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MONITORING
PROGRAMME

**Pollutant deposits
and air quality at
coastal stations in
2003**

**OSPAR Commission
for the Protection of the Marine
Environment
of the North-East Atlantic**

Norwegian Institute for Air Research
P.O. Box 100, N-2027 Kjeller, Norway



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Pollutant deposits and air quality at coastal stations in 2003

Kevin Barrett
Center for Ecological Economics

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Summary

This report is the assimilated record of observed input of atmospheric pollutants to the OSPAR seas in 2003, and of the associated concentrations of pollutants in the ambient air of the OSPAR region. Observations have been conducted under the terms of the CAMP, the Comprehensive Atmospheric Monitoring Programme, which calls for Mandatory Monitoring of a range heavy metals, organic compounds and nutrients in precipitation and air, and encourages participation in a Voluntary Monitoring of additional compounds.

One third of the Parties to OSPAR reported observations of all of the Mandatory components in the CAMP. Despite their Mandatory status γ -HCH (lindane) and mercury were reported least. In general lesser attention was given to pollutants within the Voluntary programme. For example, three quarters of countries did not give attention during 2002 to the monitoring of the atmospheric input of organic substances to their coasts. Parties may wish to consider the issue of implementation of the mandatory and voluntary monitoring programmes. In areas lacking ground truth data, estimates of pollutant load and potential impact must otherwise rest purely on assumptions.

Quality control by some countries remains lower than may be expected. Relatively clear errors are sometimes not being picked up by national data originators. The current contract with the data manager (NILU) does not provide for QA/QC backstopping, and thus the validity of OSPARs monitoring may be threatened by lapses in national quality control.

A significant advantage of centralised review of the programme is the potential to note spatial and temporal inconsistencies between locations. After such recent review the example is provided of one Party electing to revise its monitoring programme in the future. Thus, the CAMP and its centralised review can be seen to have led to real benefits in practices. Similar review might be possible in other areas in future. For example, reported concentrations of pollutants are sometimes notably above the levels observed by neighbouring countries at neighbouring sites. Similarly, metal and organic concentrations reported can be below the detection limits, and in some cases detection limits are unusually high. This might be sufficient to shed doubt upon data despite its validation by the national data suppliers.

