	67	67	67	67	67	67	67	
	Happo	JP 11021	100	96	96	96	96	96	96	96	96	96	96	95	95	95	
	Oki	JP 11023	100	95	95	95	95	95	95	95	95	95	95	94	94	94	
	Yusuhara	JP 11025	99	100	100	100	100	100	100	100	100	100	100	99	99	99	
	Ogasawara	JP 11018	100	100	100	100	100	100	100	100	100	100	100	98	98	98	
	Hedo	JP 11027	96	89	89	89	89	89	89	89	89	89	89	89	88	88	88
	Ijira	JP 11022	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Banryu	JP 11024	100	96	96	96	96	96	96	96	96	96	96	96	96	96	
Ochiishi	JP 11050	100	96	96	96	96	96	96	96	96	96	96	96	95	95	95	
Lao PDR	Vientian	LA 11051	8	0	0	0	0	0	0	0	0	0	0	0	100	100	
Malaysia	Petaling Jaya	MY 11029	100	98	98	98	98	98	98	98	98	98	98	98	98	98	
	Tanah Rata	MY 11030	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Mongolia	Ulaanbaatar	MN 11031	100	91	91	91	91	91	91	91	91	91	91	91	91	91	
	Terelj	MN 11032	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Philippines	Metro Manila	PH 11033	94	97	97	97	97	97	97	97	97	97	97	97	97	97	
	Los Banos	PH 11034	100	91	91	91	91	91	91	91	91	91	91	91	91	91	
Republic of Korea	Kanghwa	KR 11035	91	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Cheju	KR 11036	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Imsil	KR 11037	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Russia	Mondy	RU 11038	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Listvyanka	RU 11039	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Irkutsk	RU 11040	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Primorskaya	RU 11041	100	98	98	98	98	98	98	98	98	98	98	98	98	98	
Thailand	Bangkok	TH 11042	100	93	93	93	93	93	93	93	93	93	93	93	93	93	
	Patumthani	TH 11044	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Vachiralongkorn Dam	TH 11045	100	66	66	66	66	66	66	66	66	66	66	66	66	66	
	Mae Hia	TH 11046	100	100	100	100	100	100	100	100	100	100	100	99	99	99	
Vietnam	Hanoi	VN 11047	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	Hoa Binh	VN 11048	100	100	100	100	100	100	100	100	100	100	100	100	100	100	

Data in hatched column: Below the criteria of EANET (%PCL<80% or %TP<80%)

**Table 3.53 Results of ion balance and conductivity agreement check in 2003**

Country	Name of sites	Code	Sample(N)	R1(N)	R1(AA)	%	R2(N)	R2(AA)	%	R1&R2(N)	R1&R2(AA)	%
China	Guanyinqiao	CN 11001	98	97	74	76	97	94	97	97	71	73
	Jinyunshan	CN 11003	81	80	72	90	80	80	100	80	72	90
	Shizhan	CN 11004	46	45	11	24	45	18	40	45	7	16
	Weishuiyuan	CN 11005	41	40	2	5	40	23	58	40	1	3
	Jiwozi	CN 11007	25	24	1	4	24	7	29	24	1	4
	Hongwen	CN 11008	47	45	9	20	45	23	51	45	6	13
	Xiaoping	CN 11009	52	51	16	31	51	23	45	51	11	22
	Xiang Zhou	CN 11010	58	57	12	21	57	25	44	57	9	16
Zhuxian Cavern	CN 11011	58	57	12	21	57	14	25	57	3	5	
Indonesia	Jakarta	ID 11012	21	2	0	0	2	2	100	2	0	0
	Serpong	ID 11013	58	57	57	100	57	56	98	57	56	98
	Kototabang	ID 11014	35	5	2	40	5	0	0	5	0	0
	Bandung	ID 11015	80	80	70	88	80	76	95	80	67	84
Japan	Rishiri	JP 11016	115	110	102	93	110	107	97	110	99	90
	Tappi	JP 11017	126	104	103	99	104	104	100	104	103	99
	Sado-seki	JP 11019	180	115	114	99	115	115	100	115	114	99
	Happo	JP 11021	207	177	177	100	177	177	100	177	177	100
	Oki	JP 11023	239	150	144	96	150	147	98	150	141	94
	Yusuhara	JP 11025	174	165	163	99	165	164	99	165	162	98
	Ogasawara	JP 11018	145	116	103	89	116	116	100	116	103	89
	Hedo	JP 11027	121	110	101	92	110	109	99	110	101	92
	Ijira	JP 11022	50	46	46	100	46	46	100	46	46	100
	Banryu	JP 11024	48	44	44	100	43	43	100	43	43	100
Ochiishi	JP 11050	129	110	107	97	110	108	98	110	105	95	
Lao PDR	Vientian	LA 11051	-	-	-	-	-	-	-	-	-	-
Malaysia	Petaling Jaya	MY 11029	50	47	39	83	47	37	79	47	31	66
	Tanah Rata	MY 11030	52	50	33	66	50	39	78	50	27	54
Mongolia	Ulaanbaatar	MN 11031	42	41	11	27	41	34	83	41	11	27
	Terej	MN 11032	62	61	17	28	61	51	84	61	15	25
Philippines	Metro Manila	PH 11033	37	36	9	25	36	10	28	36	4	11
	Los Banos	PH 11034	40	35	3	9	35	11	31	35	2	6
Republic of Korea	Kanghwa	KR 11035	39	38	29	76	38	37	97	38	28	74
	Cheju	KR 11036	64	62	35	56	62	61	98	62	34	55
	Imsil	KR 11037	63	62	41	66	62	58	94	62	39	63
Russia	Mondy	RU 11038	37	36	36	100	36	36	100	36	36	100
	Listvyanka	RU 11039	59	58	58	100	58	58	100	58	58	100
	Irkutsk	RU 11040	82	74	73	99	74	74	100	74	73	99
	Primorskaya	RU 11041	90	66	66	100	66	66	100	66	66	100
Thailand	Bangkok	TH 11042	43	42	14	33	42	27	64	42	11	26
	Patumthani	TH 11044	75	73	26	36	73	71	97	73	25	34
	Vachiralongkom Dam	TH 11045	82	81	42	52	81	69	85	81	40	49
	Mae Hia	TH 11046	97	85	20	24	75	53	71	75	15	20
Vietnam	Hanoi	VN 11047	31	30	30	100	30	30	100	30	30	100
	Hoa Binh	VN 11048	43	36	36	100	36	36	100	36	36	100

Sample(N) : Number of samples

R1(N) : Number of samples measured and calculated ion balance (R1)

R1(AA) : Number of samples within allowable ranges for R1

R2(N) : Number of samples measured and calculated conductivity agreement (R2)

R2(AA) : Number of samples within allowable ranges for R2

R1&R2(N) : Number of samples measured and calculated both R1 and R2

R1&R2(AA) : Number of samples within allowable ranges for both R1 and R2

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: R1 and R2, calculated including concentrations of additional measured constituents

Vientian : Ions were not analyzed

**Table 3.54 Annual precipitation**

unit: mm

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	1081.1	751.6	1445.3	986.7
	Nanshan	CN 11002	1259.4			
	Jinyunshan	CN 11003		710.1	1606.6	1232.5
	Shizhan	CN 11004	559.1	363.9	349.0	1273.2
	Weishuiyuan	CN 11005	447.4	69.3	232.0	1302.1
	Dabagou	CN 11006	829.3			
	Jiwozi	CN 11007		208.8	141.7	610.8
	Hongwen	CN 11008	1517.2	295.5	1567.5	1301.3
	Xiaoping	CN 11009	1566.4	4481.9	2170.7	1767.8
	Xiang Zhou	CN 11010	2030.5	1989.5	1731.4	1726.0
	Zhuxian Cavern	CN 11011	1778.8	2570.8	1581.0	1754.9
	Indonesia	Jakarta	ID 11012	1577.4	1236.7	1572.3
Serpong		ID 10014	***	1606.7	2505.2	2142.8
Kototabang		ID 10013	2339.8	1208.7	1797.6	3126.7
Bandung		ID 11015	893.3	2604.7	2540.7	1606.1
Japan	Rishiri	JP 11016	769.9	614.9	957.0	708.6
	Tappi	JP 11017	1048.8	1081.6	1329.4	1149.6
	Sado-seki	JP 11019	1067.7	970.5	1432.9	1126.3
	Happo	JP 11021	2187.9	2345.1	2607.3	2461.4
	Oki	JP 11023	1209.1	1245.8	1570.8	1596.9
	Yusuhara	JP 11025	2800.7	2080.1	2345.9	2839.3
	Ogasawara	JP 11018	1984.9	1805.7	1330.5	1398.4
	Hedo	JP 11023	2906.8	2125.6	2032.4	1392.6
	Ijira	JP 11022	2685.2	2236.5	2648.3	2967.0
	Banryu	JP 11024	1565.2	1788.0	1303.0	1752.1
	Ochiishi	JP 11050				781.8
Lao PDR	Vientian	LA 11051				88.6
Malaysia	Petaling Jaya	MY 11029	3417.4	3085.3	2660.4	3040.5
	Tanah Rata	MY 11030	3127.4	2626.3	2782.6	3009.5
Mongolia	Ulaanbaatar	MN 11031	196.5	165.8	178.5	297.2
	Terelj	MN 11032	207.6	88.6	246.0	311.7
Philippines	Metro Manila	PH 11033	4035.6	2291.2	2974.6	2204.8
	Los Banos	PH 11034	2635.2	1816.5	1701.6	1608.2
Republic of Korea	Kanghwa	KR 11035	1117.6	1139.4	824.1	1573.3
	Cheju	KR 11036	1058.4	1113.7	1016.8	1291.3
	Imsil	KR 11037		1299.1	992.6	1875.5
Russia	Mondy	RU 11038	304.7	319.3	203.7	408.5
	Listvyanka	RU 11039	441.6	493.6	360.3	540.1
	Irkutsk	RU 11040	534.4	468.4	302.5	456.7
	Primorskaya	RU 11041			834.7	322.7
Thailand	Bangkok	TH 11042	1147.9	1173.9	1300.3	1384.7
	Samutprakarn	TH 11043	977.7			
	Patumthani	TH 11044	955.6	1348.5	948.0	1658.0
	Vachiralongkorn Dam	TH 11045	881.3	1516.0	2199.7	1626.9
	Mae Hia	TH 11046		1083.9	1472.6	808.0
Vietnam	Hanoi	VN 11047	1256.3	2254.7	1416.1	1585.6
	Hoa Binh	VN 11048	1893.6	2223.2	1625.9	1691.3

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET  
(%PCL<80% or %TP<80%)


Black column: Monitoring was not carried out


**Table 3.55 Annual weighted averages of SO<sub>4</sub><sup>2-</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	152	205	114	110
	Nanshan	CN 11002	130			
	Jinyunshan	CN 11003		124	78	83.2
	Shizhan	CN 11004	356	470	850	203
	Weishuiyuan	CN 11005	538	1510	1010	143
	Dabagou	CN 11006	141			
	Jiwozi	CN 11007		326	305	90.6
	Hongwen	CN 11008	20.2	56.5	42.8	36.9
	Xiaoping	CN 11009	14.6	17.4	16.7	23.6
	Xiang Zhou	CN 11010	22.4	15.7	27.9	20.5
	Zhuxian Cavern	CN 11011	48.0	19.3	32.0	18.5
	Indonesia	Jakarta	ID 11012	58.7	62.7	38.5
Serpong		ID 10014	***	38.2	25.7	23.1
Kototabang		ID 10013	3.7	4.7	7.5	9.2
Bandung		ID 11015	67.4	33.7	27.7	20.4
Japan	Rishiri	JP 11016	39.0	31.0	27.3	23.5
	Tappi	JP 11017	21.9	22.9	22.7	21.8
	Sado-seki	JP 11019	34.4	41.0	28.2	16.5
	Happo	JP 11021	13.3	11.7	7.6	7.5
	Oki	JP 11023	40.5	33.8	35.3	21.5
	Yusuhara	JP 11025	11.1	9.2	11.2	9.3
	Ogasawara	JP 11018	11.4	11.4	18.1	18.0
	Hedo	JP 11023	32.2	15.9	36.9	35.2
	Ijira	JP 11022	19.9	22.0	19.7	19.1
	Banryu	JP 11024	15.6	19.0	19.0	17.4
Ochiishi	JP 11050				19.1	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	23.5	22.2	23.7	21.0
	Tanah Rata	MY 11030	4.1	3.7	4.6	3.8
Mongolia	Ulaanbaatar	MN 11031	24.3	25.2	24.7	19.5
	Terelj	MN 11032	16.4	9.7	15.1	8.3
Philippines	Metro Manila	PH 11033	23.4	37.3	26.3	17.1
	Los Banos	PH 11034	10.5	15.6	16.1	7.1
Republic of Korea	Kanghwa	KR 11035	31.6	25.0	34.5	26.1
	Cheju	KR 11036	23.2	20.7	28.0	22.7
	Imsil	KR 11037		16.4	22.9	16.3
Russia	Mondy	RU 11038	7.2	11.0	10.8	8.5
	Listvyanka	RU 11039	15.4	13.4	18.2	19.1
	Irkutsk	RU 11040	30.1	29.6	34.2	26.3
	Primorskaya	RU 11041			29.0	43.1
Thailand	Bangkok	TH 11042	21.6	18.2	18.6	18.5
	Samutprakarn	TH 11043	25.5			
	Patumthani	TH 11044	19.6	17.2	15.0	12.4
	Vachiralongkorn Dam	TH 11045	3.6	5.2	5.6	3.6
	Mae Hia	TH 11046		2.8	4.5	4.1
Vietnam	Hanoi	VN 11047	30.1	14.0	33.7	30.1
	Hoa Binh	VN 11048	16.3	14.7	18.8	22.5

[\*\*\*]: No data or not measured

 Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

 Black column: Monitoring was not carried out

**Table 3.56 Annual weighted averages of  
nss-SO<sub>4</sub><sup>2-</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	151	205	114	109
	Nanshan	CN 11002	130			
	Jinyunshan	CN 11003		123	78	82.9
	Shizhan	CN 11004	353	460	835	199
	Weishuiyuan	CN 11005	534	1500	994	136
	Dabagou	CN 11006	140			
	Jiwozi	CN 11007		316	295	84.5
	Hongwen	CN 11008	18.8	55.9	39.4	34.8
	Xiaoping	CN 11009	14.1	16.8	15.7	22.1
	Xiang Zhou	CN 11010	19.9	14.6	25.4	18.3
	Zhuxian Cavern	CN 11011	46.3	18.0	29.3	16.4
Indonesia	Jakarta	ID 11012	55.6	60.3	36.4	65.1
	Serpong	ID 10014	***	36.8	24.2	22.4
	Kototabang	ID 10013	***	4.4	7.1	8.6
	Bandung	ID 11015	***	32.5	27.2	20.0
Japan	Rishiri	JP 11016	19.4	18.2	15.6	12.9
	Tappi	JP 11017	12.9	14.8	12.9	13.4
	Sado-seki	JP 11019	18.9	19.5	13.1	10.9
	Happo	JP 11021	12.9	11.3	7.4	7.2
	Oki	JP 11023	16.9	14.8	13.5	10.3
	Yusuhara	JP 11025	10.1	8.4	9.4	8.5
	Ogasawara	JP 11018	3.1	5.1	3.9	4.1
	Hedo	JP 11023	5.9	6.5	7.4	11.3
	Ijira	JP 11022	18.7	20.2	18.0	18.3
	Banryu	JP 11024	13.9	14.3	14.2	12.5
Ochiishi	JP 11050				7.5	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	23.2	22.0	23.4	20.7
	Tanah Rata	MY 11030	4.0	3.6	4.5	3.7
Mongolia	Ulaanbaatar	MN 11031	23.9	24.6	24.3	19.3
	Terelj	MN 11032	16.0	8.8	14.3	8.0
Philippines	Metro Manila	PH 11033	21.6	22.7	25.4	16.0
	Los Banos	PH 11034	8.5	13.2	14.8	6.2
Republic of Korea	Kanghwa	KR 11035	28.2	22.5	31.5	24.6
	Cheju	KR 11036	14.0	16.2	24.5	19.9
	Imsil	KR 11037		15.5	20.5	14.9
Russia	Mondy	RU 11038	7.1	10.8	10.7	8.4
	Listvyanka	RU 11039	15.1	13.2	18.0	18.8
	Irkutsk	RU 11040	29.6	29.1	33.6	25.9
	Primorskaya	RU 11041			27.6	41.1
Thailand	Bangkok	TH 11042	21.2	17.7	17.6	18.0
	Samutprakarn	TH 11043	24.9			
	Patumthani	TH 11044	18.9	16.7	14.4	12.1
	Vachiralongkorn Dam	TH 11045	3.1	4.5	5.1	3.0
	Mae Hia	TH 11046		2.6	3.9	4.0
Vietnam	Hanoi	VN 11047	29.0	13.3	33.4	29.6
	Hoa Binh	VN 11048	15.5	14.1	18.6	22.3

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET  
(%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.57 Annual weighted averages of  
NO<sub>3</sub><sup>-</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	42.1	52.8	34.4	38.9
	Nanshan	CN 11002	41.6			
	Jinyunshan	CN 11003		40.3	29.4	34.4
	Shizhan	CN 11004	87.0	153	150	68.0
	Weishuiyuan	CN 11005	95.8	210	168	54.1
	Dabagou	CN 11006	29.1			
	Jiwozi	CN 11007		140	89.8	42.8
	Hongwen	CN 11008	18.7	37.9	30.7	33.6
	Xiaoping	CN 11009	14.6	18.3	14.8	22.6
	Xiang Zhou	CN 11010	15.6	14.1	17.8	20.9
	Zhuxian Cavern	CN 11011	33.5	22.2	20.8	11.5
	Indonesia	Jakarta	ID 11012	17.6	53.7	28.2
Serpong		ID 10014	***	50.7	32.6	30.8
Kototabang		ID 10013	6.2	2.7	5.6	49.3
Bandung		ID 11015	34.4	26.9	26.3	20.4
Japan	Rishiri	JP 11016	18.1	18.0	13.5	12.2
	Tappi	JP 11017	12.9	15.3	16.9	16.9
	Sado-seki	JP 11019	18.3	22.2	15.0	13.9
	Happo	JP 11021	11.1	8.9	7.0	6.6
	Oki	JP 11023	18.6	15.7	15.1	12.9
	Yusuhara	JP 11025	7.0	6.8	8.4	6.9
	Ogasawara	JP 11018	2.4	3.7	2.7	4.7
	Hedo	JP 11023	5.7	6.6	9.5	9.5
	Ijira	JP 11022	24.1	21.7	21.8	21.7
	Banryu	JP 11024	13.9	17.4	19.1	15.9
Ochiishi	JP 11050				8.0	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	27.2	23.7	36.8	32.9
	Tanah Rata	MY 11030	3.3	3.4	6.0	4.7
Mongolia	Ulaanbaatar	MN 11031	19.9	20.7	23.7	15.5
	Terej	MN 11032	17.6	9.2	18.1	12.4
Philippines	Metro Manila	PH 11033	12.1	18.5	17.6	13.1
	Los Banos	PH 11034	5.4	13.9	8.2	4.9
Republic of Korea	Kanghwa	KR 11035	42.4	28.6	32.7	27.3
	Cheju	KR 11036	15.3	18.4	24.0	23.0
	Imsil	KR 11037		15.6	32.0	16.9
Russia	Mondy	RU 11038	10.0	10.6	13.5	6.8
	Listvyanka	RU 11039	18.7	14.7	25.0	29.8
	Irkutsk	RU 11040	21.0	18.4	21.8	17.8
	Primorskaya	RU 11041			10.2	15.4
Thailand	Bangkok	TH 11042	21.6	17.9	24.6	23.1
	Samutprakarn	TH 11043	15.4			
	Patumthani	TH 11044	18.6	19.6	18.5	17.2
	Vachiralongkorn Dam	TH 11045	5.7	6.8	6.1	4.9
	Mae Hia	TH 11046		4.1	6.6	6.5
Vietnam	Hanoi	VN 11047	16.1	5.1	15.1	24.8
	Hoa Binh	VN 11048	9.7	8.8	20.2	13.4

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.58 Annual weighted averages of  
Cl<sup>-</sup> concentration**

unit:  $\mu\text{mol/L}$

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	24.0	29.8	15.6	16.2
	Nanshan	CN 11002	15.6			
	Jinyunshan	CN 11003		56.8	12.9	10.3
	Shizhan	CN 11004	49.0	81.3	349	83.3
	Weishuiyuan	CN 11005	91.6	278	285	99.4
	Dabagou	CN 11006	32.3			
	Jiwozi	CN 11007		98.9	185	70.1
	Hongwen	CN 11008	32.0	35.8	42.9	51.3
	Xiaoping	CN 11009	20.7	29.2	9.1	23.5
	Xiang Zhou	CN 11010	49.8	37.8	68.9	47.4
	Zhuxian Cavern	CN 11011	39.4	27.7	59.5	40.2
Indonesia	Jakarta	ID 11012	21.5	38.9	28.1	52.2
	Serpong	ID 10014	***	32.3	23.0	27.2
	Kototabang	ID 10013	6.8	6.6	16.8	27.8
	Bandung	ID 11015	105	25.0	20.3	13.0
Japan	Rishiri	JP 11016	372	235	217	201
	Tappi	JP 11017	178	156	191	154
	Sado-seki	JP 11019	274	378	307	107
	Happo	JP 11021	10.7	8.8	5.0	7.3
	Oki	JP 11023	449	359	419	201
	Yusuhara	JP 11025	18.7	12.3	31.8	16.0
	Ogasawara	JP 11018	164	123	278	286
	Hedo	JP 11023	515	175	593	451
	Ijira	JP 11022	23.0	32.7	33.3	19.1
	Banryu	JP 11024	31.0	86.5	88.9	92.5
Ochiishi	JP 11050				227	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	8.5	7.5	7.3	9.2
	Tanah Rata	MY 11030	6.8	3.0	2.3	2.4
Mongolia	Ulaanbaatar	MN 11031	9.0	9.7	7.7	7.6
	Terelj	MN 11032	9.0	8.7	11.4	6.6
Philippines	Metro Manila	PH 11033	25.6	115	18.8	24.3
	Los Banos	PH 11034	33.0	34.5	24.6	16.2
Republic of Korea	Kanghwa	KR 11035	54.9	42.6	43.0	61.3
	Cheju	KR 11036	210	112	83.8	68.5
	Imsil	KR 11037		28.7	36.9	38.1
Russia	Mondy	RU 11038	2.6	1.4	8.9	3.1
	Listvyanka	RU 11039	5.0	2.2	6.8	4.1
	Irkutsk	RU 11040	11.6	12.2	18.0	17.7
	Primorskaya	RU 11041			33.9	35.6
Thailand	Bangkok	TH 11042	12.6	9.4	13.9	8.7
	Samutprakarn	TH 11043	12.9			
	Patumthani	TH 11044	10.4	7.8	11.6	6.4
	Vachiralongkorn Dam	TH 11045	17.6	10.0	14.1	8.8
	Mae Hia	TH 11046		4.5	10.1	4.7
Vietnam	Hanoi	VN 11047	24.3	27.1	9.5	21.3
	Hoa Binh	VN 11048	20.3	22.1	7.0	6.9

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET  
(%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.59 Annual weighted averages of  
NH<sub>4</sub><sup>+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	161	211	120	132
	Nanshan	CN 11002	105			
	Jinyunshan	CN 11003		111	83.5	85.6
	Shizhan	CN 11004	421	255	203	144
	Weishuiyuan	CN 11005	426	354	319	144
	Dabagou	CN 11006	199			
	Jiwozi	CN 11007		171	71.2	82.7
	Hongwen	CN 11008	31.6	64.9	44.2	29.4
	Xiaoping	CN 11009	19.8	31.4	31.1	38.2
	Xiang Zhou	CN 11010	20.5	25.0	95.8	34.0
	Zhuxian Cavern	CN 11011	51.0	30.3	48.4	29.9
	Indonesia	Jakarta	ID 11012	77.3	66.2	31.7
Serpong		ID 10014	***	67.6	46.0	45.0
Kototabang		ID 10013	1.1	2.4	5.1	1.8
Bandung		ID 11015	32.8	37.9	29.9	32.7
Japan	Rishiri	JP 11016	34.0	26.0	20.1	18.3
	Tappi	JP 11017	9.6	12.7	14.7	16.2
	Sado-seki	JP 11019	16.9	19.7	14.5	15.6
	Happo	JP 11021	14.2	10.8	7.7	6.4
	Oki	JP 11023	19.4	14.7	12.4	8.8
	Yusuhara	JP 11025	5.1	5.2	7.6	6.0
	Ogasawara	JP 11018	2.3	4.8	5.4	3.6
	Hedo	JP 11023	7.2	4.5	18.5	10.9
	Ijira	JP 11022	23.8	17.6	22.8	18.1
	Banryu	JP 11024	11.6	13.8	17.9	12.5
	Ochiishi	JP 11050				7.6
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	43.7	58.1	16.2	12.2
	Tanah Rata	MY 11030	41.1	35.4	4.0	2.3
Mongolia	Ulaanbaatar	MN 11031	52.0	49.9	72.8	47.5
	Terelj	MN 11032	44.3	30.5	65.7	31.6
Philippines	Metro Manila	PH 11033	35.6	77.1	46.2	23.7
	Los Banos	PH 11034	13.6	22.4	34.5	14.5
Republic of Korea	Kanghwa	KR 11035	37.6	37.5	40.1	57.6
	Cheju	KR 11036	20.2	32.3	43.3	41.9
	Imsil	KR 11037		42.3	42.2	32.5
Russia	Mondy	RU 11038	11.4	22.2	33.8	14.7
	Listvyanka	RU 11039	16.5	10.8	26.8	20.8
	Irkutsk	RU 11040	32.1	25.1	43.0	42.1
	Primorskaya	RU 11041			35.9	39.1
Thailand	Bangkok	TH 11042	41.3	36.2	46.8	37.5
	Samutprakarn	TH 11043	31.8			
	Patumthani	TH 11044	38.3	35.5	34.2	29.1
	Vachiralongkorn Dam	TH 11045	6.8	11.0	10.9	12.5
	Mae Hia	TH 11046		15.8	18.5	15.8
Vietnam	Hanoi	VN 11047	27.5	20.3	55.5	55.1
	Hoa Binh	VN 11048	8.0	12.5	28.2	28.7

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET  
(%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.60 Annual weighted averages of Na<sup>+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	11.8	10.8	5.5	4.9
	Nanshan	CN 11002	7.7			
	Jinyunshan	CN 11003		10.2	5.9	5.0
	Shizhan	CN 11004	44.1	164	246	69.2
	Weishuiyuan	CN 11005	68.9	219	207	113
	Dabagou	CN 11006	23.8			
	Jiwozi	CN 11007		158	171	102
	Hongwen	CN 11008	23.8	10.8	55.6	34.8
	Xiaoping	CN 11009	8.7	9.6	16.4	24.7
	Xiang Zhou	CN 11010	42.1	24.6	41.5	39.1
	Zhuxian Cavern	CN 11011	31.2	27.5	45.2	36.0
	Indonesia	Jakarta	ID 11012	52.4	39.4	35.3
Serpong		ID 10014	***	23.8	25.2	11.3
Kototabang		ID 10013	***	4.5	6.3	9.7
Bandung		ID 11015	***	20.2	8.6	7.1
Japan	Rishiri	JP 11016	325	212	197	176
	Tappi	JP 11017	149	134	165	141
	Sado-seki	JP 11019	258	355	268	93.8
	Happo	JP 11021	7.8	6.2	3.4	4.8
	Oki	JP 11023	396	316	363	185
	Yusuhara	JP 11025	15.2	11.8	28.9	14.4
	Ogasawara	JP 11018	139	104	236	251
	Hedo	JP 11023	454	160	515	430
	Ijira	JP 11022	19.9	29.7	28.5	13.3
	Banryu	JP 11024	28.9	78.2	79.4	80.9
	Ochiishi	JP 11050				198
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	5.0	3.7	5.1	5.6
	Tanah Rata	MY 11030	1.9	1.9	1.6	1.9
Mongolia	Ulaanbaatar	MN 11031	7.9	9.1	6.3	3.8
	Terelj	MN 11032	6.5	15.9	16.9	4.5
Philippines	Metro Manila	PH 11033	30.6	205	14.6	18.4
	Los Banos	PH 11034	34.8	37.2	21.1	15.3
Republic of Korea	Kanghwa	KR 11035	56.3	41.7	49.2	25.4
	Cheju	KR 11036	152	74.7	58.3	46.7
	Imsil	KR 11037		15.4	38.6	22.8
Russia	Mondy	RU 11038	1.8	2.3	1.9	2.3
	Listvyanka	RU 11039	4.6	3.4	3.8	5.1
	Irkutsk	RU 11040	8.8	8.3	9.2	6.6
	Primorskaya	RU 11041			23.1	33.7
Thailand	Bangkok	TH 11042	6.9	8.3	16.1	7.6
	Samutprakarn	TH 11043	10.1			
	Patumthani	TH 11044	10.9	8.1	9.6	4.7
	Vachiralongkorn Dam	TH 11045	9.7	11.3	8.3	10.3
	Mae Hia	TH 11046		3.9	9.7	3.2
Vietnam	Hanoi	VN 11047	18.1	11.5	5.9	9.0
	Hoa Binh	VN 11048	12.7	9.8	2.1	2.4

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)


Black column: Monitoring was not carried out


**Table 3.61 Annual weighted averages of  
K<sup>+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	14.2	18.7	10.6	11.0
	Nanshan	CN 11002	16.3			
	Jinyunshan	CN 11003		44.4	10.3	8.6
	Shizhan	CN 11004	26.5	42.2	40.5	18.7
	Weishuiyuan	CN 11005	34.7	74.9	76.6	20.3
	Dabagou	CN 11006	17.9			
	Jiwozi	CN 11007		43.6	42.2	21.3
	Hongwen	CN 11008	5.0	10.4	4.3	4.3
	Xiaoping	CN 11009	2.8	2.9	3.8	4.7
	Xiang Zhou	CN 11010	6.6	4.0	17.6	5.7
	Zhuxian Cavern	CN 11011	6.2	5.9	13.2	6.6
	Indonesia	Jakarta	ID 11012	***	24.3	11.3
Serpong		ID 10014	***	7.0	3.9	8.0
Kototabang		ID 10013	***	1.3	5.1	20.0
Bandung		ID 11015	***	12.6	2.0	4.1
Japan	Rishiri	JP 11016	9.9	6.0	5.1	4.9
	Tappi	JP 11017	3.6	3.3	4.1	3.4
	Sado-seki	JP 11019	6.4	8.2	6.5	2.5
	Happo	JP 11021	<1.0	<1.0	<1.0	<1.0
	Oki	JP 11023	10.5	8.8	9.5	5.4
	Yusuhara	JP 11025	<1.0	<1.0	1.0	<1.0
	Ogasawara	JP 11018	3.6	4.1	6.2	5.6
	Hedo	JP 11023	9.1	3.6	12.0	10.1
	Ijira	JP 11022	2.9	4.1	2.1	1.2
	Banryu	JP 11024	1.4	2.7	2.9	2.5
Ochiishi	JP 11050				4.6	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	1.8	1.4	1.3	3.0
	Tanah Rata	MY 11030	1.1	<1.0	<1.0	<1.0
Mongolia	Ulaanbaatar	MN 11031	3.9	4.6	3.8	3.4
	Terej	MN 11032	4.5	3.8	10.2	4.1
Philippines	Metro Manila	PH 11033	15.5	23.2	9.9	2.5
	Los Banos	PH 11034	1.7	9.5	6.4	1.8
Republic of Korea	Kanghwa	KR 11035	5.6	4.7	8.8	9.4
	Cheju	KR 11036	6.3	9.4	6.4	8.2
	Imsil	KR 11037		14.8	6.5	11.2
Russia	Mondy	RU 11038	1.2	2.1	2.3	1.6
	Listvyanka	RU 11039	4.7	1.7	2.2	2.6
	Irkutsk	RU 11040	4.4	7.4	2.3	2.6
	Primorskaya	RU 11041			5.3	10.1
Thailand	Bangkok	TH 11042	3.2	4.1	3.4	2.6
	Samutprakarn	TH 11043	5.3			
	Patumthani	TH 11044	2.3	1.7	1.5	1.2
	Vachiralongkorn Dam	TH 11045	8.9	5.0	2.4	2.0
	Mae Hia	TH 11046		2.9	4.4	4.0
Vietnam	Hanoi	VN 11047	4.1	3.8	2.1	2.6
	Hoa Binh	VN 11048	3.6	2.3	1.5	1.5

[\*\*\*]: No data or not measured

 Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)


 Black column: Monitoring was not carried out


**Table 3.62 Annual weighted averages of  
Ca<sup>2+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	63.0	137	65.4	65.4
	Nanshan	CN 11002	55.2			
	Jinyunshan	CN 11003		44.9	29.7	30.7
	Shizhan	CN 11004	229	675	479	258
	Weishuiyuan	CN 11005	305	1160	617	241
	Dabagou	CN 11006	124			
	Jiwozi	CN 11007		429	276	230
	Hongwen	CN 11008	6.7	36.3	49.1	30.7
	Xiaoping	CN 11009	0.8	5.3	10.6	17.3
	Xiang Zhou	CN 11010	21.2	8.0	15.5	22.8
	Zhuxian Cavern	CN 11011	25.0	14.3	20.7	20.2
	Indonesia	Jakarta	ID 11012	87.6	64.4	42.9
Serpong		ID 10014	***	13.6	9.9	6.6
Kototabang		ID 10013	4.0	1.4	4.9	5.5
Bandung		ID 11015	***	24.2	17.1	10.9
Japan	Rishiri	JP 11016	13.7	10.1	10.2	7.7
	Tappi	JP 11017	6.4	5.8	9.0	7.0
	Sado-seki	JP 11019	11.7	15.8	9.1	5.1
	Happo	JP 11021	3.9	4.3	2.0	1.9
	Oki	JP 11023	16.0	12.9	11.5	6.9
	Yusuhara	JP 11025	2.7	3.4	1.8	1.4
	Ogasawara	JP 11018	5.1	5.4	8.6	8.0
	Hedo	JP 11023	10.1	4.9	14.0	10.9
	Ijira	JP 11022	6.8	5.6	4.2	2.9
	Banryu	JP 11024	4.2	6.0	5.4	3.4
Ochiishi	JP 11050				5.7	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	6.8	6.3	7.4	7.8
	Tanah Rata	MY 11030	2.3	3.1	3.1	3.3
Mongolia	Ulaanbaatar	MN 11031	37.7	47.4	49.9	26.5
	Terej	MN 11032	15.2	15.0	27.3	10.7
Philippines	Metro Manila	PH 11033	14.5	71.6	8.7	8.8
	Los Banos	PH 11034	7.0	65.3	7.2	7.8
Republic of Korea	Kanghwa	KR 11035	26.5	14.0	11.1	11.3
	Cheju	KR 11036	13.8	5.9	9.4	8.1
	Imsil	KR 11037		5.8	9.8	5.4
Russia	Mondy	RU 11038	5.8	7.0	8.5	3.8
	Listvyanka	RU 11039	12.8	7.3	11.4	14.3
	Irkutsk	RU 11040	28.0	34.8	31.5	23.9
	Primorskaya	RU 11041			18.1	25.3
Thailand	Bangkok	TH 11042	11.4	12.0	15.7	11.9
	Samutprakarn	TH 11043	11.1			
	Patumthani	TH 11044	13.2	13.0	17.4	6.3
	Vachiralongkorn Dam	TH 11045	4.8	9.0	4.9	8.4
	Mae Hia	TH 11046		6.9	18.0	5.7
Vietnam	Hanoi	VN 11047	20.9	10.7	16.8	17.8
	Hoa Binh	VN 11048	13.1	10.4	12.6	12.0

[\*\*\*]: No data or not measured

 Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

 Black column: Monitoring was not carried out

**Table 3.63 Annual weighted averages of  
nss-Ca<sup>2+</sup> concentration**

unit:  $\mu\text{mol/L}$

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	62.8	137	65.3	65.3
	Nanshan	CN 11002	55.0			
	Jinyunshan	CN 11003		44.7	29.6	30.6
	Shizhan	CN 11004	228	672	474	257
	Weishuiyuan	CN 11005	303	1150	612	238
	Dabagou	CN 11006	123			
	Jiwozi	CN 11007		425	273	227
	Hongwen	CN 11008	6.3	36.1	47.9	30.0
	Xiaoping	CN 11009	0.6	5.0	10.3	16.8
	Xiang Zhou	CN 11010	20.3	7.4	14.6	21.9
	Zhuxian Cavern	CN 11011	24.3	13.7	19.7	19.4
Indonesia	Jakarta	ID 11012	86.4	63.5	42.2	101
	Serpong	ID 10014	***	13.1	9.4	6.4
	Kototabang	ID 10013	***	1.4	4.8	5.3
	Bandung	ID 11015	***	23.7	16.9	10.7
Japan	Rishiri	JP 11016	6.7	5.5	5.9	4.0
	Tappi	JP 11017	3.2	3.0	5.5	3.9
	Sado-seki	JP 11019	6.2	8.3	3.4	3.1
	Happo	JP 11021	3.7	4.2	1.9	1.8
	Oki	JP 11023	7.5	6.1	3.9	2.9
	Yusuhara	JP 11025	2.4	3.2	1.2	1.1
	Ogasawara	JP 11018	2.1	3.2	3.6	2.6
	Hedo	JP 11023	0.8	1.7	2.9	3.5
	Ijira	JP 11022	6.3	5.0	3.6	2.6
	Banryu	JP 11024	3.7	4.3	3.7	1.7
Ochiishi	JP 11050				1.6	
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	6.7	6.2	7.3	7.7
	Tanah Rata	MY 11030	2.2	3.1	3.0	3.3
Mongolia	Ulaanbaatar	MN 11031	37.6	47.2	49.8	26.4
	Terelj	MN 11032	15.1	14.6	26.3	10.6
Philippines	Metro Manila	PH 11033	13.9	67.2	8.4	8.4
	Los Banos	PH 11034	6.2	64.5	6.8	7.5
Republic of Korea	Kanghwa	KR 11035	25.3	13.1	10.0	10.8
	Cheju	KR 11036	10.5	4.3	8.1	7.1
	Imsil	KR 11037		5.5	9.0	4.9
Russia	Mondy	RU 11038	5.7	6.9	8.5	3.8
	Listvyanka	RU 11039	12.7	7.2	11.3	14.1
	Irkutsk	RU 11040	27.8	34.6	31.3	23.7
	Primorskaya	RU 11041			17.6	24.6
Thailand	Bangkok	TH 11042	11.2	11.8	15.4	11.7
	Samutprakarn	TH 11043	10.8			
	Patumthani	TH 11044	12.9	12.8	17.2	6.2
	Vachiralongkorn Dam	TH 11045	4.6	8.8	4.7	8.2
	Mae Hia	TH 11046		6.9	17.8	5.6
Vietnam	Hanoi	VN 11047	20.5	10.4	16.7	17.6
	Hoa Binh	VN 11048	12.8	10.2	12.6	11.9

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET  
(%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.64 Annual weighted averages of Mg<sup>2+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	8.5	11.6	6.0	4.5
	Nanshan	CN 11002	7.0			
	Jinyunshan	CN 11003		5.8	3.4	2.9
	Shizhan	CN 11004	23.6	48.5	67.9	33.5
	Weishuiyuan	CN 11005	31.7	88.4	91.1	40.0
	Dabagou	CN 11006	14.6			
	Jiwozi	CN 11007		41.1	50.1	33.9
	Hongwen	CN 11008	4.2	6.3	9.6	6.0
	Xiaoping	CN 11009	1.3	2.8	1.6	4.0
	Xiang Zhou	CN 11010	6.9	2.9	5.5	7.1
	Zhuxian Cavern	CN 11011	7.9	3.3	7.1	7.4
	Indonesia	Jakarta	ID 11012	219	69.0	13.1
Serpong		ID 10014	***	3.5	4.5	2.7
Kototabang		ID 10013	***	1.0	2.6	6.8
Bandung		ID 11015	***	4.1	1.6	1.7
Japan	Rishiri	JP 11016	36.3	24.8	22.3	20.3
	Tappi	JP 11017	17.5	15.5	19.6	16.8
	Sado-seki	JP 11019	29.0	40.5	30.7	11.3
	Happo	JP 11021	1.7	1.6	0.9	1.2
	Oki	JP 11023	45.0	36.6	40.6	21.2
	Yusuhara	JP 11025	2.2	1.8	3.6	1.8
	Ogasawara	JP 11018	19.2	13.3	32.4	31.1
	Hedo	JP 11023	50.0	16.9	59.0	49.3
	Ijira	JP 11022	2.9	4.0	3.5	2.2
	Banryu	JP 11024	3.3	9.1	9.3	9.3
	Ochiishi	JP 11050				22.1
Lao PDR	Vientian	LA 11051				***
Malaysia	Petaling Jaya	MY 11029	1.4	1.3	1.4	0.7
	Tanah Rata	MY 11030	0.4	0.4	0.4	0.5
Mongolia	Ulaanbaatar	MN 11031	4.1	5.4	3.6	3.7
	Terelj	MN 11032	3.2	2.5	4.1	2.3
Philippines	Metro Manila	PH 11033	6.3	15.0	3.3	3.0
	Los Banos	PH 11034	3.7	11.1	2.9	2.6
Republic of Korea	Kanghwa	KR 11035	9.3	5.3	6.3	2.9
	Cheju	KR 11036	18.6	10.0	7.5	5.9
	Imsil	KR 11037		1.9	3.3	1.6
Russia	Mondy	RU 11038	1.1	1.5	2.2	0.8
	Listvyanka	RU 11039	2.9	1.8	3.0	3.6
	Irkutsk	RU 11040	5.0	5.5	5.7	4.3
	Primorskaya	RU 11041			5.7	11.2
Thailand	Bangkok	TH 11042	2.0	3.2	3.5	2.3
	Samutprakarn	TH 11043	2.4			
	Patumthani	TH 11044	2.4	2.2	2.8	1.1
	Vachiralongkorn Dam	TH 11045	1.7	2.5	1.7	2.2
	Mae Hia	TH 11046		1.1	3.5	2.1
Vietnam	Hanoi	VN 11047	5.0	4.0	3.0	3.6
	Hoa Binh	VN 11048	4.7	3.7	1.4	2.1

[\*\*\*]: No data or not measured

■ Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

■ Black column: Monitoring was not carried out

**Table 3.65 Annual weighted averages of  
H<sup>+</sup> concentration**

unit: µmol/L

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	46.7	16.1	25.2	32.2
	Nanshan	CN 11002	60.5			
	Jinyunshan	CN 11003		65.4	43.6	50.3
	Shizhan	CN 11004	2.1	0.4	0.6	1.0
	Weishuiyuan	CN 11005	0.4	0.5	0.9	0.8
	Dabagou	CN 11006	3.8			
	Jiwozi	CN 11007		0.6	1.0	0.9
	Hongwen	CN 11008	19.1	29.6	16.2	34.4
	Xiaoping	CN 11009	12.2	12.4	33.6	41.4
	Xiang Zhou	CN 11010	7.0	11.4	7.8	7.9
	Zhuxian Cavern	CN 11011	23.0	16.7	12.8	7.9
	Indonesia	Jakarta	ID 11012	6.6	3.8	16.9
Serpong		ID 10014	***	23.7	22.6	24.1
Kototabang		ID 10013	31.2	8.5	4.9	5.0
Bandung		ID 11015	***	10.1	34.9	10.0
Japan	Rishiri	JP 11016	15.7	16.8	15.0	13.3
	Tappi	JP 11017	19.0	23.0	20.9	27.0
	Sado-seki	JP 11019	26.9	23.2	22.7	21.5
	Happo	JP 11021	18.6	14.6	11.8	12.4
	Oki	JP 11023	22.8	17.0	18.6	17.5
	Yusuhara	JP 11025	19.5	14.9	17.4	18.4
	Ogasawara	JP 11018	5.9	8.1	8.2	9.1
	Hedo	JP 11023	7.4	10.9	11.3	12.5
	Ijira	JP 11022	30.1	37.1	30.4	38.7
	Banryu	JP 11024	22.9	21.9	20.4	23.3
Ochiishi	JP 11050				12.2	
Lao PDR	Vientian	LA 11051				0.3
Malaysia	Petaling Jaya	MY 11029	44.9	56.0	58.8	52.1
	Tanah Rata	MY 11030	16.1	12.7	10.8	12.7
Mongolia	Ulaanbaatar	MN 11031	0.5	0.6	0.4	1.9
	Terej	MN 11032	3.0	0.9	1.8	4.0
Philippines	Metro Manila	PH 11033	3.3	3.9	8.1	36.2
	Los Banos	PH 11034	3.6	3.0	1.8	32.5
Republic of Korea	Kanghwa	KR 11035	10.0	10.2	22.2	21.3
	Cheju	KR 11036	14.1	12.9	24.3	15.0
	Imsil	KR 11037		8.0	2.0	8.3
Russia	Mondy	RU 11038	5.5	3.1	4.1	4.5
	Listvyanka	RU 11039	8.6	11.0	13.2	9.7
	Irkutsk	RU 11040	7.8	5.3	9.4	4.2
	Primorskaya	RU 11041			6.3	13.2
Thailand	Bangkok	TH 11042	11.1	10.7	7.9	29.5
	Samutprakarn	TH 11043	14.8			
	Patumthani	TH 11044	5.7	7.4	4.6	13.7
	Vachiralongkorn Dam	TH 11045	2.7	5.5	2.3	3.5
	Mae Hia	TH 11046		1.9	1.9	2.5
Vietnam	Hanoi	VN 11047	3.6	1.5	2.8	1.5
	Hoa Binh	VN 11048	7.8	9.1	6.5	4.2

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.66 Annual weighted averages of pH**

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	4.33	4.79	4.60	4.49
	Nanshan	CN 11002	4.22			
	Jinyunshan	CN 11003		4.18	4.36	4.30
	Shizhan	CN 11004	5.68	6.38	6.24	6.00
	Weishuiyuan	CN 11005	6.42	6.32	6.03	6.11
	Dabagou	CN 11006	5.42			
	Jiwozi	CN 11007		6.24	6.00	6.05
	Hongwen	CN 11008	4.72	4.53	4.79	4.46
	Xiaoping	CN 11009	4.91	4.91	4.47	4.38
	Xiang Zhou	CN 11010	5.15	4.94	5.11	5.10
	Zhuxian Cavern	CN 11011	4.64	4.78	4.89	5.10
Indonesia	Jakarta	ID 11012	5.18	5.42	4.77	5.16
	Serpong	ID 10014	***	4.63	4.65	4.62
	Kototabang	ID 10013	4.51	5.07	5.31	5.30
	Bandung	ID 11015	***	4.99	4.46	5.00
Japan	Rishiri	JP 11016	4.80	4.77	4.82	4.88
	Tappi	JP 11017	4.72	4.64	4.68	4.57
	Sado-seki	JP 11019	4.57	4.63	4.64	4.67
	Happo	JP 11021	4.73	4.84	4.93	4.91
	Oki	JP 11023	4.64	4.77	4.73	4.76
	Yusuhara	JP 11025	4.71	4.83	4.76	4.73
	Ogasawara	JP 11018	5.23	5.09	5.09	5.04
	Hedo	JP 11023	5.13	4.96	4.95	4.90
	Ijira	JP 11022	4.52	4.43	4.52	4.41
	Banryu	JP 11024	4.64	4.66	4.69	4.63
Ochiishi	JP 11050				4.91	
Lao PDR	Vientian	LA 11051				6.51
Malaysia	Petaling Jaya	MY 11029	4.35	4.25	4.23	4.28
	Tanah Rata	MY 11030	4.79	4.90	4.97	4.90
Mongolia	Ulaanbaatar	MN 11031	6.26	6.19	6.38	5.72
	Terelj	MN 11032	5.52	6.04	5.75	5.40
Philippines	Metro Manila	PH 11033	5.48	5.41	5.09	4.44
	Los Banos	PH 11034	5.44	5.53	5.74	4.49
Republic of Korea	Kanghwa	KR 11035	5.00	4.99	4.65	4.67
	Cheju	KR 11036	4.85	4.89	4.61	4.83
	Imsil	KR 11037		5.09	5.69	5.08
Russia	Mondy	RU 11038	5.26	5.50	5.39	5.35
	Listvyanka	RU 11039	5.07	4.96	4.88	5.01
	Irkutsk	RU 11040	5.11	5.28	5.02	5.37
	Primorskaya	RU 11041			5.20	4.88
Thailand	Bangkok	TH 11042	4.95	4.97	5.10	4.53
	Samutprakarn	TH 11043	4.83			
	Patumthani	TH 11044	5.25	5.13	5.33	4.86
	Vachiralongkorn Dam	TH 11045	5.56	5.26	5.64	5.46
	Mae Hia	TH 11046		5.71	5.72	5.61
Vietnam	Hanoi	VN 11047	5.45	5.83	5.55	5.81
	Hoa Binh	VN 11048	5.11	5.04	5.19	5.38

[\*\*\*]: No data or not measured

Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.67 Annual weighted averages of EC**

unit: mS/m

Country	Name of sites	Code	2000	2001	2002	2003
China	Guanyinqiao	CN 11001	5.61	7.00	4.36	4.89
	Nanshan	CN 11002	5.20			
	Jinyunshan	CN 11003		6.23	3.69	4.19
	Shizhan	CN 11004	11.4	19.5	16.1	7.50
	Weishuiyuan	CN 11005	15.1	27.7	21.7	7.80
	Dabagou	CN 11006	7.71			
	Jiwozi	CN 11007		9.65	4.02	5.19
	Hongwen	CN 11008	1.66	3.87	2.64	2.88
	Xiaoping	CN 11009	0.88	1.42	1.60	2.15
	Xiang Zhou	CN 11010	2.05	1.95	3.20	2.19
	Zhuxian Cavern	CN 11011	3.04	2.08	3.63	2.42
	Indonesia	Jakarta	ID 11012	5.06	26.4	2.97
Serpong		ID 10014	***	2.94	1.87	2.26
Kototabang		ID 10013	1.00	0.43	4.94	1.96
Bandung		ID 11015	3.37	2.08	1.68	1.50
Japan	Rishiri	JP 11016	6.37	4.51	4.23	3.80
	Tappi	JP 11017	3.69	3.52	3.89	3.74
	Sado-seki	JP 11019	4.76	5.64	4.99	2.65
	Happo	JP 11021	1.22	0.96	0.67	0.69
	Oki	JP 11023	7.28	5.90	6.59	3.82
	Yusuhara	JP 11025	1.17	0.98	1.42	1.16
	Ogasawara	JP 11018	2.59	2.20	3.95	4.31
	Hedo	JP 11023	7.21	2.95	8.85	7.10
	Ijira	JP 11022	2.11	2.44	2.18	2.12
	Banryu	JP 11024	1.82	2.52	2.56	2.56
	Ochiishi	JP 11050				3.45
Lao PDR	Vientian	LA 11051				20.7
Malaysia	Petaling Jaya	MY 11029	2.08	2.13	2.81	2.32
	Tanah Rata	MY 11030	0.73	0.54	0.59	0.61
Mongolia	Ulaanbaatar	MN 11031	1.79	1.91	2.20	1.56
	Terelj	MN 11032	1.28	0.93	1.93	1.05
Philippines	Metro Manila	PH 11033	2.20	6.49	1.85	1.36
	Los Banos	PH 11034	1.13	2.08	1.22	1.99
Republic of Korea	Kanghwa	KR 11035	2.50	1.98	2.68	2.54
	Cheju	KR 11036	3.37	2.56	3.03	2.22
	Imsil	KR 11037		1.31	1.80	1.42
Russia	Mondy	RU 11038	0.58	0.68	0.96	0.59
	Listvyanka	RU 11039	1.04	0.95	1.39	1.36
	Irkutsk	RU 11040	1.71	1.79	2.10	1.67
	Primorskaya	RU 11041			1.77	2.66
Thailand	Bangkok	TH 11042	1.64	1.50	1.32	1.67
	Samutprakarn	TH 11043	1.52			
	Patumthani	TH 11044	1.48	1.80	1.07	1.24
	Vachiralongkorn Dam	TH 11045	0.52	0.56	0.51	0.35
	Mae Hia	TH 11046		0.88	0.48	0.46
Vietnam	Hanoi	VN 11047	1.55	0.92	1.52	1.70
	Hoa Binh	VN 11048	1.15	1.04	1.06	1.12

[\*\*\*]: No data or not measured

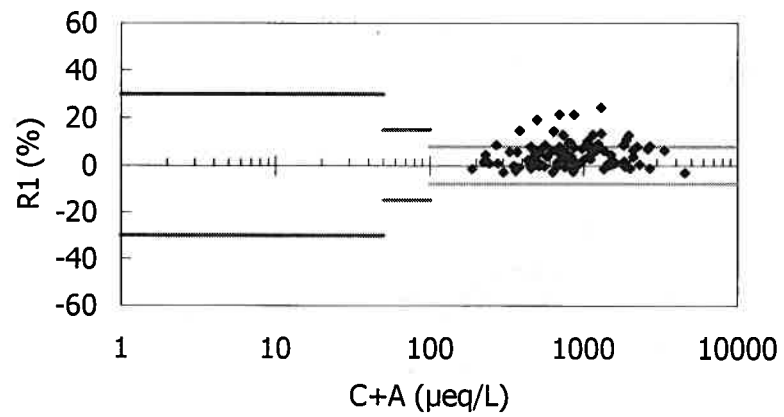
Data in hatched column: Rejected annual value by the criteria of EANET (%PCL<80% or %TP<80%)

Black column: Monitoring was not carried out

**Table 3.79 Site Code**

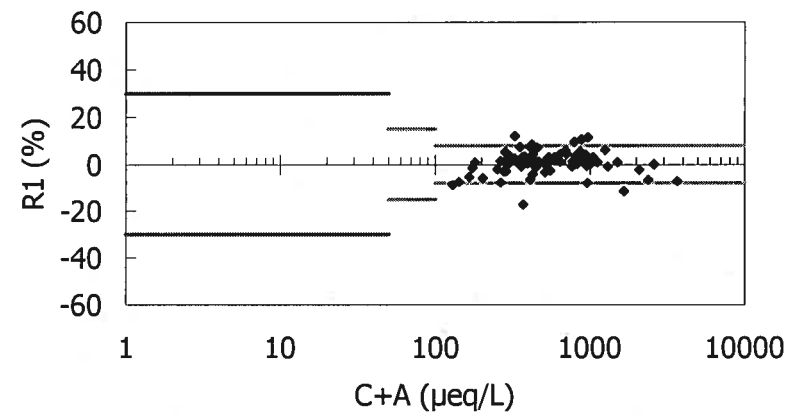
Country	Name of sites	Code
China	Guanyinqiao	CN 11001
	Nanshan	CN 11002
	Jinyunshan	CN 11003
	Shizhan	CN 11004
	Weishuiyuan	CN 11005
	Dabagou	CN 11006
	Jiwozi	CN 11007
	Hongwen	CN 11008
	Xiaoping	CN 11009
	Xiang Zhou	CN 11010
	Zhuxian Cavern	CN 11011
	Indonesia	Jakarta
Kototabang		ID 11013
Serpong		ID 11014
Bandung		ID 11015
Japan	Rishiri	JP 11016
	Tappi	JP 11017
	Ogasawara	JP 11018
	Sodo-seki	JP 11019
	Sado	JP 11020
	Happo	JP 11021
	Ijira	JP 11022
	Oki	JP 11023
	Banryu	JP 11024
	Yusuhara	JP 11025
	Ashizuri	JP 11026
	Hedo	JP 11027
	Kunigami	JP 11028
	Ochiishi	JP 11050
Lao PDR	Vientian	LA 11051
Malaysia	Petaling Jaya	MY 11029
	Tanah Rata	MY 11030
Mongolia	Ulaanbaatar	MN 11031
	Terelj	MN 11032
Philippines	Metro Manila	PH 11033
	Los Banos	PH 11034
Republic of Korea	Kanghwa	KR 11035
	Cheju	KR 11036
	Imsil	KR 11037
Russia	Mondy	RU 11038
	Listvyanka	RU 11039
	Irkutsk	RU 11040
	Primorskaya	RU 11041
Thailand	Bangkok	TH 11042
	Samutprakam	TH 11043
	Patumthani	TH 11044
	Vachiralongkorn Dam	TH 11045
	Mae Hia	TH 11046
Viet Nam	Hanoi	VN 11047
	Hoa Binh	VN 11048

*Including the sites working only for preparatory-phase activities*



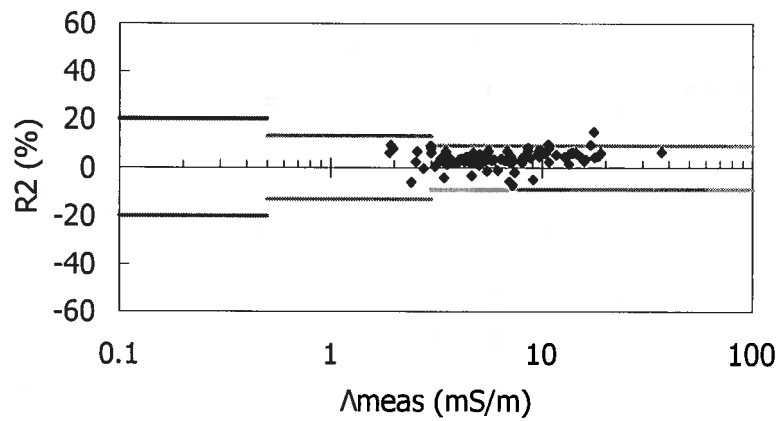
**Fig. 3.2 a) Guanyinqiao Ion Balance (R1)**

*Calculated including  $F^-$*



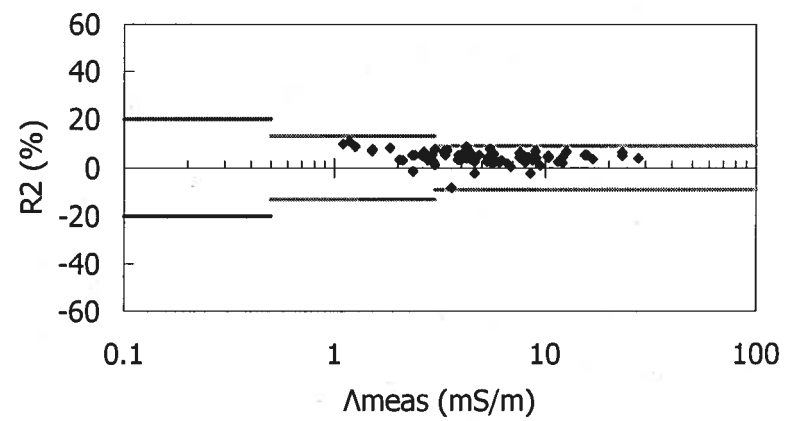
**Fig. 3.3 a) Jinyunshan Ion Balance (R1)**

*Calculated including  $F^-$*



**Fig. 3.2 b) Guanyinqiao Conductivity Agreement (R2)**

*Calculated including  $F^-$*



**Fig. 3.3 b) Jinyunshan Conductivity Agreement (R2)**

*Calculated including  $F^-$*

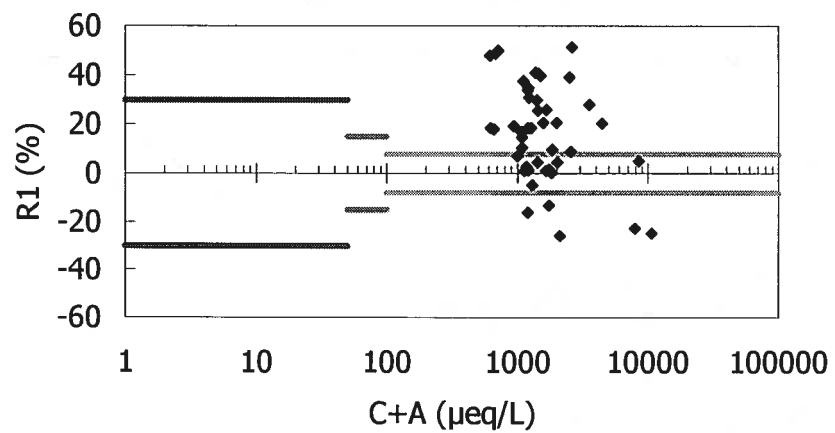


Fig. 3.4 a) Shizhan Ion Balance (R1)

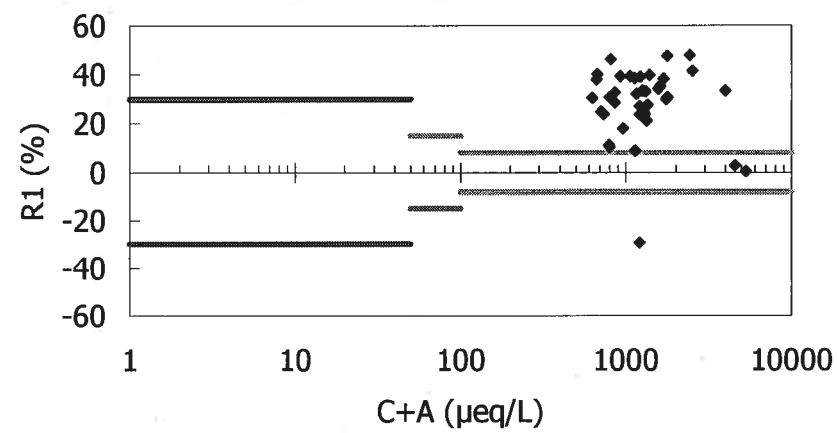


Fig. 3.5 a) Weishuiyuan Ion Balance (R1)