Pollutant deposits and air quality at coastal stations in 2003

1 The OSPAR CAMP monitoring programme, 2003

Geographical coverage

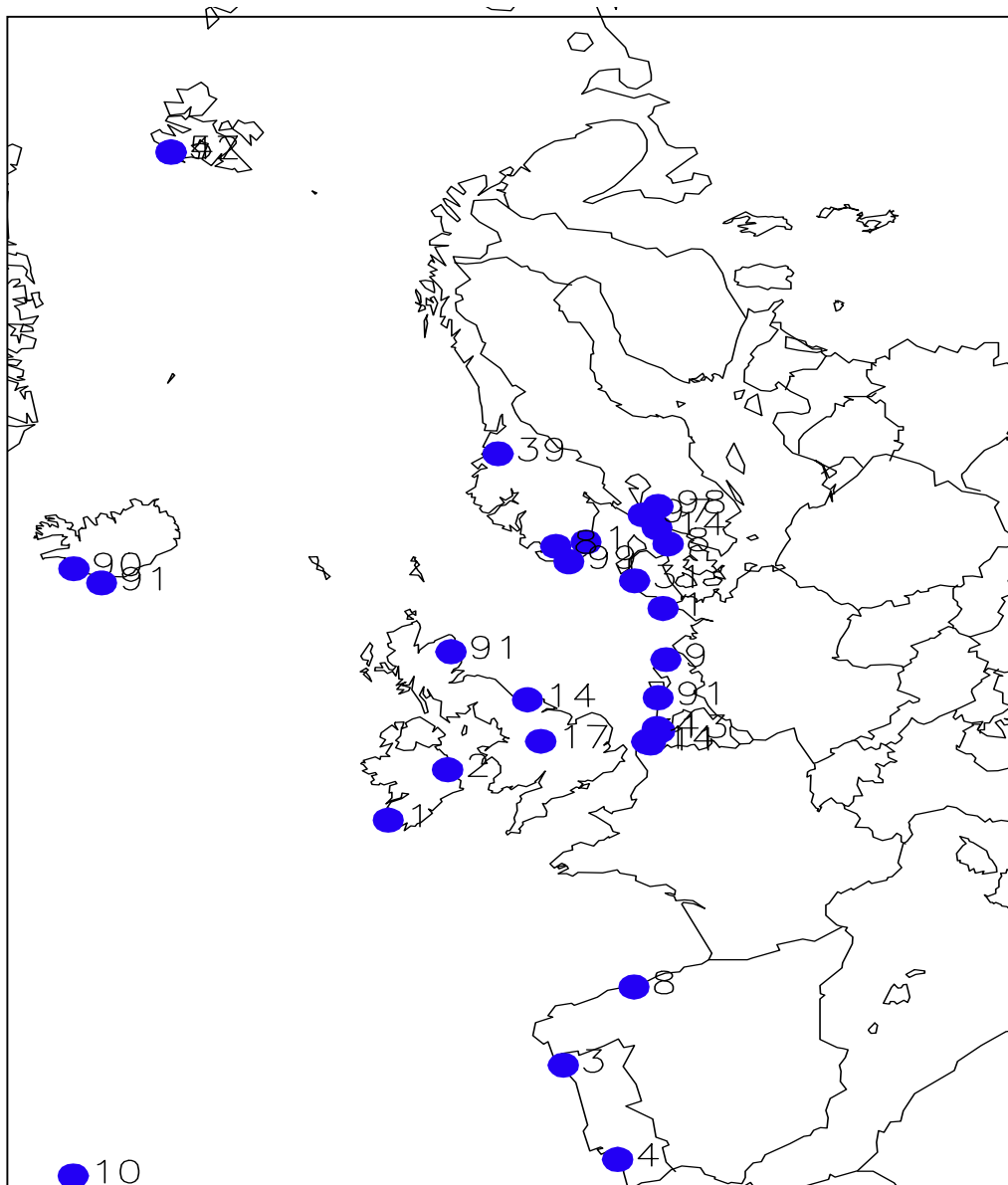


Figure 1.1: Monitoring sites reporting to OSPAR in 2003

Numbers refer to stations listed in table 1.1

The distribution of monitoring sites reporting during 2003 was unchanged in all countries reporting data except for the UK. Most noteworthy is that France did not report 2003 observations. Otherwise, coverage of the southern North Sea, the

Skaggeak and the Kattegat is very good. Observations in northern regions more dispersed.

Reported observations of pollutant wet deposition and of air quality have dissimilar geographical distributions. The following table details the monitoring stations, and indicates their supply of airborne and/or of precipitation pollutant monitoring data. Furthermore, not all stations report all pollutant components, leading to dissimilar coverage of the various pollutants. This can be observed in the mapped deposition presented in chapter 2.

Table 1.1: Stations reporting precipitation and air quality to OSPAR in 2003

Country	Station number	Station name	Latitude	Longitude	Elevation/ Altitude (m)	Distance from sea (km)	precipitation(p) airborne(a) monitoring
Belgium	BE0004r	Knokke	51°21' N	3°20' E	0	1	pa
	BE0011r	Moerkerke	51°01' N	2°35' E	0	9	a
	BE0013r	Houtem	51°15' N	3°21' E	10	12	a
	BE0014r	Koksijde	51°07' N	2°30' E	7	1.5	p
Denmark	DK0008r	Anholt	56°43' N	11°31' E	40	~0.5	pa
	DK0031r	Ulborg	56°17' N	8°26' E	40	20	pa
France	none						
Germany	DE0001r	Westerland	54°56' N	8°19' E	12	0.09	pa
Iceland	IS0090r	Irafoss	64°08' N	21°54' W	52	1	p
	IS0091r	Storhofdi	63°24' N	20°17' W	118	0.5	pa
Ireland	IE0001r	Valentia Island	51°56' N	10°15' W	9	0	p
	IE0002r	Turlough Hill	53°02' N	6°24' W	420	19	p
Netherlands	NL0009r	Kollumerwaard	53°20' N	6°17' E	1	7.5	pa
	NL0091r	De Zilk	52°18' N	4°31' E	4	2.5	pa
Norway	NO0001r	Birkenes	58°23' N	8°15' E	190	20	p
	NO0039r	Kaarvatn	62°47' N	8°53' E	210	70	p
	NO0042r	Zepellinfjell	78°54' N	11°53' E	474	2	a
	NO0057r	Ny Aalesund	78°55' N	11°55' E	8	0.3	pa
	NO0099r	Lista	58°06' N	6°34' E	13	0.1	p
Portugal	PT0003r	Viana do Castelo	41°42' N	8°48' W	16	4	p
	PT0004r	Monte Velho	38°05' N	8°48' W	43	1.5	p
	PT0010r	Angra do Heroismo	38°40' N	27°13' W	74	1	p

Spain	ES0008r Niembro	43°27' N	4°51' W	134							p
Sweden	SE0014r Rao	57°24' N	11°55' E								pa
	SE0097r Gaardsjoen	58°03' N	12°01' E	113	12						p
	SE0098r Svartedalen	57°59' N	12°06' E	120	16						p
United Kingdom	GB0014r High Muffles	54°20' N	0°48' W	267							pa
	GB0017r Heigham Holmes	52°45' N	1°38' W	0							pa
	GB0091r Banchory	57°05' N	2°32' W	120							pa

1.1.1 Coverage of pollutants

The Mandatory lists of components within the CAMP are not fully observed. Whilst a half of Parties did report all precipitation components, two of twelve countries reported less than half of the mandatory precipitation pollutants. The least reported are the two toxic substances mercury and lindane. For air concentrations, reported observations are generally fewer, with a quarter of Parties not reporting any of the Mandatory list. Ground truth on the state of atmospheric pollution of OSPAR coastal waters was more sparse than for 2002.

Table 1.2: National submissions of precipitation data for 2003 – Mandatory List.

	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	γ -HCH	NH ₄	NO ₃
Belgium	•	•	•	•	•	•	•	•	•	•	•
Denmark	•	•	•	•	•		•	•		•	•
France											
Germany	•	•	•	•	•	•	•	•	•	•	•
Iceland	•	•	•	•	•		•	•	•	•	•
Ireland	•	•	•	•	•	•	•	•	•	•	•
Netherlands	•	•	•	•	•	•	•	•	•	•	•
Norway	•	•	•	•	•	•	•	•	•	•	•
Portugal		•		•	•		•	•		•	•
Spain										•	•
Sweden	•	•	•	•	•	•	•	•	•	•	•
United Kingdom	•	•	•	•	•		•	•		•	•

Grey areas in table were not reported.

Table 1.3: Submissions of air concentration data for 2003 – Mandatory List

	NO ₂	NO ₃	NH _x
Belgium	•		
Denmark	•	•	•
France			
Germany	•	•	•
Iceland		•	
Ireland			
Netherlands	•	•	•
Norway	•	•	•
Portugal			
Spain	•	•	•
Sweden	•	•	•
United Kingdom	•	•	•

Grey areas in table were not reported.

1.1.2 Timeliness of reporting

Reporting of data in time for INPUT's consideration was poorer for the 2003 observation year. In tables 1.4 and 1.5 the timetable for reporting as given in the CAMP Principles, and the actual reporting achieved are set out. Nevertheless, more than half of countries achieved reporting within or close to the timetable. The latest submitted data to be included in this report was received on 1st April 2005.