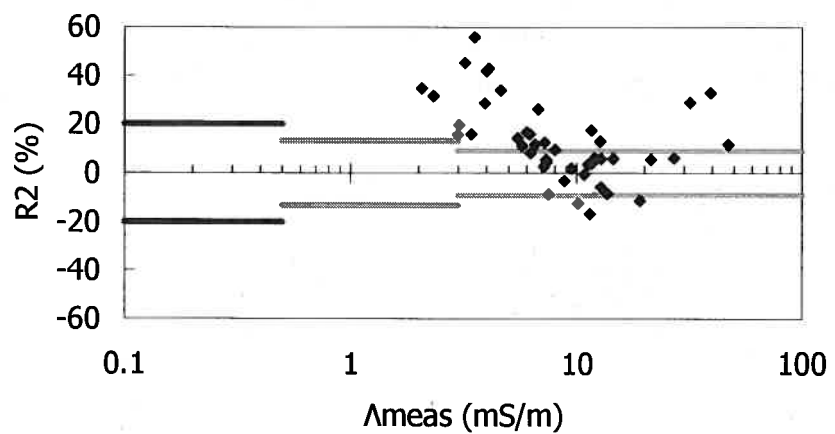


Fig. 3.4 b) Shizhan Conductivity Agreement (R2)

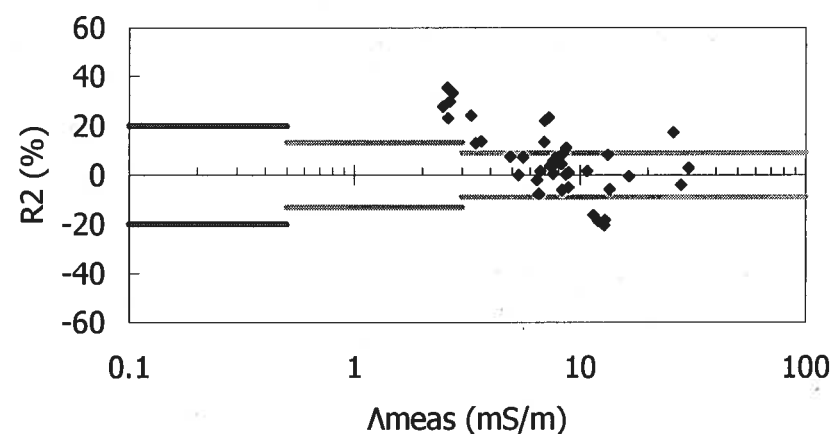


Fig. 3.5 b) Weishuiyuan Conductivity Agreement (R2)

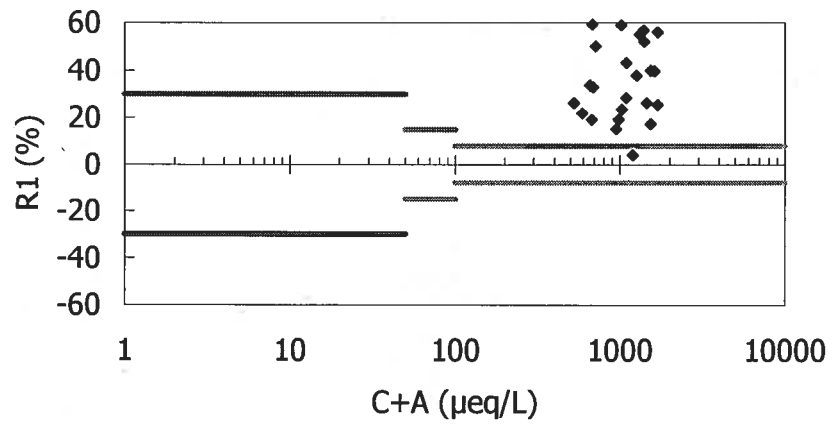


Fig. 3.6 a) Jiwozi Ion Balance (R1)

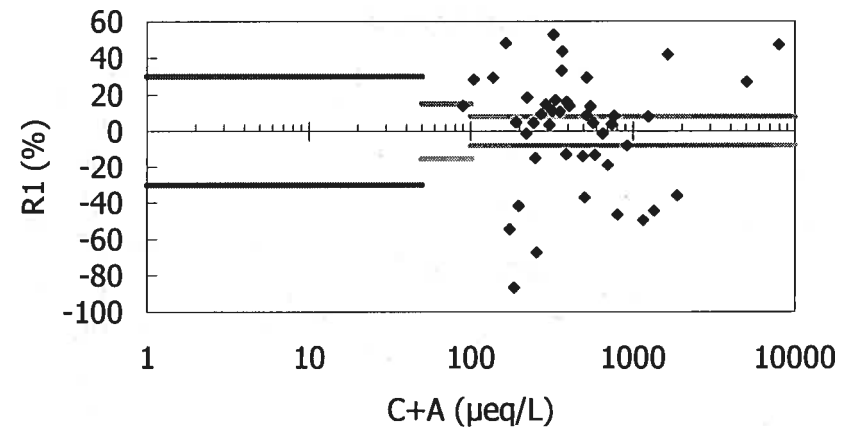


Fig. 3.7 a) Hongwen Ion Balance (R1)

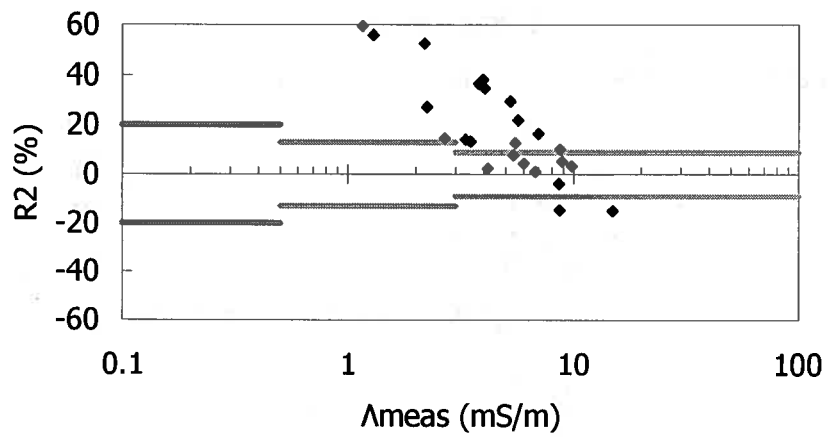


Fig. 3.6 b) Jiwozi Conductivity Agreement (R2)

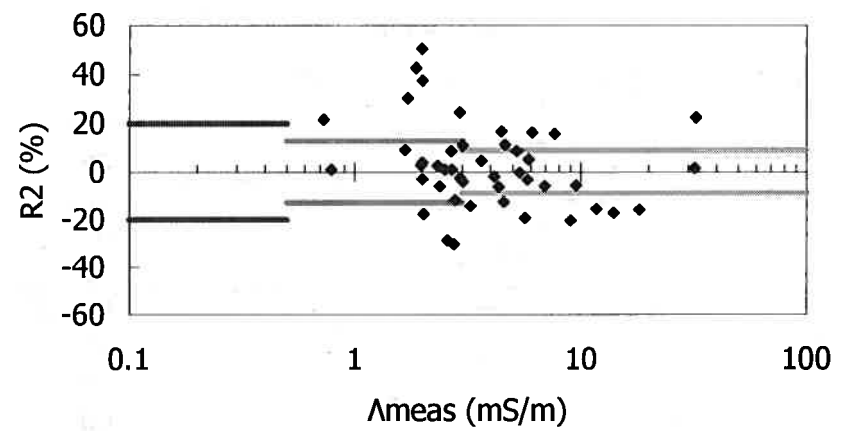


Fig. 3.7 b) Hongwen Conductivity Agreement (R2)

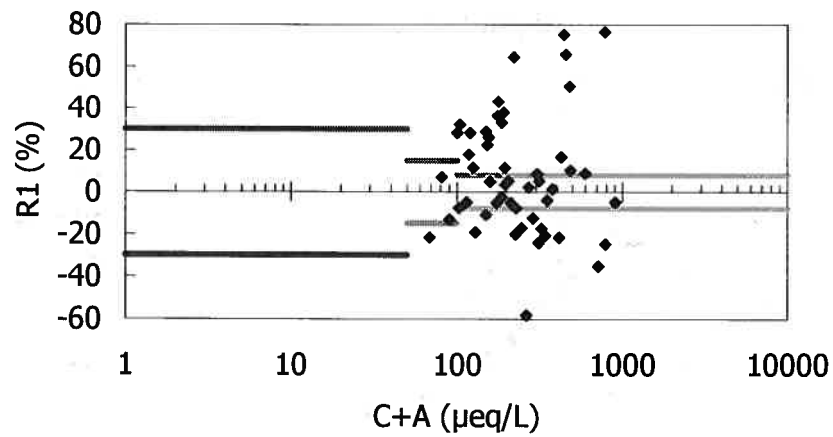


Fig. 3.8 a) Xiaoping Ion Balance (R1)

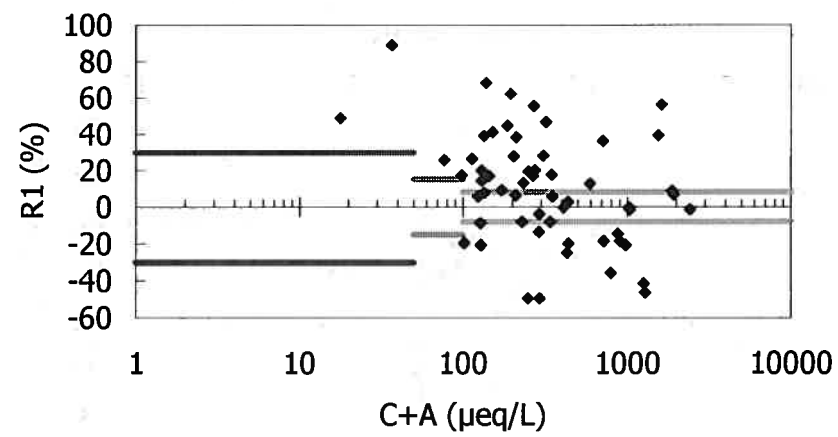


Fig. 3.9 a) XiangZhou Ion Balance (R1)

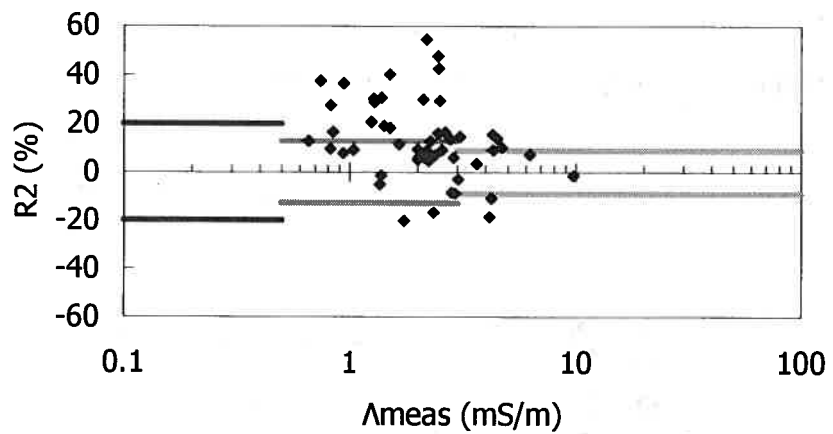


Fig. 3.8 b) Xiaoping Conductivity Agreement (R2)

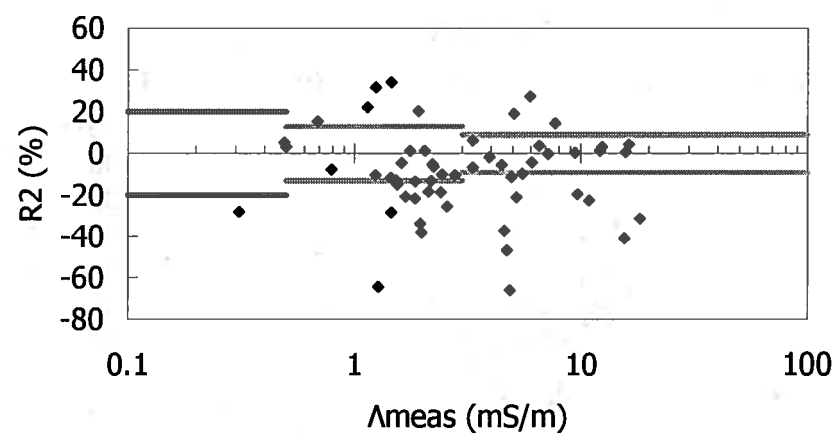


Fig. 3.9 b) XiangZhou Conductivity Agreement (R2)

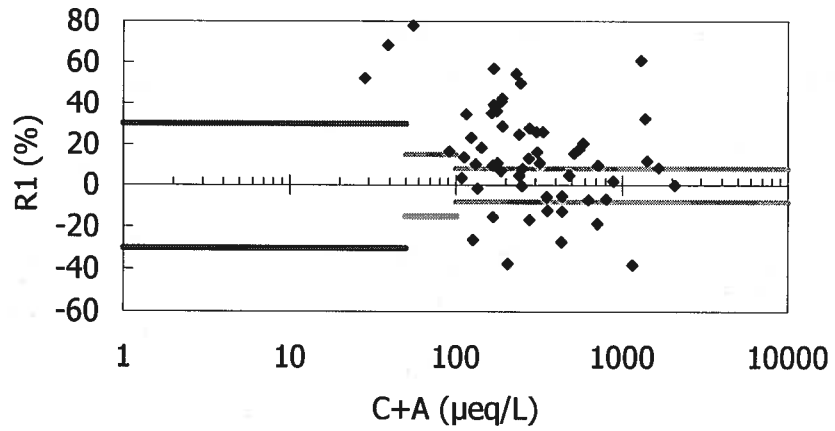


Fig. 3.10 a) Zhuxian Cavern Ion Balance (R1)

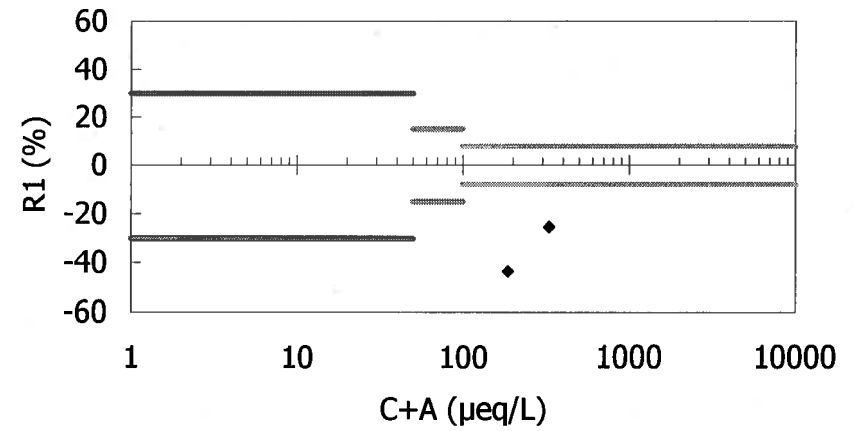


Fig. 3.11 a) Jakarta Ion Balance (R1)

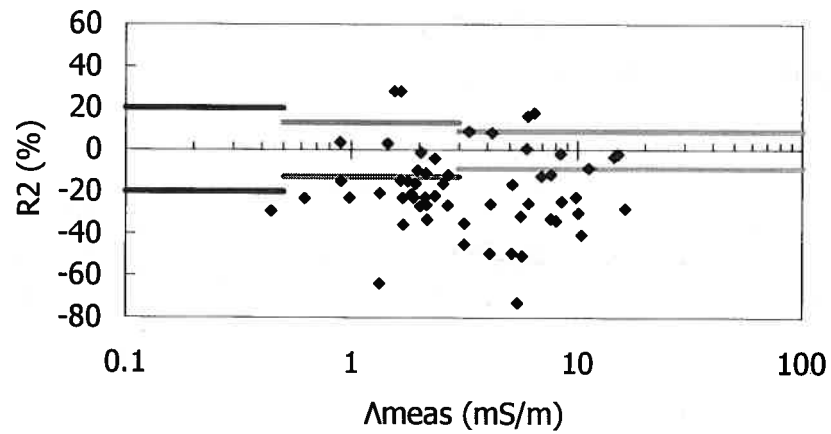


Fig. 3.10 b) Zhuxian Cavern Conductivity Agreement (R2)

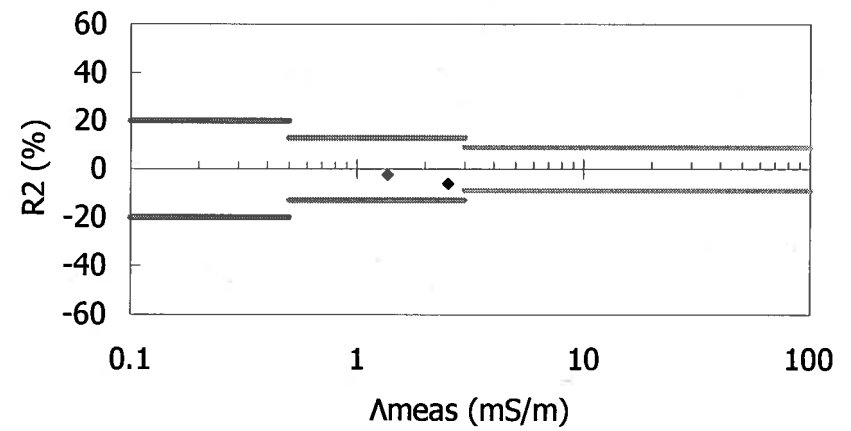


Fig. 3.11 b) Jakarta Conductivity Agreement (R2)

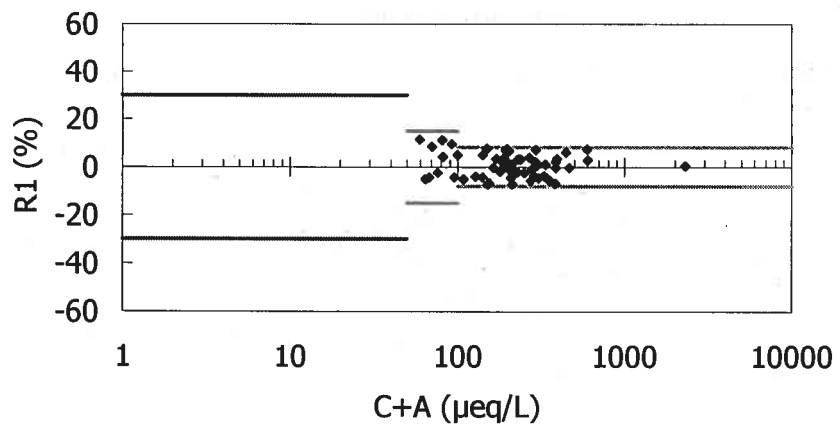


Fig. 3.12 a) Serpong Ion Balance (R1)

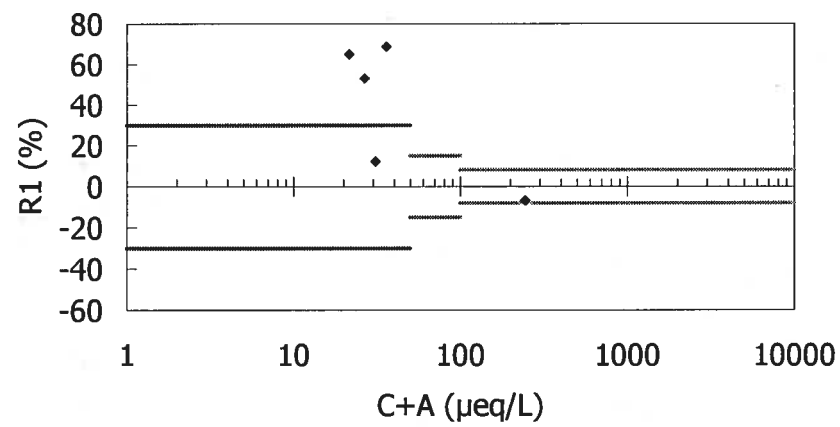


Fig. 3.13 a) Kototabang Ion Balance (R1)

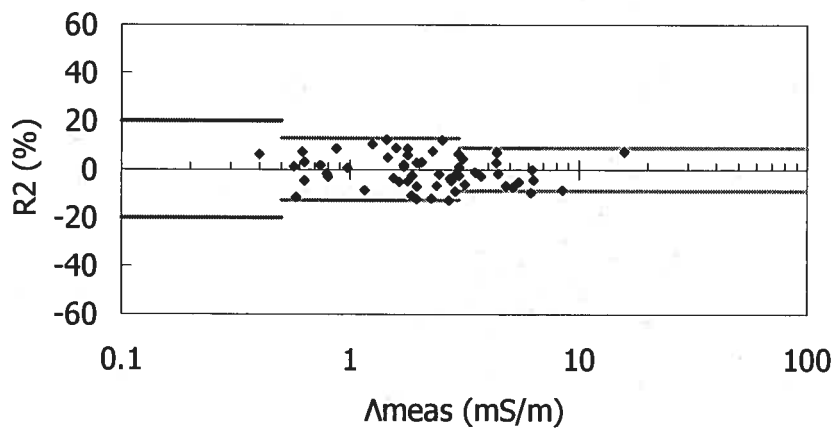


Fig 3.12 b) Serpong Conductivity Agreement (R2)

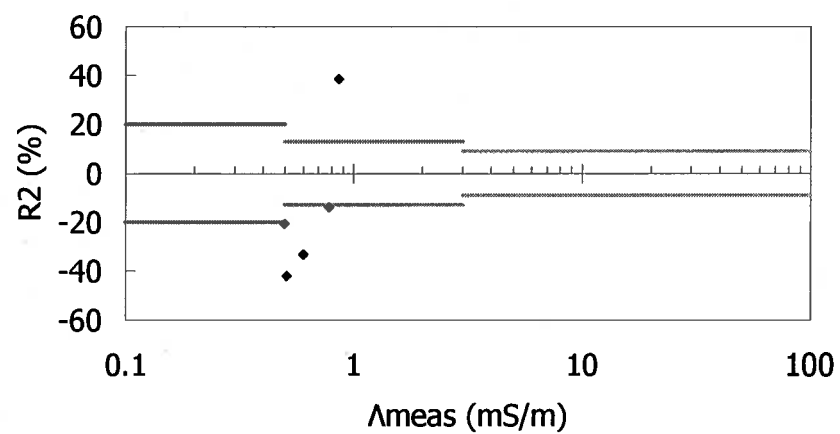


Fig. 3.13 b) Kototabang Conductivity Agreement (R2)

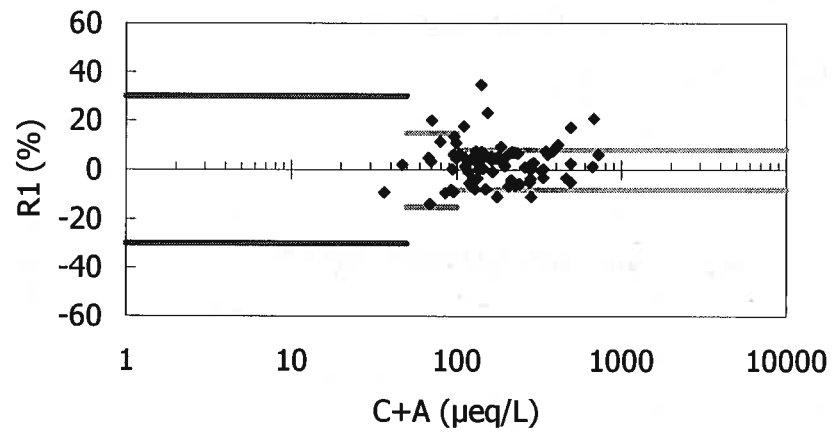


Fig. 3.14 a) Bandung Ion Balance (R1)

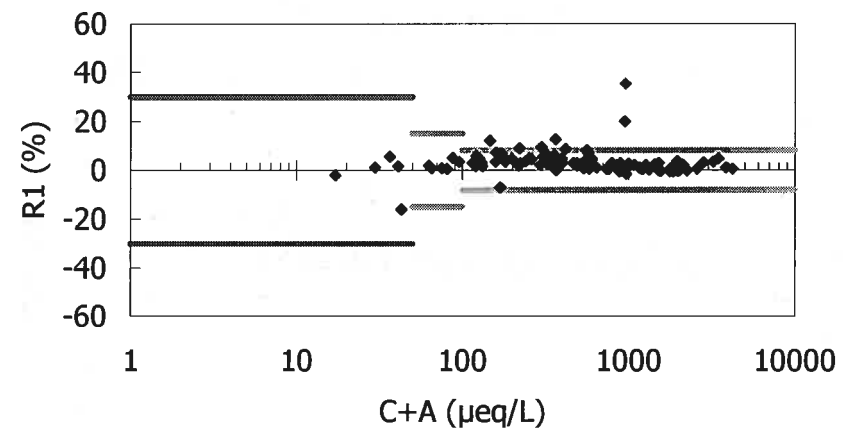


Fig. 3.15 a) Rishiri Ion Balance (R1)

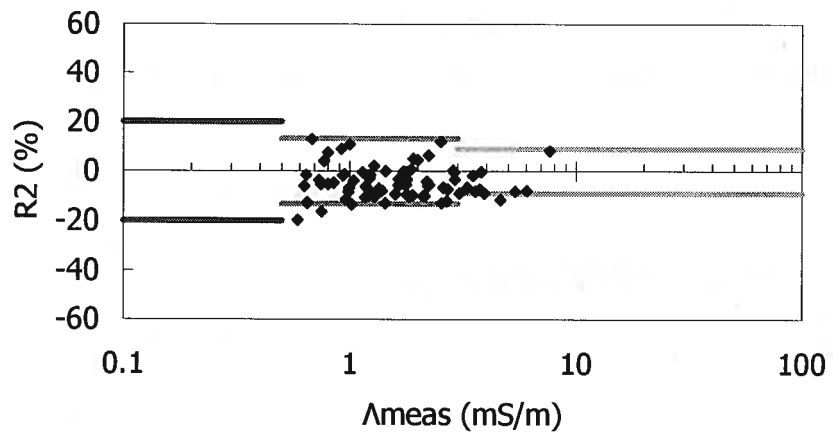


Fig. 3.14 b) Bandung Conductivity Agreement (R2)

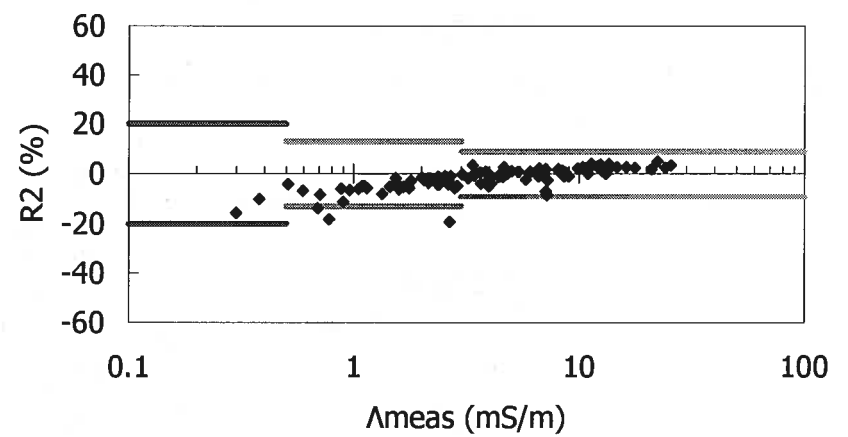


Fig. 3.15 b) Rishiri Conductivity Agreement (R2)

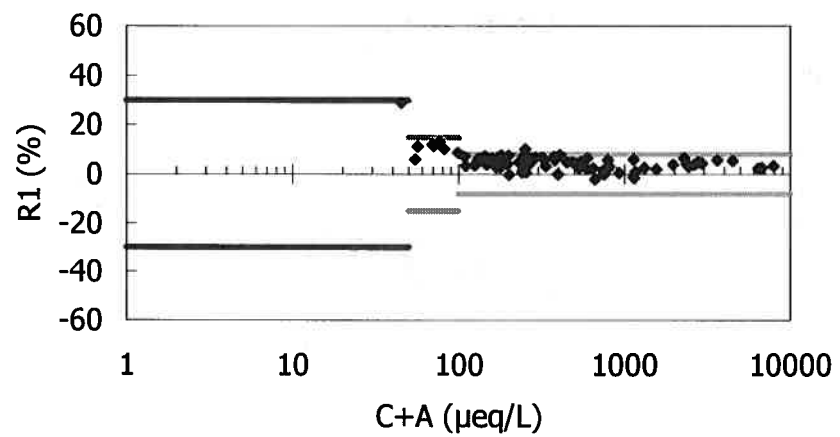


Fig. 3.16 a) Tappi Ion Balance (R1)

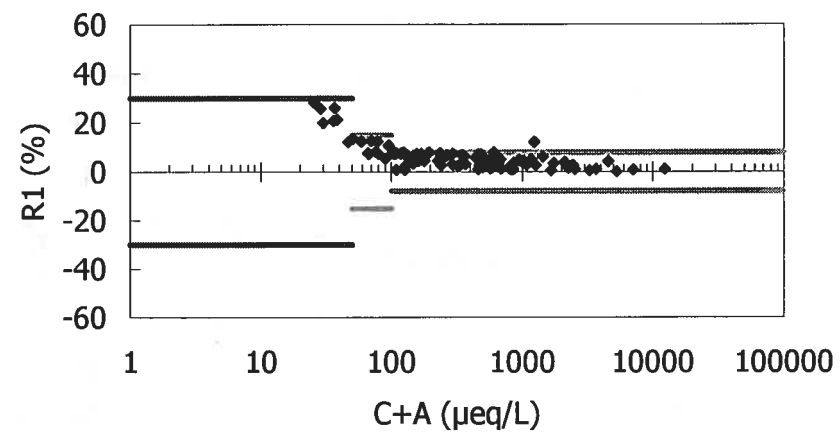


Fig. 3.17 a) Sado-seki Ion Balance (R1)

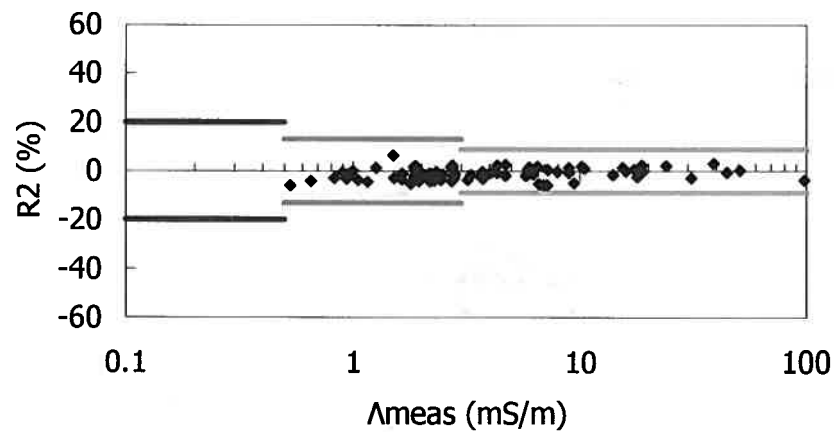


Fig. 3.16 b) Tappi Conductivity Agreement (R2)

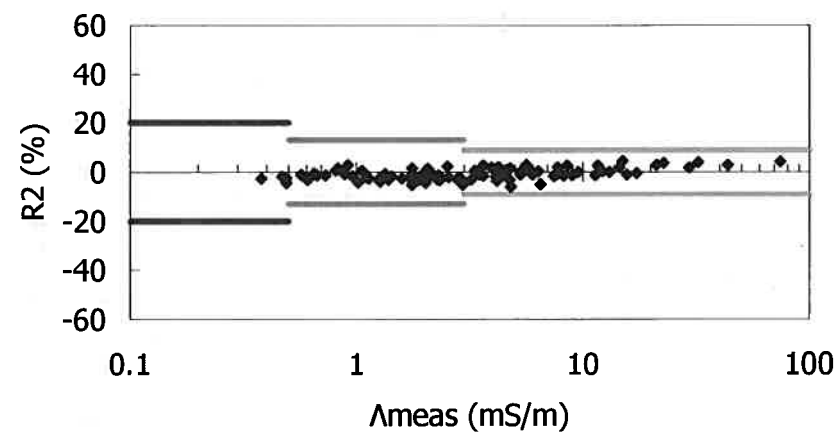


Fig. 3.17 b) Sado-seki Conductivity Agreement (R2)

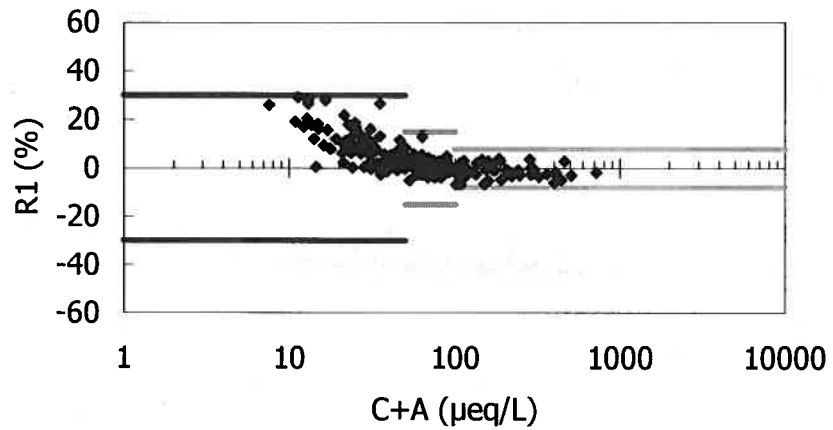


Fig. 3.18 a) Happo Ion Balance (R1)

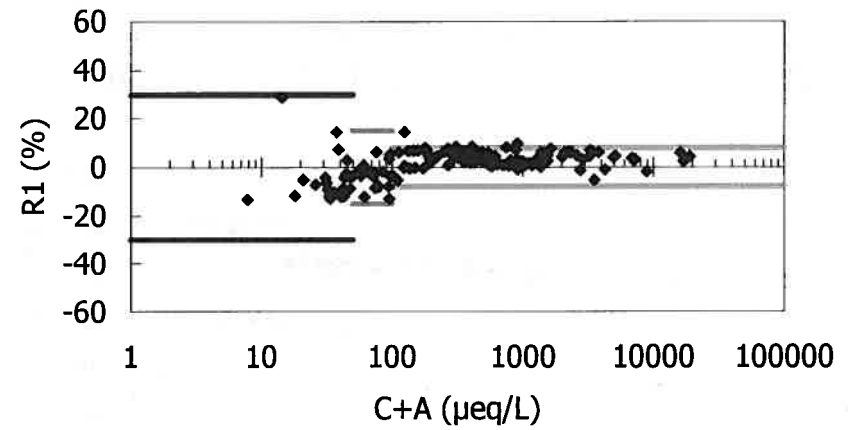


Fig. 3.19 a) Oki Ion Balance (R1)

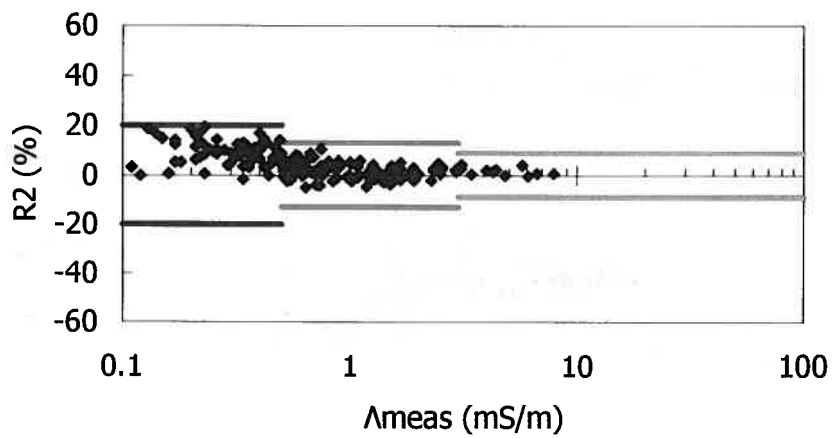


Fig. 3.18 b) Happo Conductivity Agreement (R2)

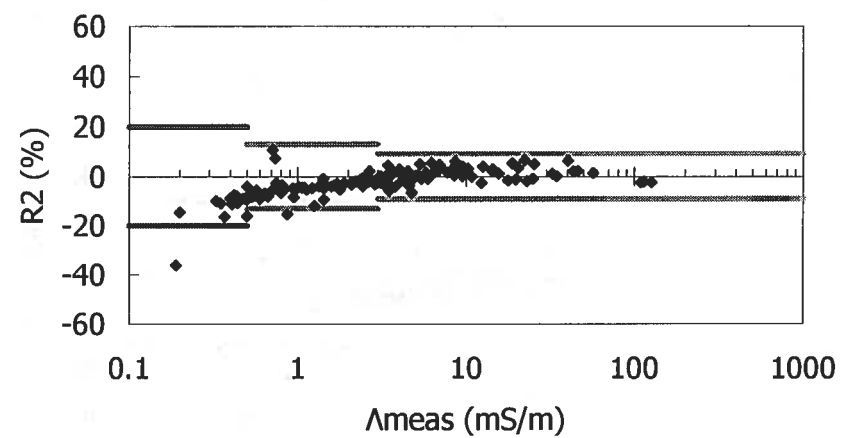


Fig. 3.19 b) Oki Conductivity Agreement (R2)

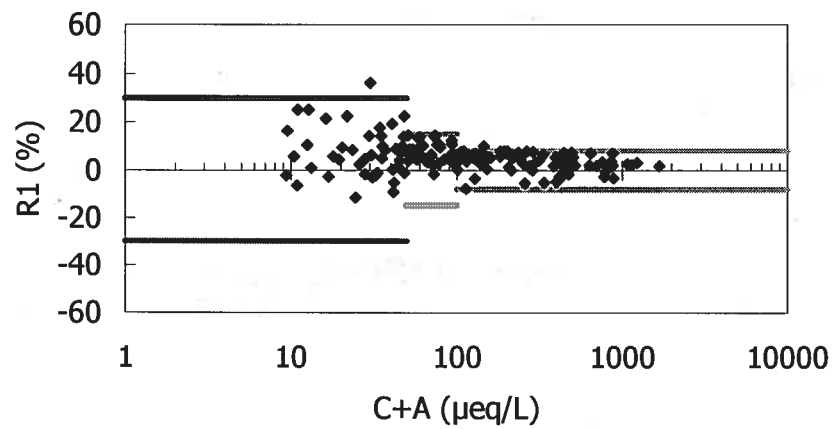


Fig. 3.20 a) Yusuhara Ion Balance (R1)

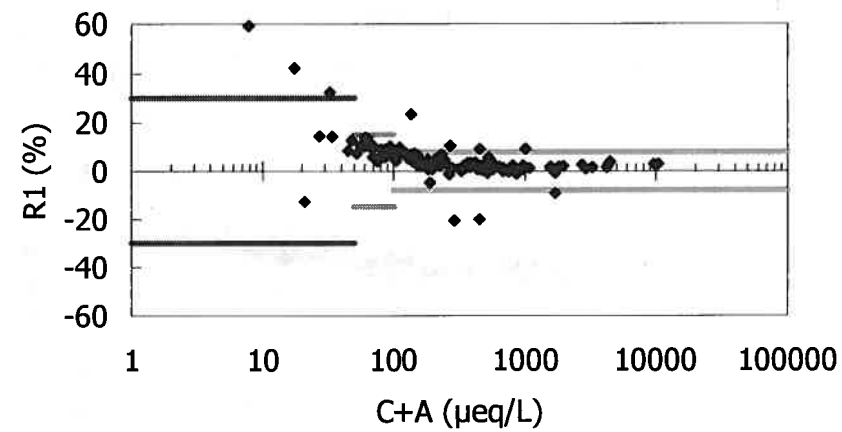


Fig. 3.21 a) Ogasawara Ion Balance (R1)

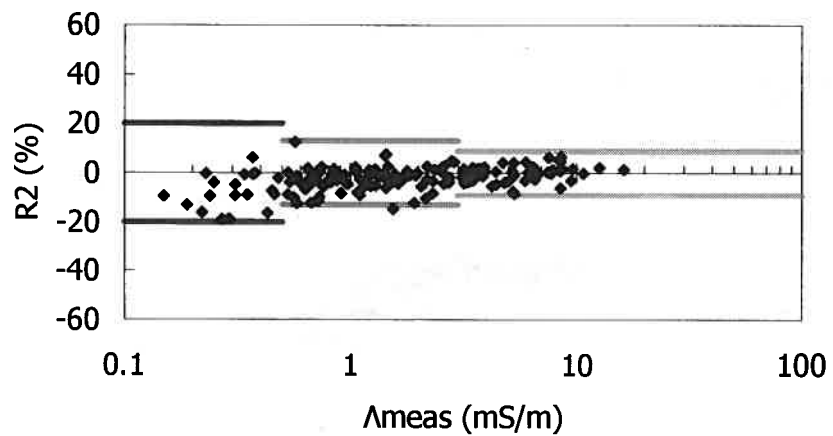


Fig. 3.20 b) Yusuhara Conductivity Agreement (R2)

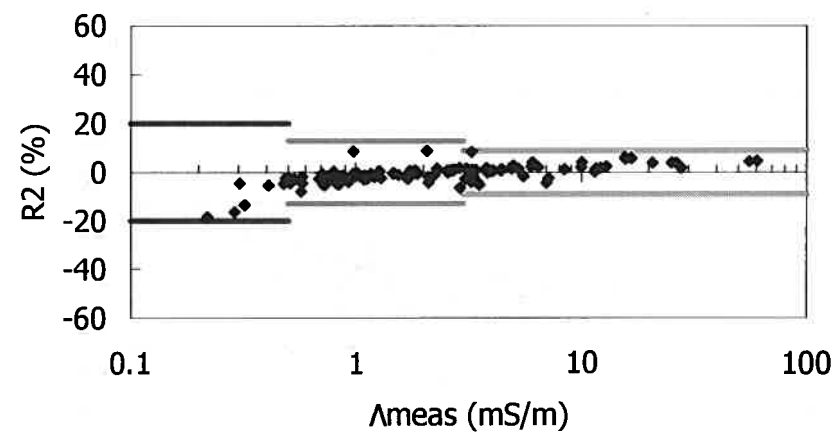


Fig. 3.21 b) Ogasawara Conductivity Agreement (R2)

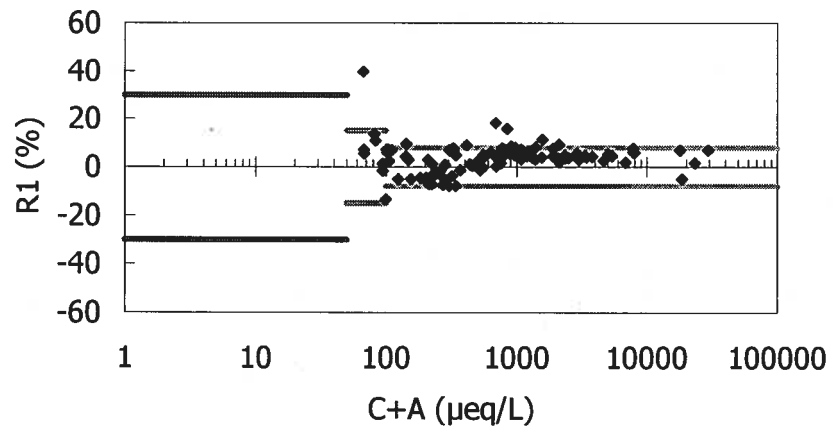


Fig. 3.22 a) Hedo Ion Balance (R1)

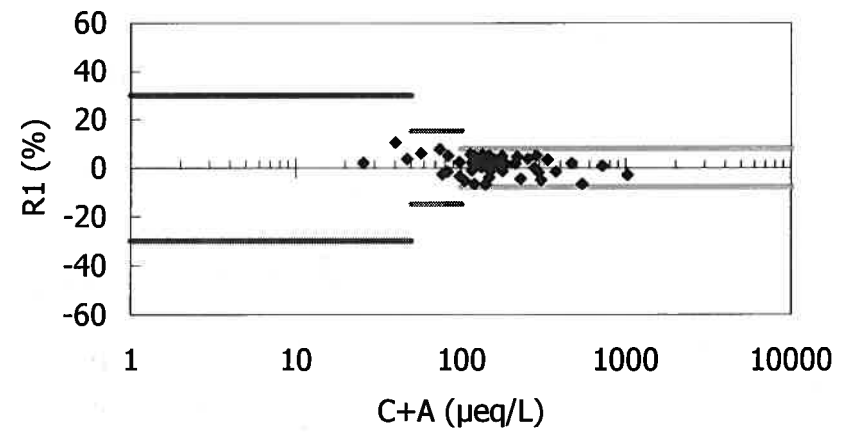


Fig. 3.23 a) Ijira Ion Balance (R1)

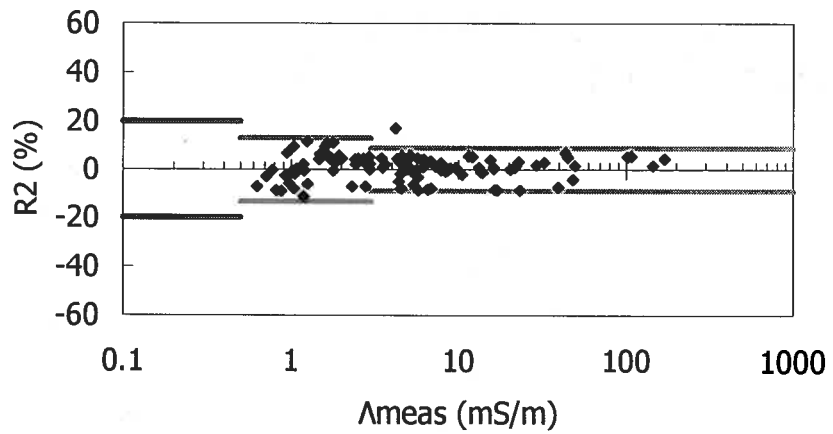


Fig. 3.22 b) Hedo Conductivity Agreement (R2)

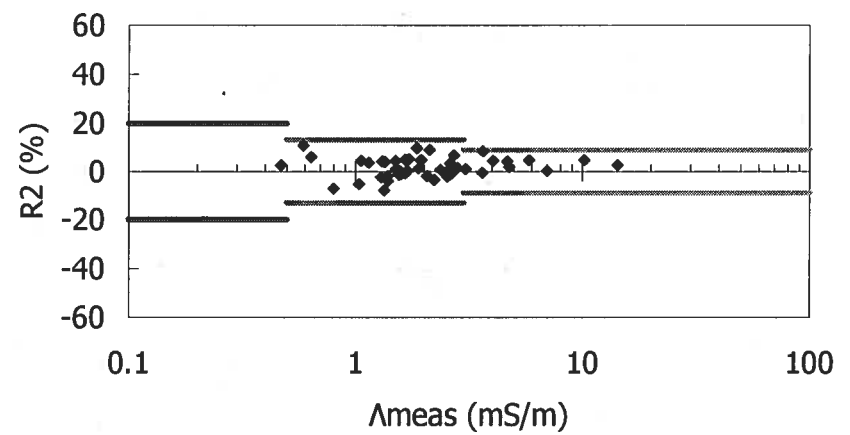


Fig. 3.23 b) Ijira Conductivity Agreement (R2)

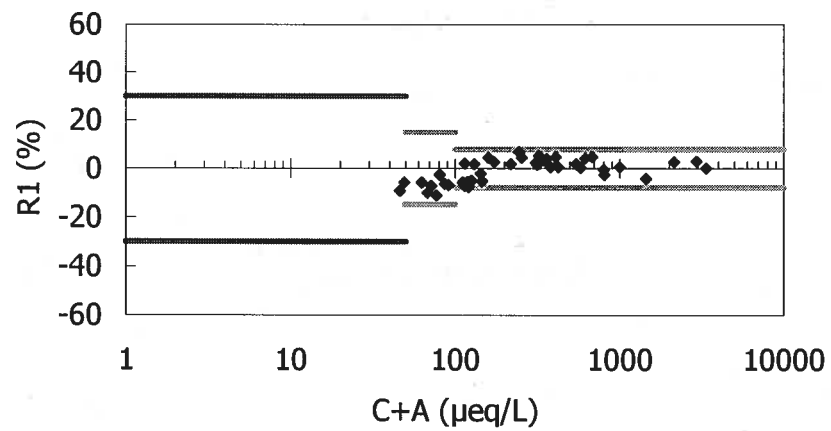


Fig. 3.24 a) Banryu Ion Balance (R1)

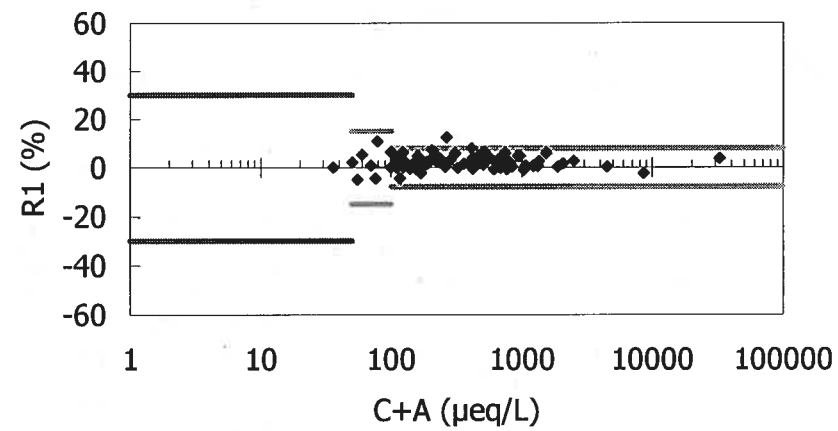


Fig. 3.25 a) Ochiishi Ion Balance (R1)

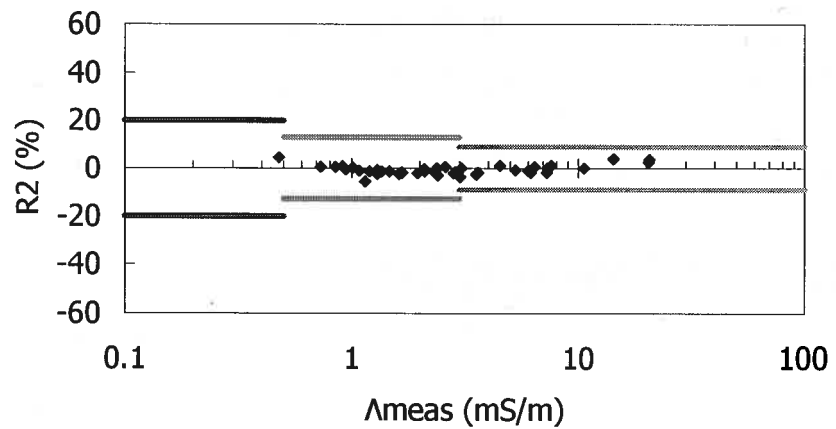


Fig. 3.24 b) Banryu Conductivity Agreement (R2)

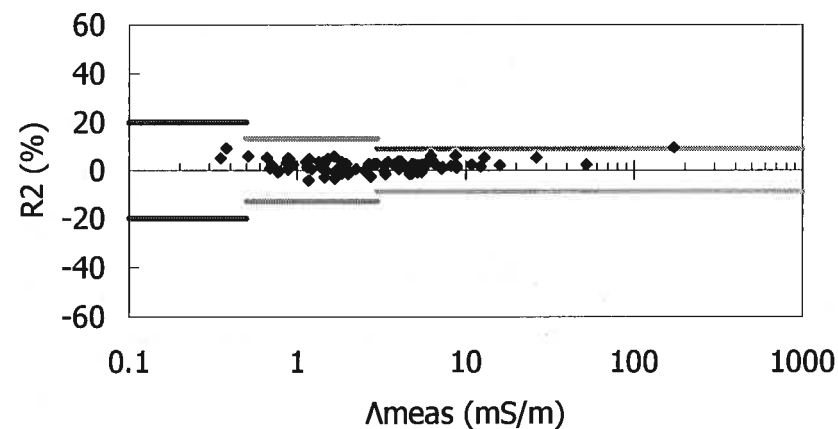
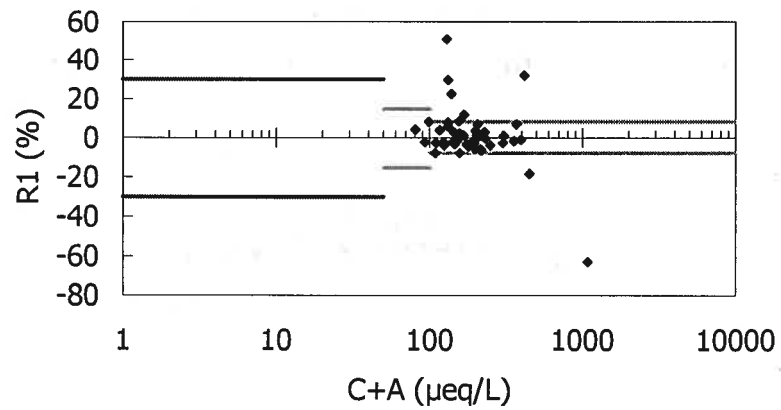
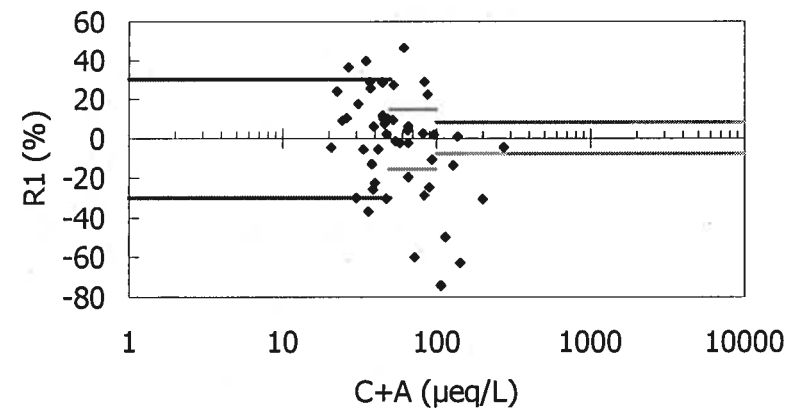


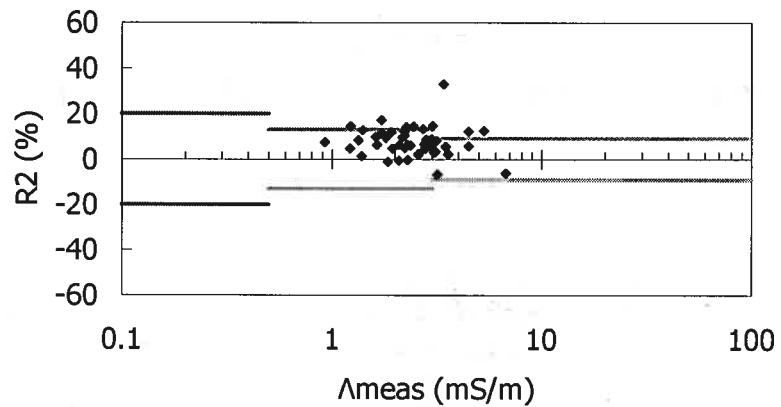
Fig. 3.25 b) Ochiishi Conductivity Agreement (R2)



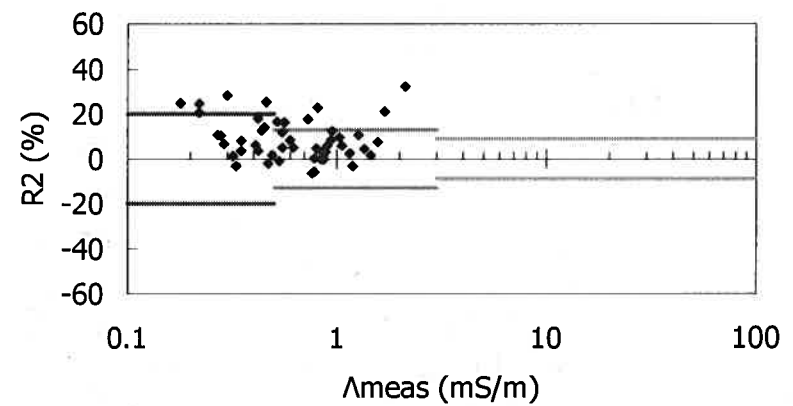
**Fig. 3.26 a) Petaling Jaya Ion Balance (R1)**  
*Calculated including Formic acid, Acetic acid and Oxalic acid*



**Fig. 3.27 a) Tanah Rata Ion Balance (R1)**  
*Calculated including Formic acid, Acetic acid and Oxalic acid*



**Fig. 3.26 b) Petaling Jaya Conductivity Agreement (R2)**  
*Calculated including Formic acid, Acetic acid and Oxalic acid*



**Fig. 3.27 b) Tanah Rata Conductivity Agreement (R2)**  
*Calculated including Formic acid, Acetic acid and Oxalic acid*

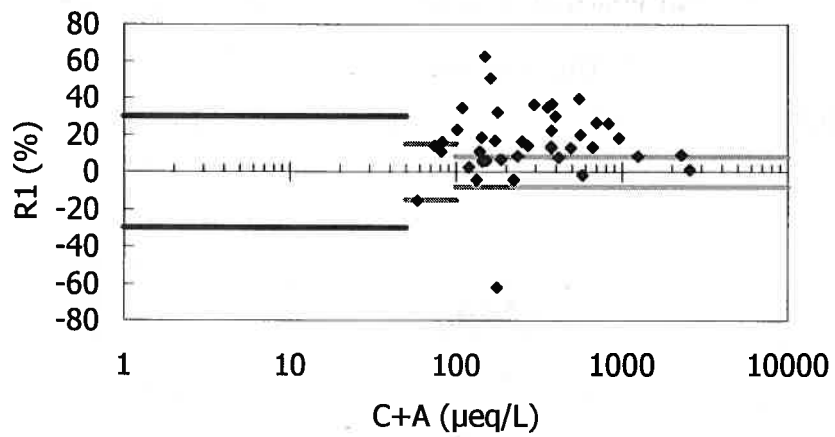


Fig. 3.28 a) Ulaanbaatar Ion Balance (R1)

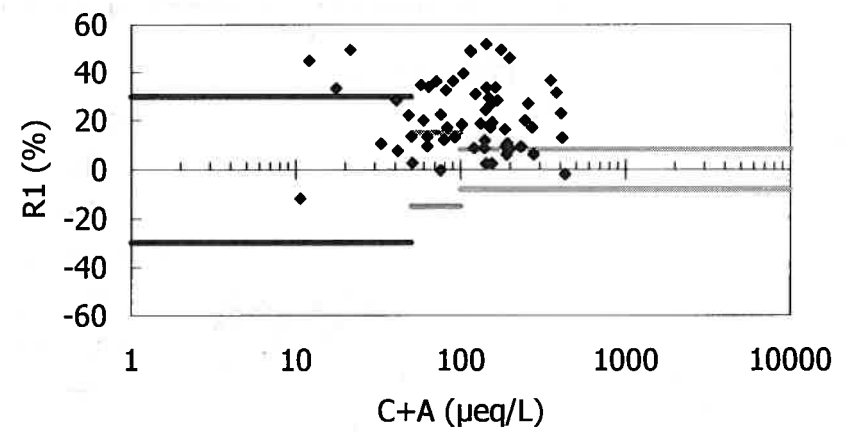


Fig. 3.29 a) Terelj Ion Balance (R1)

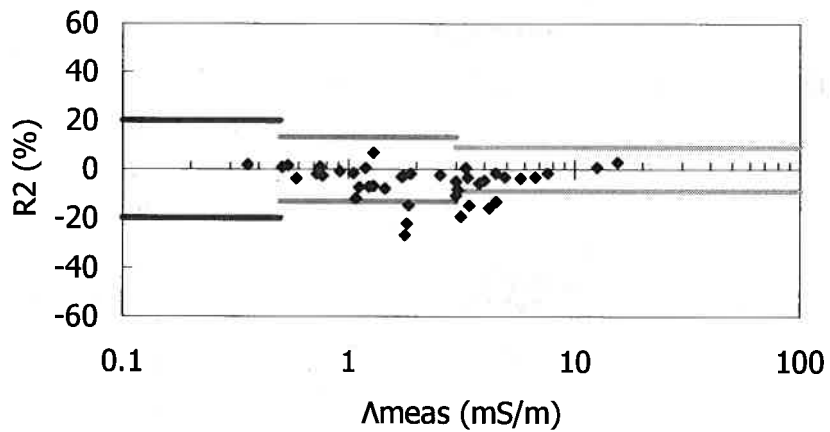


Fig. 3.28 b) Ulaanbaatar Conductivity Agreement (R2)

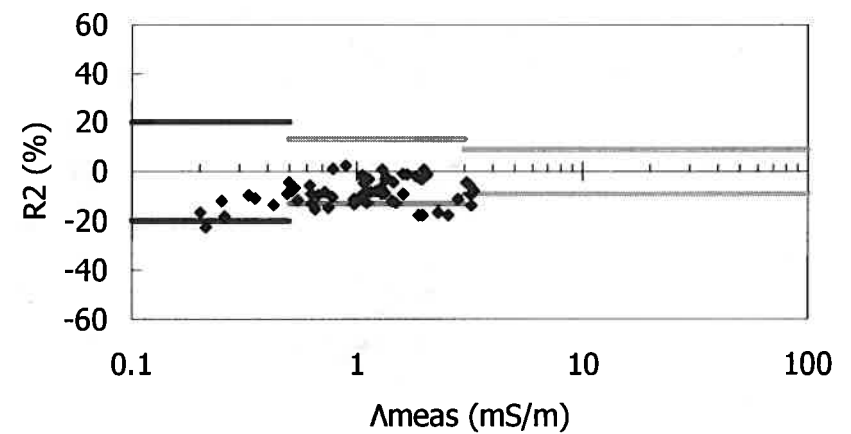


Fig. 3.29 b) Terelj Conductivity Agreement (R2)

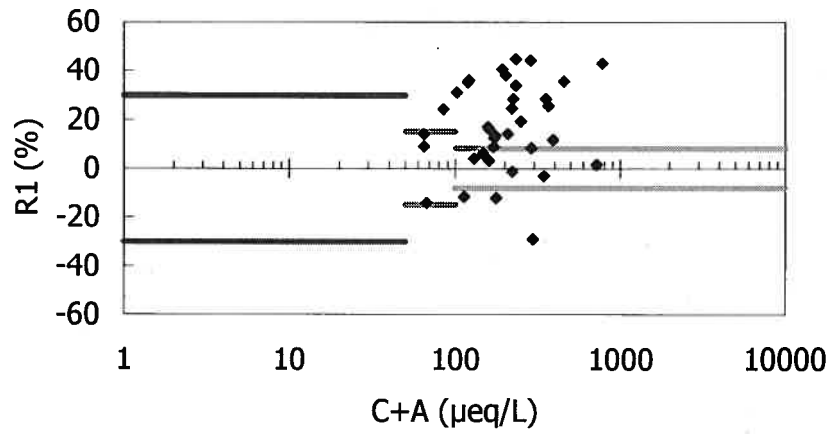


Fig. 3.30 a) Metro Manila Ion Balance (R1)

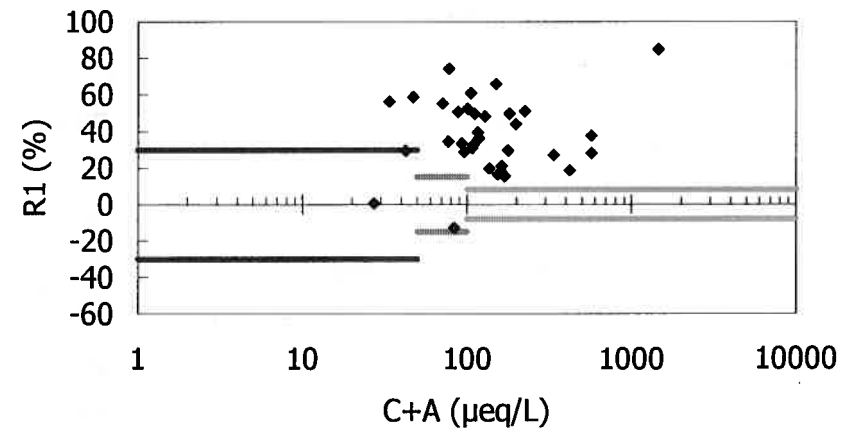


Fig. 3.31 a) Los Banos Ion Balance (R1)

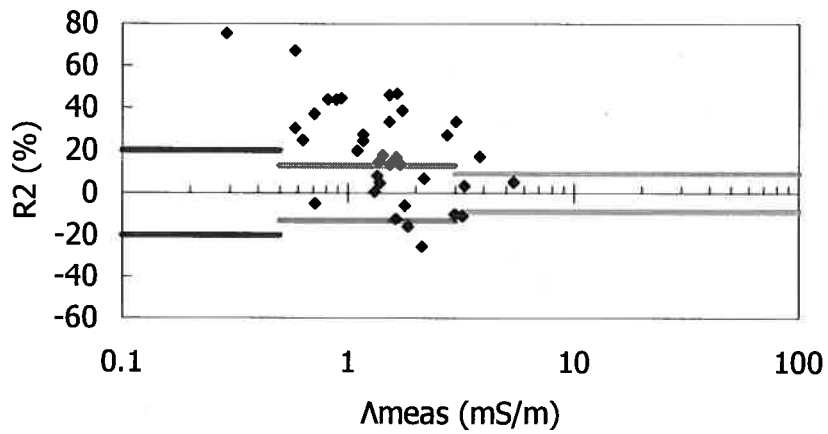


Fig. 3.30 b) Metro Manila Conductivity Agreement (R2)

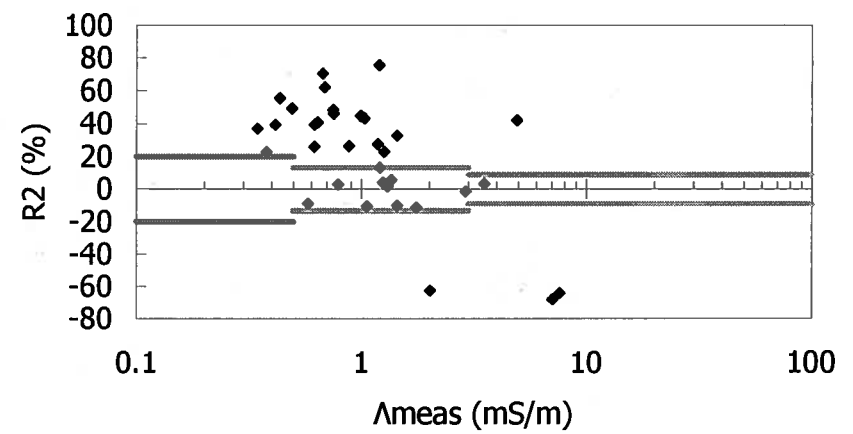


Fig. 3.31 b) Los Banos Conductivity Agreement (R2)

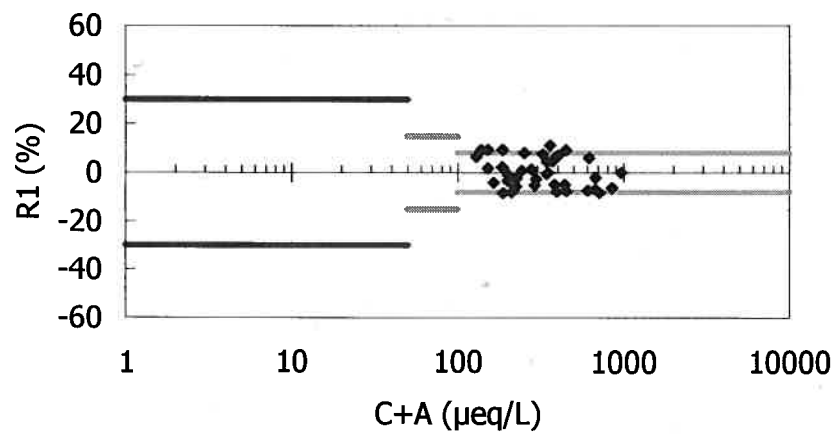


Fig. 3.32 a) Kanghwa Ion Balance (R1)

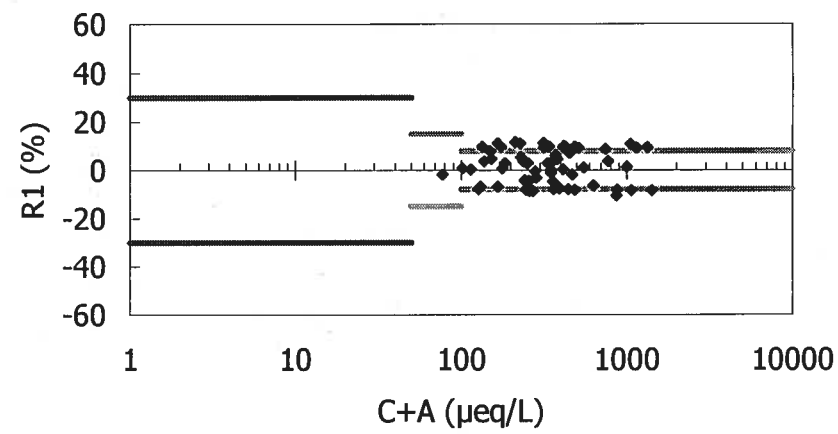


Fig. 3.33 a) Cheju Ion Balance (R1)

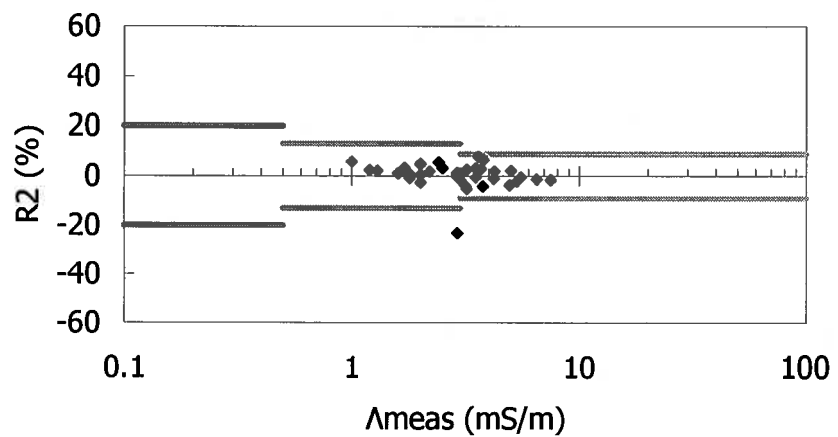


Fig. 3.32 b) Kanghwa Conductivity Agreement (R2)

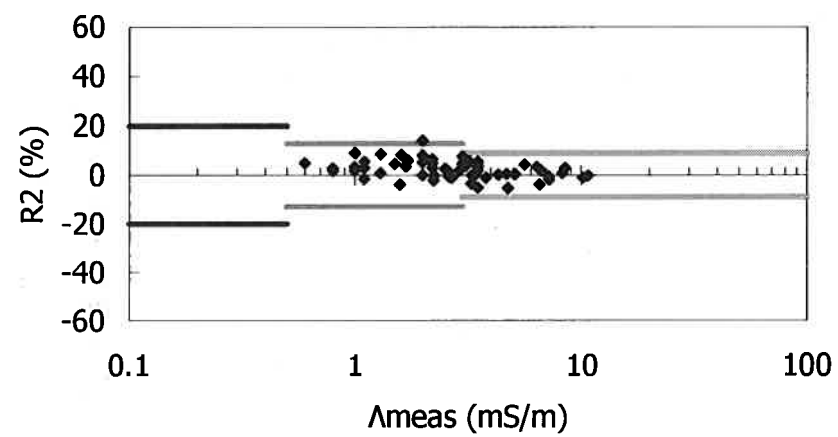


Fig. 3.33 b) Cheju Conductivity Agreement (R2)

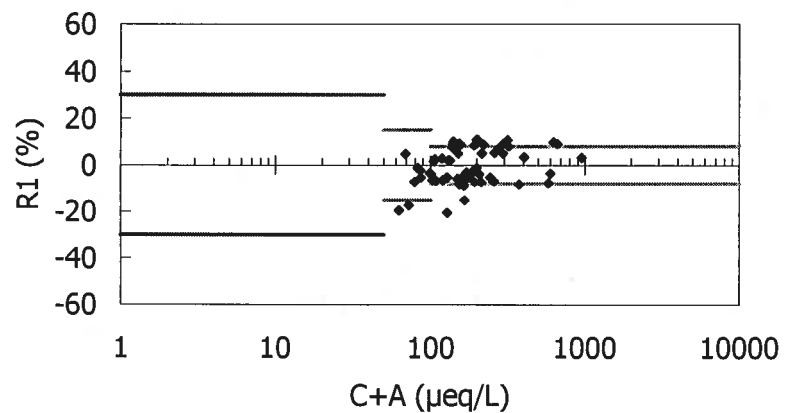


Fig. 3.34 a) Imsil Ion Balance (R1)

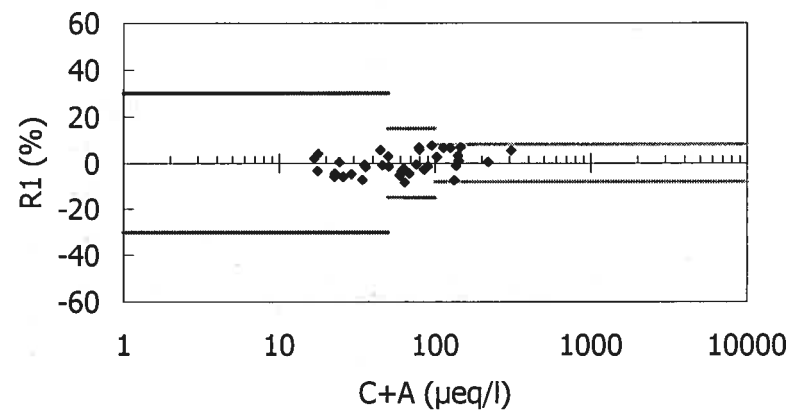


Fig. 3.35 a) Mondy Ion Balance (R1)  
 Calculated including  $HCO_3^-$ ,  $NO_2^-$  and  $Br^-$

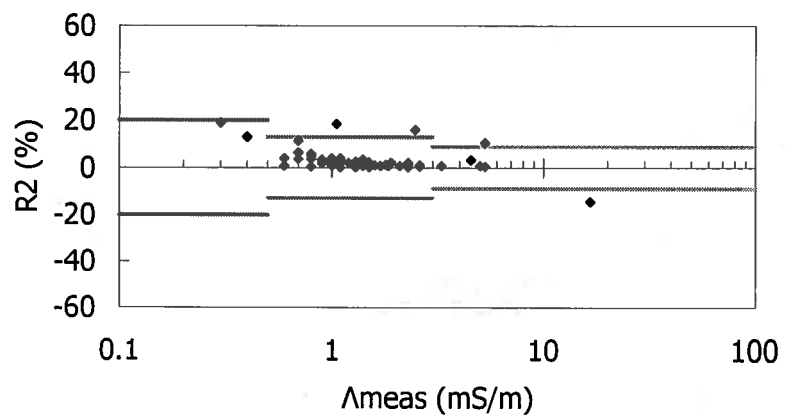


Fig. 3.34 b) Imsil Conductivity Agreement (R2)

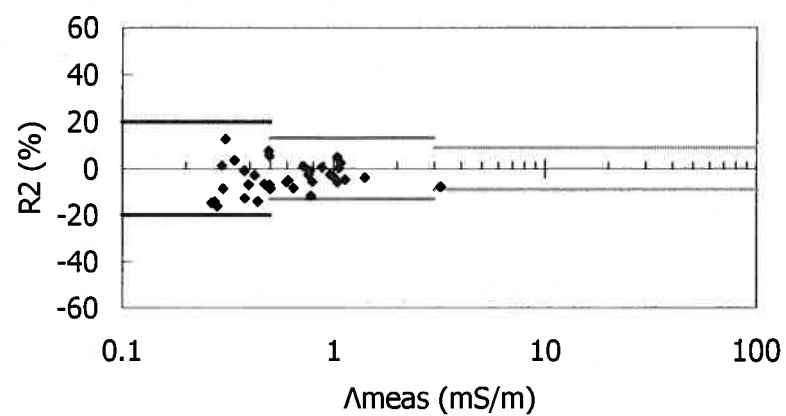
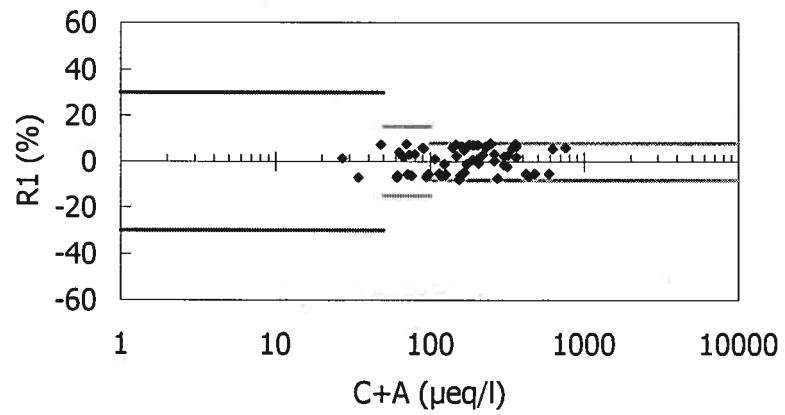
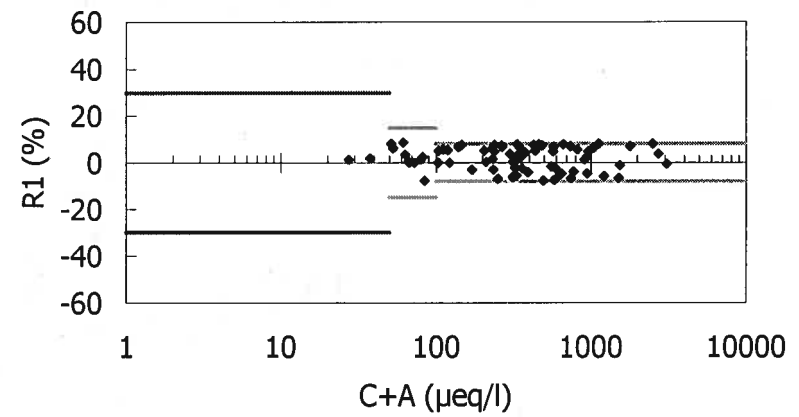


Fig. 3.35 b) Mondy Conductivity Agreement (R2)  
 Calculated including  $HCO_3^-$ ,  $NO_2^-$  and  $Br^-$



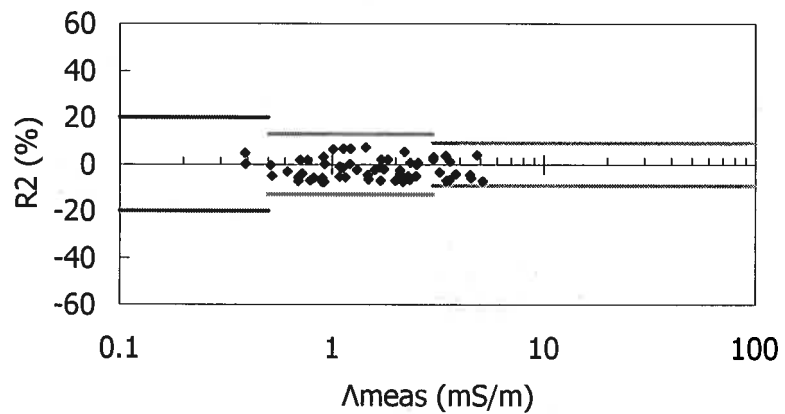
**Fig. 3.36 a) Listvyanka Ion Balance (R1)**

*Calculated including  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$  and  $\text{Br}^-$*



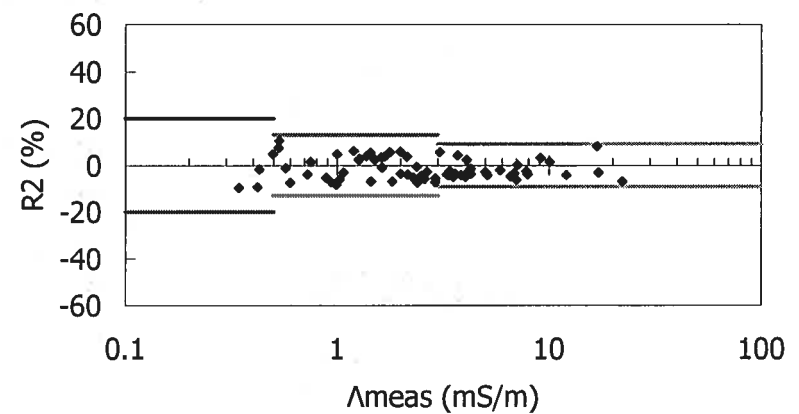
**Fig. 3.37 a) Irkutsk Ion Balance (R1)**

*Calculated including  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$  and  $\text{Br}^-$*



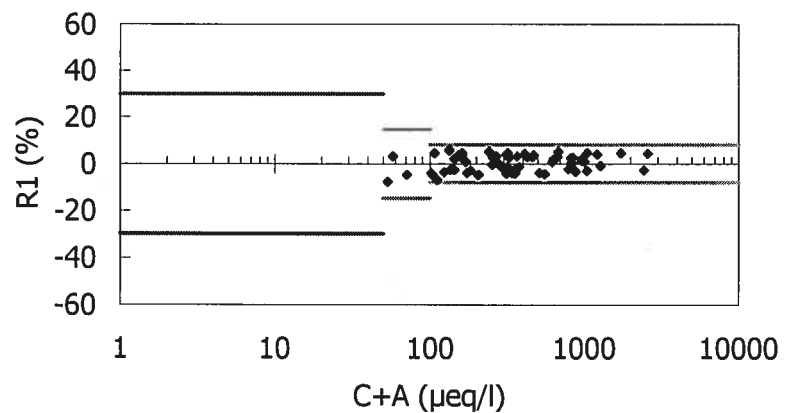
**Fig. 3.36 b) Listvyanka Conductivity Agreement (R2)**

*Calculated including  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$  and  $\text{Br}^-$*

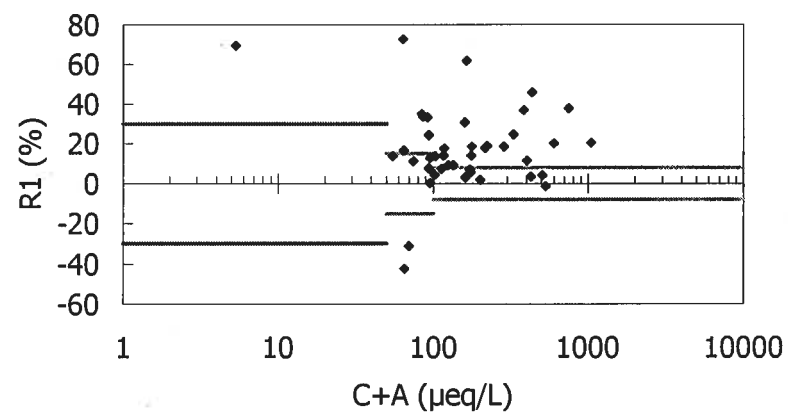


**Fig. 3.37 b) Irkutsk Conductivity Agreement (R2)**

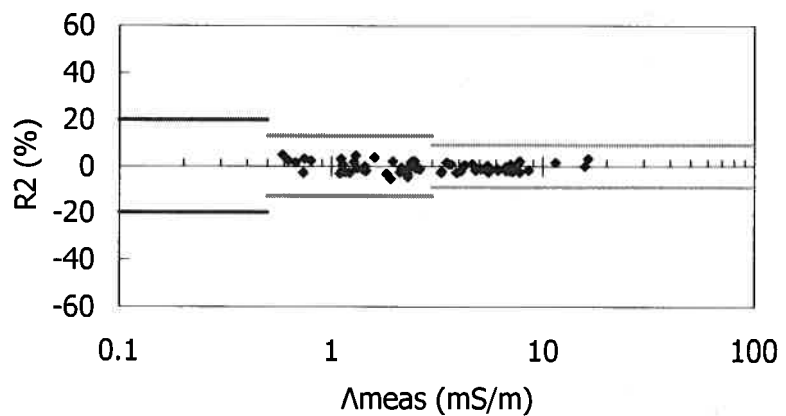
*Calculated including  $\text{HCO}_3^-$ ,  $\text{NO}_2^-$  and  $\text{Br}^-$*



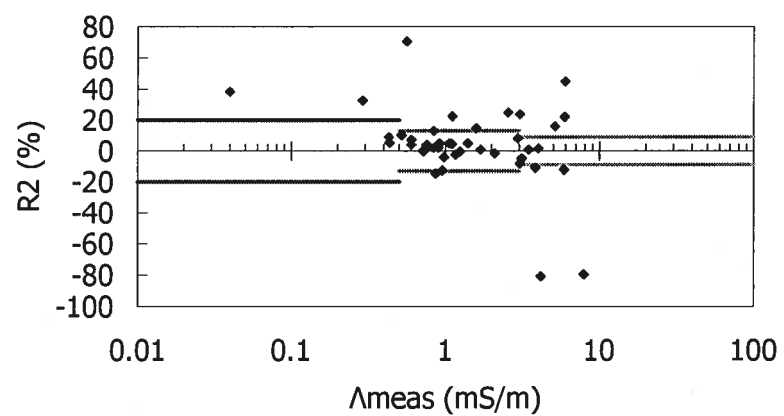
**Fig. 3.38 a) Primorskaya Ion Balance (R1)**  
*Calculated including  $HCO_3^-$*



**Fig. 3.39 a) Bangkok Ion Balance (R1)**



**Fig. 3.38 b) Primorskaya Conductivity Agreement (R2)**  
*Calculated including  $HCO_3^-$*



**Fig. 3.39 b) Bangkok Conductivity Agreement (R2)**



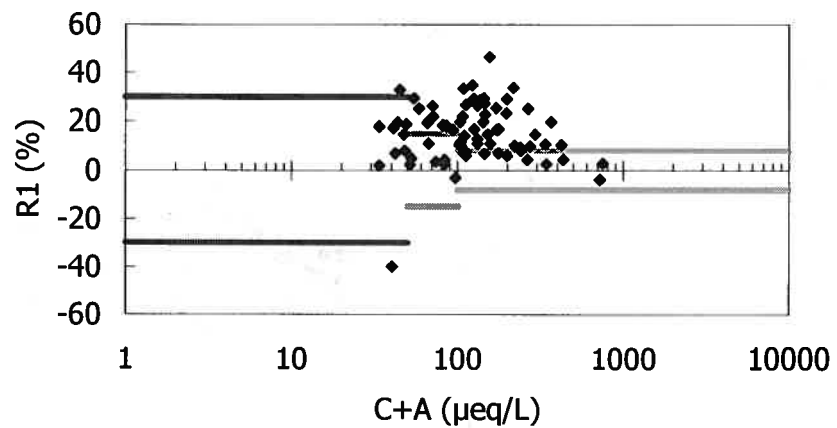


Fig. 3.40 a) Patumthani Ion Balance (R1)

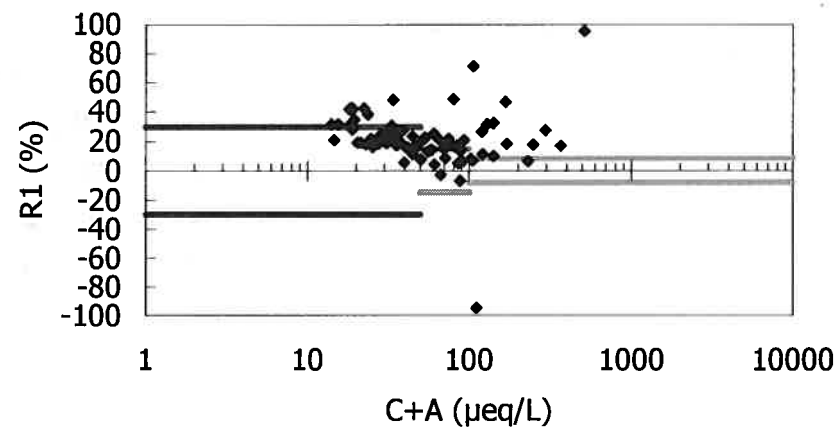


Fig. 3.41 a) Vachiralongkorn Dam Ion Balance (R1)

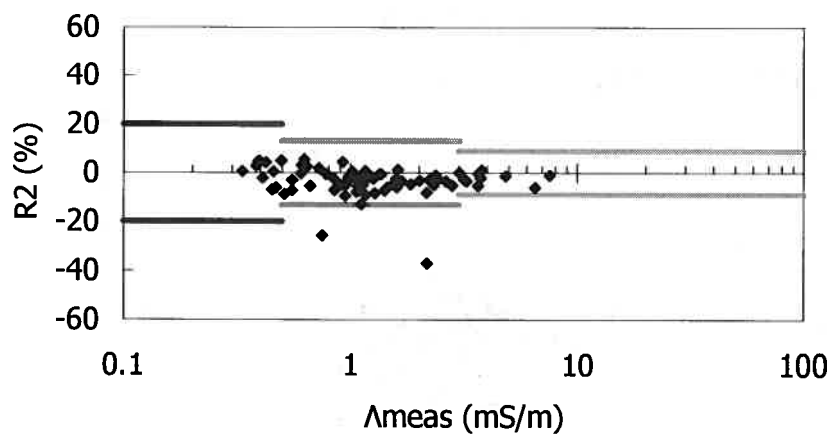


Fig. 3.40 b) Patumthani Conductivity Agreement (R2)

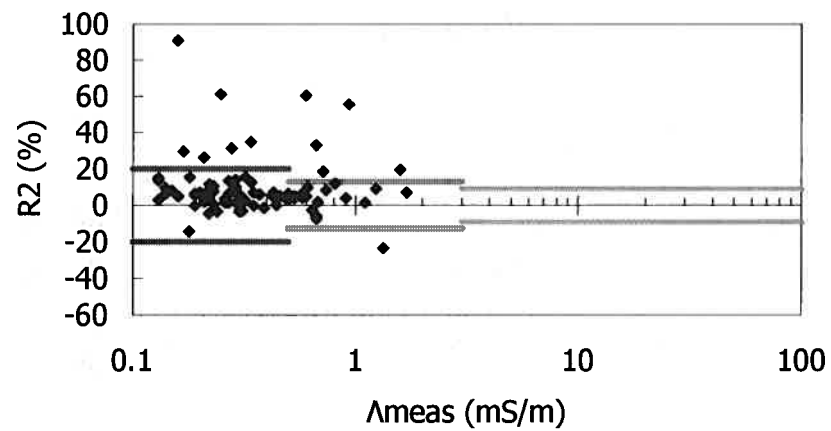


Fig. 3.41 b) Vachiralongkorn Dam Conductivity Agreement (R2)

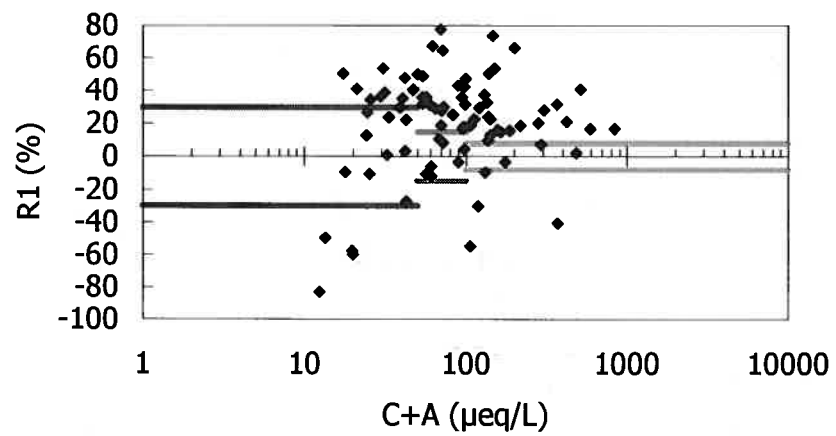


Fig. 3.42 a) Mae Hia Ion Balance (R1)

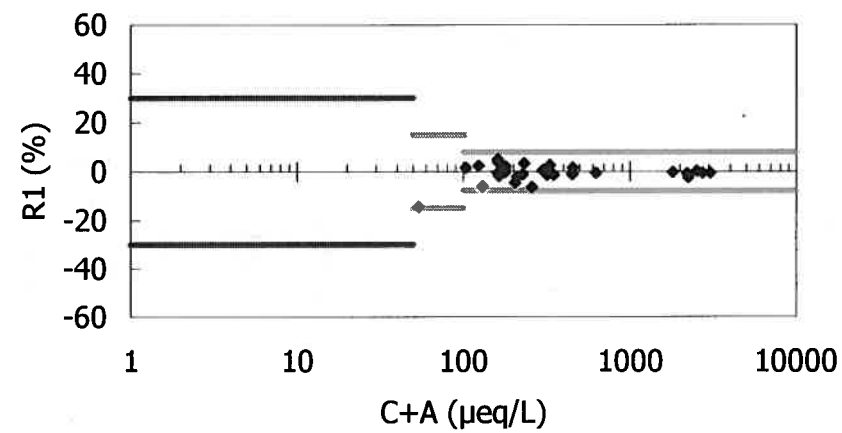


Fig. 3.43 a) Hanoi Ion Balance (R1)

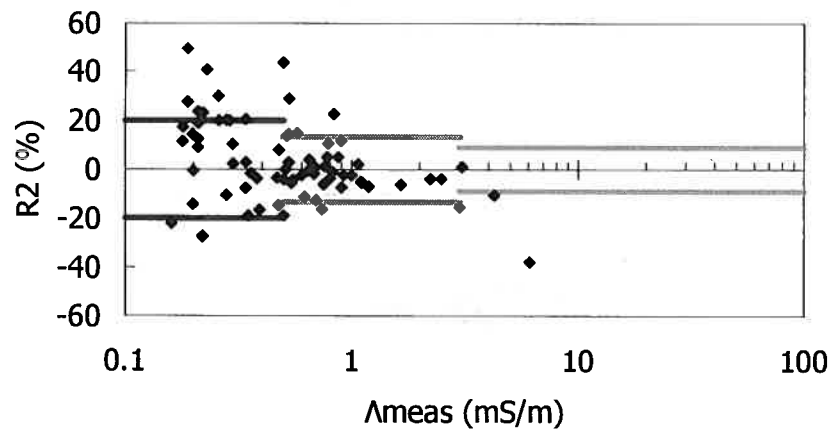


Fig. 3.42 b) Mae Hia Conductivity Agreement (R2)

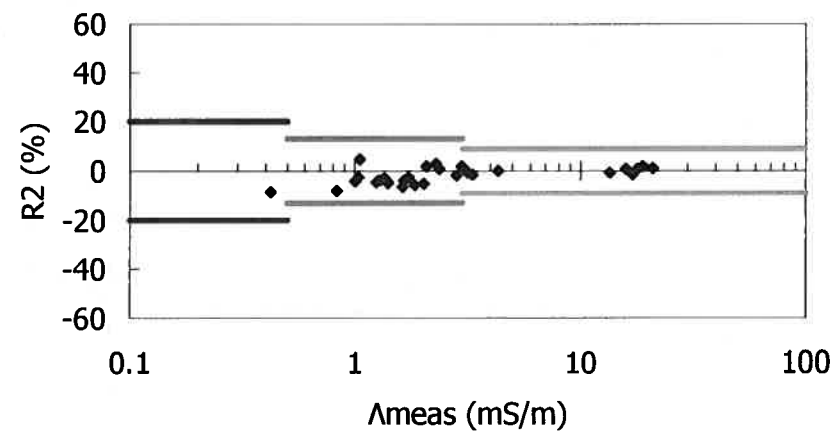


Fig. 3.43 b) Hanoi Conductivity Agreement (R2)

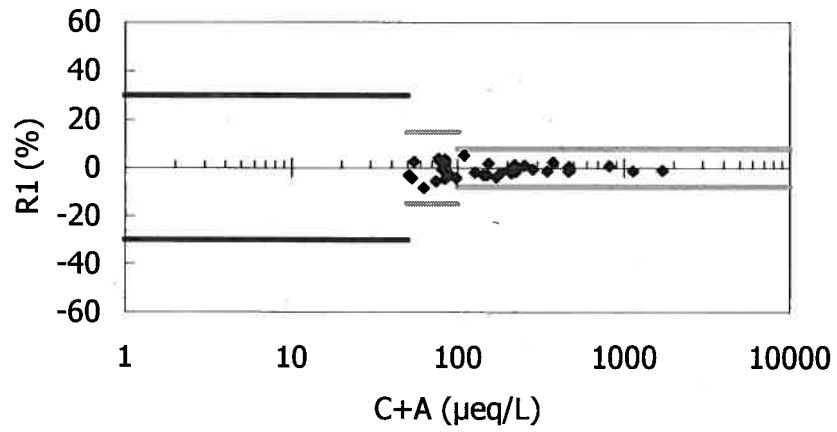


Fig. 3.44 a) Hoa Binh Ion Balance (R1)

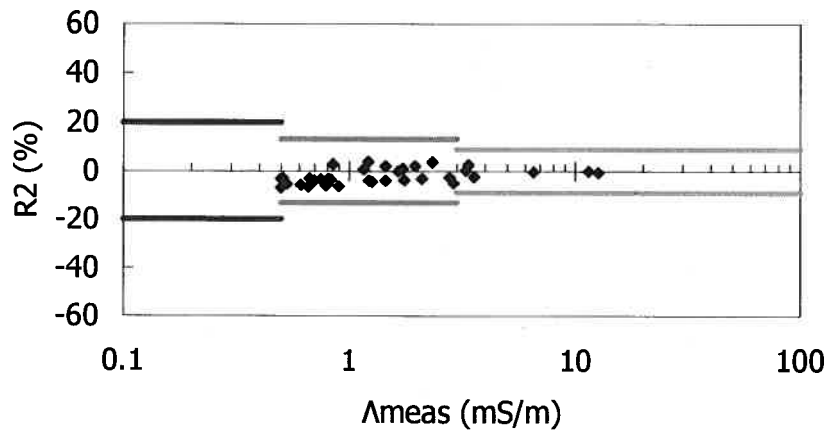


Fig. 3.44 b) Hoa Binh Conductivity Agreement (R2)

## **4. Dry Deposition (Air Concentration) Monitoring**

### **4.1 Method**

Automatic monitoring methods and filter pack method were mainly used to implement the dry deposition (air concentration) monitoring in 2003. The monitoring items were selected, taking into account priority of the chemical species defined in the “Strategy Paper for Future Direction of Dry Deposition Monitoring of EANET (1999)”.

Measurement methods and parameters in each monitoring site for Dry Deposition (Air Concentration) Monitoring in 2003 are shown in Table 4.1.

#### **1) Automatic monitoring methods**

In the priority of the chemical species, SO<sub>2</sub>, NO<sub>2</sub>(urban), NO, O<sub>3</sub>, and PM could be monitored by use of automatic monitoring methods. The methods were used by China, Japan, Malaysia, Republic of Korea, Russia and Thailand. The QA/QC program for monitoring the SO<sub>2</sub>, NO<sub>2</sub>(urban), NO, O<sub>3</sub>, and PM using automatic monitors was described in the “QA/QC Program for the Air Concentration Monitoring in East Asia (2001)”. Individual methods of each site are shown in Table 4.2.

#### **2) Filter pack method**

Filter pack method was used by Indonesia, Japan, Malaysia, Mongolia, Philippines, Republic of Korea, Russia, Thailand and Vietnam for the filter pack monitoring in 2003. The methods could determine gaseous (SO<sub>2</sub>, HNO<sub>3</sub>, HCl, NH<sub>3</sub>) and particulate components (SO<sub>4</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup>, Cl<sup>-</sup>, Na<sup>+</sup>, K<sup>+</sup>, NH<sub>4</sub><sup>+</sup>, Ca<sup>2+</sup>, Mg<sup>2+</sup>).

“Technical Document of Filter Pack Monitoring in East Asia” was endorsed at the Third Session of the Science Advisory Committee (SAC3) held in November 2003. The monitoring was conducted by means of the four-stage filter pack method, which was explained in the technical document. Basic specification of the four-stage filter pack method is shown in Fig. 4.1.

#### **3) Other methods**

Malaysia adopted aerosol sampler to monitor aerosol components and passive sampler to monitor PMC, SO<sub>2</sub>, HNO<sub>3</sub> and NO<sub>2</sub>. It is expected to consider the applicability of the passive sampler for the Dry Deposition Monitoring of EANET in the future.

**Table 4.1 Sampling Method and Parameter for Dry Deposition (Air Concentration) Monitoring in 2003**

Country	Name of sites	Characteristics of sites	Method	Parameter
Cambodia				
China	Chongqing	Urban	-	None
	-Guanyinqiao	Rural	AT	SO <sub>2</sub> , PM <sub>10</sub>
	-Jinyunshan			
	Xi'an	Urban	-	None
	-Shizhan	Rural	AT	SO <sub>2</sub> , PM <sub>10</sub>
	-Weishuiyuan	Remote	-	None
	-Jiwozi			
	Xiamen	Urban	AT	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub>
	-Hongwen	Remote	-	None
	-Xiaoping			
Zhuhai	Urban	AT	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub>	
-Xiang Zhou	Urban	-	None	
-Zhuxian Cavern				
Indonesia	Jakarta	Urban	-	None
	Serpong	Rural	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Kototabang	Remote	-	None
	Bandung	Urban	-	None
Japan	Rishiri	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10/2.5</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Tappi	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Sado-seki	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Happo	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Oki	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10/2.5</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Yusuhara	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Ijira	Rural	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Banryu	Urban	AT FP	SO <sub>2</sub> , NO, NO <sub>2</sub> , NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Hedo	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Ogasawara	Remote	AT FP	SO <sub>2</sub> , NO, NO <sub>x</sub> <sup>*</sup> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC

**Table 4.1 Sampling Method and Parameter for Dry Deposition (Air Concentration) Monitoring in 2003 (continued)**

Country	Name of sites	Characteristics of sites	Method	Parameter
Lao P.D.R.	Vientian	Urban	-	None
Malaysia	Tanah Rata	Remote	FP PS	SO <sub>2</sub> , HNO <sub>3</sub> , NH <sub>3</sub> , PMC NO <sub>2</sub>
	Petaling Jaya	Urban	AT AS PS	PM <sub>10</sub> PMC SO <sub>2</sub> , HNO <sub>3</sub> , NO <sub>2</sub>
Mongolia	Ulaanbaatar	Urban	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Terej	Remote	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
Philippines	Metro Manila	Urban	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Los Banos	Rural	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
Republic of Korea	Kanghwa	Rural	AT FP	SO <sub>2</sub> , NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC in PM <sub>2.5</sub>
	Cheju (Kosan)	Remote	AT FP	SO <sub>2</sub> , NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC in PM <sub>2.5</sub>
	Imsil	Rural	AT FP	SO <sub>2</sub> , NO <sub>2</sub> , O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC in PM <sub>2.5</sub>
Russia	Mondy	Remote	FP AT	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC O <sub>3</sub>
	Listvyanka	Rural	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Irkutsk	Urban	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Primorskaya	Rural	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
Thailand	Bangkok	Urban	AT FP	SO <sub>2</sub> , NO <sub>x</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Samutprakarn	Urban	AT	SO <sub>2</sub> , NO, NO <sub>2</sub> , O <sub>3</sub>
	Vachiralongkorn Dam	Remote	-	-
	Mae Hia	Rural	AT FP	SO <sub>2</sub> , NO, O <sub>3</sub> , PM <sub>10</sub> HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Patumthani	Rural	AT	SO <sub>2</sub> , NO, NO <sub>2</sub> , O <sub>3</sub>
Vietnam	Hanoi	Urban	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC
	Hoa Binh	Rural	FP	SO <sub>2</sub> , HNO <sub>3</sub> , HCl, NH <sub>3</sub> , PMC

(Note 1) AT: Automatic monitor, FP: Filter pack, AS: Aerosol sampler, PS: passive sampler, PMC: particulate matter components

(Note 2) SO<sub>2</sub>, HNO<sub>3</sub> and NH<sub>3</sub> measured by PS and PMC measured by AS in Tanah Rata and SO<sub>2</sub> measured by FP in Bangkok and Mae Hia are annexed in Appendix of this Section.

**Table 4.2 Methods of automatic monitors in 2003**

Country	Sites	Parameter			
		SO <sub>2</sub>	NO <sub>x</sub>	O <sub>3</sub>	PM <sub>10</sub> (PM <sub>2.5</sub> )
China	Jinyunshan	UVF	CLD	-	β-ray
	Weishuiyuan	UVF	CLD	-	β-ray
	Hongwen	DOAS	DOAS	-	TEOM
	Xianzhou	DOAS	DOAS	-	TEOM
Japan	Rishiri	UVF	CLD	UVP	β-ray (TEOM)
	Tappi	UVF	CLD	UVP	TEOM
	Ogasawara	UVF	CLD	UVP	β-ray
	Sado-seki	UVF	CLD	UVP	TEOM
	Happo	UVF	CLD	UVP	β-ray
	Oki	UVF	CLD	UVP	TEOM (TEOM)
	Yusuhara	UVF	CLD	UVP	β-ray
	Hedo	UVF	CLD	UVP	β-ray
	Ijira	UVF	CLD	UVP	TEOM
	Banryu	UVF	CLD	UVP	TEOM
Malaysia	Petaling Jaya	-	-	-	TEOM
Republic of Korea	Kanghwa	UVF	CLD	UVP	β-ray
	Cheju (Kosan)	UVF	CLD	UVP	β-ray
	Imsil	UVF	CLD	UVP	β-ray
Russia	Mondy	-	-	UVP	-
Thailand	Mae Hia	UVF	CLD	UVP	β-ray
	Samutprakarn	UVF	CLD	UVP	-

(Note) UVF: ultraviolet fluorescent method, CLD: chemiluminescence detection method, UVP: ultraviolet photometric method, β-ray: β-ray absorption method, TEOM: Tapered Element Oscillating Microbalance method, DOAS: Differential Optical Absorption Spectroscopy method

### Preparation of filter pack

Stage	Specification of filter	Collected species
1 <sup>st</sup> (F0)	PTFE filter (pore size: 0.8µm, diameter: 47mm)	Aerosols
2 <sup>nd</sup> (F1)	Polyamide filter (pore size: 0.45µm, diameter: 47mm)	HNO <sub>3</sub> , SO <sub>2</sub> , HCl, NH <sub>3</sub>
3 <sup>rd</sup> (F2)	Impregnated cellulose filter Solution: 6% K <sub>2</sub> CO <sub>3</sub> + 2% glycerin	SO <sub>2</sub> , HCl
4 <sup>th</sup> (F3)	Impregnated cellulose filter Solution: 5% phosphoric acid + 2% glycerin	NH <sub>3</sub>

### Sampling on site

Air flow rate: approximately 1 liter/minute Sampling period: a week or two weeks
---

### Pretreatment of filter pack

Stage	Solvent	Extracted species
F0	Extracted by 20mL deionized water	SO <sub>4</sub> <sup>2-</sup> , NO <sub>3</sub> <sup>-</sup> , Cl <sup>-</sup> , NH <sub>4</sub> <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>2+</sup> , Mg <sup>2+</sup>
F1	Extracted by 20mL deionized water	SO <sub>4</sub> <sup>2-</sup> , NO <sub>3</sub> <sup>-</sup> , Cl <sup>-</sup> , NH <sub>4</sub> <sup>+</sup>
F2	Extracted by 20mL 0.05% H <sub>2</sub> O <sub>2</sub>	SO <sub>4</sub> <sup>2-</sup> , Cl <sup>-</sup>
F3	Extracted by 20mL deionized water	NH <sub>4</sub> <sup>+</sup>

### Chemical analysis

By Ion Chromatography or other suitable analytical methods
--

Fig. 4.1 Specification of four-stage filter pack method

## 4.2 Results of Monitoring

Monitoring data were summed up into monthly averaged values accompanied with maximum, minimum and data completeness for a month. For the calculations of monthly averages, non-detected data were regarded as zero. Summarized data are presented in [Table 4.3](#) through [Table 4.20](#).

In these tables, terms and abbreviations indicate the followings:

- Mean : monthly arithmetic average value,
- Max-d : maximum value of daily data in a month,
- Min-d : minimum value of daily data in a month,
- Max-10d : maximum value of 10-day interval data in a month,
- Min-10d : minimum value of 10-day interval data in a month,
- Max-w : maximum value of weekly data in a month,
- Min-w : minimum value of weekly data in a month,
- Max-2w : maximum value of biweekly data in a month,
- Min-2w : minimum value of biweekly data in a month,
- Max-\* : maximum value of flexible interval data in a month,
- Min-\* : minimum value of flexible interval data in a month,
- % : percentage of period of available data during a month,
- NO<sub>x</sub>\* : NO<sub>x</sub> measured by CLD in remote or rural sites.

In the case of automatic monitoring in rural and remote sites, a lot of non-detected data can be appeared, especially in the data of SO<sub>2</sub> and NO<sub>x</sub>. Median value could be representative value in that case. Median value (Median) and percentage of period of available data during a month not including data under detection limit (%\*) in Japanese remote sites are shown in [Table 4.21](#) through [Table 4.23](#).

In the [Table 4.3](#) though [Table 4.23](#), ppb unit for gas and µg/m<sup>3</sup> unit for particle were used. Approximate conversion ratios from ppb to µg/m<sup>3</sup>, which are based on 20°C, 1 atm, were shown in [Table 4.24](#).

Actually detection limit depends on specification of instrument or procedures of sampling and analysis. NC set up expedient detection limits as shown in [Table 4.25](#) taking into account methods adopted by each country. Data under the detection limit were treated as "N.D." in the [Table 4.3](#) though [Table 4.23](#). Regarding the filter pack method, all of 10 monitoring sites in Japan conducted the analysis of five blank filters for every month in 2003. According to the results, the detection limit for particulate components was determined for 0.01 µg/m<sup>3</sup> by means of 3σ, where σ is the standard deviation of five blank filters. Median of every 3σ for each particulate component was summarized in [Table 4.26](#).

Table 4.3 SO<sub>2</sub>

Unit ppb			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	19.7	16.2	16.2	6.4	6.0	6.1	18.6	18.3	10.2	22.0	31.5	24.5	
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
		Max-d	35.6	25.5	40.1	12.4	12.4	10.5	38.6	30.0	27.8	38.3	59.6	53.3	
		Min-d	5.3	4.5	2.3	2.6	2.3	1.9	6.0	6.0	1.5	5.6	3.0	13.1	
	Weishuiyuan	Mean	5.6	5.6	4.1	3.8	3.1	3.8	3.4	2.3	2.6	2.2	4.1	4.7	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-d	11.6	10.9	7.5	7.5	7.5	6.4	8.6	4.1	4.1	3.4	6.4	7.5	
		Min-d	1.1	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3	2.3	
	Hongwen	Mean	15.6	14.4	13.6	13.0	10.3	8.4	5.0	5.6	7.9	8.4	9.7	8.2	
		%	100	100	100	100	100	90	100	100	100	100	97	100	
		Ma × d	32.3	29.3	24.8	27.8	21.8	41.3	10.9	14.3	12.0	16.1	45.8	16.1	
		Min-d	6.4	3.8	4.1	1.5	2.3	1.9	2.3	2.3	3.0	3.4	3.4	4.1	
	Xiang Zhou	Mean	10.5	6.9	7.2	7.2	12.3	10.2	6.8	8.9	7.8	13.3	13.6	16.2	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-d	19.9	15.8	19.1	16.9	39.8	31.9	19.5	22.1	17.6	22.1	20.6	24.4	
Min-d		2.6	2.6	1.9	3.4	6.4	2.6	2.6	2.3	1.9	3.0	4.9	10.5		
Indonesia	Serpong	Mean	0.8	4.2	2.7	0.7	1.2	0.7	0.7	1.4	0.9	0.8	1.2	5.4	
		%	100	100	100	100	100	90	97	100	100	100	64	75	
		Max-w	0.9	8.3	5.3	1.2	2.6	1.0	1.3	1.8	1.2	1.4	1.4	14.3	
		Min-w	0.5	1.1	1.6	0.4	0.6	0.3	N.D.	1.0	0.6	0.2	0.8	0.8	
Japan	Rishiri	Mean	0.5	0.4	0.1	N.D.	0.2	0.2	0.1	N.D.	N.D.	N.D.	0.2	0.4	
		%	97	98	86	95	98	98	98	98	97	98	98	98	
		Max-d	1.9	1.3	0.5	0.4	0.8	0.5	0.4	0.3	1.0	0.3	0.9	2.4	
		Min-d	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Tappi	Mean	0.8	0.5	0.5	0.4	0.8	0.5	0.2	0.3	0.3	0.3	0.5	0.6	
		%	92	99	99	99	73	48	74	93	97	98	88	99	
		Max-d	4.5	1.4	1.5	1.5	2.8	1.4	0.7	0.7	0.9	1.4	1.5	2.2	
		Min-d	N.D.	N.D.	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Sado-seki	Mean	0.6	0.4	0.4	0.4	0.7	0.4	0.1	0.2	0.2	0.4	0.5	0.9	
		%	98	99	98	98	98	95	87	97	55	97	98	75	
		Max-d	2.6	1.7	1.8	1.7	3.0	2.0	0.5	1.3	0.7	1.1	1.9	4.3	
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Happo	Mean	0.7	0.6	0.7	0.5	0.9	0.5	N.D.	0.1	0.2	0.3	0.3	0.5	
		%	98	98	98	97	97	97	97	97	78	97	97	97	
		Max-d	2.5	1.5	3.0	2.8	4.2	2.6	0.3	0.4	1.0	1.2	1.7	1.3	
		Min-d	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Ogasawara	Mean	0.1	N.D.	N.D.	N.D.	0.1	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
		%	96	91	95	95	97	96	96	96	95	96	96	96	
		Max-d	0.3	0.5	0.9	0.1	1.1	1.7	0.3	0.2	0.1	0.3	0.2	0.3	
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Oki	Mean	0.4	0.3	0.2	0.3	-	-	-	-	0.3	0.4	0.4	1.0	
		%	74	40	98	81	-	-	-	-	92	97	95	97	
		Max-d	2.6	1.1	1.0	1.5	-	-	-	-	1.7	1.5	1.6	4.6	
		Min-d	N.D.	N.D.	N.D.	N.D.	-	-	-	-	N.D.	N.D.	N.D.	N.D.	
	Ijira	Mean	0.3	0.3	0.4	0.6	1.3	0.4	0.2	0.3	0.6	0.3	0.2	0.1	
		%	100	100	100	100	100	100	100	100	100	94	100	99	
		Max-d	0.8	0.8	1.9	2.6	7.0	4.5	1.8	1.4	3.6	1.1	1.2	0.6	
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Banryu	Mean	1.6	1.4	0.8	0.7	0.9	0.8	0.5	0.6	0.8	0.8	1.1	1.5	
		%	12	98	97	97	98	97	98	98	98	98	97	81	
		Max-d	3.4	5.1	2.4	2.5	2.1	2.5	1.8	1.7	4.6	1.5	2.8	5.5	
		Min-d	0.8	0.2	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	0.2	0.1	0.4	
	Yusuhara	Mean	1.4	1.6	0.9	0.5	0.3	0.6	1.1	0.5	0.6	0.9	0.6	1.6	
		%	99	99	99	99	99	99	99	99	99	99	86	99	
		Max-d	3.8	8.2	3.4	1.4	1.0	2.1	5.3	3.4	2.5	6.0	2.1	4.8	
		Min-d	0.4	0.3	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.3	
	Hedo	Mean	0.6	0.3	0.4	0.2	0.1	0.2	0.1	N.D.	0.5	0.4	N.D.	0.4	
		%	98	98	97	99	99	98	99	61	53	99	76	98	
		Max-d	2.3	2.1	2.6	1.3	0.7	0.6	0.4	0.3	1.8	1.2	0.6	2.2	
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Malaysia	TanahRata	Mean	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
			%	100	100	100	100	100	100	100	100	100	100	100	100
			Max-w	0.2	0.1	0.1	0.1	0.3	N.D.	N.D.	0.1	N.D.	0.2	N.D.	0.2
			Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		Petaling Jaya	Mean	5.4	4.2	4.0	5.0	3.6	3.2	3.8	3.5	3.5	3.0	4.5	4.3
			%	100	100	100	100	100	100	100	100	100	100	100	100
			Max-w	7.3	5.2	4.8	6.4	4.1	4.4	4.6	4.2	4.4	4.3	5.8	5.6
			Min-w	4.0	3.1	2.8	3.8	3.1	2.2	2.4	2.9	2.7	1.3	2.6	2.8

Table 4.3 SO<sub>2</sub>

Unit ppb			2003											
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mongolia	Ulaanbaatar	Mean	-	-	-	-	1.9	1.0	2.1	-	-	-	-	-
		%	-	-	-	-	100	100	58	-	-	-	-	-
		Max-w	-	-	-	-	2.6	1.5	4.3	-	-	-	-	-
		Min-w	-	-	-	-	0.9	0.7	0.8	-	-	-	-	-
	Terej	Mean	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.5	0.7	1.1
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.5	0.4	0.3	0.7	0.3	0.2	0.2	0.6	0.7	0.8	0.9	1.4
		Min-w	0.3	0.2	N.D.	N.D.	0.2	N.D.	0.1	0.2	0.2	0.2	0.5	0.9
Philippines	Metro Manila	Mean	3.0	5.8	6.4	4.3	4.8	3.8	4.5	3.2	4.8	4.2	3.0	4.9
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	6.3	7.2	7.3	5.0	5.2	5.5	5.4	5.9	5.5	4.9	4.0	-
		Min-w	0.3	4.2	4.8	3.8	4.4	2.9	3.8	0.5	3.8	3.6	2.0	-
	Los Banos	Mean	0.7	0.5	0.5	0.7	0.4	0.9	1.1	3.3	0.8	0.4	0.2	1.5
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	2.4	0.6	1.4	1.1	0.7	1.4	3.5	12.1	1.0	0.8	0.4	2.5
		Min-w	N.D.	0.3	0.2	0.4	0.3	0.3	0.3	0.8	0.6	N.D.	N.D.	0.5
Republic of Korea	Imsil	Mean	3.0	2.0	3.0	4.0	2.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0
		%	95	98	97	99	100	100	77	100	99	100	94	98
		Max-d	5.0	6.0	6.0	5.0	5.0	2.0	2.0	1.0	2.0	3.0	2.0	3.0
		Min-d	1.0	N.D.	N.D.	3.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
	Kanghwa	Mean	6.0	5.0	6.0	5.0	2.0	2.0	3.0	3.0	4.0	5.0	3.0	3.0
		%	99	98	97	98	94	99	99	100	98	98	98	100
		Max-d	12.0	10.0	14.0	10.0	5.0	8.0	4.0	6.0	7.0	8.0	6.0	6.0
		Min-d	2.0	3.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0
	Cheju	Mean	2.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0	1.0
		%	83	100	97	92	73	94	74	99	98	96	99	99
		Max-d	13.0	11.0	5.0	4.0	3.0	3.0	1.0	3.0	3.0	4.0	3.0	5.0
		Min-d	N.D.	N.D.	1.0	1.0	N.D.	N.D.	1.0	N.D.	N.D.	1.0	1.0	N.D.
Russia	Mondy	Mean	0.2	0.5	N.D.	0.2	0.2	0.3	0.2	N.D.	0.1	0.1	N.D.	0.2
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.3	1.0	N.D.	-	-	-	0.4	N.D.	0.1	0.2	N.D.	0.4
		Min*	0.1	N.D.	N.D.	-	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Listvianka	Mean	2.6	0.9	0.6	0.3	0.8	0.4	0.5	0.8	0.6	1.7	1.3	1.6
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.7	2.7	1.2	0.7	2.0	0.9	0.7	1.3	1.1	2.8	1.7	2.8
		Min-w	1.6	N.D.	0.3	N.D.	0.3	0.1	0.3	0.5	0.3	0.8	0.9	1.1
	Irkutsk	Mean	1.6	2.3	0.8	0.6	0.3	0.4	0.8	0.7	1.2	0.8	0.8	2.1
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.1	5.0	1.2	0.9	0.5	0.6	1.8	2.2	2.5	1.5	1.4	3.6
		Min-w	N.D.	0.2	0.4	N.D.	0.1	0.2	0.3	0.1	0.4	0.2	0.4	0.9
	Primorskaya	Mean	0.3	0.2	N.D.	0.2	0.4	0.3	0.3	0.4	0.8	0.5	0.6	0.5
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	0.3	0.3	N.D.	0.2	0.4	0.3	0.4	0.5	1.4	0.6	0.7	-
		Min*	0.3	0.2	N.D.	N.D.	0.3	0.3	0.3	0.2	0.2	0.4	0.5	-
Thai Land	Mae Hia	Mean	2.0	1.2	2.7	1.8	1.2	0.7	0.5	1.5	0.6	1.3	1.3	1.9
		%	100	79	68	67	84	73	97	65	90	100	100	100
		Max-w	4.1	2.6	6.1	4.0	5.0	2.1	1.4	2.3	1.8	3.4	2.4	2.9
		Min-w	0.6	0.2	0.2	0.7	N.D.	0.2	N.D.	0.9	N.D.	0.6	0.1	1.2
	Patumthani	Mean	-	1.6	-	-	-	2.3	3.6	2.4	2.5	-	2.5	1.9
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	2.6	7.5	2.7	3.0	-	4.5	3.0
		Min-w	-	-	-	-	-	2.1	1.9	1.8	2.0	-	0.9	1.0
	Bangkok	Mean	4.1	2.5	2.8	0.9	0.4	1.7	2.8	2.0	0.9	2.7	3.7	4.4
		%	95	96	96	96	96	96	96	77	53	72	96	96
		Max-w	8.6	6.4	5.8	2.8	1.9	4.2	5.5	4.8	1.7	5.8	8.4	13.0
		Min-w	0.9	0.7	0.5	N.D.	N.D.	N.D.	0.5	0.6	0.2	0.5	0.5	1.1
	Samutprakarn	Mean	4.3	3.4	4.5	3.3	8.4	6.7	6.1	7.3	6.7	4.5	4.7	5.8
		%	100	96	100	93	87	100	100	100	100	100	93	94
		Max-d	8.7	10.7	13.0	9.1	17.4	12.6	13.7	15.3	11.2	10.7	10.5	25.9
		Min-d	0.5	0.3	0.6	0.9	1.1	1.9	2.8	2.3	0.9	0.9	0.8	0.7
Viet Nam	Ha Noi	Mean	2.5	1.1	1.5	1.3	1.8	1.6	1.5	1.8	1.4	3.1	4.2	4.3
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.8	1.4	1.9	1.6	2.0	1.6	1.7	2.4	1.5	6.4	5.2	5.2
		Min-w	1.6	0.6	1.3	0.8	1.6	1.5	1.4	1.5	1.3	1.5	3.5	3.2
	Hoa Binh	Mean	0.8	0.8	0.5	0.6	0.9	0.9	1.1	2.1	3.3	1.9	1.1	1.7
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.8	1.4	0.5	0.7	1.3	1.3	1.4	2.9	3.8	5.7	2.3	2.5
		Min-w	0.4	0.3	0.4	0.4	0.5	0.6	0.9	1.3	2.6	0.6	0.6	0.8