Table 1.4: The timetable for data reporting according to the CAMP Principles

30 th June	Call for metadata and data issued from NILU (regarding new data and metadata), with instructions and reference to supporting software(e.g. where to find tools on the NILU website).
30 th September	Participants submit data and metadata via email or on diskette, in specified formats.
31 st October	NILU returns data and metadata via email or on diskette in the form of a 'validation report' to data originators for verification and signing off by the data originators within two weeks of reception.

Table 1.5: Reporting history of 2003 data

Country	data/comment
Portugal	√
Ireland	√
June 30 -Deadline for data request issue by NILU	
Denmark	Partial data
Iceland	√
Netherlands	√
Norway	√
Spain	√
Sweden	√
September 30 - Deadline for receipt of data	
Belgium	√
Germany	√
October 31 - Deadline for Validation Report issue by NILU	
France	Not reported
United Kingdom	Not reported
December 3 - Reporting to INPUT by NILU	
United Kingdom	Partial data
January 2003 – INPUT, London	
Denmark	Further data reported
France	No data available for 2003
United Kingdom	Further data reported
April 2003 – Final Report delivery	

2 Observed Pollutant Depositions, 2003

This section gives an overview of atmospheric conditions around the North East Atlantic in 2003, listing and displaying the annual average values of the mandatory list substances.

For Mandatory list metals, the observed concentrations and depositions during 2003 are presented in tables 2.1 and 2.2 (mercury). The corresponding deposition distributions are displayed in figures 2.1-2.8. The organic pollutant lindane is given in table 2.3 and figure 2.9. Similarly, for nitrogen the depositions and concentrations in precipitation are tabulated in table 2.4, with the distribution of depositions presented in figures 2.10 and 2.11. In calculating deposition rates the CAMP principles have been followed with respect to interpreting detection limits, i.e. where data was flagged '780' (observation below detection limit, value is best estimate), this data value was employed; where '781' was flagged (observation below detection limit, value is detection limit), a value of half the detection limit was used.

Table 2.1: Reported mean annual precipitation concentrations of mandatory metals ($\mu\text{g/l}$). These are precipitation weighted values, and precipitation amounts are given as mm.

		Cd	As	Cr	Cu	Ni	Pb	Zn	prec
		$\mu\text{g/l}$	$\mu\text{g/l}$	$\mu\text{g/l}$	$\mu\text{g/l}$	$\mu\text{g/l}$	$\mu\text{g/l}$	$\mu\text{g/l}$	mm
Belgium	BE0004R	1,25	0,24	1,49	2,54	2,33	2,58	33,39	942
Germany	DE0001R	0,04	0,14	0,14	0,79	0,24	1,17	7,20	622
Denmark	DK0008R	0,10	0,22	0,22	1,20	0,34	1,29	8,50	550
	DK0031R	0,05	0,19	0,18	1,68	0,30	1,09	9,21	715
UK	GB0017R	0,03	0,15	0,11	0,98	0,34	1,08	5,81	293
	GB0091R	0,04	0,55	0,29	0,75	0,41	1,18	8,82	393
Ireland	IE0001R	0,05	0,50	0,50	0,50	0,50	0,50	32,47	1507
	IE0002R	0,05	0,50	0,50	1,15	0,50	1,05	9,38	1516
Iceland	IS0090R	0,01	0,17	0,34	1,85	0,61	0,49	4,68	1097
	IS0091R	0,02		1,19	31,42	1,11	0,70	11,51	1770
Netherlands	NL0009R	0,05	0,29	0,35	1,40	0,32	1,64	7,13	637
	NL0091R	0,06	0,14	0,28	2,00	0,31	2,39	7,41	614
Norway	NO0001R	0,04					1,57	3,93	1374
	NO0099R	0,06	1,01	0,31	1,30	0,50	1,92	7,54	1190
Portugal	PT0003R	0,43			0,97	0,93	0,65	16,09	250
	PT0004R	0,43			0,80	1,93	0,65	10,09	575
	PT0010R	0,43			1,07	7,70	2,62	100,42	856
Sweden	SE0097R	0,05	0,16	0,20	1,21	0,19	1,13	5,01	754