**Table 4.4 HNO<sub>3</sub>**

Unit ppb			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Philippines	Metro Manila	Mean	0.1	0.3	0.4	0.8	0.3	0.3	0.6	0.3	0.9	0.5	0.4	0.4	
		%	100	100	100	100	76	100	100	100	100	100	100	100	23
		Max-w	0.3	0.4	0.6	1.4	0.4	0.5	0.8	0.4	2.7	0.7	0.7	-	-
		Min-w	N.D.	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	-
	Los Banos	Mean	N.D.	0.1	0.1	0.3	0.1	0.3	0.1	0.3	0.3	0.3	0.2	0.2	0.5
		%	100	96	100	100	100	100	100	97	100	100	100	100	100
		Max-w	0.1	0.3	0.2	0.4	0.2	0.6	0.2	0.8	0.6	0.3	0.3	0.3	0.8
		Min-w	N.D.	N.D.	N.D.	0.1	N.D.	0.2	N.D.	N.D.	0.1	N.D.	N.D.	0.2	0.2
Russia	Mondy	Mean	N.D.	0.3	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	0.1	N.D.	N.D.	N.D.	
		%	100	100	100	48	100	100	100	100	100	100	100	100	
		Max*	N.D.	0.7	N.D.	-	-	-	0.2	N.D.	0.2	N.D.	N.D.	N.D.	
		Min*	N.D.	N.D.	N.D.	-	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
	Listvianka	Mean	0.3	N.D.	0.3	0.1	N.D.	0.1	0.1	0.3	N.D.	0.1	0.2	N.D.	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	0.5	0.3	0.3	0.2	0.2	0.2	0.2	1.5	N.D.	0.4	0.2	0.1	
		Min-w	N.D.	N.D.	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	
	Irkutsk	Mean	0.3	0.6	N.D.	0.5	0.1	0.4	0.3	N.D.	N.D.	N.D.	0.1	N.D.	
		%	77	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	0.4	1.0	0.2	0.7	0.3	1.3	0.7	N.D.	0.3	N.D.	0.3	0.1	
		Min-w	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
Primorskaya	Mean	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
	%	100	100	100	100	100	100	100	100	100	100	100	100		
	Max*	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
	Min*	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
Republic of Korea	Kanghwa	Mean	-	N.D.	0.1	N.D.	N.D.	N.D.	0.7	0.2	0.2	0.2	0.2	-	
		%	-	4	10	3	3	3	10	10	10	10	7	-	
		Max-d	-	N.D.	0.2	N.D.	0.2	N.D.	0.9	0.3	0.4	0.4	0.3	-	
		Min-d	-	N.D.	N.D.	N.D.	0.2	N.D.	0.5	0.2	0.1	N.D.	N.D.	-	
	Cheju	Mean	0.1	0.2	0.2	0.3	0.3	0.1	N.D.	0.2	0.2	0.2	0.1	0.6	
		%	10	11	10	7	6	7	7	6	10	6	10	-	
		Max-d	0.2	0.4	0.3	0.4	0.5	0.3	0.1	0.3	0.3	0.2	0.8	-	
		Min-d	N.D.	N.D.	0.1	0.3	0.3	0.2	N.D.	N.D.	N.D.	N.D.	0.3	-	
	Imsil	Mean	-	-	-	-	-	-	-	-	-	-	-	1.7	
		%	-	-	-	-	-	-	-	-	-	-	-	7	
		Max-d	-	-	-	-	-	-	-	-	-	-	-	1.7	
		Min-d	-	-	-	-	-	-	-	-	-	-	-	1.6	
Thai Land	Mae Hia	Mean	-	-	-	N.D.	N.D.	0.1	0.1	0.1	N.D.	0.3	N.D.	0.6	
		%	-	-	-	23	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-	
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-	
	Bangkok	Mean	1.2	N.D.	-	-	-	-	0.3	0.2	-	-	1.7	0.8	
		%	23	50	-	-	-	-	39	45	-	-	73	68	
		Max-w	-	N.D.	-	-	-	-	-	0.2	-	-	2.2	1.1	
		Min-w	-	N.D.	-	-	-	-	-	0.1	-	-	1.0	0.6	
	Patumthani	Mean	-	0.2	-	-	-	0.2	0.4	0.2	0.4	-	1.3	1.5	
		%	-	29	-	-	-	47	100	71	63	-	100	100	
		Max-w	-	-	-	-	-	0.3	0.7	0.3	0.6	-	1.7	3.0	
		Min-w	-	-	-	-	-	0.1	0.2	0.1	0.3	-	0.9	0.5	
Viet Nam	Ha Noi	Mean	1.0	0.3	0.5	0.6	0.7	0.9	0.4	0.7	0.8	0.8	1.1	1.0	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	1.7	0.4	0.8	0.7	1.0	1.3	0.4	0.9	1.2	1.0	1.4	1.3	
		Min-w	0.5	0.2	0.3	0.4	0.4	0.4	0.3	0.6	0.3	0.3	0.9	0.7	
	Hoa Binh	Mean	0.4	0.2	0.1	0.2	0.3	0.2	0.2	0.5	0.7	0.4	0.6	0.9	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	1.3	0.3	0.2	0.2	0.4	0.3	0.4	0.6	1.2	1.1	1.5	1.3	
		Min-w	0.1	0.1	0.1	0.2	N.D.	0.2	0.1	0.3	0.2	0.2	0.1	0.6	

Table 4.5 HCl

Unit ppb			2003											
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.7	9.0	3.0	0.9	0.6	0.7	0.2	0.6	0.9	0.5	0.2	3.8
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	1.2	24.0	6.6	1.4	1.1	1.1	0.5	1.5	1.5	0.6	0.2	10.7
		Min-w	0.3	0.8	1.4	0.4	0.2	0.4	N.D.	0.3	0.6	0.3	0.2	0.2
Japan	Rishiri	Mean	0.2	0.1	0.2	0.3	0.8	0.7	0.3	0.7	0.4	0.4	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.3	0.2	0.3	0.4	1.0	0.7	0.3	0.8	0.4	0.6	0.3	0.4
		Min-2w	0.2	0.1	0.2	0.3	0.6	0.7	0.3	0.5	0.3	0.2	0.3	0.2
	Tappi	Mean	-	-	-	0.6	1.7	0.5	0.5	1.1	0.3	0.5	0.4	0.4
		%	-	-	-	46	100	100	100	100	100	100	50	100
		Max-2w	-	-	-	-	2.5	0.8	0.7	1.8	0.4	0.5	-	0.5
		Min-2w	-	-	-	-	0.8	0.2	0.3	0.5	0.1	0.4	-	0.2
	Ogasawara	Mean	-	-	-	0.3	0.3	0.3	0.2	0.3	N.D.	0.2	0.6	0.6
		%	-	-	-	25	100	100	100	100	100	100	100	80
		Max-w	-	-	-	-	0.5	0.6	0.3	0.7	0.1	0.5	1.3	1.2
		Min-w	-	-	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Sado-seki	Mean	-	-	-	0.7	1.2	0.9	0.7	1.0	1.1	0.7	1.0	0.7
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	1.3	1.0	0.8	-	-	0.7	1.3	-
		Min-2w	-	-	-	-	1.1	0.8	0.5	-	-	0.6	0.6	-
	Happo	Mean	-	-	-	0.1	0.3	0.1	0.2	0.1	0.2	0.3	0.1	0.2
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.3	0.2	0.2	0.1	0.2	0.3	0.1	0.4
		Min-2w	-	-	-	-	0.2	0.1	0.1	N.D.	0.2	0.2	0.1	0.1
	Yusuhara	Mean	-	-	-	0.4	0.2	0.3	N.D.	0.1	0.2	0.3	0.3	0.4
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.2	0.6	0.2	0.1	0.3	0.3	0.4	0.6
		Min-2w	-	-	-	-	0.2	N.D.	N.D.	N.D.	0.1	0.3	0.2	0.3
Hedo	Mean	-	-	-	-	0.9	1.3	0.5	N.D.	0.6	1.3	0.9	1.4	
	%	-	-	-	-	100	100	100	50	100	100	100	100	
	Max-2w	-	-	-	-	0.9	2.0	0.8	-	1.2	1.5	1.0	2.0	
	Min-2w	-	-	-	-	0.9	0.6	0.3	-	N.D.	1.2	0.8	1.2	
Ijira	Mean	-	-	-	0.3	0.4	0.3	0.2	0.1	0.2	0.2	0.3	0.1	
	%	-	-	-	100	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	0.3	0.4	0.5	0.2	0.1	0.2	0.3	0.3	0.1	
	Min-2w	-	-	-	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.3	N.D.	
Banryu	Mean	-	-	-	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.4	
	%	-	-	-	52	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	-	0.2	0.3	0.3	0.2	0.8	0.3	0.3	0.6	
	Min-2w	-	-	-	-	0.1	0.1	0.1	0.1	N.D.	0.2	0.2	0.2	
Oki	Mean	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.2	0.3	0.3	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	0.2	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.5	0.2	0.3	0.3	
	Min-2w	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.2	0.3	0.3	
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.9	0.8	1.2	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	1.3	0.9	1.8	-	-	-	-	
		Min-w	-	-	-	-	0.8	0.6	0.8	-	-	-	-	
	Terej	Mean	0.6	0.5	0.6	1.0	0.8	0.8	0.7	1.0	0.8	0.7	0.5	0.6
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.8	0.7	0.9	2.3	0.9	1.4	0.9	1.1	1.5	1.4	0.7	0.9
		Min-w	0.4	0.2	0.3	0.4	0.8	0.3	0.4	0.8	0.2	0.4	0.4	0.3
Philippines	Metro Manila	Mean	1.2	1.9	1.2	1.1	0.4	1.3	1.1	0.6	0.9	1.0	1.4	2.8
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	1.9	3.6	2.1	1.4	0.6	1.9	1.8	0.8	1.5	1.4	1.5	-
		Min-w	N.D.	0.1	N.D.	0.8	0.3	0.8	0.7	0.5	0.4	0.7	1.2	-
	Los Banos	Mean	0.6	1.9	1.3	0.6	0.6	0.9	1.8	0.8	0.8	0.7	0.9	3.9
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	1.0	4.2	1.7	1.2	1.4	1.2	3.3	1.1	1.5	1.1	1.6	7.1
		Min-w	0.2	0.7	N.D.	N.D.	0.2	0.6	1.0	0.1	0.5	0.1	0.4	0.7

**Table 4.5 HCl**

Unit ppb			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Russia	Mondy	Mean	0.1	0.1	0.3	N.D.	N.D.	0.4	0.3	N.D.	0.2	0.2	N.D.	N.D.	
		%	100	100	100	48	100	100	100	100	100	100	100	100	100
		Max*	0.1	0.1	0.4	-	-	-	0.5	N.D.	0.4	0.3	N.D.	N.D.	
		Min*	0.1	0.1	0.1	-	-	-	0.2	N.D.	N.D.	0.1	N.D.	N.D.	
	Listvianka	Mean	N.D.	0.1	0.2	N.D.	N.D.	0.8	0.5	0.7	0.2	0.2	0.2	0.2	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	N.D.	0.3	0.4	N.D.	0.1	2.5	0.8	1.9	0.4	0.3	0.2	0.3	
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.3	0.2	N.D.	0.1	0.2	N.D.	
	Irkutsk	Mean	0.2	0.3	0.2	0.4	0.2	0.3	0.6	0.9	0.8	0.6	0.4	0.4	
		%	77	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	0.5	0.4	0.3	0.6	0.3	0.4	1.3	1.6	1.1	1.2	0.5	0.5	
		Min-w	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.4	0.3	0.2	0.3	0.3	
	Primorskaya	Mean	0.7	0.2	N.D.	0.3	0.5	0.8	0.3	0.6	1.7	0.1	N.D.	0.1	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max*	1.1	0.4	N.D.	0.3	0.7	1.1	0.4	0.7	3.3	0.1	N.D.	-	
		Min*	0.3	0.1	N.D.	0.2	0.4	0.4	0.3	0.5	0.1	0.1	N.D.	-	
Republic of Korea	Kanghwa	Mean	-	N.D.	0.3	0.8	N.D.	N.D.	0.1	0.1	0.8	0.6	0.2	-	
		%	-	4	10	3	3	3	10	10	10	10	7	-	
		Max-d	-	N.D.	0.4	0.8	0.1	N.D.	0.1	0.1	0.8	0.8	0.3	-	
		Min-d	-	N.D.	0.2	0.8	0.1	N.D.	N.D.	0.1	0.7	0.1	N.D.	-	
	Cheju	Mean	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	0.2	0.2	N.D.	1.2	-	
		%	10	11	10	7	6	7	7	6	10	6	10	-	
		Max-d	N.D.	0.2	0.2	0.1	N.D.	N.D.	N.D.	0.2	0.3	N.D.	1.2	-	
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	1.1	-	
	Imsil	Mean	-	-	-	-	-	-	-	-	-	-	0.2	-	
		%	-	-	-	-	-	-	-	-	-	-	7	-	
		Max-d	-	-	-	-	-	-	-	-	-	-	0.2	-	
		Min-d	-	-	-	-	-	-	-	-	-	-	0.2	-	
Thai Land	Mae Hia	Mean	-	-	-	N.D.	0.8	0.6	0.1	0.1	N.D.	N.D.	0.2	0.3	
		%	-	-	-	23	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-	
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-	
	Bangkok	Mean	1.0	0.5	-	-	-	-	0.4	0.6	-	-	1.1	0.8	
		%	23	50	-	-	-	-	39	45	-	-	73	68	
		Max-w	-	0.7	-	-	-	-	-	1.0	-	-	1.6	0.9	
		Min-w	-	0.2	-	-	-	-	-	0.1	-	-	0.5	0.8	
	Patumthani	Mean	-	0.5	-	-	-	0.2	0.5	0.3	0.5	-	0.4	1.1	
		%	-	29	-	-	-	47	100	71	63	-	100	100	
		Max-w	-	-	-	-	-	0.3	0.9	0.5	0.7	-	0.8	1.2	
		Min-w	-	-	-	-	-	0.2	0.3	0.2	0.3	-	N.D.	1.1	
Viet Nam	Ha Noi	Mean	3.6	1.3	1.7	2.1	2.8	2.1	2.4	2.5	1.7	2.0	2.3	1.6	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	10.4	2.1	3.0	2.7	4.5	2.3	4.2	3.9	1.8	2.4	2.9	2.3	
		Min-w	1.5	0.7	1.0	1.5	1.0	1.7	1.7	1.5	1.5	1.4	1.4	0.8	
	Hoa Binh	Mean	1.6	0.7	0.6	1.6	2.8	2.7	10.1	5.6	7.4	3.0	2.0	2.0	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	2.9	0.8	0.7	3.4	4.3	3.8	40.3	8.1	13.5	6.6	4.2	2.3	
		Min-w	0.7	0.6	0.5	0.7	0.9	1.3	1.7	3.1	1.6	1.4	1.0	1.8	

**Table 4.6 NH<sub>3</sub>**

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	8.1	7.2	12.9	11.9	15.6	9.4	8.7	11.2	12.5	7.0	10.9	39.5
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	15.3	8.5	18.9	14.8	18.2	18.7	30.8	15.4	19.1	14.1	12.4	105.2
		Min-w	2.4	5.6	9.7	9.5	12.5	1.0	N.D.	8.5	3.0	1.4	8.8	6.5
Japan	Rishiri	Mean	N.D.	0.2	0.2	0.6	0.8	0.8	0.5	0.8	0.5	0.3	0.2	N.D.
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	N.D.	0.2	0.2	0.7	0.9	0.9	0.5	0.9	0.5	0.4	0.2	0.1
		Min-2w	N.D.	0.1	0.2	0.4	0.7	0.6	0.4	0.8	0.5	0.2	0.2	N.D.
	Tappi	Mean	-	-	-	0.5	1.2	0.6	0.5	0.8	0.6	0.6	0.5	0.3
		%	-	-	-	46	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	2.0	0.8	0.6	1.0	0.8	0.6	-	0.7
		Min-2w	-	-	-	-	0.4	0.4	0.5	0.6	0.4	0.5	-	0.2
	Ogasawara	Mean	-	-	-	1.1	0.3	0.6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		%	-	-	-	25	100	100	100	100	100	100	100	80
		Max-w	-	-	-	-	0.5	0.6	N.D.	N.D.	N.D.	N.D.	0.2	N.D.
		Min-w	-	-	-	-	N.D.	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Sado-seki	Mean	-	-	-	0.5	1.1	1.2	0.7	0.6	0.7	0.4	0.3	0.2
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	1.4	1.2	0.7	-	-	0.5	0.4	-
		Min-2w	-	-	-	-	0.8	1.2	0.6	-	-	0.4	0.3	-
	Happo	Mean	-	-	-	0.7	1.0	0.9	0.5	0.4	0.3	0.2	0.1	0.1
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	1.3	1.1	0.6	0.5	0.4	0.3	0.1	0.2
		Min-2w	-	-	-	-	0.7	0.7	0.4	0.3	0.3	0.2	0.1	N.D.
	Yusuhara	Mean	-	-	-	0.5	0.5	0.8	1.0	0.6	1.1	1.1	0.3	0.2
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.6	1.2	1.6	0.7	1.8	2.0	0.3	0.3
		Min-2w	-	-	-	-	0.4	0.4	0.6	0.4	0.3	0.3	0.3	N.D.
Hedo	Mean	-	-	-	-	0.9	1.3	1.2	0.6	0.5	1.0	0.6	0.3	
	%	-	-	-	-	100	100	100	50	100	100	100	100	
	Max-2w	-	-	-	-	1.0	1.9	1.7	-	0.9	1.3	0.7	0.4	
	Min-2w	-	-	-	-	0.8	0.7	0.9	-	N.D.	0.6	0.6	0.2	
Ijira	Mean	-	-	-	1.6	1.7	1.6	1.4	1.7	1.2	0.9	0.9	0.3	
	%	-	-	-	100	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	1.8	1.7	1.7	1.5	2.0	1.6	1.1	1.1	0.4	
	Min-2w	-	-	-	1.3	1.6	1.3	1.3	1.5	0.9	0.7	0.6	0.2	
Banryu	Mean	-	-	-	0.9	1.3	1.2	1.2	1.8	1.2	1.1	0.6	0.4	
	%	-	-	-	52	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	-	1.6	1.3	1.4	2.5	1.5	1.7	0.6	0.4	
	Min-2w	-	-	-	-	1.1	1.1	0.9	1.0	1.0	0.6	0.5	0.3	
Oki	Mean	0.3	0.4	0.3	0.7	0.9	1.0	0.9	1.0	1.0	0.6	0.5	0.3	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	0.3	0.4	0.3	0.8	1.1	1.0	1.1	1.2	1.0	0.6	0.6	0.3	
	Min-2w	0.2	0.3	0.3	0.7	0.8	0.9	0.8	0.8	0.9	0.5	0.4	0.3	
Malaysia	TanahRata	Mean	N.D.	N.D.	0.1	N.D.	0.1	N.D.	0.1	0.6	0.4	1.3	0.3	0.3
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	N.D.	0.1	0.2	N.D.	0.2	0.1	0.4	1.4	0.5	2.9	0.5	0.5
		Min-w	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	0.3	0.3	0.2	N.D.	0.1
Mongolia	Ulaanbaatar	Mean	-	-	-	-	9.9	10.0	14.1	-	-	-	-	-
		%	-	-	-	-	100	100	58	-	-	-	-	-
		Max-w	-	-	-	-	13.7	12.5	22.4	-	-	-	-	-
		Min-w	-	-	-	-	6.9	8.1	9.6	-	-	-	-	-
	Terelj	Mean	1.0	0.7	0.7	2.1	2.5	3.0	3.0	2.1	1.6	1.1	1.1	1.2
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	1.5	0.8	1.0	5.5	3.3	3.9	3.8	2.9	2.9	1.5	1.7	2.3
		Min-w	0.6	0.4	0.5	0.6	1.7	1.8	2.7	1.5	0.3	0.9	0.6	0.5
Philippines	Metro Manila	Mean	11.0	8.5	9.9	10.9	10.3	8.0	12.8	5.0	6.6	9.5	10.4	8.1
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	14.3	11.6	11.4	13.3	12.7	9.8	13.6	6.6	8.1	10.5	11.4	-
		Min-w	7.1	4.9	8.5	7.7	5.7	5.1	11.2	1.6	5.5	9.0	8.5	-
	Los Banos	Mean	4.7	4.0	3.1	7.0	2.6	4.4	10.2	4.2	6.2	4.8	4.4	4.6
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	5.5	6.4	5.2	9.7	5.1	5.3	17.2	7.4	8.6	5.5	6.2	6.5
		Min-w	3.6	0.1	1.0	5.5	0.2	3.5	4.1	4.0	4.1	3.9	3.6	2.7

**Table 4.6 NH<sub>3</sub>**

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Russia	Mondy	Mean	0.7	0.9	0.9	1.2	0.8	0.7	1.9	0.3	0.4	0.2	0.3	0.3
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.7	1.0	1.1	-	-	-	2.3	0.4	0.4	0.3	0.3	0.3
		Min*	0.7	0.7	0.8	-	-	-	1.4	0.2	0.4	0.2	0.3	0.3
	Listvianka	Mean	0.8	1.2	0.8	0.6	1.6	3.9	3.8	2.1	0.8	1.0	3.2	0.6
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.7	1.7	1.4	1.0	2.7	8.3	4.9	4.0	1.2	2.9	6.5	1.6
		Min-w	0.2	0.3	0.3	0.3	0.4	2.1	1.7	1.2	0.4	0.4	0.3	0.1
	Irkutsk	Mean	0.4	2.5	1.1	2.7	3.8	5.5	5.0	1.4	1.4	0.8	1.2	0.5
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.7	4.5	1.6	4.0	6.1	10.5	7.8	3.6	1.5	1.3	3.0	0.6
		Min-w	N.D.	0.8	0.8	1.2	1.4	3.5	3.6	0.3	1.3	0.4	0.3	0.4
Primorskaya	Mean	2.1	2.9	10.7	19.5	6.7	7.4	6.6	13.1	8.7	11.8	24.2	15.8	
	%	100	100	100	100	100	100	100	100	100	100	100	100	
	Max*	2.4	3.2	13.1	33.0	7.0	7.5	6.8	18.0	15.7	20.2	30.7	-	
	Min*	1.8	2.7	8.3	5.9	6.3	7.2	6.4	8.2	1.6	3.3	17.6	-	
Republic of Korea	Kanghwa	Mean	-	N.D.	11.6	9.9	5.0	6.6	32.3	28.6	23.6	16.1	7.6	-
		%	-	4	10	3	3	3	10	10	10	10	7	-
		Max-d	-	-	16.3	-	-	-	33.7	36.3	26.7	25.5	8.1	-
		Min-d	-	-	9.1	-	-	-	30.6	22.2	19.1	8.5	7.0	-
	Cheju	Mean	2.5	3.3	2.3	1.4	0.7	0.3	0.4	1.3	0.9	0.9	1.9	-
		%	10	11	10	7	6	7	7	6	10	6	10	-
		Max-d	3.6	5.1	3.8	1.6	1.2	0.9	0.9	1.6	1.0	0.9	2.5	-
		Min-d	1.8	1.9	1.5	1.2	0.8	0.1	0.2	1.0	0.7	0.9	0.9	-
	Imsil	Mean	-	-	-	-	-	-	-	-	-	-	4.6	-
		%	-	-	-	-	-	-	-	-	-	-	7	-
		Max-d	-	-	-	-	-	-	-	-	-	-	5.1	-
		Min-d	-	-	-	-	-	-	-	-	-	-	4.0	-
Thai Land	Mae Hia	Mean	-	-	-	17.1	22.3	9.9	2.3	N.D.	1.7	1.9	3.6	3.3
		%	-	-	-	23	23	23	23	23	23	23	23	23
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	N.D.	1.8	-	-	-	-	7.1	7.7	-	-	8.2	9.6
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	3.7	-	-	-	-	-	8.9	-	-	9.5	11.9
		Min-w	-	N.D.	-	-	-	-	-	6.6	-	-	7.2	6.5
	Patumthani	Mean	-	N.D.	-	-	-	5.9	9.3	5.5	6.2	-	8.2	10.3
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	6.2	18.0	6.2	6.7	-	12.3	11.2
		Min-w	-	-	-	-	-	5.6	4.8	5.1	5.7	-	5.5	9.3
Viet Nam	Ha Noi	Mean	4.0	5.5	3.7	5.8	6.2	6.0	5.3	3.7	3.5	6.3	6.9	8.3
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	5.0	12.0	4.3	10.3	11.8	7.4	8.2	4.2	4.2	13.6	7.3	9.5
		Min-w	1.1	2.7	2.4	4.0	4.3	5.2	4.0	3.3	2.9	4.3	6.0	7.4
	Hoa Binh	Mean	3.7	2.5	1.8	3.0	4.5	3.7	7.4	9.9	14.3	10.8	11.1	16.8
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.9	3.5	2.3	4.4	6.3	4.5	15.1	12.7	21.7	27.5	18.3	28.2
		Min-w	0.7	1.8	1.3	1.5	2.5	2.5	3.8	5.9	4.0	2.8	7.4	11.6

Table 4.7 NO

Unit ppb			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Rishiri	Mean	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	
		%	97	98	87	95	98	98	98	98	98	97	97	98	98
		Max-d	N.D.	0.5	0.7	0.2	0.4	0.7	0.5	1.0	0.4	0.2	0.2	N.D.	N.D.
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Tappi	Mean	N.D.	N.D.	N.D.	N.D.	0.1	0.2	0.1	0.1	N.D.	N.D.	N.D.	N.D.	N.D.
		%	92	99	99	99	98	92	99	97	99	98	90	99	99
		Max-d	0.1	0.5	N.D.	0.5	1.2	0.4	0.4	0.9	0.2	0.5	0.2	0.1	0.1
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Sado-seki	Mean	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		%	98	99	98	98	98	89	87	97	97	97	98	75	75
		Max-d	0.3	0.3	0.2	0.3	0.2	0.8	0.1	0.1	0.2	0.4	0.2	0.1	0.1
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Happo	Mean	0.2	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
		%	46	-	-	29	29	97	97	97	78	97	97	97	97
		Max-d	0.9	-	-	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4
		Min-d	N.D.	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Ogasawara	Mean	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		%	73	91	94	94	96	95	95	95	94	96	95	96	96
		Max-d	0.2	0.1	0.1	N.D.	0.1	1.7	1.5	0.3	0.1	0.3	0.2	0.1	0.1
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Oki	Mean	N.D.	N.D.	N.D.	N.D.	-	-	-	-	N.D.	N.D.	N.D.	N.D.	N.D.
		%	74	40	98	81	-	-	-	-	40	97	94	72	72
		Max-d	N.D.	0.1	0.1	N.D.	-	-	-	-	0.1	0.1	N.D.	0.1	0.1
		Min-d	N.D.	N.D.	N.D.	N.D.	-	-	-	-	N.D.	N.D.	N.D.	N.D.	N.D.
	Ijira	Mean	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.8	0.4	0.5	0.2	0.2
		%	100	100	100	100	100	100	100	100	100	97	100	99	99
		Max-d	1.1	0.8	0.8	0.7	1.0	1.2	1.3	3.8	4.9	2.1	3.5	0.8	0.8
		Min-d	N.D.	N.D.	N.D.	N.D.	0.1	0.1	0.2	0.1	N.D.	N.D.	N.D.	N.D.	N.D.
	Banryu	Mean	0.2	0.4	0.3	0.2	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.2	0.2
		%	9	98	97	97	98	97	98	98	98	97	81	99	99
		Max-d	0.4	1.6	0.6	0.9	1.0	1.1	1.2	1.2	2.1	0.7	1.1	0.7	0.7
		Min-d	0.1	0.1	0.1	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Yusuhara	Mean	0.2	0.2	0.1	N.D.	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
		%	98	99	98	97	99	99	99	99	27	99	86	99	99
		Max-d	0.4	0.6	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
		Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.
Hedo	Mean	N.D.	N.D.	N.D.	N.D.	0.1	0.2	0.2	0.2	0.2	0.2	N.D.	N.D.	N.D.	
	%	98	98	97	98	98	97	98	60	52	98	75	97	97	
	Max-d	0.1	N.D.	0.1	0.3	0.4	0.5	0.5	0.4	0.4	0.2	0.3	0.3	0.3	
	Min-d	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.2	N.D.	0.1	N.D.	N.D.	N.D.	
Thailand	Mae Hia	Mean	13.1	6.3	7.0	6.0	2.9	4.8	4.7	6.8	7.3	6.2	8.4	11.3	
		%	100	86	81	70	94	90	100	81	100	81	100	100	
		Max-d	23.3	10.5	15.5	11.3	5.1	8.6	11.3	14.9	14.7	14.5	18.4	26.6	
		Min-d	6.0	3.6	1.3	1.8	0.7	2.6	2.4	2.6	2.1	2.0	3.7	4.7	
	Samutprakarn	Mean	20.2	13.0	20.1	19.8	15.8	8.5	9.2	9.3	8.9	13.9	17.5	17.8	
		%	97	100	97	90	87	100	97	97	100	100	100	100	
		Max-d	33.3	22.3	42.8	29.6	33.0	15.8	25.6	19.7	18.7	28.8	24.1	32.7	
		Min-d	10.7	7.7	8.5	9.3	1.8	4.5	3.5	4.8	3.8	7.0	12.0	10.0	

**Table 4.8 NO<sub>2</sub>**

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
China	Hongwen	Mean	19.3	18.3	17.1	17.1	13.3	10.7	9.8	10.4	11.9	11.3	12.3	11.3
		%	100	100	100	100	100	90	100	100	100	100	97	100
		Max-d	52.3	56.0	34.5	53.3	38.2	21.4	19.4	18.8	23.5	21.4	27.2	17.8
		Min-d	9.4	6.3	5.2	4.2	5.2	3.7	3.7	4.7	3.7	5.2	6.3	5.8
	Xiang Zhou	Mean	24.2	13.3	16.9	13.5	17.3	17.1	20.2	25.8	21.3	31.4	31.2	33.1
		%	24	13	17	14	17	17	20	26	21	31	31	33
Max-d		37.1	24.6	31.4	29.8	37.1	43.9	33.5	52.3	41.3	47.6	46.5	47.1	
Japan	Banryu	Mean	3.5	4.9	4.6	3.6	4.4	4.1	3.0	2.9	3.4	3.9	4.9	4.2
		%	9	98	97	97	98	97	98	98	98	97	81	99
		Max-d	4.2	10.3	9.8	7.0	8.6	8.6	6.8	5.1	6.1	6.2	9.7	7.5
		Min-d	2.4	1.9	1.0	1.8	1.0	1.0	1.7	1.2	2.0	1.3	1.6	2.1
Malaysia	TanahRata	Mean	0.8	0.8	0.9	0.8	0.7	0.9	0.7	0.6	0.5	0.5	0.8	1.1
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.9	1.0	1.0	1.2	0.8	1.4	0.8	0.8	0.7	0.6	0.9	1.3
		Min-w	0.7	0.6	0.8	0.7	0.5	0.6	0.5	0.4	0.4	0.3	0.7	0.9
	Petaling Jaya	Mean	32.1	30.3	31.1	36.2	30.0	33.8	31.4	30.8	29.2	22.6	30.5	32.9
		%	100	100	100	100	100	100	100	100	100	100	100	100
Thailand	Samutprakarn	Mean	28.5	20.1	18.9	11.0	17.5	14.2	12.1	10.0	14.5	15.3	22.0	26.8
		%	100	89	100	97	87	93	97	100	100	100	100	100
		Max-d	46.0	50.5	34.4	27.0	28.3	21.3	22.5	14.8	25.2	24.1	35.8	66.1
		Min-d	13.8	1.6	5.6	5.2	9.6	8.7	5.2	4.4	7.3	6.9	8.5	12.6

**Table 4.9 NOx**

Unit ppb			2003											
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Japan	Rishiri (NOx*)	Mean	0.8	0.9	1.0	1.2	1.7	1.2	1.0	0.8	0.7	0.9	1.0	0.8
		%	97	98	87	95	98	98	98	98	97	97	98	98
		Max-d	2.0	1.7	2.8	2.9	3.2	3.1	2.1	3.1	1.8	1.7	2.1	2.0
		Min-d	0.3	0.6	0.2	N.D.	0.1	N.D.	0.1	0.3	0.3	0.3	0.4	0.3
	Tappi (NOx*)	Mean	1.0	1.2	1.3	2.0	2.9	1.9	1.2	1.5	1.2	1.2	1.0	0.9
		%	92	99	99	99	98	65	99	97	99	98	90	99
		Max-d	3.0	2.8	2.4	7.9	9.8	8.3	2.9	5.2	2.8	4.7	3.2	2.0
		Min-d	0.3	0.6	0.4	0.6	0.5	N.D.	0.3	0.1	0.3	0.2	N.D.	0.2
	Sado-seki (NOx*)	Mean	1.6	1.8	2.5	2.9	3.3	1.8	0.9	1.2	0.9	2.0	1.8	1.8
		%	98	99	98	98	98	89	87	97	97	97	98	75
		Max-d	5.4	5.4	6.0	6.1	7.7	6.0	2.8	3.1	2.7	5.2	4.5	4.1
		Min-d	0.5	0.8	0.6	1.1	0.9	0.4	0.1	0.2	N.D.	0.7	0.6	0.7
	Happo (NOx*)	Mean	1.8	-	-	1.8	4.7	2.8	2.0	1.9	1.8	1.7	1.7	1.7
		%	46	-	-	29	29	97	97	97	78	97	97	97
		Max-d	3.4	-	-	3.2	7.3	5.5	5.1	4.1	4.7	4.0	3.5	3.2
		Min-d	0.7	-	-	1.1	2.0	0.7	1.1	0.5	0.4	0.5	0.8	0.7
	Ogasawara (NOx*)	Mean	1.3	1.0	1.0	0.4	0.2	0.4	0.4	N.D.	N.D.	0.2	0.1	0.7
		%	73	91	94	94	96	95	95	95	94	96	95	96
		Max-d	2.6	3.2	2.3	2.7	0.7	2.7	2.7	0.9	0.4	1.2	1.3	1.9
		Min-d	0.2	0.3	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Oki (NOx*)	Mean	1.3	1.4	1.6	1.7	-	-	-	-	0.5	1.2	1.3	1.7
		%	74	40	98	55	-	-	-	-	18	97	94	72
		Max-d	3.0	2.9	3.4	2.6	-	-	-	-	0.6	2.4	2.4	3.8
		Min-d	0.5	0.5	0.5	0.9	-	-	-	-	0.3	0.5	0.4	0.4
	Ijira (NOx*)	Mean	2.0	2.1	2.1	3.4	3.4	3.1	3.1	3.7	3.9	3.0	3.1	1.5
		%	100	100	100	100	100	100	100	100	100	97	100	99
		Max-d	5.9	6.0	13.6	9.0	7.7	7.1	13.2	11.7	12.0	9.2	8.2	5.7
		Min-d	0.2	0.2	0.2	0.4	0.5	0.4	0.4	0.9	0.1	0.3	0.2	0.1
	Banryu	Mean	3.8	5.2	4.9	3.8	4.9	4.4	3.4	3.3	3.8	4.2	5.3	4.4
		%	9	98	97	97	98	97	98	98	98	97	81	99
		Max-d	4.5	11.9	10.4	7.4	9.3	9.7	8.0	5.7	8.2	6.7	10.8	8.1
		Min-d	2.5	2.2	1.2	1.9	1.1	1.1	1.9	1.3	2.1	1.4	1.7	2.2
	Yusuhara (NOx*)	Mean	2.8	2.5	2.2	1.5	1.2	0.7	0.6	0.9	1.3	2.1	1.6	2.6
		%	98	99	98	97	99	99	99	99	27	99	86	99
		Max-d	6.0	4.9	3.4	2.5	4.7	1.5	1.5	2.3	2.4	3.3	2.8	4.0
		Min-d	1.3	1.4	0.9	0.3	0.1	0.1	0.1	0.1	0.5	0.9	0.7	1.0
Hedo (NOx*)	Mean	0.7	0.7	1.0	0.8	0.7	0.9	0.7	0.6	1.0	1.0	0.9	0.7	
	%	98	98	97	98	98	97	98	60	52	98	75	97	
	Max-d	1.5	1.3	1.9	2.3	1.3	1.7	1.9	1.2	2.2	1.9	1.5	1.7	
	Min-d	N.D.	0.2	0.3	0.2	0.1	0.1	N.D.	0.3	0.2	0.7	0.2	0.3	
Thai Land	Bangkok	Mean	63.7	46.6	40.6	22.3	32.3	38.4	45.9	35.2	34.8	47.9	53.8	62.4
		%	96	96	96	96	96	96	96	97	56	86	96	96
		Max-d	133.6	103.6	93.2	49.3	46.3	58.1	70.9	53.0	50.8	89.2	98.2	186.5
		Min-d	28.3	20.6	16.9	10.9	15.1	16.3	22.1	21.7	13.2	22.3	18.9	21.9

Table 4.10 O<sub>3</sub>

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Japan	Rishiri	Mean	41	43	53	59	60	45	31	32	34	40	42	40
		%	97	98	87	57	96	98	98	98	97	97	98	98
		Max-d	47	53	71	72	74	64	40	44	48	51	69	47
		Min-d	37	38	46	50	39	27	22	19	22	28	32	34
	Tappi	Mean	45	49	56	61	61	48	33	39	41	46	44	20
		%	92	99	99	99	99	92	99	98	99	98	95	99
		Max-d	55	57	77	84	92	67	43	52	53	52	62	44
		Min-d	40	45	48	47	44	33	21	22	30	36	37	5
	Sado-seki	Mean	43	48	55	60	67	56	40	41	44	46	43	41
		%	98	99	98	98	98	94	87	97	97	97	98	75
		Max-d	49	55	76	82	84	77	52	61	59	58	58	52
		Min-d	39	43	46	47	47	40	33	26	32	37	38	33
	Happo	Mean	50	54	68	70	73	66	50	45	47	53	47	48
		%	98	98	98	97	97	98	97	97	78	97	97	97
		Max-d	63	68	85	85	92	97	68	69	72	66	61	61
		Min-d	41	39	54	47	47	38	31	22	24	38	31	37
	Ogasawara	Mean	44	46	46	36	35	17	14	9	13	27	35	39
		%	96	91	95	95	97	96	96	96	95	96	96	96
		Max-d	48	56	57	59	69	53	37	30	44	53	48	45
		Min-d	38	35	31	10	10	5	4	3	6	8	17	30
	Oki	Mean	35	40	44	48	-	-	-	-	33	39	40	37
		%	74	40	97	81	-	-	-	-	22	8	95	97
		Max-d	46	44	58	67	-	-	-	-	52	40	50	49
		Min-d	29	35	38	26	-	-	-	-	24	36	33	27
	Ijira	Mean	30	37	44	40	42	31	22	21	26	27	17	22
		%	100	100	100	100	100	100	100	100	100	93	100	99
		Max-d	41	47	57	61	57	66	41	43	47	41	30	32
		Min-d	21	15	24	10	12	10	5	4	4	8	4	12
	Banryu	Mean	35	37	41	50	45	42	28	27	29	36	28	33
		%	12	98	96	97	98	42	98	98	98	97	81	99
		Max-d	40	49	58	64	67	60	43	46	62	46	44	52
		Min-d	30	25	22	21	28	27	11	12	10	18	15	20
	Yusuhara	Mean	25	40	44	42	28	25	25	24	32	41	35	37
		%	98	92	99	98	99	99	99	99	96	99	86	99
		Max-d	38	53	56	62	38	43	39	41	58	53	46	54
		Min-d	14	33	34	10	12	12	12	10	10	21	21	29
Hedo	Mean	48	49	53	46	45	28	15	19	36	50	37	45	
	%	99	99	99	99	99	98	99	61	53	99	76	98	
	Max-d	64	56	70	73	79	65	40	38	62	71	48	56	
	Min-d	41	38	35	18	14	9	8	10	10	31	22	39	
Republic of Korea	Imsil	Mean	25	26	31	30	33	26	17	15	17	20	13	13
		%	96	98	97	99	100	100	77	100	99	100	94	98
		Max-d	53	54	62	69	71	71	44	58	54	51	33	30
		Min-d	23	24	29	9	26	16	10	10	11	20	7	9
	Kanghwa	Mean	35	40	44	49	65	54	42	39	46	43	28	28
		%	99	95	98	99	97	98	99	99	98	99	98	99
		Max-d	56	64	66	88	123	108	87	72	91	104	70	50
		Min-d	23	33	34	28	55	37	21	27	40	32	15	3
	Cheju	Mean	24	26	30	33	32	32	20	18	21	37	31	34
		%	100	100	97	92	99	94	72	99	97	95	100	99
		Max-d	43	40	45	49	48	47	34	34	46	72	49	63
		Min-d	22	20	24	26	19	24	12	8	10	26	24	29
Russia	Mondy	Mean	43	45	48	52	54	51	41	34	34	35	37	37
		%	100	100	100	100	100	100	100	100	77	90	100	87
		Max-d	47	49	52	58	62	58	48	45	37	40	41	41
		Min-d	36	36	45	41	45	41	29	25	30	27	29	32
Thai Land	Mae Hia	Mean	11	15	17	21	15	11	9	8	8	12	14	17
		%	100	86	81	70	94	87	100	81	100	100	97	100
		Max-d	15	20	24	29	28	15	19	17	14	20	19	25
		Min-d	5	11	9	15	8	6	5	1	2	6	8	11
	Samutprakarn	Mean	20	13	13	6	13	20	21	20	24	14	20	21
		%	100	89	97	87	87	97	100	100	100	100	100	100
		Max-d	64	40	47	23	27	57	36	33	41	45	61	64
		Min-d	3	3	2	2	2	4	7	4	13	3	1	1

**Table 4.11 PM<sub>10</sub>**

Unit $\mu\text{g}/\text{m}^3$			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
China	Jinyunshan	Mean	108	80	71	71	65	88	38	44	52	69	75	82	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-d	225	159	146	129	143	157	78	100	100	131	162	155	174
		Min-d	31	18	18	25	30	40	5	4	4	4	4	6	34
	Weishuiyuan	Mean	181	157	105	108	82	115	81	79	84	90	125	132	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-d	457	253	251	366	143	284	135	184	139	212	219	230	
		Min-d	45	52	44	41	38	49	40	19	37	24	35	42	
	Hongwen	Mean	92	76	67	79	75	54	36	34	60	79	69	95	
		%	100	100	100	100	94	90	94	100	100	100	93	100	
		Max-d	168	163	140	171	146	128	90	97	93	169	136	147	
		Min-d	40	17	15	18	10	13	14	12	29	21	24	48	
	Xiang Zhou	Mean	77	45	40	41	53	49	27	33	44	75	79	104	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-d	147	80	88	107	144	121	57	83	84	130	144	146	
		Min-d	30	22	15	13	19	17	18	16	18	29	38	45	
Japan	Rishiri	Mean	12	11	18	26	37	17	10	14	11	14	16	12	
		%	95	96	86	95	96	96	96	96	96	96	95	95	
		Max-d	31	28	47	84	75	41	17	30	30	23	48	31	
		Min-d	4	5	2	4	6	4	3	5	5	5	4	3	
	Tappi	Mean	15	14	12	9	33	17	10	14	14	19	17	16	
		%	93	99	76	99	100	100	100	100	100	99	97	100	
		Max-d	41	29	24	64	66	45	19	26	32	118	49	34	
		Min-d	7	6	7	2	14	3	3	5	7	8	6	5	
	Sado-seki	Mean	19	19	26	28	37	23	13	16	18	21	19	25	
		%	100	100	100	100	100	100	90	100	100	100	100	78	
		Max-d	45	38	59	69	71	38	26	31	34	65	46	50	
		Min-d	8	8	7	5	18	9	6	6	7	11	8	N.D.	
	Happo	Mean	4	6	12	17	23	16	7	9	9	8	6	7	
		%	95	98	95	99	54	91	100	100	100	100	100	68	
		Max-d	11	17	34	60	46	41	19	22	23	15	20	15	
		Min-d	2	3	2	2	3	2	3	1	N.D.	1	1	3	
	Ogasawara	Mean	13	14	15	13	10	8	7	6	6	17	12	13	
		%	100	99	99	100	100	100	100	99	40	37	100	99	
		Max-d	20	22	28	23	26	26	13	9	10	27	21	26	
		Min-d	3	8	7	3	3	4	3	3	4	9	3	6	
	Oki	Mean	21	27	27	35	-	-	16	14	20	23	22	27	
		%	77	96	100	79	-	-	42	11	100	100	100	100	
		Max-d	56	76	57	114	-	-	28	25	58	50	50	61	
		Min-d	8	9	10	4	-	-	9	7	7	10	8	8	
	Ijira	Mean	11	14	18	24	30	26	19	25	22	17	17	12	
		%	100	100	100	100	100	100	100	100	100	100	100	99	
		Max-d	23	28	46	76	53	47	33	41	43	35	43	36	
		Min-d	5	6	3	5	8	11	9	9	4	7	6	5	
	Banryu	Mean	22	25	26	32	31	29	17	22	27	25	21	27	
		%	100	99	99	100	99	99	100	100	99	99	99	99	
		Max-d	56	51	59	98	59	51	32	39	87	45	43	64	
		Min-d	11	11	12	6	11	10	8	8	11	14	11	8	
	Yusuhara	Mean	14	20	13	22	18	18	15	19	25	17	14	17	
		%	90	83	42	85	88	87	85	75	72	88	76	89	
		Max-d	39	63	28	59	43	34	24	38	52	33	33	40	
		Min-d	5	9	4	4	3	3	6	4	2	4	3	5	
Hedo	Mean	30	25	30	29	26	19	11	12	-	38	28	32		
	%	100	100	100	100	100	99	100	19	-	79	100	100		
	Max-d	55	56	81	69	61	42	22	21	-	71	56	68		
	Min-d	9	8	13	13	9	8	7	5	-	19	12	11		
Malaysia	Petling Jaya	Mean	39	41	40	40	47	51	43	50	40	29	30	37	
		%	97	100	100	100	100	100	100	100	100	100	93	100	
		Max-d	60	56	55	53	83	112	72	106	61	49	56	68	
		Min-d	18	22	22	24	20	20	19	19	23	15	14	21	
Republic of Korea	Imsil	Mean	42	56	49	44	49	47	35	46	36	27	26	34	
		%	96	98	97	99	100	34	77	96	97	100	94	98	
		Max-d	104	116	81	86	115	77	62	80	68	52	69	83	
		Min-d	15	13	23	12	12	21	16	22	13	5	6	16	
	Kanghwa	Mean	61	70	69	57	70	58	45	39	51	49	47	60	
		%	98	98	98	100	91	91	99	96	97	99	99	91	
		Max-d	136	147	151	112	106	91	78	80	135	74	91	120	
		Min-d	31	30	28	26	41	25	19	22	26	25	21	25	
	Cheju	Mean	38	46	49	55	48	46	30	30	36	39	33	41	
		%	94	97	95	88	99	93	73	99	97	96	99	99	
		Max-d	105	139	111	105	92	73	52	45	121	90	54	108	
		Min-d	15	21	15	28	13	18	17	12	15	25	12	15	
Thailand	Mae Hia	Mean	61	56	43	49	23	24	35	38	40	55	59	91	
		%	100	86	81	60	94	90	94	81	93	77	63	100	
		Max-d	121	80	56	103	38	42	61	75	79	95	89	149	
		Min-d	27	35	31	17	16	18	21	20	20	25	29	49	

**Table 4.12 PM<sub>2.5</sub>**

Unit $\mu\text{g}/\text{m}^3$			2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Japan	Rishiri	Mean	8	7	10	14	23	12	7	8	5	7	9	8	
		%	76	69	99	99	100	100	100	100	100	100	99	100	100
		Max-d	19	19	29	26	62	26	11	24	13	14	30	16	
		Min-d	2	4	2	4	2	4	3	3	3	3	4	3	
	Oki	Mean	10	13	13	17	18	18	7	9	12	12	9	11	
		%	77	96	92	100	100	100	100	100	100	100	100	100	
		Max-d	33	34	34	38	36	35	13	24	47	28	25	35	
		Min-d	4	5	4	3	6	5	2	3	5	6	5	4	

**Table 4.13 Particulate matter component: SO<sub>4</sub><sup>2-</sup>**

Unit µg/m <sup>3</sup>		2003													
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Serpong	Mean	0.55	0.55	1.18	1.03	0.65	0.45	0.15	0.65	0.25	0.50	0.05	0.38	
		%	100	100	100	100	100	90	97	100	100	100	64	75	
		Max-w	1.94	1.16	2.39	1.53	0.81	1.12	0.34	1.69	0.74	1.28	0.07	0.63	
		Min-w	0.06	0.09	0.53	0.33	0.48	0.04	N.D.	N.D.	N.D.	N.D.	0.03	N.D.	
Japan	Rishiri	Mean	1.89	1.73	2.79	2.75	4.09	4.63	2.35	2.34	1.83	2.50	2.01	1.65	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-2w	2.21	1.90	3.52	2.83	4.49	4.99	2.56	2.96	1.88	4.22	2.09	2.02	
		Min-2w	1.57	1.57	2.07	2.68	3.68	4.27	2.14	1.73	1.79	1.05	1.93	1.36	
	Tappi	Mean	-	-	-	3.66	7.49	2.14	2.44	4.10	2.62	2.06	-	2.02	
		%	-	-	-	46	100	100	100	100	100	100	-	100	
		Max-2w	-	-	-	-	9.97	3.95	3.64	4.91	2.86	2.10	-	2.40	
		Min-2w	-	-	-	-	5.02	0.32	1.78	3.28	2.38	2.03	-	1.31	
	Ogasawara	Mean	-	-	-	2.13	0.16	0.10	0.53	0.23	0.84	1.13	3.26	2.98	
		%	-	-	-	25	100	100	100	100	100	100	100	100	
		Max-w	-	-	-	-	0.59	0.42	1.21	0.69	1.99	1.90	6.17	6.07	
		Min-w	-	-	-	-	0.02	N.D.	0.04	N.D.	0.27	0.15	0.19	N.D.	
	Sado-seki	Mean	-	-	-	2.41	4.13	4.36	3.03	3.60	3.70	2.44	3.13	1.19	
		%	-	-	-	50	100	67	100	50	54	100	100	38	
		Max-2w	-	-	-	-	6.86	4.97	4.22	-	-	2.67	4.64	-	
		Min-2w	-	-	-	-	1.41	3.75	1.84	-	-	2.22	1.62	-	
	Happo	Mean	-	-	-	0.89	3.19	3.56	2.27	1.65	3.27	2.18	0.77	1.18	
		%	-	-	-	50	100	100	100	100	100	100	100	100	
		Max-2w	-	-	-	-	3.57	4.42	2.79	2.29	5.55	2.39	-	1.73	
		Min-2w	-	-	-	-	2.74	2.70	1.75	1.01	1.48	1.97	-	0.62	
	Yusuhara	Mean	-	-	-	5.00	4.00	6.32	1.90	4.34	4.88	1.76	3.75	4.84	
		%	-	-	-	47	100	100	100	100	100	100	100	100	
		Max-2w	-	-	-	-	4.61	8.76	5.09	6.28	6.40	3.40	4.74	6.46	
		Min-2w	-	-	-	-	3.39	3.88	0.05	2.40	3.36	0.12	2.76	3.12	
Hedo	Mean	-	-	-	-	5.95	2.11	1.70	0.30	3.15	7.30	4.74	6.79		
	%	-	-	-	-	100	100	100	50	100	100	100	100		
	Max-2w	-	-	-	-	7.37	3.90	2.74	-	6.31	9.53	5.75	6.99		
	Min-2w	-	-	-	-	4.53	0.32	0.08	-	N.D.	5.06	3.73	6.45		
Ijira	Mean	-	-	-	2.55	5.99	4.98	2.55	3.48	5.75	2.27	4.16	1.78		
	%	-	-	-	100	100	100	100	100	100	100	100	100		
	Max-2w	-	-	-	2.97	6.21	5.60	2.70	4.40	6.77	2.41	5.71	3.07		
	Min-2w	-	-	-	2.12	5.77	4.43	2.39	2.56	4.73	2.13	2.61	1.13		
Banryu	Mean	-	-	-	4.38	4.22	6.11	4.18	1.13	3.34	2.62	3.80	4.64		
	%	-	-	-	52	100	100	100	100	100	100	100	100		
	Max-2w	-	-	-	-	4.60	6.75	5.62	2.07	6.11	3.17	5.16	6.27		
	Min-2w	-	-	-	-	3.84	5.46	1.90	0.19	0.58	2.07	2.44	3.62		
Oki	Mean	3.51	4.52	2.71	4.62	4.82	6.39	4.29	1.62	4.65	3.08	3.22	3.46		
	%	100	100	52	100	100	100	100	100	100	100	100	100		
	Max-2w	4.11	4.65	-	4.77	4.98	7.77	5.34	2.64	6.34	3.60	3.88	3.84		
	Min-2w	2.91	4.39	-	4.48	4.66	5.01	3.59	0.60	2.97	2.56	2.56	3.07		
Malaysia	TanahRata	Mean	0.67	0.72	0.34	0.60	0.76	0.42	0.02	0.88	0.71	0.08	0.23	0.60	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	1.26	1.09	0.98	1.39	1.79	0.74	0.04	2.08	1.28	0.39	0.58	1.19	
		Min-w	N.D.	0.02	0.03	0.13	0.17	0.04	N.D.	0.02	0.05	N.D.	N.D.	0.15	
	Petaling Jaya	Mean	1.65	0.84	1.10	5.16	4.99	5.48	4.42	4.63	4.27	3.11	3.42	1.24	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	3.88	1.30	2.92	6.40	8.63	6.99	5.18	6.67	5.62	4.06	4.92	1.91	
		Min-w	0.65	0.33	0.36	4.25	3.29	3.94	3.90	2.62	3.63	2.33	2.39	0.64	
Mongolia	Ulaanbaatar	Mean	-	-	-	-	3.35	2.12	5.31	-	-	-	-		
		%	-	-	-	-	100	100	58	-	-	-	-		
		Max-w	-	-	-	-	5.00	3.10	8.36	-	-	-	-		
		Min-w	-	-	-	-	2.33	1.07	3.37	-	-	-	-		
	Terej	Mean	0.47	0.32	0.38	1.19	1.36	1.19	0.92	0.57	0.45	0.66	1.17	0.65	
		%	100	100	100	100	50	100	100	100	100	100	100	100	
		Max-w	0.65	0.48	0.73	3.58	1.96	1.69	1.53	1.61	1.05	1.00	1.89	1.15	
		Min-w	0.21	0.13	N.D.	0.09	0.76	0.60	0.21	0.16	N.D.	0.18	0.67	0.09	
Philippines	Metro Manila	Mean	4.29	3.31	3.59	4.79	2.52	3.41	3.74	5.59	3.77	4.47	2.52	2.85	
		%	100	100	100	100	76	100	100	100	100	100	100	23	
		Max-w	5.94	4.78	4.70	7.87	2.88	5.00	5.02	10.58	5.18	5.34	4.02	-	
		Min-w	2.41	2.36	2.78	2.69	2.23	2.27	1.73	3.36	1.32	2.98	1.03	-	
	Los Banos	Mean	2.17	1.18	1.50	3.71	2.42	8.77	1.73	1.93	1.72	1.48	1.79	2.69	
		%	100	96	100	100	100	100	100	97	100	100	100	100	
		Max-w	3.33	1.97	3.14	4.69	6.87	25.65	4.08	2.59	2.55	2.58	3.31	4.64	
		Min-w	1.22	0.09	0.32	2.07	0.62	1.25	0.77	0.99	1.09	N.D.	0.37	0.75	

**Table 4.13 Particulate matter component: SO<sub>4</sub><sup>2-</sup>**

Unit $\mu\text{g}/\text{m}^3$		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	8.83	4.40	2.50	0.52	2.08	14.06	4.95	13.82	3.92	1.45	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	13.41	9.83	-	0.66	2.55	19.51	6.56	27.97	8.83	2.04	-
		Min	-	4.25	1.24	-	0.38	1.60	10.99	2.52	4.15	1.25	0.86	-
	Cheju	Mean	8.92	6.91	6.73	7.74	9.38	6.34	3.85	7.46	8.23	3.77	7.53	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	13.83	13.98	9.38	12.51	13.77	8.69	5.75	9.06	18.92	5.67	13.99	-
		Min-d	4.14	2.94	5.21	2.97	2.34	4.88	1.49	5.87	1.86	1.88	4.11	-
	Imsil	Mean	8.77	14.34	-	-	9.86	5.57	10.48	6.77	7.62	6.08	4.54	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	17.34	16.13	-	-	17.18	9.34	13.70	8.03	12.16	6.16	7.82	-
		Min-d	3.84	12.56	-	-	5.81	1.86	7.91	5.50	2.79	6.01	1.27	-
Russia	Mondy	Mean	0.59	1.17	0.68	1.85	0.72	3.58	1.71	0.10	0.47	0.42	0.21	0.39
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.70	1.65	0.72	-	-	-	2.54	0.15	0.69	0.69	-	0.61
		Min*	0.48	0.69	0.65	-	-	-	0.88	0.05	0.24	0.16	-	0.17
	Listvianka	Mean	2.03	3.09	4.06	2.77	2.47	3.47	3.99	2.24	1.37	2.23	3.45	1.80
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.70	4.29	5.30	3.10	5.10	6.57	10.16	4.78	2.16	3.12	4.31	3.45
		Min-w	1.45	1.70	2.71	2.44	0.61	1.79	0.51	0.19	1.06	1.37	2.30	0.19
	Irkutsk	Mean	2.57	2.34	0.70	0.86	1.83	2.62	3.67	1.25	2.08	1.20	2.52	8.46
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	8.32	4.99	1.05	0.98	3.42	3.49	7.49	2.56	2.96	1.88	5.50	10.81
		Min-w	0.46	0.45	0.50	0.78	0.92	1.80	0.65	0.42	1.42	0.35	0.91	6.27
	Primorskaya	Mean	3.49	2.43	2.37	2.44	1.76	2.09	2.52	3.44	3.22	2.26	2.22	2.85
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	4.17	3.38	3.09	3.29	1.80	2.12	3.07	3.80	5.09	3.68	2.41	-
		Min*	2.82	1.49	1.66	1.60	1.72	2.07	1.96	3.09	1.35	0.84	2.03	-
Thai Land	Mae Hia	Mean	-	-	-	0.09	2.91	0.18	0.66	0.05	0.68	5.69	0.29	8.48
		%	-	-	-	23	23	23	23	23	23	23	23	23
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	3.63	1.51	-	-	-	-	2.20	1.14	-	-	5.98	7.34
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	3.03	-	-	-	-	-	2.26	-	-	12.28	13.07
		Min-w	-	N.D.	-	-	-	-	-	0.02	-	-	0.08	4.43
	Patumthani	Mean	-	2.32	-	-	-	0.20	1.81	1.30	0.78	-	3.28	6.67
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	0.28	3.04	2.36	2.27	-	7.85	10.51
		Min-w	-	-	-	-	-	0.13	0.04	0.71	N.D.	-	0.09	3.12
Viet Nam	Ha Noi	Mean	25.55	9.70	19.37	11.11	13.95	14.21	4.54	8.14	16.45	20.84	28.52	21.88
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	46.71	14.20	22.43	17.07	21.53	26.03	5.80	13.11	25.57	25.56	33.35	38.17
		Min-w	0.59	0.56	15.47	0.52	6.41	5.18	3.52	0.31	10.03	11.54	24.59	2.39
	Hoa Binh	Mean	4.77	0.61	1.31	0.46	0.90	1.52	3.19	3.23	1.66	3.47	4.30	2.69
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	10.23	0.70	2.19	0.54	1.33	2.49	8.61	5.85	3.01	8.86	11.96	5.17
		Min-w	0.01	0.55	0.04	0.38	0.41	0.43	1.30	1.99	0.50	0.27	0.85	1.10