Table 2.2: Reported concentrations and depositions of mercury in precipitation, (ng/m^2)

		concentration	deposition	precipitation
		ng/l	ng/m^2	mm
Belgium	BE0004R	0,01	3,99	332,61
Germany	DE0001R	9,1	5356	589,5
Ireland	IE0001R	50,00	75267,75	1505,36
	IE0002R	50,00	75724,75	1514,50
Netherlands	NL0091R	7,80	5413,51	693,70
Norway	NO0099R	7,84	3685,90	469,90
Sweden	SE0014R	9,04	4625,38	511,60

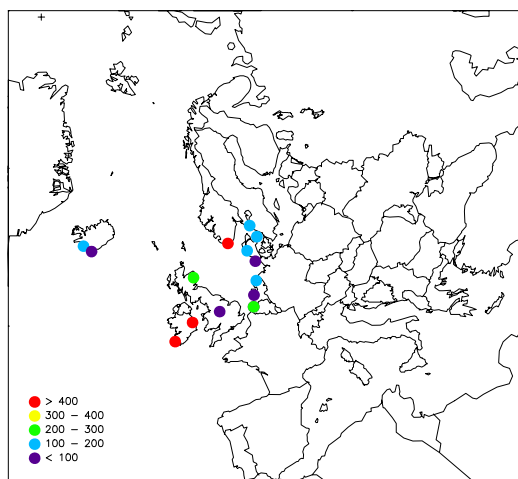


Figure 2.1: Arsenic depositions 2003, $\mu\text{g}/\text{m}^2$
2002, $\mu\text{g}/\text{m}^2$

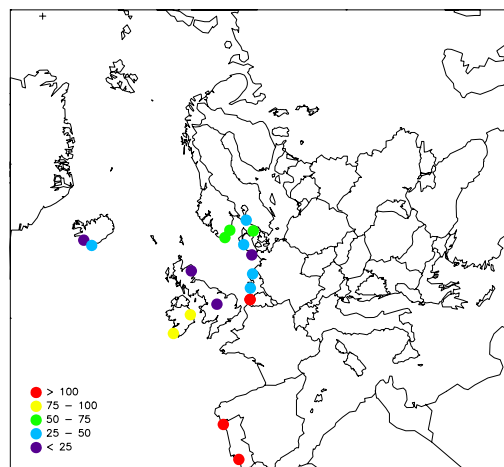


Figure 2.2: Cadmium depositions

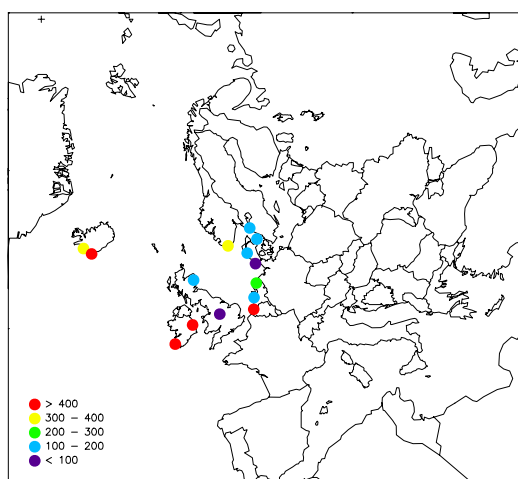


Figure 2.3: Chromium depositions 2003, $\mu\text{g}/\text{m}^2$

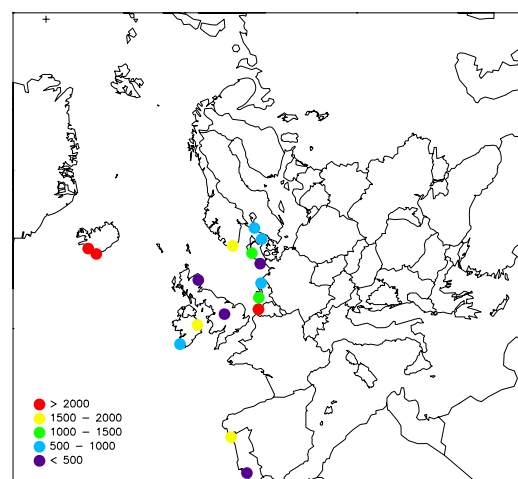


Figure 2.4: Copper depositions
2003, $\mu\text{g}/\text{m}^2$

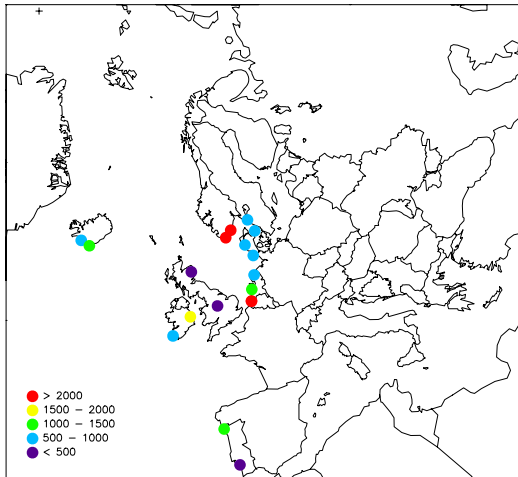


Figure 2.5: lead depositions 2003, $\mu\text{g}/\text{m}^2$

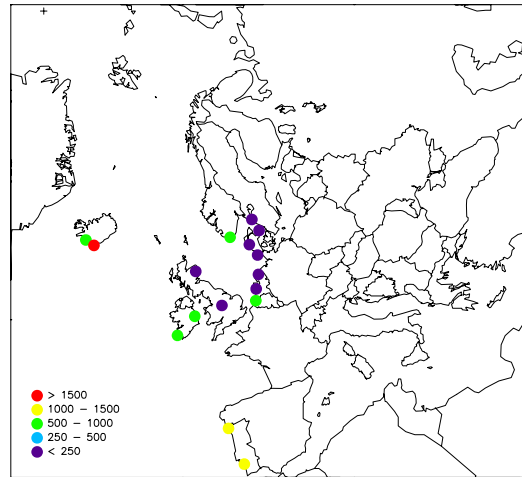


Figure 2.6: nickel depositions
 $\mu\text{g}/\text{m}^2$

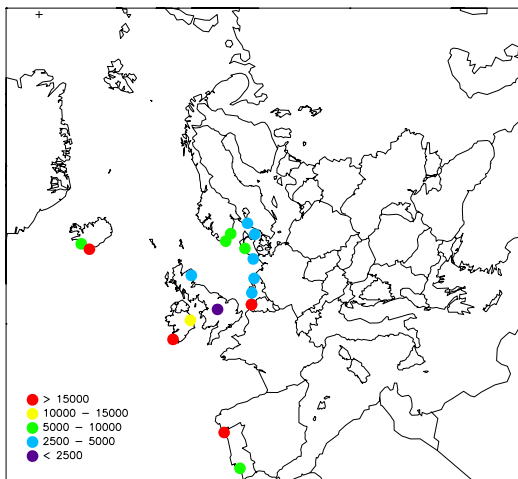


Figure 2.7: Zinc depositions 2003, $\mu\text{g}/\text{m}^2$

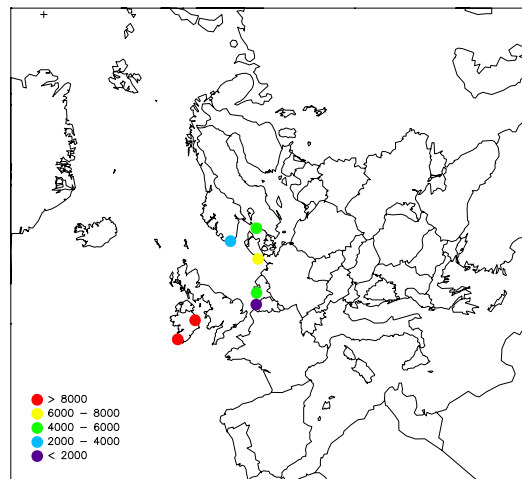


Figure 2.8: Mercury depositions
2003, ng/m^2

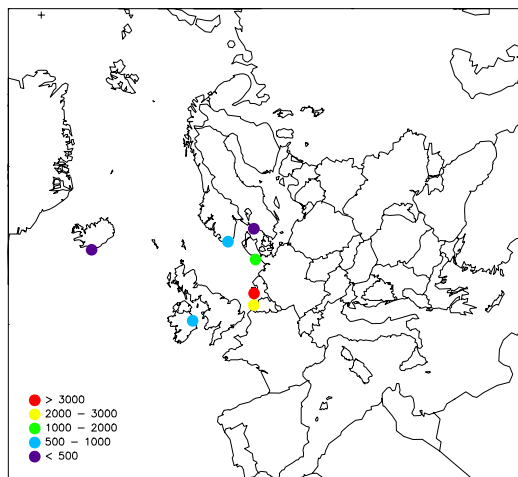


Figure 2.9: Lindane depositions 2003, ng/m^2

Table 2.3: Reported annual concentrations and depositions of γ -HCH in precipitation (prec. wtd) in decreasing order of deposition quantity (ng/m^2)

		concentration deposition precipitation		
		ng/l	ng/m ²	mm
Netherlands	NL0091R	7,58	5140,84	678,30
Belgium	BE0004R	7,02	2335,23	332,61
Germany	DE0001R	1,70	1020,71	585,60
Norway	NO0099R	0,91	881,77	974,62
Ireland	IE0002R	0,47	708,78	1514,50
Sweden	SE0014R	1,06 ^a	356,88	