**Table 4.14 Particulate matter component: NO<sub>3</sub><sup>-</sup>**

Unit µg/m <sup>3</sup>		2003													
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Indonesia	Serpong	Mean	1.67	0.73	0.96	0.82	0.31	0.19	0.02	0.36	0.14	1.57	0.30	0.26	
		%	100	100	100	100	100	90	97	100	100	100	64	75	
		Max-w	6.76	1.30	2.28	1.35	0.62	0.37	0.08	0.85	0.29	5.63	0.34	0.40	
		Min-w	N.D.	0.22	0.13	0.18	0.14	0.06	N.D.	N.D.	N.D.	N.D.	0.26	N.D.	
Japan	Rishiri	Mean	0.27	0.21	0.68	1.09	1.33	0.50	0.27	0.60	0.51	0.83	0.44	0.39	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-2w	0.40	0.22	1.08	1.29	1.89	0.76	0.33	0.73	0.63	1.39	0.46	0.47	
		Min-2w	0.13	0.21	0.28	0.89	0.90	0.23	0.21	0.47	0.40	0.32	0.42	0.30	
	Tappi	Mean	-	-	-	2.14	3.26	0.79	0.50	1.37	0.49	0.90	-	0.46	
		%	-	-	-	46	100	100	100	100	100	100	-	100	
		Max-2w	-	-	-	-	5.76	1.26	0.55	2.08	0.80	1.31	-	0.59	
		Min-2w	-	-	-	-	0.76	0.32	0.45	0.65	0.18	0.50	-	0.33	
	Ogasawara	Mean	-	-	-	0.61	0.03	0.02	0.14	0.06	0.17	0.31	0.83	0.67	
		%	-	-	-	25	100	100	100	100	100	100	100	100	
		Max-w	-	-	-	-	0.12	0.10	0.30	0.16	0.29	0.55	1.67	1.09	
		Min-w	-	-	-	-	N.D.	N.D.	0.02	N.D.	0.07	0.05	0.02	0.02	
	Sado-seki	Mean	-	-	-	0.93	0.77	0.85	0.71	0.52	0.88	1.02	1.07	0.20	
		%	-	-	-	50	100	67	100	50	54	100	100	38	
		Max-2w	-	-	-	-	0.78	1.04	0.72	-	-	1.04	1.67	-	
		Min-2w	-	-	-	-	0.75	0.67	0.69	-	-	1.00	0.48	-	
	Happo	Mean	-	-	-	0.32	0.72	0.57	0.06	0.03	0.12	0.30	0.05	0.25	
		%	-	-	-	50	100	100	100	100	100	100	100	100	
		Max-2w	-	-	-	-	1.18	0.90	0.09	0.06	0.25	0.45	-	0.45	
		Min-2w	-	-	-	-	0.49	0.24	0.04	N.D.	0.05	0.15	-	0.05	
	Yusuhara	Mean	-	-	-	0.55	0.15	N.D.	N.D.	N.D.	0.13	0.24	0.35	1.26	
		%	-	-	-	47	100	100	100	100	100	100	100	100	
		Max-2w	-	-	-	-	0.23	N.D.	N.D.	N.D.	0.23	0.31	0.60	2.71	
		Min-2w	-	-	-	-	0.08	N.D.	N.D.	N.D.	0.03	0.17	0.10	0.17	
Hedo	Mean	-	-	-	-	2.25	0.50	0.50	0.17	1.14	2.96	2.07	2.37		
	%	-	-	-	-	100	100	100	50	100	100	100	100		
	Max-2w	-	-	-	-	2.28	0.77	0.77	-	2.24	3.63	2.35	2.58		
	Min-2w	-	-	-	-	2.22	0.23	0.02	-	0.03	2.30	1.78	2.15		
Ijira	Mean	-	-	-	0.66	0.73	0.34	0.05	0.17	0.09	0.48	0.81	0.32		
	%	-	-	-	100	100	100	100	100	100	100	100	100		
	Max-2w	-	-	-	0.88	0.74	0.45	0.06	0.21	0.11	0.60	0.89	0.43		
	Min-2w	-	-	-	0.43	0.71	0.26	0.05	0.12	0.06	0.37	0.74	0.24		
Banryu	Mean	-	-	-	0.81	0.48	0.35	0.40	0.10	0.27	1.00	1.01	1.83		
	%	-	-	-	52	100	100	100	100	100	100	100	100		
	Max-2w	-	-	-	-	0.93	0.71	0.62	0.19	0.49	1.24	1.06	2.41		
	Min-2w	-	-	-	-	0.02	N.D.	0.03	N.D.	0.05	0.76	0.96	1.18		
Oki	Mean	0.78	1.19	0.51	1.18	0.50	0.17	0.23	0.50	0.58	1.02	0.83	1.06		
	%	100	100	52	100	100	100	100	100	100	100	100	100		
	Max-2w	0.99	1.39	-	1.44	0.72	0.28	0.27	0.67	0.64	1.22	0.86	1.38		
	Min-2w	0.56	0.99	-	0.92	0.29	0.07	0.16	0.34	0.52	0.83	0.80	0.75		
Malaysia	TanahRata	Mean	0.21	0.19	0.11	0.08	0.15	0.05	0.02	0.16	0.12	0.02	0.02	0.16	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	0.82	0.38	0.40	0.15	0.43	0.10	0.03	0.36	0.31	0.06	0.08	0.28	
		Min-w	N.D.	N.D.	N.D.	0.02	N.D.	N.D.	N.D.	N.D.	0.02	N.D.	N.D.	0.09	
	Petaling Jaya	Mean	0.40	0.26	0.04	0.03	0.05	0.03	0.03	0.04	0.03	0.02	0.16	0.11	
		%	100	100	100	100	100	100	100	100	100	100	100	100	
		Max-w	0.77	0.60	0.13	0.07	0.10	0.04	0.04	0.05	0.03	0.04	0.21	0.16	
		Min-w	0.14	0.13	N.D.	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.11	0.07	
Mongolia	Ulaanbaatar	Mean	-	-	-	-	1.99	1.28	1.85	-	-	-	-		
		%	-	-	-	-	100	100	58	-	-	-	-		
		Max-w	-	-	-	-	3.11	1.69	2.27	-	-	-	-		
		Min-w	-	-	-	-	0.90	0.81	1.45	-	-	-	-		
	Terej	Mean	0.01	0.05	0.11	0.32	0.22	0.37	0.16	0.13	0.12	0.13	0.21	0.10	
		%	100	100	100	100	50	100	100	100	100	100	100	100	
		Max-w	0.03	0.08	0.19	1.10	0.30	0.56	0.25	0.17	0.18	0.17	0.32	0.18	
		Min-w	N.D.	0.02	0.07	N.D.	0.14	0.21	0.10	0.08	0.07	0.09	0.07	0.04	
Philippines	Metro Manila	Mean	2.07	1.21	2.05	1.82	1.06	1.41	1.42	8.07	1.72	2.10	1.72	2.51	
		%	100	100	100	100	76	100	100	100	100	100	100	23	
		Max-w	2.58	1.50	2.41	2.60	1.18	1.73	2.10	27.18	2.91	3.13	2.36	-	
		Min-w	1.66	0.99	1.15	1.34	0.90	0.99	0.92	1.43	0.78	1.15	1.36	-	
	Los Banos	Mean	0.66	0.23	0.65	1.77	0.31	0.83	4.32	0.76	0.95	0.64	0.67	2.34	
		%	100	96	100	100	100	100	100	97	100	100	100	100	
		Max-w	1.15	0.36	1.47	3.85	0.81	1.08	19.16	1.18	3.26	1.39	1.23	4.23	
		Min-w	0.16	N.D.	0.19	0.67	N.D.	0.61	0.37	0.41	0.04	0.04	0.24	0.44	

**Table 4.14 Particulate matter component: NO<sub>3</sub><sup>-</sup>**

Unit $\mu\text{g}/\text{m}^3$		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	8.29	5.15	1.30	7.37	1.72	4.59	2.45	1.90	2.65	6.50	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	13.12	10.56	-	9.52	2.41	9.16	5.96	3.39	5.67	9.87	-
		Min	-	3.46	1.40	-	5.21	1.02	0.61	0.49	0.63	1.05	3.13	-
	Cheju	Mean	0.20	0.53	0.33	0.12	0.40	0.22	0.24	0.14	0.21	0.35	3.07	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	0.27	1.07	0.53	0.13	0.59	0.31	0.41	0.15	0.38	0.41	7.38	-
		Min-d	0.10	0.26	0.14	0.11	0.21	0.16	0.15	0.13	0.13	0.29	0.40	-
	Imsil	Mean	0.52	0.64	-	-	0.39	0.51	0.47	0.56	0.41	0.38	0.73	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	0.64	0.64	-	-	0.47	0.75	0.75	0.60	0.55	0.46	0.84	-
		Min-d	0.44	0.64	-	-	0.26	0.26	0.30	0.52	0.33	0.30	0.63	-
Russia	Mondy	Mean	0.13	0.16	0.24	N.D.	0.05	0.45	0.17	0.02	N.D.	N.D.	N.D.	0.11
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.14	0.20	0.31	-	-	-	0.25	0.03	N.D.	N.D.	-	0.17
		Min*	0.13	0.12	0.16	-	-	-	0.09	0.02	N.D.	N.D.	-	0.04
	Listvianka	Mean	0.64	0.72	0.55	0.68	0.87	1.36	0.55	0.51	N.D.	0.26	1.03	1.04
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.94	0.90	0.70	3.10	1.81	3.22	1.46	1.02	N.D.	0.57	1.68	3.36
		Min-w	0.38	0.63	0.32	0.44	N.D.	0.37	N.D.	0.25	N.D.	N.D.	0.31	N.D.
	Irkutsk	Mean	0.71	1.20	0.21	0.39	0.84	1.47	1.30	0.23	0.60	0.16	1.47	2.99
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.91	3.61	0.33	0.75	1.49	2.52	3.08	0.62	1.17	0.44	4.27	3.37
		Min-w	0.24	0.08	N.D.	0.15	0.32	0.45	0.47	N.D.	0.09	N.D.	0.08	2.50
	Primorskaya	Mean	1.45	0.36	0.25	0.74	0.59	0.41	0.24	N.D.	0.07	0.09	0.25	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	2.90	0.56	0.51	0.88	0.97	0.49	0.34	N.D.	0.13	0.18	0.29	-
		Min*	N.D.	0.17	N.D.	0.60	0.22	0.32	0.14	N.D.	N.D.	N.D.	0.21	-
Thai Land	Mae Hia	Mean	-	-	-	0.30	0.09	0.30	0.30	0.60	0.09	0.05	0.01	0.75
		%	-	-	-	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	0.61	0.26	-	-	-	-	1.49	0.95	-	-	1.36	4.37
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.51	-	-	-	-	-	1.85	-	-	2.46	5.94
		Min-w	-	N.D.	-	-	-	-	-	0.04	-	-	0.04	1.52
	Patumthani	Mean	-	N.D.	-	-	-	0.11	0.89	0.76	0.69	-	0.22	1.78
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	0.13	1.38	1.03	2.01	-	0.40	4.09
		Min-w	-	-	-	-	-	0.08	N.D.	0.56	N.D.	-	N.D.	0.09
Viet Nam	Ha Noi	Mean	8.36	3.30	4.92	3.92	2.70	1.76	2.26	1.78	1.61	5.64	12.87	14.77
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	20.02	5.12	6.70	5.85	3.58	2.22	2.41	2.94	2.77	8.73	15.68	26.42
		Min-w	0.16	0.15	3.38	0.16	1.86	1.12	2.15	0.25	0.67	2.24	11.21	0.99
	Hoa Binh	Mean	1.07	0.06	0.14	0.08	0.16	0.31	1.23	0.89	1.15	0.25	0.61	0.49
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.64	0.07	0.18	0.09	0.26	0.60	4.47	1.12	1.56	0.51	1.67	0.84
		Min-w	0.18	0.06	0.09	0.06	0.08	0.10	0.22	0.44	0.27	0.02	N.D.	0.26

**Table 4.15 Particulate matter component: CI**

Unit $\mu\text{g}/\text{m}^3$		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.26	4.97	3.46	0.26	0.41	0.45	0.48	0.24	0.24	0.26	0.89	2.95
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	0.63	17.86	12.93	0.50	0.65	1.05	0.91	0.49	0.61	0.70	1.86	8.76
		Min-w	0.09	0.05	0.19	0.11	0.20	0.09	0.20	0.05	N.D.	N.D.	0.17	N.D.
Japan	Rishiri	Mean	1.77	0.67	2.45	2.55	1.85	0.13	0.09	1.11	3.68	4.93	3.40	1.87
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	2.28	0.78	3.02	4.43	3.77	0.21	0.13	1.52	3.99	8.11	4.02	2.49
		Min-2w	1.25	0.55	1.88	0.67	0.20	0.04	0.05	0.69	3.38	2.25	2.77	1.47
	Tappi	Mean	-	-	-	3.02	1.47	1.15	0.31	2.62	5.75	5.81	-	6.88
		%	-	-	-	46	100	100	100	100	100	100	-	100
		Max-2w	-	-	-	-	2.78	1.35	0.54	4.67	9.91	8.04	-	8.25
		Min-2w	-	-	-	-	0.17	0.95	0.07	0.57	1.58	3.57	-	5.45
	Ogasawara	Mean	-	-	-	3.91	0.28	0.15	0.37	0.47	4.40	2.25	9.70	4.18
		%	-	-	-	25	100	100	100	100	100	100	100	100
		Max-w	-	-	-	-	1.18	0.59	0.77	1.55	11.90	3.78	17.45	7.45
		Min-w	-	-	-	-	0.02	N.D.	0.02	0.04	1.19	0.32	1.15	N.D.
	Sado-seki	Mean	-	-	-	1.04	0.49	4.35	0.41	0.99	7.40	4.69	4.95	3.41
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	0.96	8.67	0.76	-	-	5.39	5.41	-
		Min-2w	-	-	-	-	0.02	0.02	0.06	-	-	3.98	4.48	-
	Happo	Mean	-	-	-	0.01	0.02	N.D.	N.D.	0.01	0.05	0.03	0.01	0.02
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.03	0.01	0.02	0.02	0.11	0.03	-	0.03
		Min-2w	-	-	-	-	0.02	N.D.	N.D.	N.D.	N.D.	0.03	-	0.01
	Yusuhara	Mean	-	-	-	0.02	0.08	N.D.	N.D.	N.D.	0.01	0.02	0.03	0.12
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.09	N.D.	N.D.	N.D.	0.03	0.02	0.03	0.19
		Min-2w	-	-	-	-	0.07	N.D.	N.D.	N.D.	N.D.	0.01	0.03	N.D.
Hedo	Mean	-	-	-	-	3.17	2.73	2.84	0.61	9.46	12.80	7.69	9.64	
	%	-	-	-	-	100	100	100	50	100	100	100	100	
	Max-2w	-	-	-	-	4.86	4.57	4.82	-	18.90	17.78	11.14	13.11	
	Min-2w	-	-	-	-	1.49	0.89	0.08	-	0.01	7.82	4.23	4.32	
Ijira	Mean	-	-	-	0.04	0.05	0.02	N.D.	0.01	0.02	0.04	0.17	0.07	
	%	-	-	-	100	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	0.05	0.06	0.03	N.D.	0.02	0.02	0.05	0.28	0.08	
	Min-2w	-	-	-	0.03	0.05	N.D.	N.D.	N.D.	0.02	0.03	0.05	0.07	
Banryu	Mean	-	-	-	0.02	0.11	0.03	0.09	0.02	0.30	0.37	1.18	1.57	
	%	-	-	-	52	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	-	0.22	0.06	0.15	0.04	0.61	0.66	2.22	2.59	
	Min-2w	-	-	-	-	N.D.	N.D.	0.01	N.D.	N.D.	0.08	0.15	0.22	
Oki	Mean	3.05	1.35	1.84	0.59	0.05	0.02	0.03	0.18	0.62	1.61	2.54	3.73	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	5.31	1.41	-	0.97	0.08	0.02	0.05	0.20	1.10	1.67	3.08	4.04	
	Min-2w	0.79	1.29	-	0.20	0.01	0.02	0.01	0.15	0.15	1.55	2.01	3.42	
Malaysia	TanahRata	Mean	0.27	0.34	0.07	0.02	0.09	N.D.	N.D.	0.01	0.02	0.03	0.04	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.01	0.75	0.25	0.05	0.22	0.01	0.03	0.03	0.05	0.05	0.18	0.18
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.	N.D.	0.02
	Petaling Jaya	Mean	0.05	0.02	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.02	0.11
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.11	0.04	0.02	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.02	0.18
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.77	0.59	1.11	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	1.23	0.85	2.37	-	-	-	-	
		Min-w	-	-	-	-	0.38	0.34	0.43	-	-	-	-	
	Terej	Mean	0.26	0.10	0.17	0.44	0.12	0.21	0.17	0.21	0.12	0.20	0.25	0.14
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.64	0.17	0.37	1.18	0.18	0.37	0.21	0.30	0.19	0.35	0.41	0.23
		Min-w	0.04	0.03	N.D.	0.15	0.06	0.07	0.07	0.09	0.07	0.08	0.10	0.08
Philippines	Metro Manila	Mean	1.36	0.90	0.84	0.57	0.87	0.42	0.36	0.79	0.51	0.66	0.66	2.39
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	3.44	1.29	1.53	1.09	1.57	0.74	1.00	1.63	0.87	1.50	0.88	-
		Min-w	0.30	0.63	0.17	0.28	0.43	0.03	0.04	0.26	0.34	0.20	0.48	-
	Los Banos	Mean	1.55	1.56	1.65	1.50	0.93	1.33	0.21	0.68	0.37	0.89	1.07	1.31
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	2.43	2.23	3.46	2.36	2.24	3.11	0.57	1.35	0.63	1.78	2.02	2.14
		Min-w	1.06	N.D.	0.17	0.52	0.14	0.18	N.D.	0.32	0.11	0.10	0.63	0.48

**Table 4.15 Particulate matter component: Cl**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	0.49	0.54	0.22	0.13	0.07	0.19	0.07	0.22	0.21	0.29	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	0.80	0.75	-	0.19	0.12	0.25	0.08	0.42	0.37	0.33	-
		Min	-	0.18	0.16	-	0.08	0.02	0.08	0.05	0.05	0.10	0.25	-
	Cheju	Mean	0.41	0.55	0.27	0.23	0.38	0.20	0.64	0.19	0.32	0.47	0.86	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	0.49	0.64	0.46	0.23	0.53	0.29	1.54	0.20	0.47	0.52	1.49	-
		Min-d	0.27	0.45	0.16	0.22	0.30	0.12	0.18	0.19	0.24	0.42	0.51	-
	Imsil	Mean	0.41	0.20	-	-	0.33	0.16	0.19	0.23	0.45	0.30	0.49	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	0.69	0.21	-	-	0.58	0.17	0.23	0.28	0.53	0.40	0.53	-
		Min-d	0.25	0.20	-	-	0.12	0.13	0.16	0.18	0.35	0.19	0.45	-
Russia	Mondy	Mean	0.03	0.04	0.50	0.14	0.02	0.18	0.17	0.07	0.03	0.16	0.03	0.04
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.04	0.04	0.78	-	-	-	0.22	0.12	0.03	0.20	-	0.08
		Min*	0.03	0.03	0.21	-	-	-	0.12	0.02	0.02	0.12	-	N.D.
	Listvianka	Mean	0.27	0.13	0.24	0.13	0.32	0.05	0.10	0.25	N.D.	0.05	0.07	0.01
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.55	0.45	0.60	3.10	0.77	0.18	0.21	0.59	N.D.	0.16	0.26	0.05
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Irkutsk	Mean	0.15	0.13	0.11	0.21	0.18	0.22	0.34	0.35	0.10	0.12	0.16	0.78
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.34	0.46	0.15	0.49	0.57	0.47	1.25	0.63	0.29	0.35	0.34	1.07
		Min-w	N.D.	N.D.	0.07	N.D.	N.D.	N.D.	N.D.	0.04	N.D.	N.D.	0.03	0.40
	Primorskaya	Mean	0.48	1.04	0.24	0.33	0.05	0.23	0.44	0.08	0.04	0.06	0.03	N.D.
		%	100	100	100	100	100	100	100	100	100	100	100	23
		Max*	0.95	1.99	0.25	0.39	0.10	0.26	0.79	0.16	0.08	0.09	0.04	-
		Min*	N.D.	0.08	0.23	0.26	N.D.	0.20	0.10	N.D.	N.D.	0.03	0.01	-
Thai Land	Mae Hia	Mean	-	-	-	N.D.	N.D.	N.D.	0.08	N.D.	0.01	0.17	0.02	N.D.
		%	-	-	-	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	0.02	0.14	-	-	-	-	0.35	0.46	-	-	0.02	0.31
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.29	-	-	-	-	-	0.92	-	-	0.06	0.73
		Min-w	-	N.D.	-	-	-	-	-	N.D.	-	-	N.D.	0.09
	Patumthani	Mean	-	0.06	-	-	-	N.D.	0.07	0.17	0.11	-	N.D.	0.07
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	N.D.	0.26	0.27	0.32	-	0.03	0.09
		Min-w	-	-	-	-	-	N.D.	N.D.	0.04	N.D.	-	N.D.	0.06
Viet Nam	Ha Noi	Mean	1.87	2.04	2.04	1.46	1.19	0.56	1.27	0.58	0.44	1.10	1.02	1.11
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	3.75	3.41	3.50	2.33	1.81	0.81	1.94	1.01	0.63	1.91	1.13	2.34
		Min-w	0.15	0.14	0.82	0.21	0.54	0.39	0.62	0.23	0.28	0.67	0.90	0.14
	Hoa Binh	Mean	3.93	0.23	3.84	0.24	0.40	0.44	2.37	1.13	0.70	0.29	0.32	0.17
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	9.37	0.31	14.12	0.29	0.61	0.98	6.35	2.91	1.24	0.76	0.50	0.25
		Min-w	0.37	0.16	0.17	0.20	0.18	0.11	0.12	0.45	0.21	0.09	0.17	0.09

**Table 4.16 Particulate matter component: NH<sub>4</sub><sup>+</sup>**

Unit µg/m <sup>3</sup>		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.06	0.19	0.14	0.13	0.10	0.02	0.09	0.19	0.06	0.03	N.D.	N.D.
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	0.26	0.32	0.19	0.25	0.17	0.07	0.19	0.54	0.18	0.11	N.D.	0.02
		Min-w	N.D.	0.10	0.08	N.D.	N.D.	N.D.	0.02	0.04	N.D.	N.D.	N.D.	N.D.
Japan	Rishiri	Mean	0.31	0.32	0.71	0.66	0.77	0.97	0.50	0.24	0.21	0.40	0.34	0.30
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.37	0.32	1.05	0.80	1.14	1.02	0.59	0.26	0.22	0.67	0.36	0.36
		Min-2w	0.26	0.32	0.37	0.53	0.56	0.93	0.41	0.22	0.20	0.18	0.32	0.26
	Tappi	Mean	-	-	-	0.75	1.59	0.34	0.46	0.58	0.26	0.48	-	0.31
		%	-	-	-	46	100	100	100	100	50	100	-	100
		Max-2w	-	-	-	-	2.34	0.63	0.63	0.66	0.53	0.50	-	0.40
		Min-2w	-	-	-	-	0.83	0.04	0.35	0.50	N.D.	0.45	-	0.16
	Ogasawara	Mean	-	-	-	0.16	N.D.	N.D.	0.08	0.04	0.02	0.10	0.16	0.30
		%	-	-	-	25	100	100	100	100	100	100	100	100
		Max-w	-	-	-	-	0.04	0.04	0.18	0.08	0.04	0.23	0.47	0.60
		Min-w	-	-	-	-	N.D.	N.D.	0.02	0.02	N.D.	N.D.	N.D.	N.D.
	Sado-seki	Mean	-	-	-	0.45	1.09	0.85	0.49	0.33	0.23	0.28	0.35	N.D.
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	1.84	0.92	0.75	-	-	0.33	0.59	-
		Min-2w	-	-	-	-	0.33	0.77	0.24	-	-	0.23	0.11	-
	Happo	Mean	-	-	-	0.18	1.06	1.24	0.64	0.45	0.74	0.58	0.16	0.20
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	1.13	1.51	0.76	0.58	1.28	0.64	-	0.31
		Min-2w	-	-	-	-	1.02	0.97	0.52	0.31	0.34	0.53	-	0.09
	Yusuhara	Mean	-	-	-	0.87	0.79	1.37	0.45	0.97	1.08	0.39	0.80	1.20
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	1.03	1.65	1.23	1.39	1.36	0.76	1.08	1.88
		Min-2w	-	-	-	-	0.55	1.10	N.D.	0.55	0.80	0.02	0.51	0.64
Hedo	Mean	-	-	-	-	1.18	0.30	0.22	N.D.	0.63	0.71	0.52	0.94	
	%	-	-	-	-	100	100	100	50	100	100	100	100	
	Max-2w	-	-	-	-	1.67	0.55	0.35	-	1.26	1.00	0.64	1.43	
	Min-2w	-	-	-	-	0.68	0.04	0.02	-	N.D.	0.41	0.40	0.69	
Ijira	Mean	-	-	-	0.80	1.93	1.50	1.43	1.56	1.50	0.58	1.12	0.79	
	%	-	-	-	100	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	0.81	1.93	1.60	1.68	2.33	1.75	0.64	1.56	1.32	
	Min-2w	-	-	-	0.79	1.92	1.41	1.19	0.79	1.25	0.51	0.68	0.40	
Banryu	Mean	-	-	-	0.69	0.74	1.44	0.84	0.15	0.26	0.39	0.39	0.73	
	%	-	-	-	52	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	-	0.79	1.98	1.11	0.24	0.37	0.50	0.41	0.86	
	Min-2w	-	-	-	-	0.68	0.90	0.34	0.05	0.16	0.29	0.37	0.55	
Oki	Mean	0.46	0.73	0.36	0.52	1.03	1.43	0.71	0.28	0.80	0.36	0.21	0.29	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	0.63	0.80	-	0.65	1.18	1.76	1.21	0.45	1.15	0.46	0.26	0.37	
	Min-2w	0.30	0.67	-	0.39	0.89	1.09	0.22	0.11	0.45	0.26	0.16	0.21	
Malaysia	TanahRata	Mean	0.09	0.14	0.05	0.17	0.18	0.13	N.D.	0.27	0.15	0.06	0.06	0.21
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.22	0.21	0.11	0.41	0.41	0.26	0.02	0.76	0.33	0.18	0.13	0.40
		Min-w	N.D.	N.D.	N.D.	0.04	0.03	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.08
	Petaling Jaya	Mean	0.38	0.24	0.31	1.72	1.59	1.88	1.31	1.41	1.26	0.79	1.14	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.75	0.31	0.85	2.24	3.23	2.61	1.51	2.41	1.79	1.23	1.72	0.11
		Min-w	0.17	0.11	0.09	1.32	0.82	1.24	1.17	0.65	1.05	0.47	0.73	0.05
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.84	0.29	0.88	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	1.37	0.45	1.43	-	-	-	-	
		Min-w	-	-	-	-	0.38	0.04	0.34	-	-	-	-	
	Terej	Mean	0.10	0.06	0.09	0.37	0.49	0.63	0.52	0.25	0.25	0.20	0.36	0.17
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.16	0.09	0.28	1.10	0.74	0.99	0.94	0.34	0.32	0.26	0.58	0.27
		Min-w	0.03	0.04	0.02	N.D.	0.24	0.23	0.24	0.18	0.16	0.07	0.18	0.07
Philippines	Metro Manila	Mean	0.61	0.87	1.12	0.60	0.29	0.87	2.41	0.54	0.92	0.39	0.39	4.08
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	0.75	1.23	1.97	0.92	0.51	1.61	6.12	2.16	1.74	0.75	0.60	-
		Min-w	0.36	0.51	0.28	N.D.	N.D.	N.D.	0.69	N.D.	N.D.	N.D.	N.D.	-
	Los Banos	Mean	0.25	0.34	0.67	0.19	0.17	1.41	2.75	0.35	0.92	0.32	0.54	0.50
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	0.65	1.15	1.17	0.50	0.50	4.41	8.93	1.64	1.25	0.57	1.30	0.77
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.28	N.D.	0.32	N.D.	N.D.	0.24

**Table 4.16 Particulate matter component: NH<sub>4</sub><sup>+</sup>**

Unit µg/m <sup>3</sup>		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	4.63	2.48	0.82	1.72	1.34	5.74	2.25	4.21	1.68	2.04	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	7.84	4.69	-	2.06	1.77	7.98	3.70	7.87	4.02	3.08	-
		Min	-	1.43	0.44	-	1.37	0.91	3.62	0.96	1.55	0.39	0.99	-
	Cheju	Mean	2.62	2.30	2.20	2.54	3.15	2.19	1.40	3.23	3.17	0.93	3.11	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	4.24	4.90	2.89	3.96	4.45	2.61	2.17	3.89	7.31	1.24	4.22	-
		Min-d	1.16	0.98	1.67	1.11	0.68	1.76	0.63	2.57	0.72	0.61	1.41	-
	Imsil	Mean	2.45	3.88	-	-	3.32	1.56	2.32	2.73	3.08	2.69	1.26	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	3.89	4.74	-	-	4.45	2.61	3.33	3.74	5.02	3.32	2.11	-
		Min-d	0.77	3.02	-	-	2.15	0.55	1.42	1.73	1.54	2.06	0.41	-
Russia	Mondy	Mean	0.16	0.26	0.50	0.79	0.44	1.07	0.62	0.08	0.12	0.13	0.02	0.08
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.18	0.39	0.71	-	-	-	0.83	0.11	0.13	0.21	-	0.09
		Min*	0.14	0.13	0.29	-	-	-	0.42	0.05	0.12	0.05	-	0.07
	Listvianka	Mean	0.56	0.47	1.33	1.10	1.27	2.07	1.30	0.91	0.31	0.51	0.72	0.56
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.94	0.83	1.67	3.10	3.21	3.85	2.99	1.38	0.77	0.67	0.75	1.27
		Min-w	0.14	0.20	0.92	0.85	0.13	0.67	0.43	0.59	N.D.	0.40	0.66	0.05
	Irkutsk	Mean	0.77	0.59	0.09	0.30	0.32	1.07	1.22	0.51	0.44	0.26	0.82	2.78
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.38	1.11	0.14	0.48	0.53	1.55	2.61	0.81	0.80	0.38	2.53	3.77
		Min-w	0.13	0.25	0.05	0.10	0.07	0.43	0.39	0.18	0.29	0.19	0.12	1.74
	Primorskaya	Mean	0.94	1.24	0.99	0.87	0.42	0.82	0.87	0.91	1.37	0.17	0.23	0.57
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	1.07	1.87	1.21	0.91	0.45	0.94	1.15	1.17	2.55	0.27	0.24	-
		Min*	0.81	0.61	0.77	0.82	0.38	0.71	0.59	0.66	0.19	0.07	0.21	-
Thai Land	Mae Hia	Mean	-	-	-	3.99	2.23	0.15	0.30	0.12	0.17	1.94	0.07	2.14
		%	-	-	-	23	23	23	23	23	23	23	23	23
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	0.71	0.38	-	-	-	-	0.27	0.26	-	-	1.94	2.94
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.76	-	-	-	-	-	0.51	-	-	3.06	5.02
		Min-w	-	N.D.	-	-	-	-	-	N.D.	-	-	0.59	1.86
	Patumthani	Mean	-	0.38	-	-	-	0.11	0.43	0.18	0.03	-	0.36	1.77
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	0.22	0.68	0.53	0.10	-	1.39	3.15
		Min-w	-	-	-	-	-	N.D.	0.11	N.D.	N.D.	-	N.D.	0.37
Viet Nam	Ha Noi	Mean	2.74	0.58	0.86	0.18	0.27	0.42	0.11	0.22	0.77	5.86	9.23	25.08
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	6.21	1.81	1.54	0.42	0.84	0.68	0.18	0.41	1.18	15.79	10.12	35.28
		Min-w	0.02	0.02	0.57	0.02	0.03	0.16	0.06	0.05	0.52	0.48	7.57	9.91
	Hoa Binh	Mean	1.14	0.10	0.23	0.19	0.24	0.27	0.48	0.55	0.75	3.64	9.50	57.89
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.89	0.12	0.50	0.34	0.38	0.46	1.08	1.17	1.33	9.06	15.11	111.86
		Min-w	0.56	0.05	0.05	0.08	0.08	0.11	0.07	0.16	0.23	0.42	6.51	15.32

**Table 4.17 Particulate matter component: Na<sup>+</sup>**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.82	0.46	0.12	0.15	0.14	0.24	0.07	0.10	0.31	N.D.	N.D.	3.26
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	2.33	0.81	0.29	0.18	0.17	0.55	0.24	0.25	0.87	0.03	N.D.	9.16
		Min-w	N.D.	0.03	0.02	0.10	0.05	0.03	N.D.	N.D.	N.D.	N.D.	N.D.	0.13
Japan	Rishiri	Mean	1.35	0.58	1.72	2.10	2.04	0.77	0.45	1.41	2.50	3.23	2.25	1.36
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	1.72	0.65	2.02	3.28	2.95	0.87	0.47	1.86	2.69	5.29	2.57	1.64
		Min-2w	0.99	0.52	1.42	0.93	1.11	0.67	0.42	0.97	2.30	1.45	1.94	1.13
	Tappi	Mean	-	-	-	2.65	2.38	1.25	0.75	2.59	6.79	3.68	-	3.81
		%	-	-	-	46	100	100	100	100	100	100	-	100
		Max-2w	-	-	-	-	4.04	1.79	0.82	4.33	12.11	4.71	-	4.06
		Min-2w	-	-	-	-	0.73	0.70	0.67	0.84	1.47	2.65	-	3.32
	Ogasawara	Mean	-	-	-	2.62	0.19	0.10	0.31	0.30	2.62	1.53	6.15	2.92
		%	-	-	-	25	100	100	100	100	100	100	100	100
		Max-w	-	-	-	-	0.81	0.42	0.67	0.98	7.05	2.67	10.80	5.47
		Min-w	-	-	-	-	N.D.	N.D.	0.02	0.02	0.76	0.21	0.66	0.01
	Sado-seki	Mean	-	-	-	1.12	0.98	3.10	0.91	1.54	4.93	3.24	3.56	2.12
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	1.02	5.52	1.03	-	-	3.70	4.21	-
		Min-2w	-	-	-	-	0.93	0.69	0.79	-	-	2.79	2.91	-
	Happo	Mean	-	-	-	0.04	0.12	0.04	0.04	0.04	0.14	0.18	0.07	0.13
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.19	0.06	0.06	0.05	0.23	0.24	-	0.22
		Min-2w	-	-	-	-	0.07	0.02	0.03	0.03	0.06	0.12	-	0.05
	Yusuhara	Mean	-	-	-	0.59	0.46	0.39	0.10	0.23	0.25	0.16	0.37	0.47
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.48	0.65	0.24	0.34	0.45	0.33	0.50	0.60
		Min-2w	-	-	-	-	0.43	0.13	0.02	0.13	0.05	N.D.	0.25	0.36
	Hedo	Mean	-	-	-	-	3.03	2.07	1.91	0.35	6.89	10.66	6.38	7.49
		%	-	-	-	-	100	100	100	50	100	100	100	100
		Max-2w	-	-	-	-	3.78	3.55	3.41	-	13.78	14.45	8.98	9.84
		Min-2w	-	-	-	-	2.29	0.58	0.05	-	N.D.	6.87	3.78	4.17
	Ijira	Mean	-	-	-	0.16	0.43	0.26	0.17	0.19	0.29	0.26	0.35	0.20
		%	-	-	-	100	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	0.18	0.44	0.45	0.20	0.23	0.34	0.29	0.36	0.22
		Min-2w	-	-	-	0.15	0.42	0.13	0.14	0.16	0.24	0.24	0.34	0.14
	Banryu	Mean	-	-	-	1.02	1.11	0.99	0.79	0.30	1.19	1.04	2.00	2.17
		%	-	-	-	52	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	1.12	1.57	0.92	0.60	2.35	1.70	2.18	2.69
		Min-2w	-	-	-	-	1.09	0.41	0.59	N.D.	0.03	0.37	1.82	1.48
Oki	Mean	4.00	2.91	2.26	1.77	0.95	0.96	1.05	0.41	1.60	2.00	2.69	3.42	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	5.39	3.02	-	2.23	1.09	1.14	1.32	0.81	1.64	2.05	2.82	3.68	
	Min-2w	2.61	2.80	-	1.30	0.82	0.78	0.90	N.D.	1.55	1.95	2.55	3.15	
Malaysia	TanahRata	Mean	0.09	0.27	0.16	0.05	0.08	0.03	N.D.	0.06	0.06	0.05	0.05	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.31	0.63	0.47	0.06	0.15	0.06	N.D.	0.18	0.13	0.18	0.21	0.34
		Min-w	N.D.	0.02	0.03	0.02	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.05
	Petaling Jaya	Mean	0.21	0.13	0.08	0.09	0.15	0.17	0.16	0.21	0.16	0.17	0.13	0.32
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.51	0.34	0.11	0.10	0.19	0.29	0.27	0.29	0.25	0.24	0.16	0.47
		Min-w	0.04	0.04	0.03	0.08	0.09	0.08	0.10	0.13	0.11	0.13	0.11	0.17
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.49	0.38	0.92	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	0.85	0.48	1.84	-	-	-	-	
		Min-w	-	-	-	-	0.12	0.25	0.45	-	-	-	-	
	Terej	Mean	0.11	0.05	0.12	0.14	0.07	0.09	0.08	0.11	0.08	0.12	0.11	0.06
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.30	0.14	0.23	0.28	0.14	0.14	0.17	0.23	0.11	0.25	0.20	0.12
		Min-w	0.01	N.D.	N.D.	0.07	N.D.	0.04	0.03	0.02	0.03	0.04	0.06	0.01
Philippines	Metro Manila	Mean	1.58	1.33	1.38	1.53	1.16	0.50	N.D.	0.36	N.D.	0.74	2.00	0.46
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	3.24	1.79	2.38	2.16	1.75	0.70	N.D.	1.42	N.D.	1.28	5.15	-
		Min-w	0.65	0.94	0.70	0.95	0.76	0.25	N.D.	N.D.	N.D.	0.16	0.20	-
	Los Banos	Mean	1.22	0.95	1.35	1.93	0.59	0.46	0.04	N.D.	N.D.	0.85	0.87	0.34
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	2.15	1.69	2.93	3.15	0.82	0.92	0.21	N.D.	N.D.	2.49	1.69	0.43
		Min-w	0.78	N.D.	0.17	0.71	0.15	0.25	N.D.	N.D.	N.D.	0.05	0.28	0.26

**Table 4.17 Particulate matter component: Na<sup>+</sup>**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	0.32	0.56	0.26	0.23	0.26	0.36	0.27	0.49	0.38	0.17	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	0.48	0.79	-	0.28	0.37	0.40	0.33	0.76	0.43	0.28	-
		Min	-	0.17	0.27	-	0.17	0.15	0.29	0.20	0.32	0.28	0.06	-
	Cheju	Mean	0.76	0.63	0.53	0.26	0.60	0.36	0.41	0.40	0.36	0.45	0.93	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	1.02	0.77	0.54	0.33	0.71	0.41	0.75	0.44	0.49	0.55	1.12	-
		Min-d	0.55	0.48	0.51	0.20	0.51	0.29	0.20	0.35	0.27	0.34	0.58	-
	Imsil	Mean	0.70	0.57	-	-	0.42	0.39	0.72	0.54	0.54	0.36	0.45	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	1.14	0.60	-	-	0.54	0.53	0.89	0.69	0.63	0.47	0.57	-
		Min-d	0.42	0.54	-	-	0.21	0.22	0.42	0.39	0.38	0.26	0.33	-
Russia	Mondy	Mean	0.03	0.13	0.02	0.03	N.D.	0.03	0.08	0.01	0.03	0.05	0.03	0.07
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.04	0.13	0.05	-	-	-	0.12	0.01	0.04	0.09	-	0.08
		Min*	0.02	0.12	N.D.	-	-	-	0.03	N.D.	0.02	0.02	-	0.06
	Listvianka	Mean	0.28	0.39	0.28	0.08	0.08	0.12	0.13	0.19	0.06	0.13	0.29	0.13
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.44	0.61	0.62	3.10	0.20	0.21	0.24	0.29	0.11	0.22	0.42	0.29
		Min-w	0.15	0.27	N.D.	0.01	0.03	0.03	0.08	0.13	N.D.	0.06	0.22	N.D.
	Irkutsk	Mean	0.10	0.30	0.15	0.13	0.13	0.10	0.12	0.06	0.16	0.10	0.29	0.62
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.30	0.78	0.21	0.18	0.23	0.12	0.37	0.17	0.22	0.24	0.48	0.82
		Min-w	N.D.	N.D.	0.04	0.06	0.04	0.07	N.D.	N.D.	0.06	N.D.	0.02	0.32
	Primorskaya	Mean	0.52	0.06	0.10	0.31	0.21	0.10	0.14	0.25	0.34	0.26	0.19	0.07
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	0.95	0.07	0.12	0.40	0.22	0.13	-	0.34	0.56	0.47	0.25	-
		Min*	0.10	0.05	0.08	0.22	0.19	0.08	-	0.17	0.11	0.05	0.14	-
Thai Land	Mae Hia	Mean	-	-	-	0.15	0.74	N.D.	0.23	N.D.	N.D.	N.D.	N.D.	
		%	-	-	-	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	
		Min-w	-	-	-	-	-	-	-	-	-	-	-	
	Bangkok	Mean	0.29	0.39	-	-	-	-	0.54	0.50	-	-	0.39	0.63
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.78	-	-	-	-	-	1.01	-	-	0.59	0.76
		Min-w	-	N.D.	-	-	-	-	-	N.D.	-	-	N.D.	0.47
	Patumthani	Mean	-	0.15	-	-	-	N.D.	0.24	0.32	0.15	-	0.26	0.51
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	N.D.	0.38	0.37	0.45	-	0.58	0.59
		Min-w	-	-	-	-	-	N.D.	N.D.	0.27	N.D.	-	N.D.	0.42
Viet Nam	Ha Noi	Mean	0.30	1.13	0.68	0.97	0.85	0.27	0.60	0.13	0.19	1.05	0.37	0.29
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.57	2.54	1.40	2.21	1.93	0.46	0.92	0.25	0.36	2.90	0.59	0.73
		Min-w	0.13	0.00	0.25	0.00	0.29	0.12	0.28	0.01	0.05	0.33	0.23	0.03
	Hoa Binh	Mean	0.11	0.02	0.06	0.06	0.04	0.07	0.10	0.51	0.22	0.09	0.10	0.06
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.14	0.04	0.13	0.13	0.07	0.14	0.24	1.16	0.44	0.32	0.17	0.09
		Min-w	0.08	N.D.	0.02	N.D.	0.01	0.01	0.01	0.17	0.07	0.03	0.06	0.03

**Table 4.18 Particulate matter component: K<sup>+</sup>**

Unit $\mu\text{g}/\text{m}^3$		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.08	0.50	0.24	0.36	0.02	0.17	0.09	0.11	0.14	1.51	0.08	0.03
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	0.38	1.98	0.45	1.05	0.06	0.48	0.14	0.21	0.32	5.97	0.10	0.09
		Min-w	N.D.	N.D.	0.03	N.D.	N.D.	0.06	0.02	0.06	N.D.	N.D.	0.04	N.D.
Japan	Rishiri	Mean	0.10	0.06	0.16	0.18	0.18	0.14	0.05	0.12	0.15	0.22	0.15	0.10
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.12	0.06	0.21	0.21	0.30	0.17	0.05	0.14	0.16	0.35	0.17	0.11
		Min-2w	0.08	0.05	0.11	0.14	0.11	0.12	0.04	0.10	0.15	0.08	0.13	0.09
	Tappi	Mean	-	-	-	0.21	0.35	0.09	0.05	0.15	0.25	0.24	-	0.20
		%	-	-	-	46	100	100	100	100	100	100	-	100
		Max-2w	-	-	-	-	0.61	0.13	0.06	0.23	0.37	0.32	-	0.26
		Min-2w	-	-	-	-	0.09	0.06	0.03	0.06	0.13	0.15	-	0.17
	Ogasawara	Mean	-	-	-	0.14	0.02	N.D.	0.01	0.01	0.10	0.09	0.23	0.32
		%	-	-	-	25	100	100	100	100	100	100	100	100
		Max-w	-	-	-	-	0.06	N.D.	0.04	0.04	0.25	0.13	0.43	0.95
		Min-w	-	-	-	-	N.D.	N.D.	N.D.	N.D.	0.03	0.02	0.03	N.D.
	Sado-seki	Mean	-	-	-	N.D.	0.12	0.21	0.07	N.D.	0.22	0.17	0.18	N.D.
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	0.15	0.31	0.08	-	-	0.20	0.26	-
		Min-2w	-	-	-	-	0.09	0.11	0.05	-	-	0.14	0.11	-
	Happo	Mean	-	-	-	0.02	0.07	0.12	0.04	0.02	0.05	0.05	0.02	0.03
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.10	0.15	0.05	0.03	0.09	0.07	-	0.06
		Min-2w	-	-	-	-	0.05	0.10	0.03	0.02	0.03	0.03	-	N.D.
	Yusuhara	Mean	-	-	-	0.06	0.03	0.16	0.03	0.15	0.13	0.07	0.12	0.22
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.05	0.18	0.08	0.17	0.14	0.15	0.16	0.41
		Min-2w	-	-	-	-	0.02	0.14	N.D.	0.14	0.13	N.D.	0.08	0.08
Hedo	Mean	-	-	-	-	0.27	0.08	0.08	N.D.	0.36	0.33	0.34	0.37	
	%	-	-	-	-	100	100	100	50	100	100	100	100	
	Max-2w	-	-	-	-	0.28	0.16	0.13	-	0.72	0.48	0.37	0.43	
	Min-2w	-	-	-	-	0.27	N.D.	N.D.	-	N.D.	0.18	0.31	0.34	
Ijira	Mean	-	-	-	0.05	0.13	0.19	0.19	0.22	0.14	0.17	0.18	0.14	
	%	-	-	-	100	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	0.06	0.17	0.24	0.20	0.23	0.16	0.18	0.23	0.27	
	Min-2w	-	-	-	0.05	0.08	0.16	0.17	0.22	0.12	0.16	0.12	0.03	
Banryu	Mean	-	-	-	0.17	0.17	0.21	0.15	0.05	0.16	0.17	0.20	0.32	
	%	-	-	-	52	100	100	100	100	100	100	100	100	
	Max-2w	-	-	-	-	0.18	0.22	0.23	0.09	0.29	0.22	0.24	0.46	
	Min-2w	-	-	-	-	0.16	0.21	0.08	N.D.	0.03	0.12	0.16	0.22	
Oki	Mean	0.23	0.24	0.12	0.26	0.17	0.23	0.15	0.06	0.18	0.21	0.19	0.27	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	0.26	0.27	-	0.28	0.19	0.29	0.18	0.12	0.22	0.27	0.20	0.35	
	Min-2w	0.21	0.20	-	0.23	0.15	0.17	0.13	N.D.	0.15	0.16	0.17	0.18	
Malaysia	TanahRata	Mean	0.10	0.13	0.17	0.04	0.08	0.05	N.D.	0.09	0.07	0.03	0.02	0.07
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.15	0.31	0.27	0.08	0.26	0.08	0.01	0.21	0.21	0.06	0.03	0.14
		Min-w	N.D.	N.D.	0.06	0.01	0.03	0.02	N.D.	N.D.	N.D.	N.D.	N.D.	0.02
	Petaling Jaya	Mean	0.17	0.07	0.08	0.24	0.39	0.35	0.31	0.43	0.33	0.29	0.24	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.45	0.11	0.20	0.27	0.53	0.45	0.40	0.51	0.39	0.34	0.28	0.05
		Min-w	0.05	0.04	0.02	0.20	0.24	0.24	0.24	0.33	0.26	0.26	0.20	0.01
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.47	0.41	0.72	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	0.65	0.49	1.24	-	-	-	-	
		Min-w	-	-	-	-	0.31	0.34	0.44	-	-	-	-	
	Terej	Mean	0.17	0.09	0.33	0.25	0.18	0.29	0.38	0.30	0.13	0.17	0.29	0.26
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.40	0.16	1.05	0.63	0.22	0.39	1.02	0.77	0.15	0.33	0.44	0.54
		Min-w	0.04	0.02	0.05	0.09	0.14	0.15	0.15	0.07	0.12	0.06	0.10	0.10
Philippines	Metro Manila	Mean	1.38	0.36	0.59	0.93	0.55	0.09	0.20	0.37	0.23	0.40	0.36	3.46
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	4.11	0.47	1.01	1.28	1.02	0.37	0.25	0.63	0.44	0.51	0.42	-
		Min-w	0.38	0.23	0.38	0.68	N.D.	N.D.	0.10	0.09	N.D.	0.26	0.24	-
	Los Banos	Mean	0.28	0.15	0.27	0.81	0.32	0.25	N.D.	0.35	0.15	0.06	0.30	0.17
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	0.44	0.36	0.62	1.10	0.59	1.01	N.D.	1.08	0.31	0.16	0.45	0.34
		Min-w	0.12	N.D.	0.04	0.58	N.D.	N.D.	N.D.	0.10	N.D.	N.D.	0.15	N.D.

**Table 4.18 Particulate matter component: K<sup>+</sup>**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	0.50	0.84	0.23	0.52	0.53	0.84	0.41	1.21	0.54	0.45	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	0.89	1.22	-	0.93	0.74	1.17	0.73	1.77	0.74	0.56	-
		Min	-	0.12	0.48	-	0.11	0.31	0.25	0.20	0.78	0.29	0.33	-
	Cheju	Mean	0.96	1.18	1.65	0.64	2.14	0.57	1.11	0.38	0.54	3.65	1.37	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	1.32	2.30	2.42	0.93	3.19	1.28	1.82	0.47	0.91	6.29	2.18	-
		Min-d	0.39	0.51	0.29	0.35	0.18	0.17	0.17	0.28	0.33	1.02	0.86	-
	Imsil	Mean	0.90	0.60	-	-	0.73	1.10	3.27	1.48	0.92	0.80	0.76	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	1.00	0.71	-	-	1.12	1.73	5.29	2.58	1.17	1.35	1.12	-
		Min-d	0.83	0.48	-	-	0.27	0.44	1.20	0.37	0.64	0.25	0.40	-
Russia	Mondy	Mean	0.10	0.22	0.03	0.11	0.05	0.12	0.13	0.01	0.07	0.07	0.03	0.04
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.15	0.25	0.06	-	-	-	0.19	0.02	0.11	0.08	-	0.05
		Min*	0.04	0.19	N.D.	-	-	-	0.08	N.D.	0.04	0.06	-	0.03
	Listvianka	Mean	0.22	0.36	0.24	0.04	0.28	0.25	0.28	0.20	0.33	0.24	0.26	0.08
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.29	0.64	0.60	3.10	0.74	0.37	0.42	0.26	1.03	0.58	0.39	0.20
		Min-w	0.10	0.10	N.D.	N.D.	0.06	0.16	0.17	0.13	0.04	0.09	0.19	N.D.
	Irkutsk	Mean	0.16	0.14	0.14	0.15	0.21	0.19	0.23	0.07	0.25	0.16	0.33	0.54
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.55	0.29	0.19	0.20	0.47	0.23	0.64	0.15	0.41	0.36	0.42	0.72
		Min-w	N.D.	N.D.	0.08	0.08	0.10	0.16	0.03	0.02	0.12	N.D.	0.18	0.24
	Primorskaya	Mean	0.70	0.15	0.36	0.28	0.18	0.16	0.10	0.43	0.64	0.64	0.59	0.38
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	1.14	0.18	0.39	0.36	-	0.17	0.12	0.62	1.07	1.21	0.63	-
		Min*	0.26	0.11	0.33	0.19	-	0.16	0.09	0.24	0.20	0.06	0.56	-
Thai Land	Mae Hia	Mean	-	-	-	1.03	0.68	N.D.	0.43	0.25	0.08	N.D.	0.03	0.84
		%	-	-	-	23	23	23	23	23	23	23	23	23
		Max-w	-	-	-	-	-	-	-	-	-	-	-	-
		Min-w	-	-	-	-	-	-	-	-	-	-	-	-
	Bangkok	Mean	0.53	0.05	-	-	-	-	0.42	0.22	-	-	0.84	1.43
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.10	-	-	-	-	-	0.45	-	-	1.30	2.20
		Min-w	-	N.D.	-	-	-	-	-	N.D.	-	-	N.D.	0.96
	Patumthani	Mean	-	0.42	-	-	-	N.D.	0.35	0.31	0.14	-	0.48	1.74
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	N.D.	0.52	0.47	0.42	-	1.29	2.17
		Min-w	-	-	-	-	-	N.D.	N.D.	0.13	N.D.	-	N.D.	1.08
Viet Nam	Ha Noi	Mean	1.42	0.37	0.83	0.63	0.70	0.77	0.49	0.60	0.86	1.39	0.95	0.81
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	2.61	0.61	1.09	1.02	0.84	1.14	0.62	0.89	1.34	3.41	1.04	1.18
		Min-w	0.00	0.03	0.65	0.00	0.52	0.51	0.41	0.00	0.54	0.44	0.87	0.38
	Hoa Binh	Mean	0.57	0.09	0.14	0.10	0.15	0.20	1.27	0.83	0.36	0.27	0.37	0.30
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.30	0.13	0.25	0.21	0.26	0.35	2.74	1.66	0.51	0.50	0.91	0.43
		Min-w	0.14	0.04	0.04	0.02	0.11	0.09	0.07	0.30	0.21	0.07	0.11	0.17

**Table 4.19 Particulate matter component: Mg<sup>2+</sup>**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Indonesia	Serpong	Mean	0.03	0.06	N.D.	0.02	0.03	0.20	0.03	0.03	0.04	N.D.	0.04	0.01
		%	100	100	100	100	100	90	97	100	100	100	64	75
		Max-w	0.15	0.26	N.D.	0.06	0.07	0.68	0.05	0.05	0.10	0.02	0.06	0.02
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.01	N.D.	N.D.	N.D.	0.02	N.D.
Japan	Rishiri	Mean	0.19	0.08	0.24	0.26	0.26	0.10	0.06	0.17	0.29	0.38	0.27	0.16
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-2w	0.24	0.09	0.28	0.40	0.38	0.11	0.06	0.23	0.30	0.63	0.31	0.17
		Min-2w	0.14	0.08	0.21	0.12	0.14	0.09	0.06	0.12	0.27	0.16	0.23	0.14
	Tappi	Mean	-	-	-	0.38	0.33	0.18	0.10	0.35	0.81	0.46	-	0.50
		%	-	-	-	46	100	100	100	100	100	100	-	100
		Max-2w	-	-	-	-	0.56	0.25	0.11	0.57	1.42	0.56	-	0.53
		Min-2w	-	-	-	-	0.10	0.10	0.09	0.12	0.20	0.35	-	0.44
	Ogasawara	Mean	-	-	-	0.39	0.01	0.02	0.07	0.05	0.35	0.23	0.76	0.38
		%	-	-	-	25	100	100	100	100	100	100	100	100
		Max-w	-	-	-	-	0.02	0.10	0.16	0.17	0.87	0.37	1.34	0.72
		Min-w	-	-	-	-	N.D.	N.D.	N.D.	N.D.	0.14	0.05	0.13	N.D.
	Sado-seki	Mean	-	-	-	0.15	0.13	0.40	0.14	0.19	0.61	0.40	0.42	0.26
		%	-	-	-	50	100	67	100	50	54	100	100	38
		Max-2w	-	-	-	-	0.13	0.70	0.16	-	-	0.45	0.52	-
		Min-2w	-	-	-	-	0.13	0.10	0.12	-	-	0.34	0.33	-
	Happo	Mean	-	-	-	0.02	0.03	0.03	0.01	0.03	0.02	0.04	N.D.	0.02
		%	-	-	-	50	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.04	0.04	0.02	0.03	0.04	0.04	-	0.03
		Min-2w	-	-	-	-	0.01	0.02	N.D.	0.02	N.D.	0.03	-	0.01
	Yusuhara	Mean	-	-	-	0.14	0.10	0.08	0.01	0.03	0.03	0.03	0.08	0.09
		%	-	-	-	47	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.11	0.14	0.03	0.05	0.05	0.06	0.09	0.15
		Min-2w	-	-	-	-	0.09	0.02	N.D.	0.02	0.01	0.01	0.07	0.06
	Hedo	Mean	-	-	-	-	0.38	0.23	0.20	0.04	0.85	1.24	0.89	1.02
		%	-	-	-	-	100	100	100	50	100	100	100	100
		Max-2w	-	-	-	-	0.47	0.40	0.36	-	1.70	1.66	1.20	1.29
		Min-2w	-	-	-	-	0.29	0.07	N.D.	-	N.D.	0.82	0.58	0.66
	Ijira	Mean	-	-	-	0.08	0.07	0.04	0.01	0.03	0.05	0.05	0.06	0.04
		%	-	-	-	100	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	0.10	0.09	0.06	0.02	0.03	0.05	0.06	0.07	0.05
		Min-2w	-	-	-	0.06	0.04	0.03	N.D.	0.02	0.05	0.05	0.05	0.02
	Banryu	Mean	-	-	-	0.15	0.13	0.12	0.10	0.04	0.15	0.14	0.25	0.29
		%	-	-	-	52	100	100	100	100	100	100	100	100
		Max-2w	-	-	-	-	0.14	0.18	0.12	0.08	0.30	0.22	0.27	0.34
		Min-2w	-	-	-	-	0.13	0.05	0.07	N.D.	N.D.	0.06	0.23	0.24
Oki	Mean	0.38	0.29	0.20	0.24	0.13	0.11	0.13	0.06	0.20	0.25	0.33	0.43	
	%	100	100	52	100	100	100	100	100	100	100	100	100	
	Max-2w	0.51	0.31	-	0.28	0.15	0.13	0.16	0.11	0.20	0.26	0.35	0.47	
	Min-2w	0.25	0.27	-	0.19	0.10	0.10	0.12	N.D.	0.20	0.24	0.31	0.39	
Malaysia	TanahRata	Mean	0.01	0.03	0.02	N.D.	0.01	N.D.	N.D.	0.01	N.D.	0.01	0.01	0.02
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.04	0.08	0.06	N.D.	0.02	N.D.	N.D.	0.03	0.01	0.05	0.04	0.04
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
	Petaling Jaya	Mean	0.03	0.02	N.D.	0.01	0.03	0.02	0.02	0.03	0.02	0.03	0.03	0.03
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.09	0.05	0.02	0.01	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.05
		Min-w	N.D.	N.D.	N.D.	N.D.	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.01
Mongolia	Ulaanbaatar	Mean	-	-	-	-	0.35	0.28	0.58	-	-	-	-	
		%	-	-	-	-	100	100	58	-	-	-	-	
		Max-w	-	-	-	-	0.56	0.41	0.88	-	-	-	-	
		Min-w	-	-	-	-	0.16	0.08	0.37	-	-	-	-	
	Terej	Mean	N.D.	N.D.	0.01	0.08	0.03	0.03	0.08	0.13	0.04	0.05	0.02	0.02
		%	100	100	100	100	50	100	100	100	100	100	100	100
		Max-w	0.01	0.01	0.04	0.24	0.04	0.04	0.13	0.15	0.06	0.09	0.03	0.04
		Min-w	N.D.	N.D.	N.D.	0.01	0.01	0.03	0.01	0.09	0.02	0.03	0.01	0.01
Philippines	Metro Manila	Mean	0.16	0.12	0.14	0.15	0.12	0.10	0.15	0.38	0.06	0.09	0.28	N.D.
		%	100	100	100	100	76	100	100	100	100	100	100	23
		Max-w	0.24	0.17	0.24	0.21	0.17	0.15	0.24	0.97	0.11	0.16	0.99	-
		Min-w	N.D.	0.09	0.08	0.09	0.07	0.06	0.10	0.14	0.03	0.04	N.D.	-
	Los Banos	Mean	0.07	0.03	0.07	0.10	0.04	0.14	0.19	0.11	0.08	0.19	0.14	0.02
		%	100	96	100	100	100	100	100	97	100	100	100	100
		Max-w	0.15	0.09	0.21	0.19	0.12	0.33	0.88	0.15	0.24	0.62	0.26	0.05
		Min-w	N.D.	N.D.	N.D.	N.D.	N.D.	0.04	N.D.	0.06	N.D.	0.02	0.05	N.D.





**Table 4.20 Particulate matter component: Ca<sup>2+</sup>**

Country	Site	Unit $\mu\text{g}/\text{m}^3$	2003											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Republic of Korea	Kanghwa	Mean	-	0.98	0.23	0.17	0.26	0.16	0.38	0.22	0.35	0.36	0.26	-
		%	-	7	10	3	6	7	10	10	10	10	7	-
		Max	-	1.28	0.43	-	0.31	0.22	0.56	0.24	0.52	0.65	0.28	-
		Min	-	0.69	0.12	-	0.22	0.10	0.21	0.19	0.15	0.14	0.24	-
	Cheju	Mean	0.60	0.27	0.25	0.33	0.17	0.14	0.16	0.21	0.20	0.11	0.34	-
		%	10	11	10	7	10	10	10	6	10	6	10	-
		Max-d	0.94	0.28	0.32	0.35	0.33	0.16	0.23	0.26	0.33	0.14	0.49	-
		Min-d	0.28	0.25	0.20	0.30	0.06	0.11	0.10	0.16	0.12	0.09	0.23	-
	Imsil	Mean	0.31	0.42	-	-	0.23	0.30	0.30	0.29	1.00	0.80	0.17	-
		%	10	7	-	-	10	10	10	6	10	6	7	-
		Max-d	0.50	0.44	-	-	0.33	0.37	0.49	0.32	2.32	1.45	0.26	-
		Min-d	0.20	0.40	-	-	0.11	0.20	0.13	0.26	0.23	0.15	0.08	-
Russia	Mondy	Mean	0.07	0.10	0.08	0.16	0.07	0.12	0.11	0.01	0.05	0.07	0.03	0.07
		%	100	100	100	48	100	100	100	100	100	100	100	100
		Max*	0.12	0.11	0.12	-	-	-	0.18	0.02	0.07	0.07	-	0.08
		Min*	0.03	0.08	0.04	-	-	-	0.04	N.D.	0.03	0.07	-	0.06
	Listvianka	Mean	0.20	0.27	0.21	0.24	0.23	0.22	0.21	0.29	0.21	0.31	0.46	0.26
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.24	0.34	0.43	3.10	0.60	0.28	0.46	0.56	0.40	0.55	0.59	0.46
		Min-w	0.16	0.18	0.02	0.16	0.06	0.13	0.05	0.11	0.10	0.13	0.33	0.03
	Irkutsk	Mean	0.35	0.37	0.11	0.16	0.58	0.53	0.62	0.24	0.52	0.24	0.45	1.18
		%	77	100	100	100	100	100	100	100	100	100	100	100
		Max-w	1.06	0.94	0.23	0.27	1.03	0.71	1.00	0.46	0.94	0.47	1.05	1.50
		Min-w	0.09	N.D.	N.D.	0.01	0.25	0.34	0.25	0.03	0.06	0.06	0.16	0.91
	Primorskaya	Mean	0.28	0.06	0.21	0.37	0.16	0.11	0.09	0.26	0.39	0.25	0.30	0.22
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max*	0.46	0.06	0.22	0.46	0.20	0.13	0.12	0.30	0.61	0.40	0.39	-
		Min*	0.09	0.05	0.20	0.29	0.12	0.09	0.07	0.22	0.18	0.10	0.21	-
Thai Land	Mae Hia	Mean	-	-	-	1.62	6.72	N.D.	0.53	0.76	0.19	0.27	N.D.	0.43
		%	-	-	-	23	23	23	23	23	23	23	23	
		Max-w	-	-	-	-	-	-	-	-	-	-	-	
		Min-w	-	-	-	-	-	-	-	-	-	-	-	
	Bangkok	Mean	0.84	0.14	-	-	-	-	1.10	0.60	-	-	1.68	2.62
		%	23	50	-	-	-	-	39	45	-	-	73	68
		Max-w	-	0.29	-	-	-	-	-	1.21	-	-	2.74	3.39
		Min-w	-	N.D.	-	-	-	-	-	N.D.	-	-	0.11	2.14
	Patumthani	Mean	-	0.42	-	-	-	0.09	1.15	0.54	0.37	-	0.91	1.89
		%	-	29	-	-	-	47	100	71	63	-	100	100
		Max-w	-	-	-	-	-	0.11	2.77	0.86	0.75	-	1.85	2.38
		Min-w	-	-	-	-	-	0.08	N.D.	0.34	N.D.	-	N.D.	1.30
Viet Nam	Ha Noi	Mean	6.39	2.24	4.06	3.91	3.97	3.76	3.33	2.54	3.20	6.85	7.68	5.22
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	11.48	3.80	5.39	6.12	4.96	4.51	3.70	3.86	4.98	14.89	8.51	9.71
		Min-w	0.29	0.19	2.53	0.30	3.17	3.22	2.24	0.48	1.44	3.40	6.76	0.56
	Hoa Binh	Mean	0.51	0.23	0.33	0.29	0.46	0.45	2.13	0.98	1.56	1.77	2.05	0.60
		%	100	100	100	100	100	100	100	100	100	100	100	100
		Max-w	0.97	0.26	0.44	0.34	0.82	0.54	7.52	1.41	2.11	4.74	3.64	0.93
		Min-w	0.27	0.20	0.24	0.21	0.29	0.33	0.42	0.48	0.49	0.28	1.51	0.16

**Table 4.21 SO<sub>2</sub> (Median)**

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Japan	Rishiri	Median	0.5	0.4	0.1	N.D.	0.2	0.2	0.1	N.D.	N.D.	N.D.	0.2	0.4
		%*	83	96	48	29	67	65	46	35	28	47	86	80
	Tappi	Median	0.8	0.5	0.5	0.4	0.8	0.5	0.2	0.3	0.3	0.3	0.5	0.6
		%*	91	82	99	93	66	44	56	89	85	84	79	91
	Sado-seki	Median	0.6	0.4	0.4	0.4	0.7	0.4	0.1	0.2	0.2	0.4	0.5	0.9
		%*	87	94	85	68	89	74	38	53	27	91	82	69
	Happo	Median	0.7	0.6	0.7	0.5	0.9	0.5	N.D.	0.1	0.2	0.3	0.3	0.5
		%*	91	89	77	63	77	54	36	48	36	64	58	82
	Ogasawara	Median	0.1	N.D.	N.D.	N.D.	0.1	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		%*	73	42	40	12	28	31	17	21	12	21	9	49
	Oki	Median	0.4	0.3	0.2	0.3	-	-	-	-	0.3	0.4	0.4	1.0
		%*	57	35	70	57	-	-	-	-	60	84	75	85
	Ijira	Median	0.3	0.3	0.4	0.6	1.3	0.4	0.2	0.3	0.6	0.3	0.2	0.1
		%*	79	74	64	57	68	67	43	50	73	73	40	48
	Banryu	Median	1.6	1.4	0.8	0.7	0.9	0.8	0.5	0.6	0.8	0.8	1.1	1.5
		%*	12	95	88	82	92	89	81	82	86	92	77	98
	Yusuhara	Median	1.4	1.6	0.9	0.5	0.3	0.6	1.1	0.5	0.6	0.9	0.6	1.6
		%*	99	98	97	85	65	72	84	54	76	93	70	97
	Hedo	Median	0.6	0.3	0.4	0.2	0.1	0.2	0.1	N.D.	0.5	0.4	N.D.	0.4
		%*	67	68	79	35	60	70	49	37	48	83	39	77

**Table 4.22 NO (Median)**

Unit ppb		2003												
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Japan	Rishiri	Median	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.
		%*	15	24	13	17	31	33	45	34	33	28	24	12
	Tappi	Median	N.D.	N.D.	N.D.	N.D.	0.1	0.2	0.1	0.1	N.D.	N.D.	N.D.	N.D.
		%*	19	27	6	45	36	68	53	50	30	45	25	31
	Sado-seki	Median	N.D.	N.D.	N.D.	N.D.	0.1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
		%*	15	17	33	44	62	41	27	27	18	27	15	11
	Happo	Median	0.2	-	-	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
		%*	21	-	-	12	10	40	47	33	20	33	32	37
	Ogasawara	Median	N.D.	N.D.	N.D.	N.D.	N.D.	0.1	0.2	N.D.	N.D.	N.D.	N.D.	N.D.
		%*	25	17	9	8	19	28	51	22	28	28	7	15
	Oki	Median	N.D.	N.D.	N.D.	N.D.	-	-	-	-	N.D.	N.D.	N.D.	N.D.
		%*	4	4	2	5	-	-	-	-	10	16	13	7
	Ijira	Median	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.8	0.4	0.5	0.2
		%*	59	42	65	98	97	98	100	97	97	83	89	66
	Banryu	Median	0.2	0.4	0.3	0.2	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.2
		%*	5	53	52	55	59	65	68	69	63	55	49	52
	Yusuhara	Median	0.2	0.2	0.1	N.D.	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
		%*	75	70	67	66	93	86	88	87	25	95	70	73
	Hedo	Median	N.D.	N.D.	N.D.	N.D.	0.1	0.2	0.2	0.2	0.2	0.2	N.D.	N.D.
		%*	21	4	14	15	63	72	74	59	51	98	45	32

**Table 4.23 NO<sub>x</sub>\* (Median)**

Unit ppb			2003											
Country	Site		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Japan	Rishiri (NO <sub>x</sub> *)	Median	0.8	0.9	1.0	1.2	1.7	1.2	1.0	0.8	0.7	0.9	1.0	0.8
		%*	97	98	86	75	94	81	96	98	96	97	98	98
	Tappi (NO <sub>x</sub> *)	Median	1.0	1.2	1.3	2.0	2.9	1.9	1.2	1.5	1.2	1.2	1.0	0.9
		%*	92	99	99	99	95	58	97	87	96	96	80	97
	Sado-seki (NO <sub>x</sub> *)	Median	1.6	1.8	2.5	2.9	3.3	1.8	0.9	1.2	0.9	2.0	1.8	1.8
		%*	98	99	98	98	98	88	86	97	94	97	98	75
	Happo (NO <sub>x</sub> *)	Median	1.8	-	-	1.8	4.7	2.8	2.0	1.9	1.8	1.7	1.7	1.7
		%*	46	-	-	29	29	97	97	97	78	97	97	97
	Ogasawara (NO <sub>x</sub> *)	Median	1.3	1.0	1.0	0.4	0.2	0.4	0.4	N.D.	N.D.	0.2	0.1	0.7
		%*	73	91	94	80	84	56	69	40	37	53	26	74
	Oki (NO <sub>x</sub> *)	Median	1.3	1.4	1.6	1.7	-	-	-	-	0.5	1.2	1.3	1.7
		%*	74	40	98	55	-	-	-	-	18	97	94	72
	Ijira (NO <sub>x</sub> *)	Median	2.0	2.1	2.1	3.4	3.4	3.1	3.1	3.7	3.9	3.0	3.1	1.5
		%*	99	99	98	99	99	99	100	99	98	97	96	96
	Banryu	Median	3.8	5.2	4.9	3.8	4.9	4.4	3.4	3.3	3.8	4.2	5.3	4.4
		%*	9	98	97	97	98	97	98	98	98	97	81	99
	Yusuhara (NO <sub>x</sub> *)	Median	2.8	2.5	2.2	1.5	1.2	0.7	0.6	0.9	1.3	2.1	1.6	2.6
		%*	98	99	98	97	98	94	95	94	27	99	86	99
	Hedo (NO <sub>x</sub> *)	Median	0.7	0.7	1.0	0.8	0.7	0.9	0.7	0.6	1.0	1.0	0.9	0.7
		%*	96	97	97	97	97	92	78	60	51	98	75	96

**Table 4.24 Approximate conversion ratios from ppb to mg/m<sup>3</sup> (20°C, 1 atm)**

Species	SO <sub>2</sub>	O <sub>3</sub>	NO	NO <sub>2</sub>	HNO <sub>3</sub>	HCl	NH <sub>3</sub>
Ratio	x 2.66	x 2.00	x 1.25	x 1.91	x 2.62	x 1.52	x 0.71

**Table 4.25 Expedient detection limits for summarizing air concentration data**

Species	Detection limits
SO <sub>2</sub>	0.1 ppb
NO NO <sub>2</sub> NO <sub>x</sub>	0.1 ppb
O <sub>3</sub>	1 ppb
HNO <sub>3</sub>	0.1 ppb
HCl	0.1 ppb
NH <sub>3</sub>	0.1 ppb
PM	1 µg/m <sup>3</sup>
Particulate components	0.01 µg/m <sup>3</sup>

**Table 4.26 Median of 3s, where s is the standard deviation of five blank filters**

Species	SO <sub>4</sub> <sup>2-</sup>	NO <sub>3</sub> <sup>-</sup>	Cl <sup>-</sup>	NH <sub>4</sub> <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Mg <sup>2+</sup>	Ca <sup>2+</sup>
Median (µg/m <sup>3</sup> )	- *	- *	0.0157	0.0046	0.0061	0.0002	0.0009	0.0048

\* Concentrations were not detected on all of five filters by ion-chromatography



## 5. Soil and Vegetation Monitoring

### 5.1 Method

The basic survey was principally carried out for the initial objectives (namely, establishment of baseline data and early detection of possible impact) in the participating countries in accordance with the Technical Manual on Soil and Vegetation Monitoring in East Asia. General items are described in the [Table 5.1](#) but actual implementation of item sets was dependent on respective site.

**Table 5.1. Basic survey for soil and forest**

Item	Parameters
Soil	<ul style="list-style-type: none"> <li>- pH(H<sub>2</sub>O), pH(KCl), Exchangeable base cations (Na, K, Ca, and Mg), Exchangeable acidity, Effective cation exchange capacity (ECEC), Carbonate content (if pH &gt; 7)</li> <li>- Exchangeable Al and H, Total C content, Total N content (optional)</li> <li>- Available P, Sulfate (voluntary)</li> <li>- Physical properties (Fine earth bulk density, and Penetration resistance)(optional)</li> </ul>
Forest	<ul style="list-style-type: none"> <li>- General description of the forest (Description of trees, and Understory vegetation), Observation of tree decline</li> <li>- Photographic record of tree decline, Estimation of decline causes (optional)</li> </ul>

#### 1) Monitoring Sites

Since the interval of soil and vegetation monitoring was decided as 3-5 years in the Technical Manual, most sites, which were reported in 2002, were not surveyed in 2003. Data of eight areas of four countries were submitted this year. The list of monitoring site and reported items for 2003 was shown in [Table 5.2](#).

**Table 5.2. Outline of the Monitoring Sites in 2002**

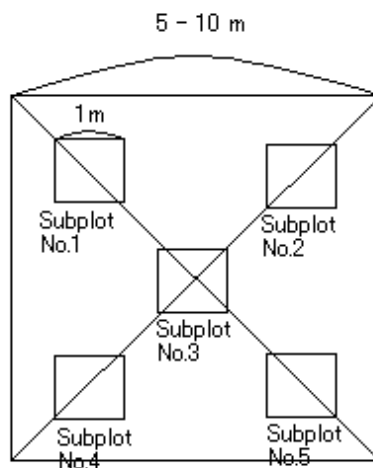
Country	Nearest deposition monitoring site	Site: Name of forest area	Soil type	Items <sup>*1</sup>
China	Jiayunshan (Chongqing)	Jiayunshan (2 plots for soil and forest)	(Acid-Udic Argosols) <sup>*2</sup>	S, F S, F
	Jiwozi (Xi'an)	Dabagou (2 plots for soil; 1 plot for forest)	(Brown soil) <sup>*2</sup>	S, F
	Xiaoping (Xiamen)	Xiaoping (2 plots for soil; 4 plots for forest)	(Red soil) <sup>*2</sup>	S, F
	Zhuxiandong (Zhuhai)	Zhuxiandong (3 plots for soil and forest)	(Ochric Udic Ferrosols) <sup>*2</sup>	S, F

Country	Nearest deposition monitoring site	Site: Name of forest area	Soil type	Items <sup>*1</sup>
Japan	Banryu	Banryu-2	Cambisols	F <sup>*3</sup>
		Iwami “rinku” Factory Park	(Acrisols) <sup>*2</sup>	F <sup>*3</sup>
	Ijira	Lake Ijira	Dystric Cambisols	F <sup>*3</sup>
Russia	Irkutsk	Irkutsk	<i>Eutric Regosols/ Calcaric Luvisols</i>	F
Thailand	Vachiralongkorn Dam	Vachiralongkorn Dam	Ferric Acrisols	S, F
		Vachiralongkorn Puyea	Luvisols	S, F

\*1. S, Soil monitoring; F, Forest monitoring \*2. Soils have not been clearly classified in accordance with FAO/UNESCO. 3. Observation of tree decline was only carried out.

## 2) Field Operation

Basically, two forest areas, whose soils have different sensitivities to acid deposition, are recommended to be selected in an area. Several plots (at least two ones) of areas from 5m\*5m to 10m\*10m should be chosen randomly at each forest area (each soil type). Five subplots with 1m\*1m square of each are set up for soil sampling at the center and along the diagonal lines of the plot (Fig.5.1). Three coaxial round plots are established for general description of trees with areas of 1000, 400 and 200 square meters respectively (Fig. 5.2). Observation of tree decline is carried out basically for selected twenty trees with average height of around 20m.



**Figure 5.1 Plot for soil sampling**

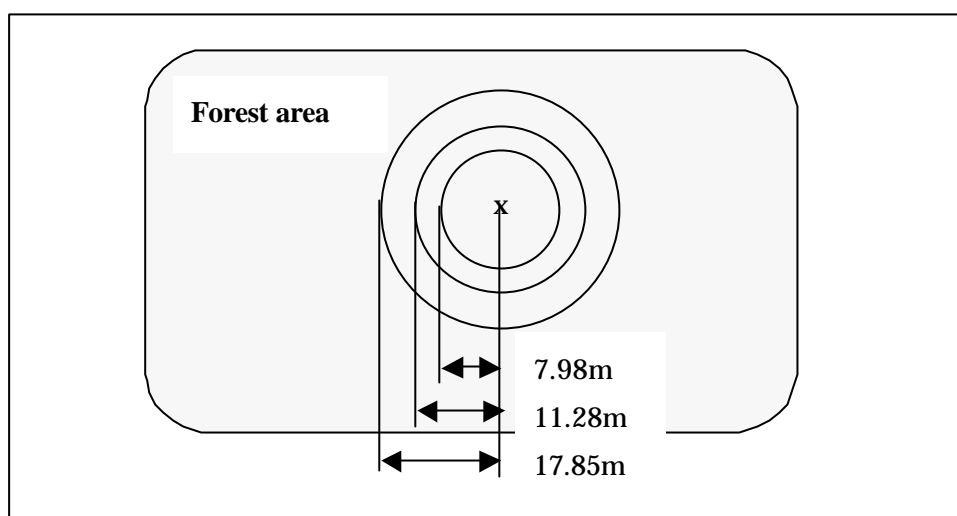


Figure 5.2. Plots for description of trees

### 3) Laboratory Operation

Analytical methods recommended in the Manual are presented in [Table 5.3](#).

Table 5.3. Analytical equipment and methods for soil monitoring

Parameters	Equipment/methods
<b>Chemical Properties of Soil</b>	
a) Moisture Content	Drying oven, Balance
b) pH (H <sub>2</sub> O) and pH (KCl)	Glass electrode
c) Exchangeable Base Cations (Ca, Mg, K and Na)	AAS, ICP-AES or ICP-MS (CH <sub>3</sub> COONH <sub>4</sub> -Extraction)
d) Exchangeable Acidity	Titration (KCl-Extraction)
e) Exchangeable Al, H	ibid.
f) Effective Cation Exchange Capacity (ECEC)	Calculation (as sum of exchangeable cations)
g) Carbonate Content (for calcareous soil)	Volumetric calcimeter
h) Total Carbon Content	Titration (Walkley-Black method) or CN-analyzer
i) Total Nitrogen Content	Titration (Kjeldahl method) or CN-analyzer
j) Available Phosphate	Spectrophotometry (Bray-1 test)
k) Sulfate	Turbidimetry, IC, ICP-AES or ICP-MS
<b>Physical Properties of Soil</b>	
a) Fine Earth Bulk Density	Metal sampling cylinder, Drying oven, Balance
b) Penetration Resistance (in the fieldwork)	Pocket penetrometer

## **5.2 Results of Monitoring**

Results of basic survey for soil and forest were reported in the following tables:

Table 5.4: Soil chemical analysis

Table 5.5: Description of trees

Table 5.6: Understory vegetation survey

Table 5.7: Observation of tree decline

Figure 5.3: Photographic record of tree decline

## **5.3 Important Subjects for Elaboration in The Monitoring Design and Procedures**

For the sites surveyed in 2003, the following subjects should be elaborated in the monitoring design and procedures according to the Technical Manual:

- 1) The type of soils should be classified according to FAO/UNESCO Soil Map of the World.
- 2) Soil samples should be taken from two soil layers separately by fixed depths (0-10 and 10-20cm).
- 3) Repeat analysis should be carried out in within-laboratory reproducibility condition.

Two forest areas with different types of soil are recommended to be selected in an area within 50km from a deposition-monitoring site in the Technical Manual originally. However, some countries have difficulties in selecting two types of soil in an area. A supplementary document of the Technical Manual was distributed to the National Centers for modification of this criteria based on the discussion in the Third Session of Scientific Advisory Committee (SAC3) in November 2003. The additional guideline was suggested in the supplementary document as follows: "In case of difficulty in selecting of two forest areas with different soil types in an area within 50km radius of a deposition-monitoring site, the selection of single forest area with one soil type is acceptable."

**Table 5.4 a-1) Soil chemical analysis: Jinyunshann (China)**

Sampling date: 6 Sep 2003

Name of analysis laboratory: Laboratory of environmental analysis, College of Resources and Environment, Southwest Agricultural University

Sample No.	Location	Soil type	Plot No.	Sub-plot No	Layer analyzed (cm)	Moisture content (wt%)	pH		Exchangeable base cations				Ex-acidity	Ex-acid cations		ECEC	Base saturation %	T-C (g kg <sup>-1</sup> )	T-N (g kg <sup>-1</sup> )	
							H <sub>2</sub> O	KCl	Ca	Mg	K	Na		Al	H					(cmol(+)kg <sup>-1</sup> )
	Jinyunshann	(Acidic-Udic Argosols)	No.1	1	A3-12		3.9	3.3	0.87	0.09	0.10	0.00	7.22	6.43	0.79	8.28	12.8	67.0	1.3	
2				A7-17		4.0	3.3	0.71	0.25	0.16	0.02	6.62	5.53	1.09	7.76	14.6	59.0	1.1		
3				A1-7		3.9	3.3	0.62	0.16	0.09	0.01	7.03	6.29	0.74	7.92	11.2	55.5	1.2		
4				A3-12		4.0	3.5	0.83	0.14	0.12	0.01	6.63	5.86	0.77	7.74	14.3	35.7	1.4		
5				A5-18		4.1	3.5	0.85	0.14	0.05	0.00	5.80	5.48	0.32	6.84	15.2	21.2	0.8		
				No.2	1	B12-41		4.1	3.6	0.66	0.11	0.10	0.00	5.56	4.83	0.73	6.43	13.5	11.8	0.3
2					B17-60		4.1	3.7	0.73	0.12	0.01	0.01	4.24	3.74	0.50	5.11	17.0	7.8	0.3	
3					B7-21		4.2	3.7	0.65	0.16	0.08	0.01	5.51	4.88	0.63	6.41	14.1	14.1	0.6	
4					B12-24		4.2	3.8	0.87	0.14	0.12	0.01	6.09	5.53	0.56	7.23	15.8	8.0	0.4	
5					B18-46		4.2	3.8	0.75	0.13	0.13	0.00	4.40	3.91	0.49	5.41	18.7	7.2	0.2	
			No.2	1	A 6-18		4.1	3.6	0.79	0.09	0.15	0.01	7.16	6.29	0.87	8.21	12.7	43.7	1.9	
2				A 3-12		4.0	3.3	0.73	0.21	0.15	0.02	5.56	4.80	0.74	6.67	16.7	24.9	1.1		
3				A 3-12		4.1	3.5	0.79	0.13	0.06	0.02	6.17	5.32	0.85	7.17	13.9	49.3	2.0		
4				A 3-12		3.6	3.2	0.79	0.12	0.08	0.03	5.99	5.32	0.67	7.01	14.5	33.2	1.4		
5				A 2-45		3.7	3.3	0.72	0.18	0.04	0.02	5.61	5.07	0.54	6.56	14.5	35.9	1.5		
	No.2	1		B 18-48		4.0	3.5	0.78	0.15	0.06	0.01	4.93	4.34	0.59	5.92	16.8	11.1	0.6		
2		B 12-100			4.0	3.6	0.74	0.17	0.10	0.01	4.45	3.98	0.47	5.46	18.5	10.7	0.6			
3		B 12-100			4.1	3.5	0.51	0.15	0.13	0.02	5.19	4.63	0.56	6.00	13.4	11.5	0.6			
4		B 12-100			3.8	3.4	0.64	0.13	0.05	0.00	4.61	4.01	0.60	5.42	14.9	12.3	0.6			
5		B 45-100			4.1	3.5	0.81	0.14	0.10	0.04	3.95	3.50	0.45	5.03	21.5	10.2	0.6			

Note: Soil samples were collected according to soil horizon; Repeat analyses were not reported.

**Table 5.4 a-2) Soil chemical analysis: Dabagou (China)**

Sampling date: 8 Aug 2003

Name of analysis laboratory:

Sample No.	Location	Soil type	Plot No.	Sub-plot No	Layer analyzed (cm)	Moisture content (wt%)	pH		Exchangeable base cations				Ex-acidity	Ex-acid cations		ECEC	Base saturation %	T-C (g kg <sup>-1</sup> )	T-N (g kg <sup>-1</sup> )
							H <sub>2</sub> O	KCl	Ca	Mg	K	Na		Al	H				
							(cmol(+)kg <sup>-1</sup> )												
A	Dabagou (Brown soil)		1	1	0-10	4.1	6.1	5.0	6.89	0.60	0.42	0.10	0.03	0.01	0.02	8.05	99.6	2.1	2.2
				2		3.6	6.5	5.3	6.41	0.57	0.37	0.15	0.05	0.04	0.01	7.55	99.3	2.1	2.3
				3		4.3	6.4	5.4	6.68	0.67	0.71	0.02	0.05	0.03	0.02	8.12	99.4	2.8	2.3
				4		4.0	6.5	5.4	7.23	0.45	0.23	0.08	0.05	0.03	0.01	8.03	99.4	2.5	2.1
				5		4.2	6.2	5.2	6.62	0.79	0.73	0.18	0.03	0.03	0.01	8.35	99.6	2.3	2.9
B				1	10-20	4.4	6.3	5.2	6.99	0.66	1.02	0.12	0.03	0.02	0.01	8.81	99.7	2.0	2.1
				2		3.7	6.5	5.5	6.50	0.64	0.42	0.06	0.04	0.04	0.00	7.66	99.5	2.1	2.2
				3		4.0	6.5	5.4	6.85	0.64	0.70	0.20	0.02	0.01	0.02	8.41	99.8	2.2	1.8
				4		3.9	6.4	5.2	6.84	0.43	0.36	0.16	0.04	0.02	0.03	7.84	99.4	2.8	1.9
				5		4.6	6.3	5.6	7.30	1.03	0.84	0.05	0.04	0.04	0.01	9.25	99.5	2.9	2.0
A	Dabagou (Brown soil)		2	1	0-10	4.6	6.4	5.4	6.63	0.80	0.65	0.12	0.04	0.01	0.03	8.24	99.5	1.3	2.2
				2		3.4	6.5	5.4	6.15	0.66	0.46	0.05	0.07	0.06	0.00	7.39	99.1	1.7	3.3
				3		3.5	6.2	5.3	6.15	0.64	0.59	0.22	0.05	0.04	0.01	7.64	99.4	1.4	3.0
				4		3.3	6.4	5.1	5.36	0.63	0.47	0.19	0.03	0.01	0.02	6.68	99.6	1.7	2.4
				5		3.4	6.5	5.4	6.29	0.80	0.78	0.24	0.09	0.08	0.01	8.21	98.9	1.0	1.7
B				1	10-20	3.5	6.4	5.1	5.46	0.59	0.41	0.15	0.03	0.02	0.01	6.64	99.5	2.3	1.6
				2		3.1	6.6	5.1	5.53	0.46	0.26	0.14	0.04	0.03	0.00	6.43	99.5	1.7	3.2
				3		3.5	6.5	5.1	5.76	0.54	0.40	0.10	0.03	0.01	0.02	6.83	99.6	1.6	2.2
				4		3.3	6.3	4.9	4.88	0.46	0.38	0.18	0.06	0.04	0.02	5.96	99.1	2.1	2.1
				5		3.2	6.3	5.0	5.31	0.48	0.36	0.20	0.04	0.03	0.01	6.39	99.4	1.7	1.5

Note: Repeat analyses were not carried out.

**Table 5.4 a-3) Soil chemical analysis: Xiaoping (China)**

Sampling date: 18 Sep 2003

Name of analysis laboratory: Xiamen Environmental Central Station

Sample No.	Location	Soil type	Plot No.	Sub-plot No.	Layer analyzed (cm)	Moisture content (wt%)	pH		Exchangeable base cations				Ex-acidity	Ex-acid cations		ECEC	Base saturation %	T-C (g kg <sup>-1</sup> )	T-N (g kg <sup>-1</sup> )
							H <sub>2</sub> O	KCl	Ca	Mg	K	Na		Al	H				
	Xiaoping	(Red soil)	XPT-01	1	0-10	2.3	4.1	3.8	0.02	0.07	0.16	0.02	6.04	5.48	0.56	6.31	4.3	49.7	2.1
2				2.3		4.4	3.9	0.09	0.09	0.24	0.03	5.17	4.20	0.97	5.62	8.0	43.1	2.1	
3				2.6		4.3	3.8	0.03	0.06	0.17	0.02	8.05	6.77	1.28	8.33	3.4	41.8	2.4	
4				2.2		4.4	3.8	0.03	0.07	0.18	0.02	5.62	5.06	0.56	5.92	5.1	45.2	2.4	
5				2.2		4.5	3.9	0.02	0.06	0.16	0.02	6.34	5.62	0.72	6.60	3.9	38.7	2.4	
			XPT-01	10-20	1	2.2	4.3	3.9	0.03	0.07	0.18	0.03	3.68	3.12	0.56	3.99	7.8	31.4	1.6
2					2.2	4.4	3.9	0.08	0.21	0.03	5.62	4.96	0.66	5.94	5.4	37.9	1.6		
3					2.3	4.4	3.9	0.01	0.04	0.15	0.01	5.12	4.66	0.46	5.33	3.9	27.5	1.7	
4					2.0	4.4	3.9	0.01	0.07	0.28	0.02	4.24	3.73	0.51	4.62	8.2	28.6	2.0	
5					2.2	4.4	3.9	0.01	0.05	0.12	0.02	6.23	5.52	0.72	6.43	3.1	25.4	1.4	
			XPT-02	0-10	1	2.1	4.4	3.8	0.05	0.08	0.19	0.14	5.52	5.06	0.46	5.98	7.7	33.6	2.9
2					2.1	4.7	3.8	0.08	0.10	0.26	0.12	4.80	4.29	0.51	5.36	10.4	31.4	2.9	
3					1.9	4.4	3.8	0.04	0.06	0.15	0.04	6.02	5.46	0.56	6.31	4.6	36.0	2.1	
4					2.3	4.5	3.9	0.05	0.08	0.18	0.03	5.42	4.91	0.51	5.76	5.9	27.9	2.3	
5					2.0	4.5	3.9	0.11	0.13	0.22	0.04	3.42	2.86	0.56	3.92	12.8	30.2	2.5	
			XPT-02	10-20	1	2.4	4.6	3.9	0.02	0.05	0.18	0.03	4.50	3.94	0.56	4.78	5.9	26.6	2.0
2					2.2	4.8	3.9	0.03	0.08	0.24	0.10	4.86	4.40	0.46	5.31	8.5	26.9	1.8	
3					2.4	4.4	4.0	0.01	0.03	0.12	0.02	4.31	4.10	0.21	4.49	4.0	24.8	2.0	
4					2.3	4.5	4.0	0.02	0.05	0.14	0.02	4.56	4.15	0.41	4.79	4.8	18.1	1.3	
5					2.1	4.7	4.0	0.04	0.06	0.18	0.03	4.85	4.44	0.41	5.16	6.0	22.6	1.9	

Note: Repeat analyses were not carried out.

**Table 5.4 a-4-1) Soil chemical analysis: Zhuxiandong (China)**

Sampling date: 18 Oct 2003

Name of analysis laboratory: ZHEMS

Sample No.	Location	Soil type	Plot No.	Sub-plot No	Layer analyzed (cm)	Moisture content (wt%)	pH		Exchangeable base cations				Ex-acidity	Ex-acid cations		ECEC	Base saturation %	T-C (g kg <sup>-1</sup> )	T-N (g kg <sup>-1</sup> )
							H <sub>2</sub> O	KCl	Ca	Mg	K	Na		H	Al				
The first	Zhuxiandong	(Ochinic Udic Ferrosols)	No1	1	0-10	1.8	4.1	3.7	3.57	1.11	1.47	0.70	3.13	0.27	2.86	9.99	68.7	23.6	0.9
				2		1.8	4.4	3.9	5.85	1.71	1.13	1.15	2.45	0.27	2.18	12.27	80.0	25.9	1.2
				3		1.9	4.1	3.7	3.19	1.04	1.13	0.71	3.41	0.31	3.10	9.48	64.0	25.2	0.9
				4		1.6	4.1	3.9	2.54	0.99	1.27	0.59	3.27	0.27	3.00	8.67	62.3	20.5	1.0
				5		2.1	4.0	3.7	2.78	0.97	1.81	1.08	3.76	0.36	3.40	10.40	63.8	23.3	0.9
The first				1	10-20	1.9	4.3	3.9	2.42	0.77	1.09	0.46	2.89	0.26	2.63	7.63	62.1	16.6	0.7
				2		1.8	4.5	3.9	3.16	0.90	1.04	0.78	2.94	0.27	2.67	8.81	66.6	18.3	0.7
				3		1.8	4.1	3.8	2.87	0.75	1.16	0.47	3.00	0.27	2.73	8.25	63.7	15.0	0.5
				4		1.8	4.1	3.9	2.06	0.89	1.14	0.36	3.41	0.21	3.20	7.87	56.7	16.0	0.7
				5		2.2	4.1	3.8	3.76	1.27	1.72	0.76	3.61	0.34	3.27	11.11	67.5	17.0	0.6

Note: Repeat analyses were not carried out.

**Table 5.4 a-4-2) Soil chemical analysis: Zhuxiandong (China)**

Sampling date: 19 Oct 2003

Name of analysis laboratory: ZHEMS

Sample No.	Location	Soil type	Plot No.	Sub-plot No	Layer analyzed (cm)	Moisture content (wt%)	pH		Exchangeable base cations				Ex-acidity	Ex-acid cations		ECEC	Base saturation %	T-C (g kg <sup>-1</sup> )	T-N (g kg <sup>-1</sup> )
							H <sub>2</sub> O	KCl	Ca	Mg	K	Na	H	Al					
The 2nd	Zhuxiandong	(Ochinic Udic Ferrosols)	No 2	0-10	1	1.6	4.1	3.8	4.67	1.55	1.95	0.55	3.01	0.36	2.65	11.73	74.3	28.4	1.2
					2	1.1	4.2	3.8	4.10	1.45	1.51	0.62	2.04	0.21	1.83	9.72	79.0	23.7	1.1
					3	1.7	4.1	3.7	2.82	0.86	1.44	0.42	2.94	0.41	2.53	8.49	65.4	21.9	1.0
					4	1.8	4.2	3.8	4.11	1.54	1.39	0.41	2.86	0.35	2.51	10.32	72.3	23.4	1.0
					5	1.4	4.1	3.7	2.85	0.82	1.07	1.07	2.65	0.33	2.32	8.46	68.7	24.7	1.0
The 2nd				10-20	1	1.9	4.2	3.9	4.22	1.59	2.08	0.80	2.69	0.26	2.43	11.38	76.4	20.4	0.9
					2	1.1	4.3	3.9	4.29	1.45	1.59	0.58	1.35	0.08	1.27	9.25	85.4	15.8	0.7
					3	1.7	4.1	3.8	2.90	1.05	1.62	0.81	2.79	0.36	2.43	9.16	69.6	15.5	0.7
					4	2.2	4.1	3.8	4.42	1.66	1.46	0.74	3.02	0.38	2.64	11.30	73.3	15.6	0.7
					5	1.6	4.1	3.9	2.61	1.24	1.07	0.75	2.55	0.36	2.19	8.23	69.0	16.9	0.7
The 3rd	No3	0-10	1	1.7	3.8	3.6	5.58	1.58	1.71	0.88	3.95	0.27	3.68	13.70	71.2	27.8	1.0		
			2	1.3	3.7	3.6	4.02	1.47	1.69	0.59	3.44	0.48	2.96	11.21	69.3	32.3	1.0		
			3	1.9	3.8	3.6	3.66	1.11	1.50	0.51	5.22	0.46	4.76	11.99	56.5	28.2	0.8		
			4	1.3	3.9	3.6	3.14	1.21	1.56	0.48	3.20	0.39	2.81	9.58	66.6	26.6	0.7		
			5	1.6	4.0	3.5	4.24	1.46	2.23	1.06	4.57	0.53	4.04	13.55	66.3	31.6	0.8		
The 3rd		10-20	1	2.1	3.6	3.7	2.83	0.96	1.49	0.73	5.39	0.58	4.81	11.39	52.7	16.6	0.6		
			2	1.2	3.6	3.6	2.39	0.85	1.39	0.81	2.93	0.24	2.69	8.37	65.0	15.4	0.5		
			3	1.4	3.8	3.7	3.02	0.75	1.14	0.69	4.43	0.48	3.95	10.03	55.8	14.3	0.5		
			4		3.9	3.7	2.31	0.77	1.20	0.91	3.34	0.41	2.93	8.53	60.9	16.3	0.4		
			5	2.0	4.0	3.6	2.88	0.97	1.79	0.49	4.84	0.62	4.22	10.96	55.9	21.8	0.6		

Note: Repeat analyses were not carried out.

**Table 5.4 b-1) Soil chemical analysis: Vachiralongkorn Dam (Thailand)**

Sampling priod: 28 Apr 2003

Name of analysis laboratory: KingMongkut's University fo Technology Thonburi

Sample No.	Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat* analysis	Moisture content	pH		Exchangeable basecations				Ex-acidity (A)	Ex-acid cations		ECEC	Base saturation	
										(B)					Al	H			(A)+(B)
								Ca	Mg	K	Na	(cmol(+)kg <sup>-1</sup> )					%		
								(wt%)	H <sub>2</sub> O	KCl									
	Vachiralongkorn Dam	Ferric Acrisols		1	0-20	1st	8.56	6.26	6.05	4.92	3.30	0.11	0.03	30.22	0	30.22	38.58	21.7	
			2	0-20	7.84		5.74	5.70	4.71	3.32	0.90	0.05	30.03	0	30.03	39.01	23.0		
			1	3	0-20		7.22	5.21	4.98	4.53	3.52	0.11	0.06	29.17	0	29.17	37.39	22.0	
			4	0-20	8.25		6.14	6.12	4.75	3.52	0.13	0.02	31.44	0	31.44	39.86	21.1		
			5	0-20	7.90		5.70	5.70	4.58	3.33	0.09	0.02	29.51	0	29.51	37.53	21.4		
				1	0-20	1st	7.41	6.85	6.48	4.7	3.03	0.13	0.13	31.57	0	31.57	39.58	20.2	
				2	0-20		7.34	6.12	5.83	4.74	3.28	0.11	0.11	30.34	0	30.34	38.58	21.4	
				2	3		0-20	6.25	5.78	5.36	4.62	3.23	0.08	0.08	30.44	0	30.44	38.45	20.8
				4	0-20		7.08	5.46	5.08	4.01	3.04	0.08	0.08	29.30	0	29.30	36.51	19.7	
				5	0-20		7.88	6.02	5.73	4.75	3.42	0.10	0.10	30.24	0	30.24	38.61	21.7	
				1	20+	1st	8.23	6.20	5.96	4.95	3.02	0.10	0.03	31.18	0	31.18	39.28	20.6	
				2	20+		7.46	5.78	5.70	4.71	3.22	0.07	0.02	29.63	0	29.63	37.65	21.3	
				1	3		20+	4.12	5.00	4.95	4.34	3.41	0.08	0.03	28.90	0	28.90	36.76	21.4
				4	20+		7.98	6.37	6.25	4.89	3.20	0.10	0.001	30.32	0	30.32	38.51	21.3	
				5	20+		7.31	5.54	5.50	4.10	2.78	0.09	0.01	30.57	0	30.57	37.55	18.6	
				1	20+	1st	7.22	6.61	6.53	4.56	2.67	0.10	0.10	31.91	0	31.91	39.34	18.9	
				2	20+		6.97	6.07	5.71	4.38	2.56	0.06	0.06	30.05	0	30.05	37.11	19.0	
				2	3		20+	7.36	5.73	5.30	4.72	3.38	0.07	0.07	30.08	0	30.08	38.32	21.5
				4	20+		6.98	5.17	4.80	3.00	2.85	0.07	0.07	28.88	0	28.88	34.87	17.2	
				5	20+		7.47	5.63	5.19	4.30	3.08	0.17	0.07	29.57	0	29.57	37.19	20.5	

Note: Soil samples were collected according to soil horizon; Average values of the repeat analysis were shown in the table.

**Table 5.4 b-2) Soil chemical analysis: Vachiralongkorn Dam (Thailand)**

Sampling priod: 16 Dec 2003

Name of analysis laboratory: King Mongkut's niversity of Technology Thonburi

Sample No.	Location	Soil type	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Moisture content	pH		Exchangeable basecations				Ex-acidity (A)	Ex-acid cations		ECEC (A)+(B)	Base saturation				
										(B)					Al	H						
							Ca	Mg	K	Na	(cmol(+)kg <sup>-1</sup> )											%
							(wt%)	H <sub>2</sub> O	KCl													
	Vachiralongkorn Dam	Ferric Acrisols		1	0-20	1st	7.77	6.63	5.90	3.27	2.25	0.53	0.006	32.84	0	32.84	38.90	15.6				
			2	0-20	7.94		6.73	6.28	4.97	3.31	1.15	0.001	30.50	0	30.50	39.93	23.6					
			1	3	0-20		6.46	5.67	4.90	4.04	2.62	0.64	0.04	29.76	0	29.76	37.10	19.8				
				4	0-20		8.82	6.79	6.11													
				5	0-20		9.77	6.42	5.64	4.68	2.84	0.79	0.001	30.00	0	30.00	38.31	21.7				
				1	0-20	1st	7.21	6.68	6.70	4.84	2.92	1.65	0.019	30.86	0	30.86	40.29	23.4				
				2	0-20		6.96	6.22	5.39	3.19	3.35	1.39	0.021	31.20	0	31.20	39.15	20.3				
				2	3		0-20	7.03	6.42	5.78	3.72	2.83	1.54	0.024	30.27	0	30.27	38.38	21.1			
					4		0-20	6.56	5.83	5.11	4.50	3.01	1.09	0.012	30.77	0	30.77	39.38	21.9			
					5		0-20	7.39	6.15	5.38	4.81	3.40	1.39	0.01	33.30	0	33.30	42.91	22.4			
					1	20+	1st	8.64	6.57	5.91	4.81	3.78	1.63	0.007	29.90	0	29.90	40.13	25.5			
					2	20+		7.25	6.71	6.06	4.70	2.75	0.63	0.001	30.07	0	30.07	38.15	21.2			
				1	3	20+		8.18	5.37	5.10	4.72	2.78	0.66	0.01	29.79	0	29.79	37.96	21.5			
					4	20+		7.64	6.70	6.04												
					5	20+		7.67	6.25	5.37	4.00	1.96	0.45	0.002	29.00	0	29.00	35.41	18.1			
					1	20+	1st	7.35	6.67	6.42	4.78	2.81	1.45	0.037	32.65	0	32.65	41.73	21.8			
					2	20+		6.18	6.20	5.44	3.35	3.37	1.65	0.020	30.82	0	30.82	39.21	21.4			
				2	3	20+		7.17	6.62	5.89	4.24	3.22	2.04	0.023	31.84	0	31.84	41.36	23.0			
					4	20+		6.98	5.64	4.76	3.70	2.90	0.94	0.018	30.35	0	30.35	37.91	19.9			
					5	20+		6.98	5.92	5.17	4.55	3.21	1.18	0.004	29.20	0	29.20	38.14	23.4			

Note: Soil samples were collected according to soil horizon; Average values of the repeat analysis were shown in the table; Hached columns were deleted as outliers by the National Center of Thailand.

**Table 5.4 b-3) Soil chemical analysis: Vachiralongkorn Dam (Thailand)**

Sampling priod: 28 Apr 2003

Name of analysis laboratory: King Mongkut's University of Technology Thonburi

Sample No.	Location	Soil type*	Plot No.	Subplot No.	Layer analyzed (cm)	Repeat analysis	Moisture content	pH		Exchangeable basecations				Ex-acidity (A)	Ex-acid cations		ECEC (A)+(B)	Base saturation %		
										(B)					Al	H				
							Ca	Mg	K	Na	(cmol(+)kg <sup>-1</sup> )									
							(wt%)	H <sub>2</sub> O	KCl											
	Vachiralongkorn Dam (Puye)	Luvisols		1	0-20	1st	2.00	4.56	5.03	2.26	1.80	0.07	0.001	28.03	0.00	28.03	32.16	12.8		
			2	0-20	1.89		4.35	4.02	1.58	2.18	0.08	0.020	29.70	0.00	29.70	33.56	11.5			
			3	0-20	1.91		4.39	3.94												
			4	0-20	1.95		5.06	4.87	2.06	1.76	0.06	0.004	27.71	0.00	27.71	31.59	12.3			
			5	0-20	1.89		4.51	4.14	1.01	1.70	0.05	0.001	26.97	0.00	26.97	29.73	9.3			
						1	20+	1st	1.95	4.85	4.62	2.05	1.91	0.06	0.02	27.71	0.0	27.71	31.75	12.7
					2	20+	1.90		4.22	4.06	0.92	1.60	0.05	0.02	26.94	0.0	26.94	29.53	8.8	
					3	20+	1.76		3.86	3.74										
					4	20+	1.83		5.10	4.12	1.15	1.71	0.05	0.004	26.89	0.0	26.89	29.80	9.8	
					5	20+	1.84		4.19	3.87	0.99	1.63	0.05	0.001	50.89	7.06	43.82	53.56	5.0	

Note: Soil samples were collected according to soil horizon; Average values of the repeat analysis were shown in the table; Hached columns were deleted as outliers by the National Center of Thailand.



Table 5.5 a-1-1) Description of trees: Jinyunshan (China)

Name of Plot: Jinyunshan No.1  
Date: Sep 2003

Survey area 1: radius 7.98 m (Height > 1.3 m)

Survey area 2: radius 11.28 m (DBH > 4 cm)

Survey area 3: radius 17.85 m (DBH > 18cm)

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Michilus pingii</i>	12.9	14.3	58	<i>Symplocos setchuenensis</i>	4.6	3.5	86	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	28.9	20.4
2	<i>Symplocos setchuenensis</i>	5.5	6.3	59	<i>Pinus massoniana</i>	44.1	23.5	87	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	36.3	21.6
3	<i>Cunninghamia lanceolata</i>	16.6	14.8	60	<i>Randia cochinchinensis</i>	4.6	5.3	88	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	29.5	19.3
4	<i>Cunninghamia lanceolata</i>	14.4	12.4	61	<i>Pinus massoniana</i>	28.5	19.4	89	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	75.7	16.5
5	<i>Michilus pingii</i>	14.6	12.6	62	<i>Symplocos setchuenensis</i>	4.2	3.5	90	<i>Castanopsis fargesii</i>	36.8	22.8
6	<i>Symplocos setchuenensis</i>	6.6	5.9	63	<i>Adinandra bockiana</i>	5.8	5.2	91	<i>Michilus pingii</i>	28.7	21.2
7	<i>Pinus massoniana</i>	37.8	20.9	64	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	37.8	16.4	92	<i>Michilus pingii</i>	19.2	18.9
8	<i>Randia cochinchinensis</i>	0.7	1.9	65	<i>Symplocos setchuenensis</i>	7.1	7.2	93	<i>Pinus massoniana</i>	48.9	26.6
9	<i>Adinandra bockiana</i>	1.6	2.2	66	<i>Cunninghamia lanceolata</i>	18.6	16.3	94	<i>Cunninghamia lanceolata</i>	21.7	20.8
10	<i>Ilex purpurea</i>	1.2	2.3	67	<i>Michilus pingii</i>	25.7	20.9	95	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	29.5	17.2
11	<i>Symplocos setchuenensis</i>	1.6	2.4	68	<i>Michilus pingii</i>	21.9	17.3	96	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	23.8	15.7
12	<i>Randia cochinchinensis</i>	2.5	3.1	69	<i>Cunninghamia lanceolata</i>	16	13.2	97	<i>Elaeocarpus duclowxii</i>	25.2	13.2
13	<i>Randia cochinchinensis</i>	2.1	2.5	70	<i>Symplocos setchuenensis</i>	5	5.6	98	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	18.7	18.9
14	<i>Elaeocarpus duclowxii</i>	1.3	2	71	<i>Symplocos setchuenensis</i>	7.6	6.2	99	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	36.5	21.3
15	<i>Symplocos setchuenensis</i>	6.7	7.9	72	<i>Symplocos setchuenensis</i>	8.8	7.9	100	<i>Cunninghamia lanceolata</i>	21.4	14.6
16	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	17.2	17.3	73	<i>Symplocos setchuenensis</i>	5.4	6.1	101	<i>Symplocos setchuenensis</i>	9.4	10.6
17	<i>Symplocos setchuenensis</i>	7.4	7.9	74	<i>Symplocos setchuenensis</i>	9.8	10.2	102	<i>Symplocos setchuenensis</i>	4.7	8.3
18	<i>Symplocos setchuenensis</i>	5	8	75	<i>Michilus pingii</i>	12.3	11.7	103	<i>Symplocos setchuenensis</i>	5.8	8.9
19	<i>Symplocos setchuenensis</i>	3.7	6.4	76	<i>Symplocos setchuenensis</i>	8.9	11.4	104	<i>Symplocos setchuenensis</i>	7.2	9.3
20	<i>Elaeocarpus japonicus</i>	4.5	8.2	77	<i>Symplocos setchuenensis</i>	6.8	8.3	Note: Trees, whose DBH is less than 18 cm, were additionally recorded; Trees within the survey area 2 were omitted.			
21	<i>Symplocos setchuenensis</i>	2.6	5	78	<i>Symplocos setchuenensis</i>	13	12.5				
22	<i>Symplocos setchuenensis</i>	6	7.7	79	<i>Symplocos lancifolia</i>	5	6.9				
23	<i>Symplocos setchuenensis</i>	4	8.2	80	<i>Michilus pingii</i>	17.8	18.3				
24	<i>Symplocos setchuenensis</i>	5.9	9.3	81	<i>Michilus pingii</i>	18.7	19				
25	<i>Symplocos setchuenensis</i>	5.8	9.4	82	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	17	16.1				
26	<i>Pinus massoniana</i>	24.3	17.9	83	<i>Cunninghamia lanceolata</i>	15.4	13.6				
27	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	3.2	5.3	84	<i>Symplocos setchuenensis</i>	4.7	5.1				
28	<i>Diospyros morrisiana</i>	1.4	2.3	85	<i>Symplocos setchuenensis</i>	6.7	7				
29	<i>Randia cochinchinensis</i>	4.2	5.5	Note: Trees within the survey area 1 were omitted.							
30	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	4.5	8								
31	<i>Elaeocarpus japonicus</i>	23.2	14.4	<b>Survey area 1 (continued)</b>				<b>Monitored species for observation of tree decline</b>			
32	<i>Symplocos setchuenensis</i>	2.9	4.3	45	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1.5	2.3	2	<i>Symplocos setchuenensis</i>	5.5	6.3
33	<i>Symplocos setchuenensis</i>	37.5	20.4	46	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	23	18.9	3	<i>Cunninghamia lanceolata</i>	16.6	14.8
34	<i>Symplocos setchuenensis</i>	10.1	11	47	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1	2	58	<i>Symplocos setchuenensis</i>	4.6	3.5
35	<i>Symplocos setchuenensis</i>	7.9	9.5	48	<i>Symplocos setchuenensis</i>	11.8	12.2	70	<i>Symplocos setchuenensis</i>	5	5.6
36	<i>Symplocos lancifolia</i>	8.1	7.2	49	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	2.2	3.5	71	<i>Symplocos setchuenensis</i>	7.6	6.2
37	<i>Cunninghamia lanceolata</i>	3.4	5.9	50	<i>Cunninghamia lanceolata</i>	2.3	3.7	72	<i>Symplocos setchuenensis</i>	8.8	7.9
38	<i>Symplocos setchuenensis</i>	1.2	2	51	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1.4	2.2	101	<i>Symplocos setchuenensis</i>	9.4	10.6
39	<i>Randia cochinchinensis</i>	1.2	2.1	52	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1.3	1.8	102	<i>Symplocos setchuenensis</i>	4.7	8.3
40	<i>Symplocos setchuenensis</i>	6.3	8.3	53	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	2.6	3.5	103	<i>Symplocos setchuenensis</i>	5.8	8.9
41	<i>Symplocos setchuenensis</i>	1.5	3.4	54	<i>Randia cochinchinensis</i>	1	1.9	104	<i>Symplocos setchuenensis</i>	7.2	9.3
42	<i>Elaeocarpus japonicus</i>	2.5	4.5	55	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1.3	2.3				
43	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	2.1	3.5	56	<i>Symplocos setchuenensis</i>	7	7.9				
44	<i>Eurya nitida</i>	2.5	4.1	57	<i>Michilus pingii</i>	15.3	16.3				

Table 5.5 a-1-2) Description of trees: Jinyunshan (China)

Name of Plot: Jinyunshan No.2  
 Date: Sep 2003

Survey area 1: radius 7.98 m (Height > 1.3 m)				Survey area 2: radius 11.28 m (DBH > 4 cm)				Survey area 3: radius 17.85 m (DBH > 18cm)			
Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Eurya loquaniana</i>	1.3	2.2	39	<i>Michilus pingii</i>	12.1	13.9	50	<i>Elaeocarpus japonicus</i>	38	16.8
2	<i>Eurya loquaniana</i>	0.9	2	40	<i>Michilus pingii</i>	30.6	23.5	51	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	34.8	22.4
3	<i>Eurya loquaniana</i>	1.2	2	41	<i>Adinandra bockiana</i>	15.1	16.3	52	<i>Michilus pingii</i>	26.4	21.7
4	<i>Mahoni fortunei</i>	1.2	2.4	42	<i>Symplocos lancifolia</i>	13.4	11.8	53	<i>Michilus pingii</i>	27.8	25.3
5	<i>Eurya loquaniana</i>	1.6	2.3	43	<i>Symplocos setchuenensis</i>	5.8	12.2	54	<i>Michilus pingii</i>	27.5	25.4
6	<i>Michilus pingii</i>	33.2	23.6	44	<i>Symplocos setchuenensis</i>	19	18.9	55	<i>Michilus pingii</i>	29.6	25.8
7	<i>Michilus pingii</i>	24	24.4	45	<i>Elaeocarpus japonicus</i>	35.7	15.4	56	<i>Michilus pingii</i>	24.6	23.2
8	<i>Michilus pingii</i>	23	22.9	46	<i>Symplocos setchuenensis</i>	6.7	10.8	57	<i>Michilus pingii</i>	26	23
9	<i>Symplocos setchuenensis</i>	3.9	7.7	47	<i>Adinandra bockiana</i>	12.7	10.6	58	<i>Elaeocarpus japonicus</i>	31.3	16.2
10	<i>Elaeocarpus japonicus</i>	1.4	2.5	48	<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	4.3	7.7	59	<i>Castanopsis fargesii</i>	45.5	23.6
11	<i>Elaeocarpus japonicus</i>	1.8	3.3	49	<i>Viburnum sambucinum</i> var. <i>tomentosum</i>	7.2	8.2	60	<i>Quercus fabri</i>	19.1	14.7
12	<i>Michilus pingii</i>	32.3	21.4	Note: Trees within the survey area 1 were omitted.				61	<i>Symplocos setchuenensis</i>	20.9	13.3
13	<i>Michilus pingii</i>	36.1	25.5					62	<i>Michilus pingii</i>	34.3	25.9
14	<i>Eurya loquaniana</i>	1.8	3.2	63	<i>Michilus pingii</i>	33.6	26.1	64	<i>Michilus pingii</i>	23	20.3
15	<i>Symplocos botryantha</i>	2	2.2	65	<i>Michilus pingii</i>	9.3	12.1	66	<i>Michilus pingii</i>	9.1	10.1
16	<i>Symplocos setchuenensis</i>	19.6	15.3	67	<i>Symplocos setchuenensis</i>	5	7.1	68	<i>Symplocos setchuenensis</i>	5.9	5.9
17	<i>Symplocos setchuenensis</i>	1.1	2.3	69	<i>Michilus pingii</i>	18.3	12.5	70	<i>Elaeocarpus japonicus</i>	36.6	14.5
18	<i>Symplocos setchuenensis</i>	2.6	3.1	71	<i>Symplocos lancifolia</i>	13.6	10.5	72	<i>Symplocos lancifolia</i>	16.3	13.5
19	<i>Symplocos setchuenensis</i>	3	5.2	73	<i>Symplocos lancifolia</i>	13.3	8.5	74	<i>Adinandra bockiana</i>	13.5	12
20	<i>Symplocos lancifolia</i>	2.7	6.1	75	<i>Symplocos lancifolia</i>	13.8	9.6	Note: Trees, whose DBH is less than 18 cm, were additionally recorded; Trees within the survey area 2 were omitted.			
21	<i>Symplocos setchuenensis</i>	2.4	4.3	76	<i>Adinandra bockiana</i>	15.1	16.3				
22	<i>Symplocos setchuenensis</i>	3.4	4.7	Monitored species for observation of tree decline				77	<i>Michilus pingii</i>	23	20.3
23	<i>Symplocos lancifolia</i>	2.7	4					78	<i>Symplocos setchuenensis</i>	5	7.1
24	<i>Quercus fabri</i>	24.2	21	79	<i>Symplocos setchuenensis</i>	5.9	5.9	80	<i>Michilus pingii</i>	18.3	12.5
25	<i>Elaeocarpus japonicus</i>	25.8	19.3	81	<i>Elaeocarpus japonicus</i>	36.6	14.5	82	<i>Symplocos lancifolia</i>	13.6	10.5
26	<i>Symplocos setchuenensis</i>	1	1.9	83	<i>Symplocos lancifolia</i>	13.3	8.5	84	<i>Adinandra bockiana</i>	13.5	12
27	<i>Stranvaesia tomentosa</i>	1.1	2.2	85	<i>Symplocos lancifolia</i>	13.8	9.6				
32	<i>Eurya loquaniana</i>	1.3	2.2								
33	<i>Symplocos setchuenensis</i>	1	1.8								
34	<i>Vaccinium sprengelii</i>	1.2	2.6								
35	<i>Symplocos setchuenensis</i>	1	1.8								
36	<i>Symplocos setchuenensis</i>	0.8	1.9								
37	<i>Eurya loquaniana</i>	1	2.1								
38	<i>Eurya loquaniana</i>	1.3	3.1								



**Table 5.5 a-3-1) Description of trees: Xiaoping (China)**

Name of Plot: XPZ-01

Data: Sep 2003

**Survey area 1: radius 7.98 m**

**Survey area 2: radius 11.28 m**

**Survey area 3: radius 17.85 m**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	
1	<i>Michelia macclurei</i>	16.6	13.0	1	<i>Michelia macclurei</i>	18.0	14.8	1	<i>Michelia macclurei</i>	18.0	13.8	
2	<i>Michelia macclurei</i>	25.0	13.7	2	<i>Michelia macclurei</i>	20.0	15.3	2	<i>Michelia macclurei</i>	17.9	13.0	
3	<i>Michelia macclurei</i>	15.0	13.3	3	<i>Michelia macclurei</i>	10.9	14.2	3	<i>Michelia macclurei</i>	12.0	12.5	
4	<i>Michelia macclurei</i>	19.7	14.4	4	<i>Michelia macclurei</i>	18.8	14.0	4	<i>Michelia macclurei</i>	12.2	13.2	
5	<i>Michelia macclurei</i>	17.6	14.0	5	<i>Michelia macclurei</i>	17.3	14.2	5	<i>Michelia macclurei</i>	16.5	13.5	
6	<i>Michelia macclurei</i>	12.7	13.5	6	<i>Michelia macclurei</i>	16.7	14.3	6	<i>Michelia macclurei</i>	18.8	13.6	
7	<i>Michelia macclurei</i>	15.5	13.8	7	<i>Michelia macclurei</i>	14.8	12.3	7	<i>Michelia macclurei</i>	13.7	12.8	
8	<i>Michelia macclurei</i>	19.8	14.8	8	<i>Michelia macclurei</i>	11.2	12.0	8	<i>Michelia macclurei</i>	15.5	11.9	
9	<i>Michelia macclurei</i>	19.2	14.7	9	<i>Michelia macclurei</i>	15.7	13.1	9	<i>Michelia macclurei</i>	13.8	12.6	
10	<i>Michelia macclurei</i>	14.7	14.8	10	<i>Michelia macclurei</i>	15.6	13.3	10	<i>Michelia macclurei</i>	6.4	9.0	
11	<i>Michelia macclurei</i>	17.3	15.8	11	<i>Michelia macclurei</i>	15.3	13.2	11	<i>Michelia macclurei</i>	15.0	14.6	
12	<i>Michelia macclurei</i>	15.7	14.8	12	<i>Michelia macclurei</i>	21.7	14.4	12	<i>Michelia macclurei</i>	20.5	15.2	
13	<i>Michelia macclurei</i>	16.7	15.0	13	<i>Michelia macclurei</i>	9.4	9.2	13	<i>Michelia macclurei</i>	16.0	15.3	
14	<i>Michelia macclurei</i>	7.0	12.0	14	<i>Michelia macclurei</i>	13.3	14.0	14	<i>Michelia macclurei</i>	9.3	12.5	
15	<i>Michelia macclurei</i>	18.0	13.6	15	<i>Michelia macclurei</i>	15.5	13.8	15	<i>Michelia macclurei</i>	12.3	12.6	
16	<i>Michelia macclurei</i>	14.3	14.5	16	<i>Michelia macclurei</i>	19.8	14.8	16	<i>Michelia macclurei</i>	21.0	14.5	
17	<i>Michelia macclurei</i>	6.5	10.5	17	<i>Michelia macclurei</i>	19.2	14.7					
18	<i>Michelia macclurei</i>	13.5	14.5	18	<i>Michelia macclurei</i>	15.5	12.9					
19	<i>Michelia macclurei</i>	14.4	14.6	19	<i>Michelia macclurei</i>	12.8	13.5					
20	<i>Michelia macclurei</i>	12.7	14.3	20	<i>Michelia macclurei</i>	13.4	13.8					
21	<i>Michelia macclurei</i>	11.9	13.3	21	<i>Michelia macclurei</i>	15.4	14.1					
22	<i>Michelia macclurei</i>	16.6	13.8	22	<i>Michelia macclurei</i>	16.6	14.5					
23	<i>Michelia macclurei</i>	21.3	14.8									
24	<i>Michelia macclurei</i>	20.2	14.0									
				<b>Survey area 1 (continued)</b>								
25	<i>Michelia macclurei</i>	7.9	9.4	29	<i>Michelia macclurei</i>	12.5	13.3					
26	<i>Michelia macclurei</i>	9.2	9.2	30	<i>Michelia macclurei</i>	18.0	13.4					
27	<i>Michelia macclurei</i>	15.7	14.8	31	<i>Michelia macclurei</i>	16.9	13.0					
28	<i>Michelia macclurei</i>	17.6	14.7	32	<i>Michelia macclurei</i>	15.5	12.9					

**Table 5.5 a-3-2) Description of trees: Xiaoping (China)**

Name of Plot: XPZ-02

Date: 28 Sep 2003

**Survey area 1: radius 7.98 m**

**Survey area 2: radius 11.28 m**

**Survey area 3: radius 17.85 m**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Michelia macclurei</i>	14.4	13.5	1	<i>Michelia macclurei</i>	17.5	13.3	1	<i>Michelia macclurei</i>	10.8	10.0
2	<i>Michelia macclurei</i>	7.1	9.0	2	<i>Michelia macclurei</i>	14.0	13.0	2	<i>Michelia macclurei</i>	9.1	10.2
3	<i>Michelia macclurei</i>	9.8	11.5	3	<i>Michelia macclurei</i>	18.2	14.5	3	<i>Michelia macclurei</i>	10.7	9.8
4	<i>Michelia macclurei</i>	11.9	11.0	4	<i>Michelia macclurei</i>	11.3	11.0	4	<i>Michelia macclurei</i>	10.8	10.9
5	<i>Michelia macclurei</i>	16.4	13.8	5	<i>Michelia macclurei</i>	19.0	12.8	5	<i>Michelia macclurei</i>	16.6	12.0
6	<i>Michelia macclurei</i>	5.3	7.5	6	<i>Michelia macclurei</i>	14.2	12.0	6	<i>Michelia macclurei</i>	16.8	12.5
7	<i>Michelia macclurei</i>	19.8	13.2	7	<i>Michelia macclurei</i>	12.5	12.2	7	<i>Michelia macclurei</i>	15.0	12.5
8	<i>Michelia macclurei</i>	16.3	12.2	8	<i>Michelia macclurei</i>	14.4	12.5	8	<i>Michelia macclurei</i>	11.4	12.0
9	<i>Michelia macclurei</i>	12.8	11.5	9	<i>Michelia macclurei</i>	14.6	12.0	9	<i>Michelia macclurei</i>	13.1	12.1
10	<i>Michelia macclurei</i>	13.2	12.8	10	<i>Michelia macclurei</i>	16.7	12.3	10	<i>Michelia macclurei</i>	15.0	12.8
11	<i>Michelia macclurei</i>	11.3	12.2	11	<i>Michelia macclurei</i>	11.9	11.3	11	<i>Michelia macclurei</i>	16.3	13.5
12	<i>Michelia macclurei</i>	12.4	13.5	12	<i>Michelia macclurei</i>	13.8	12.5	12	<i>Michelia macclurei</i>	12.7	14.2
13	<i>Michelia macclurei</i>	7.2	12.8	13	<i>Michelia macclurei</i>	15.0	11.5	13	<i>Michelia macclurei</i>	14.9	15.0
14	<i>Michelia macclurei</i>	14.9	13.8	14	<i>Michelia macclurei</i>	4.0	9.8	14	<i>Michelia macclurei</i>	16.7	14.5
15	<i>Michelia macclurei</i>	13.6	13.5	15	<i>Michelia macclurei</i>	14.8	14.5	15	<i>Michelia macclurei</i>	16.9	14.3
16	<i>Michelia macclurei</i>	12.9	13.1	16	<i>Michelia macclurei</i>	15.4	16.0	16	<i>Michelia macclurei</i>	13.2	12.6
17	<i>Michelia macclurei</i>	14.9	12.5	17	<i>Michelia macclurei</i>	10.8	10.0				
18	<i>Michelia macclurei</i>	7.3	9.5	18	<i>Michelia macclurei</i>	9.1	9.7				
19	<i>Michelia macclurei</i>	15.6	14.2								
20	<i>Michelia macclurei</i>	15.8	14.8								
21	<i>Michelia macclurei</i>	17.8	14.0								
22	<i>Michelia macclurei</i>	15.7	13.2								
23	<i>Michelia macclurei</i>	15.2	14.3								
24	<i>Michelia macclurei</i>	16.2	14.2								
25	<i>Michelia macclurei</i>	12.0	10.5								
26	<i>Michelia macclurei</i>	13.6	11.0								
27	<i>Michelia macclurei</i>	12.4	12.2	29	<i>Michelia macclurei</i>	10.4	11.5				
28	<i>Michelia macclurei</i>	10.7	12.6	30	<i>Michelia macclurei</i>	9.1	11.9				

**Survey area 1 (continued)**

**Table 5.5 a-3-3) Description of trees: Xiaoping (China)**

Name of Plot: XPZ-03

Data: 10 Sep 2003

**Survey area 1: radius 7.98 m**

**Survey area 2: radius 11.28 m**

**Survey area 3: radius 17.85 m**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Fokienia hodginsii</i>	11.3	12.0	1	<i>Fokienia hodginsii</i>	8.5	11.0	1	<i>Fokienia hodginsii</i>	22.0	15.0
2	<i>Fokienia hodginsii</i>	17.4	13.0	2	<i>Fokienia hodginsii</i>	22.2	15.5	2	<i>Fokienia hodginsii</i>	13.3	13.0
3	<i>Fokienia hodginsii</i>	12.5	12.0	3	<i>Fokienia hodginsii</i>	17.3	15.0	3	<i>Fokienia hodginsii</i>	14.3	12.0
4	<i>Fokienia hodginsii</i>	18.0	13.0	4	<i>Fokienia hodginsii</i>	6.7	10.0	4	<i>Fokienia hodginsii</i>	8.4	10.0
5	<i>Pinus massoniana</i>	13.4	13.0	5	<i>Fokienia hodginsii</i>	13.3	12.0	5	<i>Fokienia hodginsii</i>	21.9	12.7
6	<i>Fokienia hodginsii</i>	10.0	11.0	6	<i>Fokienia hodginsii</i>	10.3	11.0	6	<i>Pinus massoniana</i>	7.5	7.0
7	<i>Fokienia hodginsii</i>	15.9	12.0	7	<i>Pinus massoniana</i>	8.7	9.0	7	<i>Fokienia hodginsii</i>	10.5	12.3
8	<i>Fokienia hodginsii</i>	15.0	13.0	8	<i>Fokienia hodginsii</i>	9.5	10.7	8	<i>Fokienia hodginsii</i>	8.0	11.0
9	<i>Fokienia hodginsii</i>	23.3	12.0	9	<i>Fokienia hodginsii</i>	14.0	12.0	9	<i>Fokienia hodginsii</i>	13.2	12.7
10	<i>Fokienia hodginsii</i>	11.8	10.5	10	<i>Fokienia hodginsii</i>	10.8	10.5	10	<i>Fokienia hodginsii</i>	13.3	13.2
11	<i>Pinus massoniana</i>	11.5	10.0	11	<i>Fokienia hodginsii</i>	8.7	10.0	11	<i>Fokienia hodginsii</i>	12.1	12.0
12	<i>Fokienia hodginsii</i>	13.5	12.0	12	<i>Fokienia hodginsii</i>	16.1	13.0	12	<i>Fokienia hodginsii</i>	12.6	13.0
13	<i>Fokienia hodginsii</i>	18.1	13.0	13	<i>Fokienia hodginsii</i>	19.5	13.0	13	<i>Fokienia hodginsii</i>	9.2	10.0
14	<i>Fokienia hodginsii</i>	7.2	8.8	14	<i>Fokienia hodginsii</i>	15.4	14.0	14	<i>Fokienia hodginsii</i>	12.0	11.7
15	<i>Fokienia hodginsii</i>	13.7	10.0	15	<i>Pinus massoniana</i>	6.0	12.0	15	<i>Fokienia hodginsii</i>	9.6	10.8
16	<i>Fokienia hodginsii</i>	18.0	14.0	16	<i>Pinus massoniana</i>	12.0	13.0	16	<i>Pinus massoniana</i>	5.5	8.6
17	<i>Fokienia hodginsii</i>	15.6	13.0	17	<i>Pinus massoniana</i>	12.7	13.0	17	<i>Fokienia hodginsii</i>	11.7	11.7
18	<i>Pinus massoniana</i>	10.5	9.0	18	<i>Pinus massoniana</i>	15.5	13.8	18	<i>Fokienia hodginsii</i>	10.3	12.5
19	<i>Fokienia hodginsii</i>	18.5	13.0	19	<i>Pinus massoniana</i>	7.0	8.7	19	<i>Fokienia hodginsii</i>	16.2	13.5
20	<i>Pinus massoniana</i>	7.3	8.0	20	<i>Pinus massoniana</i>	5.5	8.0	20	<i>Fokienia hodginsii</i>	14.3	13.0
21	<i>Fokienia hodginsii</i>	15.5	12.0	21	<i>Pinus massoniana</i>	5.6	9.5	21	<i>Fokienia hodginsii</i>	15.7	13.0
22	<i>Pinus massoniana</i>	13.7	12.0	22	<i>Pinus massoniana</i>	10.0	9.0	22	<i>Fokienia hodginsii</i>	13.2	12.7
23	<i>Pinus massoniana</i>	5.5	7.8	23	<i>Fokienia hodginsii</i>	23.4	15.0	23	<i>Fokienia hodginsii</i>	16.8	13.5
24	<i>Fokienia hodginsii</i>	22.3	14.7	24	<i>Pinus massoniana</i>	11.0	13.0	24	<i>Fokienia hodginsii</i>	15.3	13.0
25	<i>Pinus massoniana</i>	6.0	7.9	25	<i>Pinus massoniana</i>	6.6	8.7	25	<i>Fokienia hodginsii</i>	15.6	13.5
26	<i>Pinus massoniana</i>	12.4	12.0	26	<i>Pinus massoniana</i>	7.3	8.9	26	<i>Fokienia hodginsii</i>	18.2	13.6
27	<i>Fokienia hodginsii</i>	15.7	14.0	27	<i>Pinus massoniana</i>	13.3	12.0	27	<i>Pinus massoniana</i>	11.6	13.5
28	<i>Fokienia hodginsii</i>	5.6	7.0	28	<i>Pinus massoniana</i>	12.3	14.0	28	<i>Fokienia hodginsii</i>	11.5	11.5



**Table 5.5 a-3-4) Description of trees: Xiaoping (China)**

Name of Plot: XPZ-04

Data: 24Sep2003

**Survey area 1: radius 7.98 m**

**Survey area 2: radius 11.28 m**

**Survey area 3: radius 17.85 m**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Fokienia hodginsii</i>	18.0	11.0	1	<i>Fokienia hodginsii</i>	16.4	10.8	1	<i>Fokienia hodginsii</i>	4.0	5.0
2	<i>Myrica rubra</i>	4.8	9.0	2	<i>Fokienia hodginsii</i>	20.6	11.0	2	<i>Fokienia hodginsii</i>	11.2	11.5
3	<i>Myrica rubra</i>	12.0	7.0	3	<i>Fokienia hodginsii</i>	12.2	11.2	3	<i>Fokienia hodginsii</i>	5.3	6.0
4	<i>Fokienia hodginsii</i>	15.9	10.0	4	<i>Fokienia hodginsii</i>	7.3	9.2	4	<i>Fokienia hodginsii</i>	13.4	9.5
5	<i>Fokienia hodginsii</i>	11.0	10.0	5	<i>Myrica rubra</i>	3.0	5.5	5	<i>Fokienia hodginsii</i>	12.3	7.8
6	<i>Fokienia hodginsii</i>	12.0	12.5	6	<i>Myrica rubra</i>	5.0	7.0	6	<i>Pinus massoniana</i>	4.4	4.5
7	<i>Fokienia hodginsii</i>	17.0	13.2	7	<i>Fokienia hodginsii</i>	20.9	11.1	7	<i>Fokienia hodginsii</i>	11.5	7.8
8	<i>Fokienia hodginsii</i>	11.0	8.7	8	<i>Fokienia hodginsii</i>	17.0	10.2	8	<i>Fokienia hodginsii</i>	5.7	6.0
9	<i>Fokienia hodginsii</i>	15.6	10.5	9	<i>Myrica rubra</i>	4.1	5.5	9	<i>Fokienia hodginsii</i>	17.2	10.0
10	<i>Fokienia hodginsii</i>	22.0	12.3	10	<i>Myrica rubra</i>	6.5	5.7	10	<i>Fokienia hodginsii</i>	15.1	10.5
11	<i>Myrica rubra</i>	11.0	7.8	11	<i>Fokienia hodginsii</i>	12.5	8.5	11	<i>Pinus massoniana</i>	12.0	8.7
12	<i>Fokienia hodginsii</i>	9.5	8.5	12	<i>Myrica rubra</i>	6.0	6.2	12	<i>Fokienia hodginsii</i>	17.8	11.5
13	<i>Fokienia hodginsii</i>	14.3	10.5	13	<i>Myrica rubra</i>	10.1	6.0	13	<i>Fokienia hodginsii</i>	13.6	9.3
14	<i>Myrica rubra</i>	17.3	8.6	14	<i>Myrica rubra</i>	8.8	6.0	14	<i>Myrica rubra</i>	7.7	7.0
15	<i>Fokienia hodginsii</i>	19.3	12.2	15	<i>Myrica rubra</i>	4.3	5.5	15	<i>Fokienia hodginsii</i>	14.3	9.5
16	<i>Fokienia hodginsii</i>	16.3	12.0	16	<i>Myrica rubra</i>	6.7	6.5	16	<i>Fokienia hodginsii</i>	12.3	8.5
17	<i>Myrica rubra</i>	4.0	5.5	17	<i>Myrica rubra</i>	3.6	5.0	17	<i>Fokienia hodginsii</i>	17.0	9.7
18	<i>Myrica rubra</i>	5.2	6.0	18	<i>Fokienia hodginsii</i>	18.0	10.8	18	<i>Myrica rubra</i>	10.3	6.3
19	<i>Myrica rubra</i>	3.9	5.2	19	<i>Fokienia hodginsii</i>	16.3	11.0	19	<i>Fokienia hodginsii</i>	17.9	11.0
20	<i>Myrica rubra</i>	3.0	4.0	20	<i>Fokienia hodginsii</i>	16.0	9.7	20	<i>Fokienia hodginsii</i>	9.0	8.3
21	<i>Myrica rubra</i>	3.0	4.5	21	<i>Fokienia hodginsii</i>	6.0	6.5	21	<i>Fokienia hodginsii</i>	15.0	9.5
22	<i>Myrica rubra</i>	4.0	5.3	22	<i>Fokienia hodginsii</i>	14.0	10.2	22	<i>Fokienia hodginsii</i>	14.4	9.7
23	<i>Myrica rubra</i>	6.0	5.6	23	<i>Fokienia hodginsii</i>	13.6	10.3	23	<i>Fokienia hodginsii</i>	19.5	11.3
24	<i>Myrica rubra</i>	3.0	5.5	24	<i>Fokienia hodginsii</i>	16.5	11.0	24	<i>Fokienia hodginsii</i>	16.6	11.3
25	<i>Myrica rubra</i>	4.2	6.0	25	<i>Fokienia hodginsii</i>	13.3	11.3	25	<i>Fokienia hodginsii</i>	19.4	12.5
26	<i>Fokienia hodginsii</i>	14.8	10.7	26	<i>Fokienia hodginsii</i>	13.5	11.2	26	<i>Fokienia hodginsii</i>	7.2	6.3
27	<i>Fokienia hodginsii</i>	16.6	11.5	27	<i>Fokienia hodginsii</i>	12.6	11.0	27	<i>Fokienia hodginsii</i>	8.6	7.5
28	<i>Fokienia hodginsii</i>	11.9	10.3	28	<i>Myrica rubra</i>	7.7	7.0	28	<i>Fokienia hodginsii</i>	17.5	12.7

**Table 5.5 a-3-4) (continued)**

<b>Survey area 1 (continued)</b>				<b>Survey area 2 (continued)</b>				<b>Survey area 3 (continued)</b>			
29	<i>Fokienia hodginsii</i>	11.8	11.0	29	<i>Fokienia hodginsii</i>	16.8	10.7	29	<i>Fokienia hodginsii</i>	18.0	12.9
30	<i>Myrica rubra</i>	6.6	7.0	30	<i>Fokienia hodginsii</i>	12.4	9.8	30	<i>Fokienia hodginsii</i>	15.0	10.8
31	<i>Myrica rubra</i>	3.0	4.1	31	<i>Fokienia hodginsii</i>	18.5	11.3	31	<i>Fokienia hodginsii</i>	21.0	12.5
32	<i>Myrica rubra</i>	3.2	5.0	32	<i>Fokienia hodginsii</i>	19.8	11.0	32	<i>Fokienia hodginsii</i>	9.0	8.0
33	<i>Myrica rubra</i>	2.9	4.5	33	<i>Fokienia hodginsii</i>	12.8	10.2	33	<i>Fokienia hodginsii</i>	5.4	5.0
34	<i>Myrica rubra</i>	5.2	5.8	34	<i>Fokienia hodginsii</i>	19.8	11.5	34	<i>Fokienia hodginsii</i>	17.3	12.3
35	<i>Myrica rubra</i>	4.0	5.8	35	<i>Fokienia hodginsii</i>	12.0	9.2	35	<i>Fokienia hodginsii</i>	12.1	9.2
36	<i>Myrica rubra</i>	8.9	6.5					36	<i>Fokienia hodginsii</i>	8.8	6.0
37	<i>Myrica rubra</i>	5.4	5.7					37	<i>Fokienia hodginsii</i>	12.7	9.0
38	<i>Fokienia hodginsii</i>	12.0	10.2					38	<i>Myrica rubra</i>	6.6	6.0
39	<i>Fokienia hodginsii</i>	16.3	11.3					39	<i>Fokienia hodginsii</i>	17.1	11.0
40	<i>Fokienia hodginsii</i>	13.7	10.5					40	<i>Fokienia hodginsii</i>	14.9	10.2
41	<i>Fokienia hodginsii</i>	12.6	10.5					41	<i>Fokienia hodginsii</i>	13.4	8.0
42	<i>Fokienia hodginsii</i>	18.7	11.2					42	<i>Fokienia hodginsii</i>	7.1	8.0
43	<i>Myrica rubra</i>	8.2	5.5					43	<i>Fokienia hodginsii</i>	4.5	5.0
44	<i>Myrica rubra</i>	4.7	5.7					44	<i>Pinus massoniana</i>	8.3	7.5
45	<i>Myrica rubra</i>	6.6	7.1					45	<i>Pinus massoniana</i>	14.9	10.0
46	<i>Myrica rubra</i>	5.2	4.8					46	<i>Myrica rubra</i>	8.8	6.2
47	<i>Myrica rubra</i>	4.7	4.8					47	<i>Fokienia hodginsii</i>	14.6	10.5
48	<i>Fokienia hodginsii</i>	11.5	8.7								
49	<i>Fokienia hodginsii</i>	18.0	11.3								
50	<i>Fokienia hodginsii</i>	20.8	12.2								
51	<i>Fokienia hodginsii</i>	22.9	12.3								
52	<i>Fokienia hodginsii</i>	4.7	7.8								
53	<i>Fokienia hodginsii</i>	17.4	10.2								
54	<i>Fokienia hodginsii</i>	16.3	11.0								
55	<i>Fokienia hodginsii</i>	17.6	11.3								
56	<i>Fokienia hodginsii</i>	18.2	11.2								
57	<i>Fokienia hodginsii</i>	15.5	9.5								
58	<i>Fokienia hodginsii</i>	17.1	10.7								
59	<i>Fokienia hodginsii</i>	17.9	12.0								
60	<i>Fokienia hodginsii</i>	14.3	11.0								
				<b>Survey area 1 (continued)</b>							
61	<i>Myrica rubra</i>	9.0	7.5	63	<i>Myrica rubra</i>	4.0	5.1				
62	<i>Myrica rubra</i>	5.0	5.0	64	<i>Myrica rubra</i>	8.0	8.0				

**Table 5.5 a-4-1) Description of trees: Zhuxiandong (China)**

Name of Plot: No.1 (Mixed forest of *Pinus elliottii* and *Acacia confusa*)

Data: 18 Oct 2002

**Survey area 1: radius 7.98 m (Height > 1.3 m)**

**Survey area 2: radius 11.28 m (DBH > 4 cm)**

**Survey area 3: radius 17.85 m (DBH > 18cm)**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Acacia confusa</i>	18.5	11.0	1	<i>Acacia confusa</i>	5.1	8.0	1	<i>Acacia confusa</i>	8.4	9.0
2	<i>Acacia confusa</i>	28.2	9.5	2	<i>Acacia confusa</i>	9.0	8.0	2	<i>Pinus elliottii</i>	17.0	10.0
3	<i>Pinus elliottii</i>	17.0	10.0	3	<i>Pinus elliottii</i>	12.0	9.5	3	<i>Pinus elliottii</i>	17.7	9.5
4	<i>Pinus elliottii</i>	17.7	9.5	4	<i>Pinus elliottii</i>	17.0	10.0	4	<i>Pinus elliottii</i>	20.2	10.0
5	<i>Pinus elliottii</i>	20.2	10.0	5	<i>Pinus elliottii</i>	15.5	9.0	5	<i>Pinus elliottii</i>	17.2	10.0
6	<i>Pinus elliottii</i>	17.5	8.0	6	<i>Pinus elliottii</i>	17.7	9.5	6	<i>Pinus elliottii</i>	11.3	8.0
				7	<i>Pinus elliottii</i>	13.9	9.0	Note: Trees, whose DBH is less than 18 cm, were additionally recorded; Trees within the survey area 2 were omitted.			
				8	<i>Pinus elliottii</i>	17.2	10.0				
				9	<i>Pinus elliottii</i>	14.5	8.0				
				10	<i>Pinus elliottii</i>	11.3	8.0				

Note: Trees within the survey area 1 were omitted.

**Table 5.5 a-4-2) Description of trees: Zhuxiandong (China)**

Name of Plot: No 2 (*Acacia confusa* forest)

Date: 19 Oct 2003

**Survey area 1: radius 7.98 m (Height > 1.3 m)**

**Survey area 2: radius 11.28 m (DBH > 4 cm)**

**Survey area 3: radius 17.85 m (DBH > 18cm)**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Acacia confusa</i>	14.2	8	1	<i>Mallotus paniculatus</i>	6.4	5	1	<i>Acacia confusa</i>	4.8	4
2	<i>Acacia confusa</i>	17.4	9	2	<i>Acacia confusa</i>	9.4	17.7	2	<i>Acacia confusa</i>	4.6	4
3	<i>Acacia confusa</i>	12.8	8	3	<i>Acacia confusa</i>	4.7	5	3	<i>Acacia confusa</i>	5	5
				4	<i>Acacia confusa</i>	8.2	6	4	<i>Acacia confusa</i>	5	4
				5	<i>Acacia confusa</i>	4.3	5	5	<i>Acacia confusa</i>	4	3
				6	<i>Acacia confusa</i>	4.8	4	6	<i>Acacia confusa</i>	6.6	6
				7	<i>Acacia confusa</i>	4.6	4	7	<i>Acacia confusa</i>	4.6	5
				8	<i>Acacia confusa</i>	9.6	9	8	<i>Acacia confusa</i>	17.4	9
				9	<i>Acacia confusa</i>	4.7	5	Note: Trees, whose DBH is less than 18 cm, were additionally recorded; Trees within the survey area 2 were omitted.			
				10	<i>Acacia confusa</i>	11	8				
				11	<i>Acacia confusa</i>	4.6	5				
				12	<i>Acacia confusa</i>	4.5	7				
				13	<i>Acacia confusa</i>	6.6	6				
				14	<i>Acacia confusa</i>	5	4				
				15	<i>Acacia confusa</i>	4	3				
				16	<i>Acacia confusa</i>	17.4	9				
				17	<i>Acacia confusa</i>	12.1	10				

Note: Trees within the survey area 1 were omitted.

**Table 5.5 a-4-3) Description of trees: Zhuxiandong (China)**

Name of Plot: No 3 (Fernland)

Date

**Survey area 1: radius 7.98 m (Height > 1.3 m)**

**Survey area 2: radius 11.28 m (DBH > 4 cm)**

**Survey area 3: radius 17.85 m (DBH > 18cm)**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
No tree species was recorded.				1	<i>Sapium discolor</i>	5.2	3.5	1	<i>Sapium discolor</i>	5.2	3.5
				2	<i>Rhus succedanea</i>	2.9	2	2	<i>Rhus succedanea</i>	2.9	2
				3	<i>Litsea glutinosa</i>	4.2	2.2	3	<i>Litsea glutinosa</i>	4.2	2.2
				4	<i>Mallotus paniculatus</i>	4.1	1.9	4	<i>Glochidion lanceolaris</i>	5.1	2.5
				5	<i>Glochidion lanceolaris</i>	5.1	2.5				

Note: Trees, whose DBH is less than 18 cm, were additionally recorded; Trees within the survey area 2 were omitted.

**Table 5.5 b) Description of trees: Irkutsk (Russia)**

Name of Plot: Irkutsk

Date: 15 Jul 2003

**Survey area 1: radius 7.98 m (Height > 1.3 m)**

**Survey area 2: radius 11.28 m (DBH > 4 cm)**

**Survey area 3: radius 17.85 m (DBH > 18cm)**

Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	
1	<i>Pinus sylvestris</i>	17.6	15.3	32	<i>Pinus sylvestris</i>	23.8	17	Note: No tree, whose DBH is larger than 18cm, was found.				
2	<i>Pinus sylvestris</i>	22.3	16	33	<i>Pinus sylvestris</i>	21.3	16.6					
3	<i>Pinus sylvestris</i>	22	17.8	34	<i>Pinus sylvestris</i>	20.1	16					
4	<i>Pinus sylvestris</i>	17.4	14	35	<i>Pinus sylvestris</i>	15.4	16.5					
5	<i>Pinus sylvestris</i>	23.2	17	36	<i>Pinus sylvestris</i>	28.3	17					
6	<i>Pinus sylvestris</i>	18.1	17	37	<i>Pinus sylvestris</i>	25	16					
7	<i>Pinus sylvestris</i>	22.4	18.5	38	<i>Betula pendula</i>	13	15.2					
8	<i>Pinus sylvestris</i>	14.1	14	39	<i>Betula pendula</i>	21.4	18					
9	<i>Larix sibirica</i>	18.8	20	40	<i>Pinus sylvestris</i>	20.9	16					
10	<i>Pinus sylvestris</i>	17.1	16.8	41	<i>Betula pendula</i>	14.3	15.4					
11	<i>Pinus sylvestris</i>	17.2	14	42	<i>Betula pendula</i>	18	17					
12	<i>Pinus sylvestris</i>	15.3	15	43	<i>Betula pendula</i>	20.3	18					
13	<i>Pinus sylvestris</i>	21.8	18.6	44	<i>Pinus sylvestris</i>	9.7	6.5					
14	<i>Pinus sylvestris</i>	23	18	45	<i>Betula pendula</i>	22.1	18					
15	<i>Pinus sylvestris</i>	11.2	15.3	46	<i>Pinus sylvestris</i>	12.2	16.6					
16	<i>Pinus sylvestris</i>	19.1	18	47	<i>Pinus sylvestris</i>	16.5	16					
17	<i>Pinus sylvestris</i>	22	19	48	<i>Pinus sylvestris</i>	23	18.3					
18	<i>Betula pendula</i>	14.2	18	49	<i>Pinus sylvestris</i>	17.3	17					
19	<i>Betula pendula</i>	19.9	18.3	50	<i>Pinus sylvestris</i>	25.2	17.5					
20	<i>Pinus sylvestris</i>	19.1	18	51	<i>Pinus sylvestris</i>	17.1	16					
21	<i>Betula pendula</i>	14.3	17	52	<i>Pinus sylvestris</i>	21.2	16					
22	<i>Betula pendula</i>	16.1	18.5	53	<i>Pinus sylvestris</i>	23	18					
23	<i>Pinus sylvestris</i>	25.2	18	54	<i>Pinus sylvestris</i>	22.1	17.8					
24	<i>Pinus sylvestris</i>	9.1	10	55	<i>Betula pendula</i>	5.3	6.3					
25	<i>Betula pendula</i>	20.4	19	56	<i>Pinus sylvestris</i>	21.7	15.7					
26	<i>Pinus sylvestris</i>	16.9	16	57	<i>Pinus sylvestris</i>	22.3	17					
27	<i>Pinus sylvestris</i>	20.3	18.4	Note: Trees within the survey area 1 were omitted.								
28	<i>Pinus sylvestris</i>	15.1	16									
29	<i>Betula pendula</i>	17.3	18									
30	<i>Pinus sylvestris</i>	21.2	19.5									
31	<i>Betula pendula</i>	20.1	17									

**Table 5.5 c-1) Description of trees: Vachiralongkorn Dam (Thailand)**

Name of plot: Vachiralongkorn Dam  
Date: 2 September 2003

Survey area 1: radius 7.98 m				Survey area 2: radius 11.28 m				Survey area 3: radius 17.85 m			
Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Lophopetalum wightiana</i> (Deemee)	N/A	N/A	1	NI (Unknown)	4.5	3.0	1	<i>Millettia brandisiana</i> (Jun, Krapeejun)	32.5	30.0
2	<i>Xylia xylocarpa</i> (Daeng)	N/A	2.0	2	<i>Erythrina subumbrans</i> (Thonglarng)	4.3	7.0	2	<i>Xylia xylocarpa</i> (Daeng)	33.5	30.0
3	NI (Taomunleam)	N/A	N/A	3	<i>Sterculia guttata</i> (Por daeng)	4.0	6.0	3	<i>Xylia xylocarpa</i> (Daeng)	40.2	35.0
4	<i>Brassaia actinophylla</i> (Tao nuadplamuk)	N/A	N/A	4	<i>Sterculia guttata</i> (Por daeng)	5.4	7.0	4	<i>Xylia xylocarpa</i> (Daeng)	43.5	35.0
5	<i>Brassaia actinophylla</i> (Tao nuadplamuk)	N/A	N/A	5	<i>Sterculia guttata</i> (Por daeng)	8.0	12.0	5	<i>Xylia xylocarpa</i> (Daeng)	50.0	35.0
6	NI (Taonarekrur)	N/A	N/A	6	<i>Dendrocalamus membranaceus</i> (Paisangnuan, bamboo) 20 clumps	5.3	N/A	6	<i>Xylia xylocarpa</i> (Daeng)	67.5	40.0
7	NI (Bornkrae)	N/A	N/A	7	<i>Oroxylum indicum</i> (Linfa, peka)	6.2	8.0	7	<i>Pterocarpus macrocarpus</i> (Praduu)	22.0	20.0
8	<i>Amorphallus campanulatus</i> (Book)	N/A	N/A	8	<i>Oroxylum indicum</i> (Linfa, peka)	4.4	3.0	8	<i>Sterculia guttata</i> (Pordaeng)	72.5	50.0
9	<i>Sterculia guttata</i> (Por daeng)	N/A	N/A	9	<i>Oroxylum indicum</i> (Linfa, peka)	4.5	7.0	9	<i>Lagerstroemia tomentosa</i> (Salao)	142.0	50.0
10	<i>Sterculia guttata</i> (Por daeng)	1.0	2.0	10	<i>Oroxylum indicum</i> (Linfa, peka)	5.0	7.0	Note: DBH > 18 cm; Species name (Thai name).			
11	<i>Dendrocalamus membranaceus</i> (Paisangnuan, bamboo) 10 clumps	N/A	N/A	11	<i>Oroxylum indicum</i> (Linfa, peka)	5.2	7.5				
12	<i>Oroxylum indicum</i> (Linfa, Peka)	3.0	2.5	12	<i>Oroxylum indicum</i> (Linfa, peka)	5.5	8.0				
13	<i>Alocasia cucullata</i> (Wannokkhum)	N/A	N/A	13	<i>Oroxylum indicum</i> (Linfa, peka)	6.2	8.0				
14	NI (Wanpa)	N/A	N/A	14	<i>Oroxylum indicum</i> (Linfa, peka)	8.2	10.0				
15	<i>Eupatorium stoechadosmum</i> (Suamorb)	N/A	N/A	15	<i>Oroxylum indicum</i> (Linfa, peka)	10.2	10.0				
16	<i>Heteropanax fragrans</i> (Qaychang)	2.8	3.0	Note: 4 < DBH < 18 cm; Species name (Thai name); NI, Latin name was not identified.							

Note: DBH < 4 cm; Species name (Thai name); NI, Latin name was not identified.

**Table 5.5 c-2) Description of trees: Vachiralongkorn Puye (Thailand)**

Name of plot: Vachiralongkorn (Puye)  
Date: 2 September 2003

Survey area 1: radius 7.98 m				Survey area 2: radius 11.28 m				Survey area 3: radius 17.85 m			
Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)	Serial No.	Species Name	DBH (cm)	Height (m)
1	<i>Erythrina subumbrans</i> (Thonglarng)	<1	<2	1	<i>Millettia brandisiana</i> (Krapeejan)	7.2	20.0	1	<i>Xanthophyllum lanceatum</i> (Krabejan)	19.0	19.0
2	<i>Amorphophallus amygdaloides</i> (Book)	<1	<2	2	<i>Bambusa longispiculata</i> (Pai ta yai) 2 clumps with 16 culms			2	NI (Kluck)	19.7	12.0
3	<i>Trema tomentosa</i> (Porkeekai)	1	3	3	<i>Gigantochloa hasskarliana</i> (Pai park) 12 clumps with 76 culms			3	NI (Kluck)	27.5	21.0
4	<i>Sterculia guttata</i> (Por daeng)	<1	2.5	4	<i>Dioscorea alata</i> (Munchang)	15.5	11.0	4	<i>Curcuma aeruginosa</i> (Kamindum)	50.5	37.0
5	<i>Sterculia guttata</i> (Por daeng)	1.3	<2	5	<i>Premna tomentosa</i> (Sakkeekai)	5.0	5.0	5	<i>Aphanamixis plovstachya</i> (Tasuayai)	83.0	29.0
6	<i>Sterculia villosa</i> (Porhuchang)	1.3	2	Note: 4 < DBH < 18 cm; Species name (Thai name).			6	<i>Sterculia guttata</i> (Pordang)	37.2	24.0	
7	<i>Microcos tomentosa</i> (Plubpla)	<1	<2					7	<i>Dipterocarpus turbinatus</i> (Yang Daeng)	39.0	33-34
8	<i>Baccaurea ramiflora</i> (Mafai)	<1	<2					8	<i>Dipterocarpus turbinatus</i> (Yang Daeng)	52.2	death
9	<i>Baccaurea ramiflora</i> (Mafai)	2	2.5					9	<i>Dipterocarpus turbinatus</i> (Yang Daeng)	69.5	34.0
10	<i>Baccaurea ramiflora</i> (Mafai)	1.5	2					10	<i>Dipterocarpus turbinatus</i> (Yang Daeng)	73.0	35.0
11	<i>Lepisanthes rubiginosa</i> (Mahaowd)	0.9	2.2					11	<i>Premna tomentosa</i> (Sakkeekai)	22.0	13.0
12	<i>Tacca leontopetaloides</i> (Maitaolursee)	<1	<2					12	<i>Melaleuca cajuputi</i> (Samed)	77.5	33.0
13	<i>Dipterocarpus turbinatus</i> (Yang Daeng)	1.3	3					Note: DBH > 18 cm; Species name (Thai name); NI, Latin name was not identified.			
14	<i>Ammannia villosum</i> (Rew)	<1	<2								
15	<i>Paranephelium xestophyllum</i> (Lamyaiipa)	<1	<2								
16	<i>Combretum punctatum</i> (Sakaewan)	3.5	3.5								
17	<i>Mammea harmandii</i> (Sarapee)	<1	<2								
18	<i>Cynometra cauliflora</i> (Ampawa)	1.1	2.5								
19	<i>Cynometra cauliflora</i> (Ampawa)	1.5	2.5								
20	<i>Polygala glabrum</i> (Euang)	<1	<2								

Note: DBH < 4 cm; Species name (Thai name).

**Table 5.6 a-1) Understory vegetation survey: Jinyunshan (China)**

Name of Plot: Jinyunshan No.1

Date: 6 Sep 2003

Number of Species: 31

Species Name	Dominance	Species Name	Dominance	Species Name	Dominance
<i>Simplocos setchuenensis</i>	2	<i>Aralia chinensis</i>	+	<i>Dryopteris erythrosora</i>	+
<i>Lophatherum gracile</i>	3	<i>Eurya loquiana</i>	+	<i>Diospyros morrisiana</i>	+
<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	1	<i>Ardisia crispa</i> var. <i>dielsii</i>	+	<i>Embelia rudis</i>	+
<i>Elaeocarpus duclouxii</i>	+	<i>Camellia tsofuii</i>	+	<i>Myrsine africana</i>	+
<i>Vaccinium sprengelii</i>	+	<i>Sapium discolor</i>	+	<i>Antidesma decicatalum</i>	+
<i>Sarcandra glabra</i>	1	<i>Lindera kwantungensis</i>	+	<i>Arachniodes chinensis</i>	+
<i>Castanopsis fargesii</i>	+	<i>Symplocos lancifolia</i>	1	<i>Ardisia crenata</i>	+
<i>Measa japonica</i>	+	<i>Cunninghamia lanceolata</i>	+	<i>Lysimachia paridiformis</i>	+
<i>Diplopterygium chinensis</i>	2	<i>Randia cochinchinensis</i>	1	<i>Rhododendron simsii</i>	+
<i>Litsea mollis</i>	+	<i>Stranvaesia tomentosa</i>	+	<i>Woodwardia japonica</i>	+
<i>Elaeocarpus japonicus</i>	+				

Name of Plot: Jinyunshan No.2

Date: 6 Sep 2003

Number of Species: 42

Species Name	Dominance	Species Name	Dominance	Species Name	Dominance
<i>Diplopterygium chinensis</i>	1	<i>Dicranopteris pedata</i>	+	<i>Trachycarpa fortunei</i>	+
<i>Michilus pingii</i>	3	<i>Myrsine africana</i>	+	<i>Liriope</i> sp.	+
<i>Castanopsis carlesii</i> var. <i>spinulosa</i>	+	<i>Castanopsis fargesii</i>	+	<i>Ardisia crispa</i> var. <i>dielsii</i>	+
<i>Symplocos lancifolia</i>	1	<i>Elaeocarpus japonicus</i>	+	<i>Ardisia</i> sp.	+
<i>Symplocos setchuenensis</i>	1	<i>Lysimachia paridiformis</i>	+	<i>Sabia swinboei</i>	+
<i>Camellia sinensis</i>	+	<i>Tetrastigma hemsleyanum</i>	+	<i>Mahoni fortunei</i>	+
<i>Rubus assamensis</i>	+	<i>Adinandra bockiana</i>	+	<i>Elaeocarpus duclouxii</i>	+
<i>Measa japonica</i>	+	<i>Ilex viridis</i> var. <i>brevipedicelata</i>	+	<i>Woodwardia unigemmata</i>	+
<i>Embelia rudis</i>	+	<i>Vernicia fordii</i>	+	<i>Dichroa febrifuga</i>	+
<i>Sarcandra glabra</i>	1	<i>Symplocos botryantha</i>	+	<i>Daphniphyllum oldhami</i>	+
<i>Lophatherum gracile</i>	+	<i>Vaccinium sprengelii</i>	+	<i>Oplismenus undulatifolius</i>	+
<i>Woodwardia japonica</i>	+	<i>Microlepia marginata</i>	+	<i>Alpinia stachyoides</i>	+
<i>Stranvaesia tomentosa</i>	+	<i>Mallotus philippinensis</i>	+		
<i>Caesalpinia szechuanensis</i>	+	<i>Photinia glabra</i>	+		
<i>Arachniodea omaena</i>	+	<i>Eurya obtusifolia</i>	+		

**Table 5.6 a-2) Understory vegetation survey: Dabogou (China)**

Name of Plot: Dabagou

Date: 8 Aug 2003

Number of Species: 13

Species Name	Dominance	Species Name	Dominance
<i>Equisetum hiemale</i>	1	<i>Cardamina leucantha</i>	+
<i>fargesia spathacea</i>	+	<i>Glechoma lonituba</i>	+
<i>chimaphila japonica</i>	+	<i>Celastrus orbiculatus</i>	+
<i>Aquilegia ecalcarata</i>	+	<i>Rubia ovatifolia</i>	+
<i>Sanguisorba offiinalis</i>	+	<i>Agrimonia pilosa</i>	+
<i>euonymus alatus</i>	+	<i>rubus masogaeus</i>	+
<i>Reineckea carnea</i>	+		

**Table 5.6 a-3) Understory vegetation survey: Xiaoping (China)**

Name of Plot: XPZ-01

Date: 7 Sep 2003

Number of Species: 3

Species Name	Dominance	Species Name	Dominance
<i>Pleiobius amarus</i>	5	<i>Myrica rubra</i>	2
<i>Diospyros eriantha</i>	2		

Name of Plot: XPZ-02

Date: 28 Sep 2003

Number of Species: 3

Species Name	Dominance	Species Name	Dominance
<i>Pleiobius amarus</i>	5	<i>Myrica rubra</i>	2
<i>Diospyros eriantha</i>	2		

Name of Plot: XPZ-03

Date: 8 Sep 2003

Number of Species: 5

Species Name	Dominance	Species Name	Dominance
<i>Dicranopteris linearis</i>	4	<i>Blechnum orientale</i>	2
<i>Pleiobius amarus</i>	2	<i>Dicranopteris dichotoma</i>	1
<i>Diospyros eriantha</i>	1		

Name of Plot: XPZ-04

Date: 8 Sep 2003

Number of Species: 5

Species Name	Dominance	Species Name	Dominance
<i>Dicranopteris linearis</i>	4	<i>Blechnum orientale</i>	2
<i>Pleiobius amarus</i>	2	<i>Dicranopteris dichotoma</i>	1
<i>Diospyros eriantha</i>	1		

**Table 5.6 a-4) Understory vegetation survey: Zhuxiandong (China)**Name of Plot: No.1 (Mixed forest of *Pinus elliottii* and *Acacia confusa*)

Date: 18 Oct 2003

Number of Species: 11

Species Name	Dominance	Species Name	Dominance
<i>Schefflera octophylla</i>	2	<i>Ilex asprella</i>	2
<i>Syzygium odoratum</i>	2	<i>Cratoxylon cochinchinense</i>	2
<i>Bridelia tomentosa</i>	2	<i>Elaeagnus sp.</i>	2
<i>Clerodendrum canescens</i>	2	<i>Rhaphiolepis indica</i>	2
<i>Rhus succedanea</i>	2	<i>Litsea rotundifolia</i>	2
<i>Eurya chinensis</i>	2		

Name of Plot: No 2 (*Acacia confusa* forest)

Date: 19 Oct 2003

Number of Species: 10

Species Name	Dominance	Species Name	Dominance
<i>Acacia confusa</i>	2	<i>Smilax china</i>	1
<i>Psychotria rubra</i>	3	<i>Litsea rotundifolia</i>	2
<i>Microcos paniculata</i>	1	<i>Cratoxylon cochinchinense</i>	2
<i>Sageretia theezans</i>	1	<i>Desmos chinensis</i>	1
<i>Mallotus repandus</i>	1	<i>Mussaenda pubescens</i>	1

Name of Plot: No 3 (Fernland)

Date: 19 Oct 2003

Number of Species: 11

Species Name	Dominance	Species Name	Dominance
<i>Mallotus paniculatus</i>	2	<i>Eurya chinensis</i>	3
<i>Ficus variolosa</i>	1	<i>Sapium discolor</i>	2
<i>Litsea rotundifolia</i>	3	<i>Clerodendrum canescens</i>	1
<i>Litsea glutinosa</i>	1	<i>Cassytha filiformis</i>	1
<i>Rhaphiolepis indica</i>	1	<i>Melastoma candidum</i>	1
<i>Archidendron lucidum</i>	2		

**Table 5.6 b) Understory vegetation survey: Irkutsk (Russia)**

Name of Plot: Irkutsk

Date: 15 Jul 2003

Number of species: 18

Species Name	Dominance
<i>Sanguisorba officinalis</i>	1
<i>Rubus saxatilis</i>	+
<i>Achillea asiatica</i>	1
<i>Pteridium aquilinum</i>	1
<i>Spiraea media</i>	1
<i>Salix carpea</i>	1
<i>Malus pallasiana</i>	1
<i>Padus avium</i>	1
<i>Swida alba</i>	1
<i>Lathyrus humilis</i>	1
<i>Rosa acicularis</i>	2
<i>Equisetum sylvaticum</i>	2
<i>Vicia unijuga</i>	2
<i>Trifolium lupinaster</i>	2
<i>Carex sp.</i>	2
<i>Vicia cracca</i>	3
<i>Poa pratensis</i>	3
<i>Plantago media</i>	3

**Table 5.6 c) Understory vegetation survey: Vachiralongkorn Dam (Thailand)**

Name of plot: Vachiralongkorn Dam

Date: 2 September 2003

Number of species: 11

Species name	Dominance	Species name	Dominance
<i>Lophopetalum wightiana</i> (Deeme)		<i>Sterculia guttata</i> (Por daeng)	
NI (Taomunleam)		<i>Dendrocalamus membranaceus</i> (Pai, bamboo)	4
<i>Brassia actinophylla</i> (Taonudplamuk)		<i>Alocasia cucullata</i> (Wannokkum)	
NI (Taonarekrur)		NI (Wanpa)	
NI (Bornkrae)		<i>Eupatorium stoehadosum</i> (Suamorb, grass)	
<i>Amorphallus campanulatus</i> (Book)			

Note: *Species name* (Thai name); NI, Latin name was not identified.

Name of plot: Vachiralongkorn (Puye)

Date: 2 september 2003

Number of species: 26

Species name	Dominance	Species name	Dominance
NI (Krataowkee)		<i>Sterculia hypochra</i> (Porfai)	
<i>Millettia brandisiana</i> (Krapeejan)		<i>terculia villosa</i> Porhuchang)	
<i>Chassalia ophioxylodes</i> (Khemdang)		<i>Cyanotis axillaris</i> (Pakplab)	
<i>Barringtonia longipes</i> (Jik)		<i>Endospermum diadenum</i> (Famoa)	
NI (Tao-klingsklangdong)		<i>Habenaria rhodocheila</i> (Fern)	
<i>Bauhinia integrifolia</i> (Taofai)		<i>Baccaurea ramiflora</i> (Mafai)	
NI (Taowankao)		<i>Dipterocarpus turbinatus</i> (Yangdaeng)	
<i>Combretum punctatum</i> (Taosakaewan)		<i>Ammannia villosum</i> (Rew)	
NI (Taolorkkik)		<i>Gloriosa superba</i> (Wan-kampu)	
NI (Toraneesang)		<i>Melaleuca cajuputi</i> (Samed)	
<i>Micromelum integerrimum</i> (Nomwua)		NI (Yar, grass)	
<i>Amorphophallus aberrans</i> (Book-ngu-Lurm)		NI (Nhamsawad)	
<i>Trema tomentosa</i> (Porkeekai)		<i>Cynometra cauliflora</i> (Ampawa)	

Note: *Species name* (Thai name); NI, Latin name was not identified.

**Table 5.7 a-1-1) Observation of tree decline: Jinyunshan (China)**

Name of Plot: Jinyunshan No.1

Nearest deposition monitoring site: Jinyunshan

Individual No.	1(3)	2(2)	3(58)	4(101)	5(102)	6(70)	7(71)	8(72)	9(103)	10(104)
Direction	E	E	E	S	S	W	W	W	N	N
Plant Name	<i>Cunninghamia lanceolata</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>
Tree height (m)	14.8	6.3	3.5	10.6	8.3	6.3	7.1	8.1	8.9	9.3
Vitality of tree										
Form of tree										
Branch growth										
dieback of stem										
Density of foliage										
Deformation of leaves								1		1
Size of leaves										
Color of leaves										
Injury of leaves										

Estimated cause of decline: disease,insect,wind

**Table 5.7 a-1-2) Observation of tree decline: Jinyunshan (China)**

Name of Plot: Jinyunshan No.2

Nearest deposition monitoring site: Jinyunshan

Individual No.	1(67)	2(68)	3(74)	4(64)	5(73)	6(41)	7(75)	8(71)	9(70)	10(69)
Direction	E	E	S	S	W	W	W	N	N	N
Plant Name	<i>Symplocos setchuensis</i>	<i>Symplocos setchuensis</i>	<i>Adinandra bockiana</i>	<i>Michilus pingii</i>	<i>Symplocos lancifolia</i>	<i>Adinandra bockiana</i>	<i>Symplocos lancifolia</i>	<i>Symplocos lancifolia</i>	<i>Elaeocarpus japonicus</i>	<i>Michilus pingii</i>
Tree height (m)	7.1	5.9	12	20.3	8.5	16.3	9.6	10.5	14.5	12.5
Vitality of tree				2						
Form of tree				3						
Branch growth	1			1						
dieback of stem										
Density of foliage				2						
Deformation of leaves			1	1						
Size of leaves										
Color of leaves				1						
Injury of leaves				1						

Estimated cause of decline: disease,insect,wind

**Table 5.7 a-2) Observation of tree decline: Dabagou (China)**

Name of Plot: Dabagou

Nearest deposition monitoring site: Jiwozi

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Plant Name	<i>Pinus armandi</i>																				
Tree height (m)	7.6	6.8	7.8	13	9	7	5.8	6.5	9.3	7.5	9.5	9	7.9	8	7.3	9.8	9.3	9	8.5	7.6	
Vitality of tree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Form of tree	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Branch growth	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
dieback of stem	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Density of foliage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Deformation of leaves																					
Size of leaves																					
Color of leaves																					1
Injury of leaves																					

Estimated cause of decline: dense forest

**Table 5.7 a-3-1) Observation of tree decline: Xiaoping (China)**

Name of Plot: XPT-01

Nearest deposition monitoring site: Xiaoping

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	20
Plant Name	<i>Michelia macclurei</i>															
Tree height (m)	12.8	13.9	12.8	14.7	14.4	15	14.5	12.1	11.5	12.7	12	11.9	13.5	12	12	13.6
Vitality of tree																
Form of tree																
Branch growth																
dieback of stem																
Density of foliage	2															
Deformation of leaves																
Size of leaves																
Color of leaves																
Injury of leaves																

Estimated cause of decline:

**Table 5.7 a-3-2) Observation of tree decline: Xiaoping (China)**

Name of Plot: XPT-02

Nearest deposition monitoring site: Xiaoping

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Plant Name	<i>Michelia macclurei</i>															
Tree height (m)	11.8	12.1	11.9	11.5	11.8	12	8	12.5	11	12.5	12.3	11.3	11.8	15.4	15	15.2
Vitality of tree																
Form of tree																
Branch growth																
dieback of stem									1			1	1			
Density of foliage	2															
Deformation of leaves																
Size of leaves																
Color of leaves																
Injury of leaves																

Estimated cause of decline:

**Table 5.7 a-3-3) Observation of tree decline: Xiaoping (China)**

Name of Plot: XPT-03 \_\_\_\_\_  
 Nearest deposition monitoring site: Xiaoping

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Plant Name	<i>Pinus Massoniana</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>	<i>Fokienia hodginsii</i>
Tree height (m)	13.8	13	13.5	13.6	14	12	13.5	15	15	12.5	13	13.5	15.5	15	13
Vitality of tree															
Form of tree															
Branch growth															
dieback of stem															
Density of foliage															2
Deformation of leaves															
Size of leaves															
Color of leaves															
Injury of leaves															

Estimated cause of decline:

**Table 5.7 a-3-4) Observation of tree decline: Xiaoping (China)**

Name of Plot: XPT-04 \_\_\_\_\_  
 Nearest deposition monitoring site: Xiaoping

Individual No.	1	2	3	4	5	7	8	9	10	11	12	13	14	15	16	17
Plant Name	<i>Fokienia hodginsii</i>															
Tree height (m)	11.4	12.3	12.5	11.2	10	10.5	11	12	12.7	12.5	10.8	12.9	11	10.3	11	10.2
Vitality of tree		1	1													
Form of tree																
Branch growth																
dieback of stem								1			1	1				
Density of foliage																
Deformation of leaves																
Size of leaves																
Color of leaves																
Injury of leaves																

Estimated cause of decline:

**Table 5.7 a-4-1) Observation of tree decline: Zhuxiandong**

Name of Plot: No.1

Nearest deposition monitoring site: Zhuxiandong

Individual No.	1	2	3	4	5
Plant Name	<i>Pinus elliotii</i>	<i>Pinus elliotii</i>	<i>Acacia confusa</i>	<i>Pinus elliotii</i>	<i>Acacia confusa</i>
Relative height	10	9	10	10	11
Vitality of tree	1	1			
Form of tree					
Branch growth	1	1			
dieback of stem					
Density of foliage	2	2			
Deformation of leaves					
Size of leaves					
Color of leaves					
Injury of leaves	1	1			

Estimated cause of decline: pests

**Table 5.7 a-4-2) Observation of tree decline: Zhuxiandong**

Name of Plot: No 2 (Acacia confusa forest)

Nearest deposition monitoring site: Zhuxiandong

Individual No.	1	2	3	4	5
Plant Name	<i>Acacia confusa</i>	<i>Acacia confusa</i>	<i>Acacia confusa</i>	<i>Acacia confusa</i>	<i>Acacia confusa</i>
Relative height	8	8	9	6	9
Vitality of tree					
Form of tree					
Branch growth					
dieback of stem					
Density of foliage					
Deformation of leaves					
Size of leaves					
Color of leaves					
Injury of leaves					

Estimated cause of decline:

**Table 5.7 a-4-3) Observation of tree decline: Zhuxiandong**

Name of Plot: No 3 (Fernland)

Nearest deposition monitoring site: Zhuxiandong

Individual No.	1	2	3	4	5
Plant Name	<i>Sapium discolor</i>	<i>Rhus succedanea</i>	<i>Mallois paniculatus</i>	<i>Glochidion lanceolatus</i>	<i>Lisea glutinosa</i>
Relative height	3.5	2	2.2	1.9	2.5
Vitality of tree					
Form of tree					
Branch growth					
dieback of stem					
Density of foliage					
Deformation of leaves					
Size of leaves					
Color of leaves					
Injury of leaves					

Estimated cause of decline:

**Table 5.7 b-1-1) Observation of tree decline: Banryu-2 (Japan)**

Name of Plot: Banryu-2

Nearest deposition monitoring site: Banryu

Date: October 10, 2003

	72	82	76	84	85	63	64	65	46	54	81	83	34	35	37	38
Plant Name	N	N	N	N	N	E	E	E	S	S	S	S	W	W	W	W
	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Machilus thunbergii</i>	<i>Symplocos lucida</i>	<i>Symplocos lucida</i>	<i>Symplocos lucida</i>	<i>Machilus thunbergii</i>	<i>Styrax japonica</i>	<i>Machilus thunbergii</i>	<i>Quercus serrata</i>	<i>Clethra barbinervis</i>	<i>Pinus densiflora</i>	<i>Quercus acutissima</i>	<i>Machilus thunbergii</i>	<i>Machilus thunbergii</i>	<i>Acanthopanax sciadophylloides</i>	<i>Pinus densiflora</i>
Relative height	+	+				+	+	+			+		+	+		
Vitality of tree											4					
Form of tree											4					
Branch growth																
Dieback of stem																
Density of foliage																
Deformation of leaves																
Size of leaves																
Color of leaves																
Injury of leaves																
Notes	New			*	*				New	New		*	New	New		*

Estimated cause of decline: Trees of No. 38, 83, 84, and 85 were cutdown due to the management for the pine wilting disease.

**Table 5.7 b-1-2) Observation of tree decline: Iwami "rinku" FP (Japan)**

Name of Plot: Iwami "rinku" Factory Park

Nearest deposition monitoring site: Banryu

Date: October 10, 2003

	92	93	122	100	104	108	127	128	63	137	138	140	112	113	114	142	141
Plant Name	N	N	N	E	E	E	E	E	S	S	S	S	W	W	W	W	W
	<i>Machilus thunbergii</i>	<i>Machilus thunbergii</i>	<i>Ilex micrococca</i>	<i>Quercus serrata</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Quercus serrata</i>	<i>Castanopsis cuspidata</i> var. <i>sieboldii</i>	<i>Quercus serrata</i>	<i>Machilus thunbergii</i>	<i>Machilus thunbergii</i>	<i>Machilus thunbergii</i>	<i>Quercus serrata</i>	<i>Machilus thunbergii</i>
Relative height			+		+							-					-
Vitality of tree																	
Form of tree																	
Branch growth																	
Dieback of stem																	
Density of foliage																	
Deformation of leaves																	
Size of leaves																	
Color of leaves																	
Injury of leaves																	
Notes																	

Estimated cause of decline:

**Table 5.7 b-2) Observation of tree decline: Lake Ijira (Japan)**

Name of Plot: Lake Ijira

Nearest deposition monitoring site: Ijira

Date: November 12, 2003

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Direction	N	N	N	N	N	E	E	E	E	E	S	S	S	S	S	W	W	W	W	W
Plant Name	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>	<i>Chamaecyparis obtusa</i>
Relative height																				
Vitality of tree					3			1				1						1	1	
Form of tree								1				1						1	1	
Branch growth																				
Dieback of stem					4															
Density of foliage					3															
Deformation of leaves																				
Size of leaves																				
Color of leaves																				
Injury of leaves																				

Estimated cause of decline: Suppression by other trees (No. 5, 8, 18 and 19); Broken stems/branches by wind (No. 5 and 12).

**Table 5.7 c) Observation of tree decline: Irkutsk (Russia)**

Name of Plot: Irkutsk

Nearest deposition monitoring site: Irkutsk

Date: July, 15, 2003.

Individual No.	4	5	6	7	8	12	13	14	15	16	21	22	23	24	25	30	31	32	33	34
Plant Name	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Betula pendula</i>	<i>Betula pendula</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Betula pendula</i>	<i>Pinus sylvestris</i>	<i>Betula pendula</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>	<i>Pinus sylvestris</i>
Vitality of tree	1	2	2	2	3	2	1	2	3	2	1	1	2	3	1	2	1	1	2	2
Form of tree	2	2	2	3	3	2	1	2	3	2	1	1	2	3	1	2	1	2	2	2
Branch growth	1	1	2	2	3	2	2	2	3	2	1	1	2	3	1	2	1	1	2	2
Dieback of stem																				
Density of foliage	1	2	2	2	3	2	1	1	3	2	1	1	1	3	1	1			1	2
Deformation of leaves	1	1	1	1	1	1	1	1	1	1			1	1		1			1	1
Size of leaves	1	1	1	1	2	1	1	1	2	1	1		1	2		1			1	1
Color of leaves	1	1	1	1	1	1	1	1	1	1			1	1		1			1	1
Injury of leaves	1	1	1	2	3	1	2	1	3	1			1	3		1			1	2

Estimated cause of decline: Air pollution, recreation loads, frequent fires.

**Table 5.7 d-1) Observation of tree decline: Vchiralongkorn Dam**

Name of plot: **Vachiralongkorn Dam**

Name of laboratory:

Name of reporter:

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Plant Name	<i>Xylia xylocarpa</i>																			
Relative height																				
Vitality of tree																				
Form of tree																				
Branch growth																				
Dieback of stem																				
Density of foliage																				
Deformation of leaves																				
Size of leaves																				
Colour of leaves																				
Injury of leaves																				

Estimated cause of decline: None

**Table 5.7 d-2) Observation of tree decline: Vchiralongkorn Dam**

Name of plot: **Vachiralongkorn Dam (Puye)**

Name of laboratory:

Name of reporter:

Individual No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Plant Name	<i>Dipterocarpus turbinatus</i>																			
Relative height																				
Vitality of tree																				
Form of tree																				
Branch growth																				
Dieback of stem																				
Density of foliage																				
Deformation of leaves																				
Size of leaves																				
Colour of leaves																				
Injury of leaves																				

Estimated cause of decline: None



E



W

Figure 5.3 d-1) Photographic record of tree decline: Irkutsk



S



N

Figure 5.3 d-2) Photographic record of tree decline: Irkutsk

## 6. Inland Aquatic Environment

### 6.1 Method

There were evidences over Northern Europe and North America that the lake water pH levels decreased in the 1970's compared to the levels in the 1930's and the damages were appeared as the results of this decrease, such as decline of fish population. The cause of this pH decline is believed to be the deposition of acidic substances into lakes in excess amounts of their neutralization or buffering capacity. In general, inland bodies of water with low alkalinity and low electric conductivities are prone to be sensitive to acidification by acid deposition. Therefore it is important to conduct continuous monitoring of water bodies and aquatic fauna and so on. The participating countries of EANET are expected to carry out the monitoring of Water temperature, pH, electric conductivity (EC), alkalinity and concentrations of  $\text{SO}_4^{2-}$ ,  $\text{NO}_3^-$ ,  $\text{Cl}^-$ ,  $\text{NH}_4^+$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Ca}^{2+}$ , and  $\text{Mg}^{2+}$  of targeted lakes/streams at least four times a year (seasonally), and, transparency, water color, DOC( if impossible, COD),  $\text{NO}_2^-$ ,  $\text{PO}_4^{3-}$  more than once a year. While, another items are specified as optional parameters to be monitored.

#### 1) Selection of Monitoring Sites

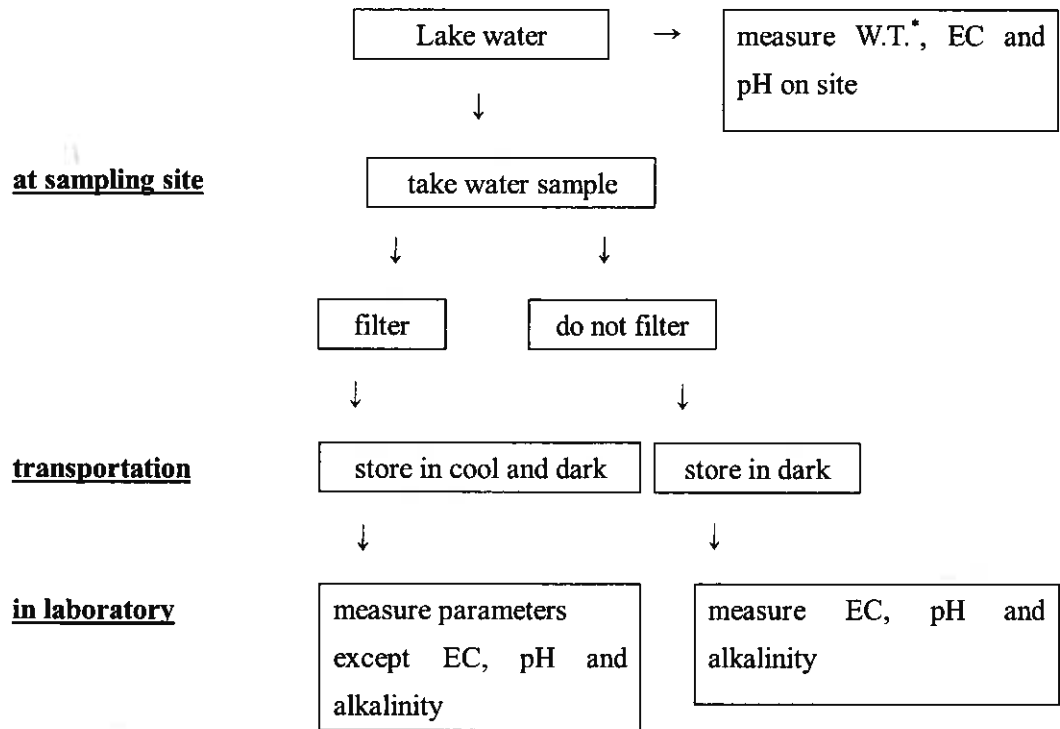
As described in [Table 6.1](#), 8 countries (China, Indonesia, Japan, Mongolia, Philippines, Russia, Thailand, and Vietnam) carried out inland aquatic environment monitoring. (Properties of lakes in [Table 6.3](#) are not completed yet.) These monitoring sites were established for 9 lakes/reservoirs and 3 stream. According to the Manual for Monitoring Inland Aquatic Environment, the lakes chosen for monitoring should be harmonic type lakes, preferably with depths of approximately 10m or less, a water residence time of 1 year or less, an area of 1 ha or more, with low alkalinity and electric conductivity, minimal anthropogenic water pollution and no coverage of the surface with aquatic organisms. For the monitoring of springs, it is desirable to locate in nature protection areas, and a minimum of human activities such as deforestation, and cultivation should be conducted or planned in the upstream area.

#### 2) Field Operation

Surface water was sampled at one location at the center of the lake. In principle, measurement of pH and electric conductivity was conducted at the site before a precise measurement in the laboratory. Water samples for later analysis were put in a tightly stoppered polyethylene bottle and kept in a cool dark place. The samples were shipped to the laboratory for chemical analysis. The water samples for analysis of chemical components other than alkalinity are filtered at the sampling site with a glass fiber filter. An example of treatment procedure is described in [Fig.6.1](#).

**Table 6.1 Outline of Inland Aquatic Environment Monitoring**

Country	Name of Lake	Nearest deposition monitoring	Parameter	Interval
China	Chongqing -Jinyunshan Lake	Rural	Water quality of Jinyunshan lake	4times/yr.
	Xi'an -Jiwozi River	Remote	Water quality of Jiwozi River	4times/yr.
	Xiamen -Xiaoping Dam	Remote	Water quality of Xiaoping Dam	4times/yr.
	Zhuhai -Zhuxiandong Reservoir	Urban	Water quality of Zhuxiandong reservoir	4times/yr.
Indonesia	Petenggang Lake	Rural	Water quality of Petenggang Lake	3times/yr.
Japan	Lake Ijira	Rural/Ecolog.	Water quality of Lake Ijira Water quality of Lake	4times/yr.
	Lake Banryu	Urban/Ecolog.	Banryu	4times/yr.
Mongolia	Terej River	Rural	Water quality of Terej River	5times/yr.
Philippines	Lake Mojicap	Rural	Water quality of Mojicap Lake	4times/yr.
Russia	River Krestovka	Rural	Water quality of River Krestvoka	11 times/yr.
Thailand	Vachiralongorn Dam	Remote	Water quality of Vachiralongorn Dam	4times/yr.
Vietnam	Hoa Binh Reservoir	Rural	Water quality of Hoa Binh Reservoir	4times/yr.



W.T.\* : Water Temperature

Fig.6.1 Example of treatment procedure of lake water sample

### 3) Laboratory Operation

Collected samples were analyzed by analytical methods specified in Table 6.2 immediately or after stored in a refrigerator.

**Table 6.2 Parameters and recommended analytical methods**

Parameter	Analytical method
pH	pH meter (glass electrode)
Electric Conductivity	Conductivity meter
Alkalinity	Titration by burette or digital burette with pH meter
NH <sub>4</sub> <sup>+</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup>	Ion Chromatography or spectrometry
K <sup>+</sup> , Mg <sup>2+</sup> , Ca <sup>2+</sup> , Na <sup>+</sup>	Ion Chromatography or atomic absorption spectrometry
SO <sub>4</sub> <sup>2-</sup>	Ion Chromatography or Turbidimetry
DOC	Combustion- infrared method or wet-oxidation method

### 6.2 Results of Monitoring

Properties of lakes are presented in Table 6.3. The results of measurements for pH, EC and concentrations of major ions are summarized in Table 6.4. Data within or exceeded the criteria of R1,R2 were treated as judge “O” or “X” in Table 6.4 according to the Manual for Monitoring Inland Aquatic Environment.

8 countries (12 sites) participated in Inland aquatic environment monitoring in 2003. R1 and R2 of the data at Xiaoping dam, Jiwozi river and Zhuxiandong reservoir in China, Patenggang Lake in Indonesia, Terelj river in Mongolia and Vachiralongorn dam in Thailand seemed to be over the allowable range. However it was not able to specify the main reasons. In 2003, Alkalinity was measured in all participating countries. Especially Alkalinity of Mojicap Lake in Philippines, Hoa Binh Reservoir in Vietnam and Zhuxiandong reservoir in China seem to be slightly high. Therefore there is a possibility that pH of their lakes will not become low even if more acid depositions enter to them.

**Table 6.3(1) Properties of lakes**

Lake Name: Ijira Lake

Country	Japan
Location	Gifu prefecture
Altitude	110m
Origin	Artificial (dam-made lake)
Area and shape	0.1km <sup>2</sup>
Shore line length	1.8km
Lake hydrologic type	Reservoir
Lake trophic type	Oligotrophic or mesotrophic
Water depth	Ave. 5.4m (Max 10.9m)
Water volume	0.00054km <sup>3</sup>
Annual water level fluctuation	0-0.74m (Ave. 0.22m)
Precipitation	1,583mm/year (2001)
Solar radiation	Daylight time Ave.178hr/month (2001)
Wind speed	2.2-2.9 (Ave. 2.6) m/s (2001)
Wind direction	SSW, S(summer), WNW,W(winter) (2001)
Residence time of water	23 days
Lake utilization	Irrigation and fishing
Watershed area	5.4 km <sup>2</sup>
River (flows into)	Ijira River, Takabora River

**Table 6.3(2) Properties of lakes**

Lake Name: Banryu Lake

Country	Japan
Location	Shimane prefecture
Altitude	25m
Origin	Natural damming lake
Area and shape	0.13km <sup>2</sup>
Shore line length	5.7km
Lake hydrologic type	
Lake trophic type	Mesotrophic
Water depth	Ave. 8-8.5m
Water volume	km <sup>3</sup>
Annual water level fluctuation	1.5 m
Precipitation	1,683mm/year (2001)
Solar radiation	Daylight time Ave.152hr/month (2001)
Wind speed	1.5-2.3 (Ave. 1.7) m/s (2001)
Wind direction	SE, N(summer), NW,NW(winter) (2001)
Residence time of water	- days
Lake utilization	Irrigation
Watershed area	0.73 km <sup>2</sup>
River (flows into)	none

**Table 6.3(3) Properties of lakes**

Lake Name: Mojicap Lake

Country	Philippines
Location	San Pablo City, Laguna
Altitude	m
Origin	
Area and shape	0.02km <sup>2</sup>
Shore line length	km
Lake hydrologic type	
Lake trophic type	
Water depth	25m or less
Water volume	km <sup>3</sup>
Annual water level fluctuation	m
Precipitation	
Solar radiation	
Wind speed	
Wind direction	
Residence time of water	- days
Lake utilization	
Watershed area	km <sup>2</sup>
River (flows into)	

**Table 6.3(4) Properties of lakes**

Lake Name: Vachiralongorn Dam

Country	Thailand
Location	Kanchanaburi Province
Altitude	170m
Origin	Artificial (Dam made lake)
Area and shape	3,720 km <sup>2</sup>
Shore line length	-
Lake hydrologic type	Reservoir
Lake trophic type	-
Water depth	Avg. 149.08 m ( max:153.21 m )
Water volume	6.7276 km <sup>3</sup>
Annual water level fluctuation	0-18 m (avg. 9m)
Precipitation	1,780 mm/year (2001)
Solar radiation	-
Wind speed	Avg. 0.47 m/s (0.1-0.9 m/s)
Wind direction	SE, NW, W(summer), W(raining), SE(winter)
Residence time of water	165 days
Lake utilization	Irrigation and Electric power
Watershed area	3,720 km <sup>2</sup>
River (flows into)	

**Table 6.3(5) Properties of lakes**

Lake Name: Hoa Binh Reservoir

Country	Vietnam
Location	Hoa Binh Provinces
Altitude	23m
Origin	Artificial (dam-made lake)
Area and shape	208 km <sup>2</sup> -25km <sup>2</sup> (*)
Shore line length	208km-16.7km(*)
Lake hydrologic type	Reservoir
Lake trophic type	Mesotrophic
Water depth	60m (max: 120m)
Water volume	9.45 km <sup>3</sup> -2.5 km <sup>3</sup> (*)
Annual water level fluctuation	80m- 120m (Ave.100m)
Precipitation	
Solar radiation	
Wind speed	
Wind direction	
Residence time of water	365 days
Lake utilization	electric power and flood control
Watershed area	51,700 km <sup>2</sup> -13,700km <sup>2</sup> (*)
River (flows into)	Da River

(\*)The second values are in affected area of reservoir.

**Table 6.4(1) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.1.-2003.12.  
 Country: China  
 Lake Name: See below

Site	Sampling Date	Mandatory Parameters : 4 times/year												Mandatory Parameters : 1 times/year			COD (mg/l)	
		Temp. (°C)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl <sup>-</sup> (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	DOC (mg/l)		Transparency (m)
Chongqing -Jinyunshan Lake	20-Mar-03	12.0	6.89	11.32	0.39	25.07	3.90	2.86	0.31	2.99	1.74	11.33	3.88				0.78	
	07-May-03	18.0	6.45	8.86	0.19	18.20	3.12	2.35	0.21	2.13	1.20	6.38	3.02				0.4	
	29-Sep-03	20.0	6.43	8.54	0.15	23.02	4.31	2.39	0.16	2.37	2.01	9.04	2.98				1.2	
	11-Dec-03	11.0	6.58	10.44	0.11	26.54	9.30	3.12	0.16	2.92	1.92	9.36	3.30				1.2	
	mean <sup>*1</sup>	15.3	6.55	9.79	0.21	23.21	5.16	2.68	0.21	2.60	1.72	9.03	3.30				0.9	
Xiamen -Xiaoping Dam	05-Mar-03	18.4	7.18	7.10	0.24	1.97	7.65	3.61	0.14	6.12	2.16	2.31	0.89					1.1
	05-Jun-03	25.6	7.04	7.74	0.17	4.72	2.34	15.00	0.37	6.56	2.02	2.25	0.79					2.2
	03-Sep-03	24.8	6.58	7.21	0.20	1.68	8.28	1.84	0.12	6.21	1.98	2.14	0.81					2.8
	05-Nov-03	24.0	6.50	6.69	0.16	2.35	1.82	3.20	0.05	7.24	2.06	2.68	0.95					1.3
	mean <sup>*1</sup>	23.2	6.73	7.19	0.19	2.68	5.02	5.91	0.17	6.53	2.06	2.35	0.86					1.8
Xi'an -Jiwozi River	25-Feb-03	1.0	7.66	7.70	0.16	11.43	4.08	1.73	*2	2.31	0.91	12.28	1.69					
	11-Jun-03	9.0	7.27	8.30	0.19	10.90	1.78	1.20	*2	2.14	1.05	12.87	1.69					
	29-Sep-03	13.2	7.56	8.40	0.11	12.90	1.28	2.40	*2	1.93	0.84	11.57	1.57					
	14-Nov-03	4.0	7.96	6.90	0.10	10.54	0.90	1.17	*2	1.94	1.00	11.38	1.43					
	mean <sup>*1</sup>	6.8	7.54	7.83	0.14	11.44	2.01	1.63	*2	2.08	0.95	12.03	1.59					
Zhuhai -Zhuxiandong reservoir	08-Jan-03	14.0	7.76	8.20	2.00	22.60	0.24	33.80	0.22	9.23	2.38	20.70	3.14		0.036			1.7
	08-Apr-03	14.0	7.75	7.11	1.53	16.50	0.39	22.20	0.19	6.91	2.09	16.80	2.27		0.024			1.1
	08-Jul-03	29.0	7.90	6.91	1.14	13.20	0.17	7.85	0.13	5.48	1.29	13.70	1.69		0.022			2.3
	08-Oct-03	26.0	7.90	7.92	1.74	17.70	0.36	14.50	0.14	7.74	2.06	16.00	2.35		0.033			1.6
	mean <sup>*1</sup>	20.8	7.82	7.54	1.60	17.50	0.29	19.59	0.17	7.34	1.96	16.80	2.36		0.029			1.7

note

\*1: Mean of pH takes an average of hydrogen ion.

\*2: Item were not detected.

		Anion	Cation	R 1	Judge <sup>*3</sup>
Chongqing -Jinyunshan Lake	20-Mar-03	1055.5	1076.3	1.0	o
	07-May-03	685.5	702.1	1.2	o
	29-Sep-03	766.2	859.9	5.8	o
	11-Dec-03	900.6	923.7	1.3	o
	mean				
Xiamen -Xiaoping	05-Mar-03	506.2	517.7	1.1	o
	05-Jun-03	729.1	534.8	-15.4	x
	03-Sep-03	420.4	501.1	8.8	x
	05-Nov-03	328.5	582.6	27.9	x
	mean				
Xi'an -Jiwozi	25-Feb-03	512.6	875.2	26.1	x
	11-Jun-03	479.5	901.2	30.5	x
	29-Sep-03	466.9	811.9	27.0	x
	14-Nov-03	367.0	795.6	36.9	x
	mean				
Zhuhai -Zhuxiandong reservoir	08-Jan-03	3427.9	1765.7	-32.0	x
	08-Apr-03	2506.1	1389.6	-28.7	x
	08-Jul-03	1639.0	1101.2	-19.6	x
	08-Oct-03	2523.4	1388.8	-29.0	x
	mean				

∩ calc	R2	Judge <sup>*3</sup>
13.2	7.5	o
8.8	-0.6	o
10.5	10.2	x
12.0	6.8	o
5.9	-8.9	o
8.0	1.8	o
5.3	-15.3	x
5.2	-12.4	x
8.5	5.2	o
8.4	0.4	o
8.0	-2.3	o
7.2	2.1	o
30.1	57.1	x
22.4	51.8	x
15.3	37.8	x
21.8	46.7	x

\*3 : Concerning "x" judging, there are some possible reason, but it difficult to specify the main reason. More researches and analysis are needed.

**Table 6.4(2) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.4.-2003.12

Country: Indonesia

Lake Name: Patenggang Lake

Site	Sampling Date	Temp. ( ? )	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	DOC (mg/l)	Transparency (m)
Center (Surface)	17-Apr-03	23.5	7.40	7.00	0.44	7.00	0.18	11.80	0.46	3.60	0.68	6.00	2.80	0.62	*2	8.0	0.6
	20-Oct-03	20.3	7.18	5.64	0.60	7.50	0.00	4.10	0.59	3.50	0.40	4.50	2.30	*2	*2	22.1	0.6
	31-Dec-03	24.1	7.50	7.10	0.34	8.78	0.38	6.60	0.54	5.80	0.40	5.00	2.50	*2	*2	7.0	0.6
	mean <sup>*1</sup>	22.6	7.34	6.58	0.46	7.76	0.19	7.50	0.53	4.30	0.49	5.17	2.53	0.21	*2	12.4	0.6

note

\*1 : Mean of pH takes an average of hydrogen ion

\*2: Item were not detected.

		Anion	Cation	R1	Judge <sup>*3</sup>		^calc	2	idge <sup>*3</sup>
Center (Surface)	17-Apr-03	921.5	729.2	-11.7	×		9.8	16.7	×
	20-Oct-03	871.8	608.9	-17.8	×		8.2	18.7	×
	31-Dec-03	715.1	747.6	2.2	o		8.6	9.5	×
	mean								

note

\*3:Concerning "X" judging, it was not able to specify the main reasons

**Table 6.4(3) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.5.-2004.3.  
 Country: Japan  
 Lake Name: Ijira Lake

Site	Sampling Date	Mandatory Parameters : 4times/year											Mandatory Parameters : Once/year					
		Temp. (degreeC)	Temp.	pH (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	DOC (mg/l)	Transparenc (m)	Water color
Center (Surface)	27-May-03	21.0	6.6	3.92	0.148	4.86	1.55	2.30	0.06	1.88	0.32	2.86	1.36	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.30	3.01	clear
	25-Aug-03	26.6	8.1	3.61	0.121	4.31	1.89	2.57	<0.02 <sup>*4</sup>	1.79	0.29	2.43	1.25	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	2.05	-	clear
	05-Dec-03	12.8	6.6	4.30	0.154	5.31	2.63	2.24	0.09	1.89	0.32	3.24	1.42	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.20	-	clear
	03-Mar-04	7.1	6.7	4.56	0.162	6.08	2.23	2.52	0.09	1.90	0.29	3.24	1.43	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.05	-	clear
	mean	16.9	6.8	4.10	0.146	5.14	2.07	2.40	0.06	1.86	0.30	2.94	1.36	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.40	-	clear
Center (near bottom)	27-May-03	18.3	6.3	4.28	0.177	5.27	1.69	2.31	0.11	2.01	0.38	3.23	1.59	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.30	-	clear
	25-Aug-03	21.1	6.7	3.69	0.122	4.36	2.00	2.49	0.05 <sup>*5</sup>	1.73	0.28	2.50	1.29	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.35	-	clear
	05-Dec-03	12.3	6.6	4.31	0.151	5.33	2.63	2.22	0.08	1.88	0.34	3.26	1.42	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.05	-	clear
	03-Mar-04	6.6	6.6	4.60	0.158	6.18	2.48	2.46	0.08	1.86	0.30	3.22	1.47	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.00	-	clear
	mean	14.6	6.5	4.22	0.152	5.29	2.20	2.37	0.08	1.87	0.32	3.05	1.44	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.18	-	clear
Ijira River (Input)	27-May-03	16.6	6.5	4.26	0.145	6.62	1.83	2.38	<0.02 <sup>*4</sup>	2.01	0.35	3.16	1.54	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.20	-	clear
	25-Aug-03	21.4	6.4	3.79	0.118	5.24	2.42	2.45	<0.02 <sup>*4</sup>	1.70	0.25	2.59	1.36	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.10	-	clear
	05-Dec-03	11.5	7.1	4.22	0.118	6.21	3.04	2.20	<0.02 <sup>*4</sup>	1.80	0.28	2.93	1.49	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.05	-	clear
	03-Mar-04	7.6	7.0	4.47	0.130	6.60	2.85	2.36	<0.02 <sup>*4</sup>	1.78	0.25	2.95	1.52	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	0.95	-	clear
	mean	14.3	6.7	4.18	0.128	6.16	2.54	2.35	<0.02 <sup>*4</sup>	1.82	0.28	2.90	1.48	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.1	-	clear
Takabora River (Input)	27-May-03	15.6	6.3	3.78	0.133	5.20	1.68	2.59	<0.02 <sup>*4</sup>	2.27	0.30	2.10	1.50	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.25	-	clear
	25-Aug-03	19.6	6.7	3.28	0.099	4.02	1.78	2.66	<0.02 <sup>*4</sup>	1.94	0.27	1.83	1.23	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.05	-	clear
	05-Dec-03	11.0	6.5	3.51	0.097	4.43	2.40	2.34	<0.02 <sup>*4</sup>	1.91	0.25	1.85	1.35	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.00	-	clear
	03-Mar-04	6.5	6.8	3.93	0.126	5.09	2.26	2.56	<0.02 <sup>*4</sup>	2.00	0.23	2.04	1.47	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	0.80	-	clear
	mean	13.2	6.5	3.62	0.114	4.69	2.03	2.53	<0.02 <sup>*4</sup>	2.03	0.26	1.95	1.39	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.0	-	clear
Ijira River (Output)	27-May-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	25-Aug-03	25.6	7.8	3.58	0.127	4.21	2.01	2.29	<0.02 <sup>*4</sup>	1.70	0.35	2.69	1.21	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	0.70	-	clear
	05-Dec-03	13.6	7.1	4.29	0.148	5.29	2.59	2.19	0.05 <sup>*5</sup>	1.86	0.31	3.20	1.42	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.20	-	clear
	03-Mar-04	7.9	6.6	4.54	0.161	6.02	2.14	2.51	0.07	1.88	0.29	3.21	1.39	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.00	-	clear
	mean	15.7	6.7	4.13	0.145	5.17	2.25	2.33	0.03 <sup>*5</sup>	1.81	0.32	3.03	1.34	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.0	-	clear
Discharge	27-May-03	15.7	6.4	3.85	0.139	5.07	2.04	2.58	0.08	1.84	0.33	2.76	1.42	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.30	-	clear
	25-Aug-03	19.4	6.3	3.65	0.123	4.10	2.32	2.25	0.12	1.67	0.34	2.69	1.21	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	0.75	-	clear
	05-Dec-03	13.4	6.8	4.29	0.147	5.31	2.73	2.19	<0.02 <sup>*4</sup>	1.83	0.30	3.20	1.42	<0.01 <sup>*4</sup>	0.23	1.25	-	clear
	03-Mar-04	7.3	6.6	4.56	0.164	6.05	2.17	2.50	0.09	1.89	0.30	3.24	1.41	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.05	-	clear
	mean	14.0	6.5	4.09	0.143	5.13	2.31	2.38	0.07	1.81	0.32	2.97	1.36	<0.01 <sup>*4</sup>	<0.03 <sup>*4</sup>	1.1	-	clear

note

-: Item not analyzed

\*1: once a year

\*4: detection limits

\*5: determination limits

\*2: average of twice a year

\*3: average of three times a year

# pick up 2 samples on site and measure three times/sample.

# Mean of pH takes an average of hydrogen ion.

# When the value is under detection limits, it considers "0". When it is over detection limits and under determination limits, it considers half determination limits. And using it, it was calculated the average and RIR2".

# Annual precipitation is 2175mm/year in FY2003 ( Gifu pref. Meteorological observatory)

# There is no running water at Ijira River(output) on May.

		Anion	Cation	R 1	Judge
Center (Surface)	27-May-03	339.1	347.7	1.3	o
	25-Aug-03	313.4	309.4	-0.6	o
	05-Dec-03	370.0	373.7	0.5	o
	03-Mar-04	395.4	373.5	-2.8	o
Center (near bottom)	27-May-03	379.1	394.9	2.0	o
	25-Aug-03	315.2	313.7	-0.2	o
	05-Dec-03	366.5	374.5	1.1	o
	03-Mar-04	395.6	374.7	-2.7	o
Ijira River (Input)	27-May-03	378.9	380.8	0.3	o
	25-Aug-03	335.1	321.7	-2.0	o
	05-Dec-03	357.6	353.4	-0.6	o
	03-Mar-04	379.8	355.7	-3.3	o
Takabora River (Input)	27-May-03	340.8	335.4	-0.8	o
	25-Aug-03	286.2	283.7	-0.4	o
	05-Dec-03	293.9	292.5	-0.2	o
	03-Mar-04	339.9	315.7	-3.7	o
Ijira River (Output)	27-May-03	-	-	-	-
	25-Aug-03	311.7	316.3	0.7	o
	05-Dec-03	361.5	367.3	0.8	o
	03-Mar-04	391.4	367.6	-3.1	o
Discharge	27-May-03	350.0	347.3	-0.4	o
	25-Aug-03	308.7	315.6	1.1	o
	05-Dec-03	363.2	364.5	0.2	o
	03-Mar-04	395.2	371.9	-3.0	o

?calc	R2	Judge
4.1	2.2	o
3.7	1.8	o
4.5	1.8	o
4.6	0.8	o
4.6	3.4	o
3.8	1.3	o
4.4	1.6	o
4.7	0.6	o
4.6	3.9	o
4.0	2.8	o
4.3	1.5	o
4.5	0.3	o
4.1	3.7	o
3.5	2.6	o
3.6	0.8	o
4.0	0.3	o
-	-	-
3.8	2.5	o
4.4	0.9	o
4.6	0.4	o
4.2	4.4	o
3.8	1.5	o
4.4	0.9	o
4.6	0.6	o

**Table 6.4(4) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.5.-2003.12

Country: Japan

Lake Name: Banryu Lake

Site	Sampling Date	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year					
		Temp. (°C)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	DOC (mg/l)	Transparency (m)	Water color
NO.2 (center) surface	22-May-03	21.9	6.92	11.2	0.170	4.40	<0.005 <sup>*5</sup>	23.3	<0.02 <sup>*5</sup>	14.1	1.82	1.08	1.72	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	2.7	1.8	green
	15-Jul-03	24.9	6.79	10.4	0.148	4.09	<0.005 <sup>*5</sup>	20.9	<0.02 <sup>*5</sup>	12.9	1.71	1.06	1.58	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	2.6	1.8	green
	17-Sep-03	27.4	7.12	10.4	0.162	3.80	<0.005 <sup>*5</sup>	21.9	<0.02 <sup>*5</sup>	13.1	1.76	1.00	1.58	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	3.0	1.3	green
	16-Dec-03	10.2	7.25	11.5	0.202	3.55	0.141	23.2	0.19	13.7	1.85	1.25	1.88	<0.003 <sup>*5</sup>	0.004	2.3	1.2	green
	mean	21.1	6.98	10.9	0.170	3.96	0.037	22.3	0.06	13.4	1.78	1.09	1.69	<0.003 <sup>*5</sup>	0.002 <sup>*5</sup>	2.6	1.5	
NO.2 (center) near bottom	22-May-03	10.2	6.97	13.6	0.258	4.19	0.016	24.2	0.13	14.7	1.90	1.45	2.21	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	2.6	-	-
	15-Jul-03	10.7	6.55	14.2	0.524	2.84	<0.005 <sup>*5</sup>	25.4	0.18	15.9	2.20	2.88	2.99	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	3.1	-	-
	17-Sep-03	11.5	6.75	15.0	0.651	1.65	<0.005 <sup>*5</sup>	23.8	0.54	15.5	2.31	3.39	3.36	0.004	<0.003 <sup>*5</sup>	2.8	-	-
	16-Dec-03	10.0	7.37	11.5	0.207	3.55	0.141	23.4	0.20	13.7	1.90	1.30	1.92	<0.003 <sup>*5</sup>	0.000	2.3	-	-
	mean	10.6	6.81	13.6	0.410	3.06	0.041	24.2	0.26	14.9	2.08	2.25	2.62	0.003 <sup>*5</sup>	0.001 <sup>*5</sup>	2.7		
NO.3 surface	22-May-03	22.1	7.18	12.1	0.160	4.56	<0.005 <sup>*5</sup>	23.7	<0.02 <sup>*5</sup>	14.3	1.88	1.10	1.72	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	2.9	1.8	gray-green
	15-Jul-03	25.8	6.75	9.6	0.171	4.25	0.019	20.6	<0.02 <sup>*5</sup>	12.0	1.64	0.99	1.48	0.006	0.007	2.7	1.8	green
	17-Sep-03	26.6	6.85	10.7	0.164	3.71	0.007	21.3	<0.02 <sup>*5</sup>	13.6	1.85	1.08	1.63	0.004	<0.003 <sup>*5</sup>	3.3	1.4	green
	16-Dec-03	9.8	6.98	11.2	0.226	3.72	0.149	23.4	0.17	13.5	1.85	1.39	1.92	<0.003 <sup>*5</sup>	<0.003 <sup>*5</sup>	2.3	1.3	green
	mean	21.1	6.91	10.9	0.180	4.06	0.044	22.3	0.05	13.4	1.81	1.14	1.69	0.003 <sup>*5</sup>	0.003 <sup>*5</sup>	2.8	1.6	

note

- : Items were not analyzed

\*1 : once a year

\*2 : average of twice a year

\*3 : average of three times a year

\*4 : detection limits

\*5 : determination limits

# pick up 2 samples on site, only center surface and measure three times/sample.

# Mean of pH takes an average of hydrogen ion.

# When the value is under detection limits, it considers "0". When it is over detection limits and under determination limits, it considers half determination limits. And using it, it was calculated the average and R1R2".

# Change of vegetation of watershed area: at No.3(surface) side, the vegetation have been changed a broadleaf wood and a fern.

# Annual precipitation is 1748mm/year in 2003 ( Masuda Meteorological observatory)

		Anion	Cation	R1	Judge		? calc	R2	Judge
(center) surface	22-May-03	918.9	855.2	-3.6	o		11.0	-0.7	o
	15-Jul-03	822.7	787.6	-2.2	o		10.0	-1.8	o
	17-Sep-03	858.3	794.6	-3.9	o		10.2	-0.8	o
	16-Dec-03	930.6	867.8	-3.5	o		11.1	-1.9	o
NO.2 (center) near bottom	22-May-03	1026.6	949.4	-3.9	o		12.1	-6.0	o
	15-Jul-03	1298.3	1145.2	-6.3	o		14.4	0.8	o
	17-Sep-03	1355.4	1206.2	-5.8	o		14.8	-0.5	o
	16-Dec-03	943.2	878.3	-3.6	o		11.2	-1.2	o
NO.3 surface	22-May-03	923.5	867.0	-3.2	o		11.1	-4.2	o
	15-Jul-03	840.9	735.8	-6.7	o		9.8	0.9	o
	17-Sep-03	842.2	827.5	-0.9	o		10.3	-2.0	o
	16-Dec-03	965.9	871.3	-5.2	o		11.3	0.4	o
note									

**Table 6.4(5) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.6-2003.10

Country: Mongolia

Lake Name: Terej river

Site	Sampling Date	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
		Temp. (degreeC)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl <sup>-</sup> (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	DOC (mg/l)	Transparency (m)	Water color
Surface	25-Jun-03	12.9	7.11	5.3	0.30	3.57	0.990	0.43	0.040	1.78	0.50	6.48	0.90					
	26-Jul-03	14.0	6.66	4.5	0.27	2.91	0.890	0.31	*2	1.57	0.49	5.63	0.79					
	25-Aug-03	17.0	6.60	4.0	0.23	2.87	0.770	0.31	*2	1.61	0.51	5.31	0.78					
	25-Sep-03	6.2	6.81	4.6	0.27	3.21	0.820	0.34	*2	1.63	0.43	6.06	0.86					
	25-Oct-03	4.9	6.75	4.7	0.26	3.24	0.230	0.42	0.040	1.67	0.47	5.91	0.82					
	mean <sup>*1</sup>	11.0	6.75	4.6	0.27	3.16	0.740	0.36	0.013	1.65	0.48	5.88	0.83					

note

\*1 : Mean of pH takes an average of hydrogen ion.

\*2: Item were not detected.

Site	Sampling Date	Anion	Cation	R1	Judge <sup>*3</sup>	?	? calc	R2	Judge
Surface	25-Jun-03	401.4	489.9	9.9	X		5.0	-2.8	O
	26-Jul-03	354.7	426.9	9.2	X		4.3	-1.7	O
	25-Aug-03	314.9	412.4	13.4	X		4.1	0.7	O
	25-Sep-03	359.6	455.2	11.7	X		4.5	-1.0	O
	25-Oct-03	340.0	449.4	13.9	X		4.4	-2.9	O

note

\*3:Concerning "X" judging, it was not able to specify the main reasons

**Table 6.4(6) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.3-2003.12  
 Country: Philippines  
 Lake Name: Mojicap Lake

Site	Sampling Date	Temp. (C°)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)
Surface	27-Mar-03	29.1	7.98	36.0	3.68	1.83	0.000	6.61	0.026	23.30	6.54	33.77	16.68	*2	*2
	25-Jun-03	29.0	7.67	31.9	3.16	3.85	0.302	6.85	0.000	17.60	6.15	14.80	20.26	*2	*2
	01-Oct-03	26.7	7.86	29.6	2.86	4.25	0.055	6.60	0.193	13.00	5.59	16.70	9.22	0.007	0.018
	02-Dec-03	28.5	7.71	30.8	3.08	4.21	0.000	6.72	0.083	14.20	6.08	16.00	20.20	*3	*3
	mean <sup>*1</sup>	27.4	7.89	32.1	3.19	3.54	0.089	6.70	0.076	17.03	6.09	20.32	16.59	0.004	0.009

\*1: Mean of pH takes an average of hydrogen ion  
 \*2: Item were not analyzed.  
 \*3: Item were not detected.

		Anion	Cation	R1	Judge*4
Surface	27-Mar-03	3900.6	4239.0	4.2	o
	25-Jun-03	3435.3	3327.5	-1.6	o
	01-Oct-03	3132.6	2310.7	-15.1	X
	02-Dec-03	3354.2	3237.4	-1.8	o
	mean				

? calc	R3	Judge
41.8	7.5	o
34.5	3.9	o
27.8	-3.0	o
33.7	4.6	o

\*4: Concerning "X" judging, it was not able to specify the main reasons.

**Table 6.4(7) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.1.-2003.12  
 Country: Russian Federation  
 Lake Name: River Krestovka

Site	Sampling Date	Temp. (°C)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl <sup>-</sup> (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	COD (mg/l)	TOC (mg/l)	Transparency (m)
River Krestovka (surface)	19-Jan-03	0.5	6.17	14.34	0.85	17.93	0.28	0.92	0.109	6.95	1.56	8.83	4.21	0.042	0.003	7.38	3.48	0.15
	13-Mar-03	0.5	6.87	25.62	1.56	36.50	2.39	2.73	0.235	10.40	2.33	23.49	8.91	0.010	0.010	7.85	2.92	0.15
	12-Apr-03	1	6.93	5.98	0.24	11.17	0.63	0.64	0.423	2.70	0.95	5.34	1.24	0.010	0.000	16.65	8.57	0.50
	04-May-03	1.5	6.71	5.57	0.22	9.47	0.36	0.48	0.297	2.53	0.77	3.88	1.17	0.010	0.001	18.37	5.49	0.30
	11-May-03	7	7.69	7.44	0.37	13.99	0.06	0.34	0.198	2.78	0.64	6.60	3.11	0.001	0.000	5.98	2.62	0.15
	22-Jul-03	14.2	7.02	7.10	0.34	13.69	0.12	0.44	0.190	2.77	0.75	6.48	2.65	0.008	0.001	5.92	4.17	0.15
	05-Aug-03	12.8	7.05	6.98	0.29	11.88	0.26	0.24	0.530	2.65	0.73	3.83	2.35	0.014	0.001	6.83	4.84	0.15
	14-Sep-03	6.4	7.12	7.15	0.33	12.25	0.22	0.28	0.263	2.76	0.80	4.04	2.41	0.020	0.000	5.75	4.79	0.20
	24-Oct-03	2.4	6.98	7.26	0.35	12.56	0.20	0.31	0.157	3.01	0.86	4.47	2.56	0.016	0.001	4.25	4.15	0.20
	16-Nov-03	0.5	6.98	7.56	0.40	12.92	0.23	0.40	0.133	3.47	0.93	4.94	2.56	0.019	0.001	4.07	3.99	0.15
	11-Dec-03	0.5	7.03	7.82	0.42	12.83	0.16	0.43	0.145	3.51	0.91	4.86	2.55	0.016	0.006	4.22	9.13	0.15
mean*1	4.3	6.81	9.35	0.49	15.02	0.45	0.66	0.244	3.96	1.02	6.98	3.07	0.015	0.002	7.93	4.92	0.20	

\*1 : Mean of pH takes an average of hydrogen ion

		Anion	Cation	R1	Judge
River Krestovka (surface)	19-Jan-03	1253.8	1135.8	-4.9	o
	13-Mar-03	2435.5	2430.0	-0.1	o
	12-Apr-03	500.8	533.7	3.2	o
	04-May-03	431.5	436.2	0.5	o
	11-May-03	671.7	733.4	4.4	o
	22-Jul-03	639.4	691.6	3.9	o
	05-Aug-03	548.3	547.8	0.0	o
	14-Sep-03	596.5	555.0	-3.6	o
	24-Oct-03	623.5	595.3	-2.3	o
	16-Nov-03	684.0	639.2	-3.4	o
	11-Dec-03	701.8	636.3	-4.9	o

? calc	R2	Judge
13.4	-3.56	o
27.6	3.73	o
6.2	1.96	o
5.2	-3.69	o
8.2	4.83	o
7.8	4.84	o
6.5	-3.89	o
6.7	-3.11	o
7.1	-1.25	o
7.6	0.46	o
7.7	-0.88	o

**Table 6.4(8) Result of Inland Aquatic Environment Monitoring**

Duration: 2003.3-2003.12  
 Country: Thailand  
 Lake Name: Vachiralongorn Dam

Site	Sampling Date	Mandatory Parameters : 4 times/year											Mandatory Parameters : Once/year					
		Temp. (°C)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl <sup>-</sup> (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	COD (mg/l)	Transparency (m)	Water color
Station1 (Ban Pong Chang)	13 Mar 03	28.8	7.0	11.1	0.67	1.8	0.0	1.0	*2	1.3	1.0	16.0	3.3	<0.01	<0.01	7.5	4.5	Light blue
	26 Jun 03	29.2	7.7	11.5	0.59	1.1	0.0	0.7	*2	1.1	0.9	16.1	3.7	<0.01	<0.01		5.0	Light blue
	4 Sep 03	31.2	8.1	9.8	0.62	1.1	0.0	0.7	*2	1.1	1.0	16.0	3.1	<0.01	<0.01	4.0	7.0	Light blue
	3 Dec 03	27.9	7.9	10.6	0.62	1.2	0.0	1.0	*2	1.1	0.9	16.9	4.0	<0.01	<0.01	<4.0	3.5	Light blue
	mean <sup>*1</sup>	29.3	7.5	10.8	0.6	1.3	0.0	0.8	-	1.1	1.0	16.2	3.5			4.0	7.0	
Station2 (Ban Pang Pueng)	13 Mar 03	28.4	8.0	10.9	0.60	2.0	0.0	1.0	*2	1.3	1.1	16.1	2.9	<0.01	<0.01	8.0	6.0	Light blue
	26 Jun 03	29.4	7.7	11.9	0.56	1.1	0.0	0.7	*2	1.1	0.9	16.9	3.2	<0.01	<0.01		6.0	Light blue
	4 Sep 03	29.5	8.1	9.4	0.60	1.1	0.0	0.7	*2	1.1	1.0	15.8	2.7	<0.01	<0.01	8.0	7.0	Light blue
	3 Dec 03	27.9	7.8	9.8	0.60	1.4	0.0	1.0	*2	1.2	0.9	16.2	3.0	<0.01	<0.01	6.0	4.0	Light blue
	mean <sup>*1</sup>	28.8	7.9	10.5	0.6	1.4	0.0	0.8	-	1.2	1.0	16.2	2.9			7.3	5.8	

note  
 \*1 : Mean of pH takes an average of hydrogen ion  
 \*2 : Items were not analysed because the instruments had some trouble.  
 Annual precipitation amount : 1627mm/year(reported year 2003)

	Date	Anion	Cation	R1	Judge*3	?calc	R2	Judge*3
Station1 (Ban Pong Chang)	13 Mar 03	734.6	1153.1	22.2	X	10.19	-4.3	o
	26 Jun 03	633.5	1178.5	30.1	X	9.80	-8.0	o
	4 Sep 03	662.9	1126.5	25.9	X	9.66	-0.7	o
	3 Dec 03	672.3	1238.8	29.6	X	10.35	-1.2	o
Station2 (Ban Pang Pueng)	13 Mar 03	667.9	1119.8	25.3	X	9.73	-5.7	O
	26 Jun 03	603.4	1171.2	32.0	X	9.65	-10.4	X
	4 Sep 03	642.8	1088.0	25.7	X	9.35	-0.3	O
	3 Dec 03	658.1	1133.8	26.5	X	9.72	-0.4	O

note  
 \*3 : Concerning "X" judging, it was not able to specify the main reasons.

**Table 6.4(9) Result of Inland Aquatic Environment Monitoring**

Duration: 2003. 3.-2003.12.

Country: Vietnam

Lake Name: Hoa Binh Reservoir

Site	Sampling Date	Temp. (°C)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)
Surface	15-Mar-03	22.6	7.82	17.32	1.68	3.20	0.28	1.28	0.06	1.80	1.16	24.41	5.11
	15-Jun-03	29.3	6.85	19.00	1.65	7.04	1.36	2.73	0.10	1.60	1.50	25.25	5.87
	15-Sep-03	27.2	7.52	18.80	1.55	9.30	0.37	0.85	0.06	2.31	1.31	24.12	4.47
	15-Dec-03	21.4	7.71	18.50	1.50	4.96	0.51	0.47	0.09	2.84	1.47	24.21	3.68
	mean *1	25.1	7.29	18.41	1.60	6.13	0.63	1.33	0.08	2.14	1.36	24.50	4.78

\*1 : Mean of pH takes an average of hydrogen ion

		Anion	Cation	R1	Judge
Surface	15-Mar-03	1787.2	1749.6	-1.1	<b>o</b>
	15-Jun-03	1895.5	1856.4	-1.0	<b>o</b>
	15-Sep-03	1773.6	1708.5	-1.9	<b>o</b>
	15-Dec-03	1624.8	1676.9	1.6	<b>o</b>

? calc	R2	Judge
18.5	3.2	<b>o</b>
20.0	2.7	<b>o</b>
18.6	-0.5	<b>o</b>
17.4	-3.0	<b>o</b>

**Table 6.4 (10) Summary of Inland Aquatic Environment Monitoring**

Country	Location	Site	Mandatory Parameters : 4 times/year												Mandatory Parameters : Once/year				
			Temp. (degreeC)	pH	EC (mS/m)	Alkalinity (meq/l)	SO <sub>4</sub> <sup>2-</sup> (mg/l)	NO <sub>3</sub> <sup>-</sup> (mg/l)	Cl <sup>-</sup> (mg/l)	NH <sub>4</sub> <sup>+</sup> (mg/l)	Na <sup>+</sup> (mg/l)	K <sup>+</sup> (mg/l)	Ca <sup>2+</sup> (mg/l)	Mg <sup>2+</sup> (mg/l)	Transparency (m)	Water color	DOC (mg/l)	NO <sub>2</sub> <sup>-</sup> (mg/l)	PO <sub>4</sub> <sup>3-</sup> (mg/l)
China	Chongqing	Jinyunshan Lake	15.3	6.55	9.79	0.210	23.21	5.16	2.68	0.210	2.60	1.72	9.03	3.30	0.9				
	Xiamen	Xiaoping Dam	23.2	6.73	7.19	0.190	2.68	5.02	5.91	0.170	6.53	2.06	2.35	0.86					
	Xi'an	Jiwozi River	6.8	7.54	7.83	0.140	11.44	2.01	1.63	0.000	2.08	0.95	12.03	1.59					
	Zhuhai	Zhuxiandong Reservoir	20.8	7.82	7.54	1.600	17.50	0.29	19.59	0.170	7.34	1.96	16.80	2.36				0.029	
Indonesia	Bandung	Patenggang Lake (Center, surface)	22.6	7.34	6.58	0.460	7.76	0.19	7.50	0.530	4.30	0.49	5.17	2.53	0.6		12.4	nd	0.21
Japan	Gifu pref.	Ijira Lake (Center, surface)	16.9	6.80	4.10	0.146	5.14	2.07	2.40	0.060	1.86	0.30	2.94	1.36	3.01	clear	1.40	<0.03*1	<0.01*1
	Shimane pref.	Banryu Lake (Center, surface)	21.1	6.98	10.90	0.170	3.96	0.04	22.30	0.060	13.40	1.78	1.09	1.69	1.5	green	2.6	<0.002*2	<0.003*2
Mongolia		Terej river	-	6.75	4.60	0.270	3.16	0.74	0.36	0.013	1.65	0.48	5.88	0.83					
Philippines	San Pablo City, Laguna	Mojicap Lake (Surface)	27.4	7.89	32.10	3.190	3.54	0.09	6.70	0.076	17.03	6.09	20.32	16.59				0.005	0.002
Russia	Listvyanka	River Krestovka (Surface)	4.3	6.81	9.35	0.490	15.02	0.45	0.66	0.244	3.96	1.02	6.98	3.07	0.200	yellow		0.002	0.015
Thailand	Kanchanaburi Province	Vachiralongorn Dam (Ban Pong Chang)	29.3	7.50	10.80	0.600	1.30	0.00	0.80	-	1.10	1.00	16.20	3.50	7.0	light blue		<0.01	<0.01
		Vachiralongorn Dam (Ban Pang Pueng)	28.8	7.90	10.50	0.600	1.40	0.00	0.80	-	1.20	1.00	16.20	2.90	5.8	light blue		<0.01	<0.01
Vietnam	Hoa Binh Province	Hoa Binh Reservoir (Surface)	25.1	7.29	18.41	1.600	6.13	0.63	1.33	0.080	2.14	1.36	24.50	4.78					

note

blank : Items are not including to National Monitoring Plan

- : Items were not analyzed or not detected

\*1 : detection limits

\*2 : determination limits





**Table Meteorological condition in 2003 (Rishiri)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	-4.9	-5.9	-1.1	4.5	9.2	14.2	15.6	18.1	15.8	10.7	4.2	-2.1
	max.daily mean	0.9	0.6	3.8	8.3	15.7	18.3	17.7	21.1	20.1	16.3	13.3	3.1
	min.daily mean	-9.8	-9.7	-7.3	0.2	4.2	10.1	12.4	15.9	12.4	6.8	-3.6	-7.0
Humidity (%)	monthly mean	72	68	69	78	76	80	80	86	78	73	70	72
	max.daily mean	89	78	89	93	94	96	94	97	91	87	89	91
	min.daily mean	60	53	44	47	53	63	69	70	62	59	57	57
Mean wind speed (m/s)		5.3	4.4	4.2	2.6	2.4	2.3	2.5	2.6	3.2	4.3	4.8	5.3
Most appearance wind direction (bearings)		NW	E	NW	NNW	W	E	E	WSW	NE	WSW	NW	NW
Precipitation amount (mm/month)		41	11	45	31	17	30	23	148	85	236	42	67
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		111	264	370	391	517	517	623	381	413	236	113	96

**Table Meteorological condition in 2003 (Tappi)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	-0.8	-0.3	2.4	7.9	11.6	14.8	16.1	19.9	18.1	13.3	8.9	3.7
	max.daily mean	6.3	5.5	7.7	14.1	17.0	19.4	18.2	22.9	20.9	16.8	17.5	8.8
	min.daily mean	-4.6	-4.9	-3.1	3.3	8.4	11.4	14.1	17.0	15.4	9.5	2.0	-1.4
Humidity (%)	monthly mean	67	66	64	73	77	85	85	85	76	64	65	68
	max.daily mean	88	87	83	91	93	95	95	95	88	84	84	85
	min.daily mean	54	51	45	51	43	56	74	56	54	50	51	58
Mean wind speed (m/s)		9.3	7.5	6.8	5.6	5.1	5.7	5.8	5.1	4.8	6.4	6.7	9.5
Most appearance wind direction (bearings)		WSW	WSW	WSW	SW	ENE	ENE	ENE	ENE	ENE	WSW	WSW	WSW
Precipitation amount (mm/month)		42	15	62	146	79	132	84	134	140	106	33	94
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		152	231	385	478	593	526	524	433	358	310	150	86

**Table Meteorological condition in 2003 (Sado-seki)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	1.9	3.0	4.9	11.0	16.3	19.6	20.3	23.1	21.0	15.3	12.0	6.2
	max.daily mean	8.1	8.8	10.8	18.6	21.9	23.1	24.1	27.4	27.5	19.8	19.5	11.2
	min.daily mean	-2.4	-1.4	-1.5	5.5	10.2	15.8	17.8	17.3	16.0	11.9	5.8	0.1
Humidity (%)	monthly mean	70	66	63	69	64	78	84	82	75	66	69	69
	max.daily mean	88	83	86	94	93	91	94	94	89	86	91	82
	min.daily mean	57	52	32	45	42	49	72	67	58	50	50	54
Mean wind speed (m/s)		8.6	5.3	5.7	4.8	3.1	3.3	3.3	3.3	4.4	5.3	5.2	9.0
Most appearance wind direction (bearings)		W	W	W	WSW	NE	WSW	NNE	SW	ENE	W	ENE	W
Precipitation amount (mm/month)		30	1	17	12	22	82	166	175	103	94	123	71
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		114	196	378	426	607	508	440	389	389	327	169	74

**Table Meteorological condition in 2003 (Happo)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	-9.2	-7.8	-6.3	4.0	7.6	11.6	12.8	15.4	12.3	5.1	3.0	-5.3
	max.daily mean	-2.5	-1.3	1.7	12.7	11.5	14.7	14.6	19.1	17.8	14.3	9.5	2.1
	min.daily mean	-15.6	-13.5	-15.0	-4.5	0.4	6.7	9.6	10.2	3.2	-1.4	-5.6	-13.1
Humidity (%)	monthly mean	81	73	70	68	78	86	96	94	92	78	84	83
	max.daily mean	99	97	98	94	100	100	100	100	100	99	100	99
	min.daily mean	30	31	37	13	37	57	81	58	81	16	31	58
Mean wind speed (m/s)		5.5	4.3	4.9	4.1	1.9	2.2	1.9	2.3	2.1	2.4	2.6	4.8
Most appearance wind direction (bearings)		NW	NW	NNW	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	NW
Precipitation amount (mm/month)		161	52	111	289	84	243	227	404	191	95	309	257
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		265	391	552	454	640	472	345	340	328	360	234	227

**Table Meteorological condition in 2003 (Oki)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	3.9	5.3	6.4	12.0	16.2	20.2	20.7	23.6	21.9	16.0	13.3	8.3
	max.daily mean	10.2	9.8	12.2	18.4	22.8	22.4	23.8	26.1	26.6	21.6	19.5	12.2
	min.daily mean	-3.3	2.1	1.3	7.5	10.0	16.2	17.8	19.8	16.4	13.0	7.9	2.1
Humidity (%)	monthly mean	76	70	69	73	74	82	91	87	79	70	76	71
	max.daily mean	94	89	88	97	96	95	96	95	95	84	94	89
	min.daily mean	58	58	54	37	55	56	84	80	54	56	58	57
Mean wind speed (m/s)		4.8	4.5	4.1	3.3	2.9	2.2	2.8	2.6	3.6	2.9	3.8	5.0
Most appearance wind direction (bearings)		WSW	N	N	S	NNE	S	NNE	S	NNE	ESE	NNE	N
Precipitation amount (mm/month)		145.5	45	88	158	153	83	284	190	25	57	126	52
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		-	160	371	434	613	504	344	446	403	396	206	144

**Table Meteorological condition in 2003 (Yusuhara)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	-0.1	3.1	4.8	11.8	14.7	18.0	20.8	22.3	20.2	13.1	11.8	3.4
	max.daily mean	6.5	8.5	12.8	17.9	18.0	20.8	23.6	24.9	24.4	19.4	16.6	10.4
	min.daily mean	-7.2	-2.1	-1.3	4.8	11.0	14.7	17.1	18.4	13.8	7.8	3.8	-3.6
Humidity (%)	monthly mean	76	69	65	74	83	82	84	85	78	73	80	72
	max.daily mean	90	88	90	93	95	95	94	94	94	95	94	88
	min.daily mean	58	50	42	38	43	45	76	77	57	55	53	50
Mean wind speed (m/s)		3.4	2.6	2.8	2.3	1.7	1.8	1.6	1.3	2.1	2.2	2.1	3.3
Most appearance wind direction (bearings)		NNW	NNW	NNW	NNW	SSE	NNW	NNW	SSE	NNW	NNW	NNW	NNW
Precipitation amount (mm/month)		134	75	153	255	586	347	283	326	208	149	336	56
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		282	377	469	443	439	430	487	426	549	432	327	282

**Table Meteorological condition in 2003 (Ogasawara)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	15.8	15.6	15.6	19.8	21.7	23.9	25.4	25.7	26.1	24.3	22.5	17.4
	max.daily mean	17.8	18.6	19.1	22.9	24.4	25.9	26.7	27.4	27.4	26.2	23.9	23.3
	min.daily mean	13.7	12.8	11.8	16.4	19.2	19.4	23.2	24.4	23.7	22.1	20.6	13.3
Humidity (%)	monthly mean	72	78	79	87	93	94	88	90	90	89	85	79
	max.daily mean	97	94	95	98	98	98	95	95	97	100	95	98
	min.daily mean	59	59	62	68	76	90	80	87	78	71	69	65
Mean wind speed (m/s)		1.8	1.7	1.8	1.8	2.2	1.8	1.6	1.4	1.8	1.6	1.8	1.7
Most appearance wind direction (bearings)		SW	SW	SW	SSW	SSW	SSW	SW	NE	NE	NE	NE	SW
Precipitation amount (mm/month)		106	23	145	106	108	203	114	63	251	184	42	77
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		326	374	487	500	421	495	680	670	471	417	361	291

**Table Meteorological condition in 2003 (Hedo)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	14.8	16.7	17.2	21.3	23.1	25.5	28.8	28.5	27.5	23.5	22.6	17.7
	max.daily mean	18.9	20.9	21.3	24.5	25.3	28.0	30.2	30.6	29.5	25.7	25.9	21.3
	min.daily mean	11.6	13.4	13.3	17.5	21.2	21.4	27.6	26.4	25.2	21.3	18.1	14.6
Humidity (%)	monthly mean	64	72	72	81	81	82	79	81	78	69	78	64
	max.daily mean	88	91	90	91	94	94	87	89	93	93	93	86
	min.daily mean	53	55	55	59	65	74	74	73	61	55	57	53
Mean wind speed (m/s)		5.2	4.7	5.0	4.4	3.7	4.4	3.1	3.5	5.4	5.9	5.7	5.7
Most appearance wind direction (bearings)		NNW	NNW	N	ESE	ESE	SW	WSW	ESE	E	NNE	N	N
Precipitation amount (mm/month)		52.5	32	53	73	194	246	32	21	103	176	153	18
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		274	285	403	442	486	601	744	636	534	409	260	244

**Table Meteorological condition in 2003 (Ijira)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	1.4	3.3	5.5	12.6	17.0	20.0	21.4	24.4	22.0	14.0	12.3	4.6
	max.daily mean	6.7	8.3	10.0	17.2	19.8	22.2	23.6	26.8	26.1	18.8	17.0	12.8
	min.daily mean	-3.0	-0.2	0.3	7.5	11.7	16.1	19.5	20.3	15.3	10.2	6.1	-0.7
Humidity (%)	monthly mean	92	85	78	88	89	93	97	97	93	91	96	96
	max.daily mean	99	99	99	99	99	99	99	99	99	99	99	99
	min.daily mean	79	60	61	67	74	71	86	92	79	77	84	84
Mean wind speed (m/s)		0.6	0.8	0.9	0.8	0.7	0.6	0.5	0.6	0.7	0.7	0.5	0.5
Most appearance wind direction (bearings)		Calm	W	W	Calm	W	W	Calm	Calm	W	W	Calm	Calm
Precipitation amount (mm/month)		171	55	136	478	175	336	605	433	180	84	231	90
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		219	291	430	347	453	363	315	353	388	337	181	190

**Table Meteorological condition in 2003 (Banryu)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	4.3	5.6	7.3	13.6	17.1	21.0	22.7	24.9	22.9	15.7	14.0	7.8
	max.daily mean	8.7	9.5	14.9	19.5	23.5	23.5	26.4	27.3	27.3	22.6	19.8	13.7
	min.daily mean	-1.8	2.0	3.4	8.7	10.8	17.2	18.7	19.8	16.7	10.6	7.9	3.5
Humidity (%)	monthly mean	73	76	74	77	81	83	88	87	81	74	81	71
	max.daily mean	87	90	93	97	95	92	96	96	94	87	96	90
	min.daily mean	62	56	55	52	63	72	81	77	61	53	60	55
Mean wind speed (m/s)		3.9	3.2	3.8	3.4	2.9	2.3	2.4	2.2	2.9	3.2	3.0	3.7
Most appearance wind direction (bearings)		S	S	S	S	S	S	SSE	S	S	S	S	S
Precipitation amount (mm/month)		109	110	117	145	178	95	370	260	52	15	168	78
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		152	230	401	414	557	487	403	478	488	401	239	172



**Table Meteorological condition in 2003 (Metro-Manila)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	25.4	26.0	27.8	29.8	29.6	28.4	28.8	28.2	27.9	28.2	27.9	25.8
	max.daily mean	29.8	31.9	33.2	35.0	33.8	32.4	32.8	31.6	31.2	32.5	32.2	30.2
	min.daily mean	21.0	20.2	22.4	24.6	25.5	24.5	24.7	24.8	24.5	23.8	23.7	21.4
Humidity (%)	monthly mean	74	72	71	69	77	83	81	83	84	81	81	73
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)		2	3	1	1	1	2	2	2	1	1	2	2
Most appearance wind direction (bearings)		N	NE	SE	SE	S	W	N	WSW	N	N	N	N
Precipitation amount (mm/month)		2	7	10	22	466	233	272	381	498	185	118	7
Sunshine duration (hours/month)		212	-	-	-	-	-	-	-	-	-	-	-
Solar radiation (MJ/m <sup>2</sup> /month)													

**Table Meteorological condition in 2003 (Los Banos)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	25.6	26.1	27.2	29.3	29.0	28.2	28.5	28.4	27.9	27.8	27.7	25.6
	max.daily mean	30.0	30.9	32.3	34.9	33.4	32.9	33.1	32.4	32.0	32.0	32.1	29.3
	min.daily mean	21.3	21.2	22.1	23.6	24.5	23.4	23.9	24.3	23.7	23.6	23.3	21.9
Humidity (%)	monthly mean	82	80	79	77	83	85	85	86	87	85	84	84
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)		1	3	2	2	3	2	2	5	2	3	2	3
Most appearance wind direction (bearings)		NE	E	NE	NE	NE	E	W	NNW	E	NE	NE	NE
Precipitation amount (mm/month)		8	3	15	20	350	131	356	180	190	87	226	27
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		432	538	572	653	512	515	541	454	457	460	458	371









**Table Meteorological condition in 2003 (Bangkok)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	26.1	27.7	28.1	30.7	29.4	28.6	27.8	28.4	27.0	28.0	28.6	25.7
	max.daily mean												
	min.daily mean												
Humidity (%)	monthly mean	83	87	91	87	89	92	94	93	96	93	86	82
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)		0.6	0.8	0.7	0.9	0.8	0.7	0.7	0.9	0.6	0.5	0.6	0.6
Most appearance wind direction (bearings)		NE	S	S	S	SW	W	W	W	SW	NE	Calm	NE
Precipitation amount (mm/month) **		0	23	169	24	172	174	309	243	172	98	0	0
		0	61	23	9	15	211	437	320	522	139	0	2
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		528	401	465	572	559	420	445	487	407	360	359	427

\* Precipitation amount data from Pollution Control Department station (20th floor) (9.00-9.00)

\*\* Precipitation amount data from PCD met station (chatujak station) (0.00-0.00) around 10 km from PCD site

**Table Meteorological condition in 2003 (Mae Hia)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	21.2	23.2	26.0	28.7	28.2	26.6	27.3	26.8	26.5	26.5	24.4	21.6
	max.daily mean	27.7	31.9	33.8	35.8	33.8	30.8	31.7	30.9	31.5	31.9	31.6	29.1
	min.daily mean	16.4	16.2	19.3	22.9	23.7	23.7	24.0	23.7	23.5	22.6	18.9	15.9
Humidity (%)	monthly mean	80	67	57	62	71	84	85	86	91	84	70	75
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)		3.2	3.3	5.9	7.3	7.5	6.6	6.1	5.4	5.6	4.6	4.0	3.9
Most appearance wind direction (bearings)		W	S	S	S	S,W	S	SW	SW	W	S	S	N
Precipitation amount (mm/month) **		19	0	35	0	24	35	74	75	236	3	10	0
		-	-	-	81	85	104	45	78	291	10	9	0
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)		309	328	508	508	763	499	645	401	496	499	365	346

\* Precipitation amount from PCD's station

\*\* Precipitation amount from CMU's data

**Table Meteorological condition in 2003 (Patumthani)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean												
	max.daily mean	32.9	34.3	34.9	37.4	35.5	34.4	33.2	33.9	33.2	33.2	33.9	32.0
	min.daily mean	20.7	22.8	24.5	25.7	25.8	25.6	25.1	25.5	24.9	25.0	23.6	20.3
Humidity (%)	monthly mean												
	max.daily mean												
	min.daily mean	46	52	54	49	56	59	65	60	63	59	48	47
Mean wind speed (m/s)	1.3	1.3	1.4	1.9	2.1	2.1	2.0	2.7	1.9	1.1	1.3	1.8	
Most appearance wind direction (bearings)	N,E	E	S	S	SW	SW	SW	SW	W	N	NE	NE	
Precipitation amount (mm/month)	0	32	88	23	199	273	214	258	451	111	11	0	
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)													

*Measured at nearest meteorological station (Patumtani Agro station)*

**Table Meteorological condition in 2003 (Vachiralongkorn Dam)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	24.1	26.9	28.3	30.1	28.2	26.8	26.7	26.7	26.4	26.9	26.2	23.0
	max.daily mean	33.1	36.0	36.5	37.7	34.2	31.3	31.9	31.3	31.6	33.1	34.2	32.1
	min.daily mean	13.7	14.9	16.4	17.8	21.0	23.7	23.2	23.0	22.5	21.6	19.7	15.6
Humidity (%)	monthly mean												
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)	4.2	4.7	5.3	4.4	4.5	4.0	4.2	4.0	4.2	3.9	3.7	4.6	
Most appearance wind direction (bearings)	SE	NW	NW	NW	NW	NW	NW	NW	NW	NW	SE	SE	SE
Precipitation amount (mm/month)	0	15	95	37	167	214	441	324	231	135	0	0	
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)													

*Measured at nearest meteorological station (Thong Pa Poom station)*

**Table Meteorological condition in 2003 (Samutprakarn)**

Month		1	2	3	4	5	6	7	8	9	10	11	12
Items													
Temperature (°C)	monthly mean	26.7	28.1	28.6	30.3	30.1	29.2	28.4	30.6	29.5	29.7	30.1	27.5
	max.daily mean												
	min.daily mean												
Humidity (%)	monthly mean	65	77	83	77	75	78	84	81	90	89	70	62
	max.daily mean												
	min.daily mean												
Mean wind speed (m/s)	1.2	1.6	1.3	1.8	1.7	1.4	1.1	1.7	1.1	1.3	1.3	1.6	
Most appearance wind direction (bearings)	NE	S	S	S	S	SW	S	SW	SW	NE	NE	NE	
Precipitation amount (mm/month)	8 ** 0	54 32	30 274	0 29	74 205	179 221	246 207	242 268	337 341	132 140	0 0	1 0	
Sunshine duration (hours/month)													
Solar radiation (MJ/m <sup>2</sup> /month)													

\* Precipitation amount at Bang na (TMD) from PCD's station(9.00-9.00)

\*\* Precipitation amount at TMD site from TMD's data (7.00-7.00)