Iceland	IS0091R	0,07	52,65	737,19

^a observation of precipitation plus dry deposition

Table 2.4: Reported mean annual concentrations (prec.wtd) of nitrogen in precipitation (mg/l) and depositions (mg/m²)

		nitrate	ammonium	precipitation	nitrate	ammonium
		mg/l	mg/l	mm	mg/m ²	mg/m ²
Belgium	BE0014R	0,41	0,61	528,60	215,14	322,97
Germany	DE0001R	0,62	0,73	578,70	356,20	422,00
Denmark	DK0008R	0,54	0,50	546,39	293,41	274,83
UK	GB0014R	0,49	0,57	628,60	309,12	358,12
	GB0017R	0,57	0,94	455,80	261,63	428,91
	GB0091R	0,46	0,41	486,30	225,64	196,95
Spain	ES0008R	0,68	0,56	673,00	458,31	376,21
Ireland	IE0001R	0,13	0,24	1505,36	188,17	364,30
Iceland	IS0090R	0,10	0,35	844,83	86,17	292,31
	IS0091R	0,09	0,34	1770,42	159,34	594,86
Netherlands	NL0009R	0,48	0,87	669,37	322,64	581,01
	NL0091R	0,45	0,66	681,29	306,58	446,25
Norway	NO0001R	0,50	0,47	1374,50	692,75	644,64
	NO0039R	0,08	0,12	1664,30	128,15	191,39
	NO0057R	0,11	0,12	206,50	22,92	24,57
	NO0099R	0,83	0,85	469,90	389,55	399,88
Portugal	PT0003R	0,24	0,14	1571,88	372,53	213,78
	PT0004R	0,16	0,08	575,50	94,38	46,04
	PT0010R	0,41	0,04	1117,50	462,65	45,82
Sweden	SE0014R	0,49	0,45	600,80	296,19	272,76
	SE0098R	0,60	0,49	1002,62	601,57	491,29

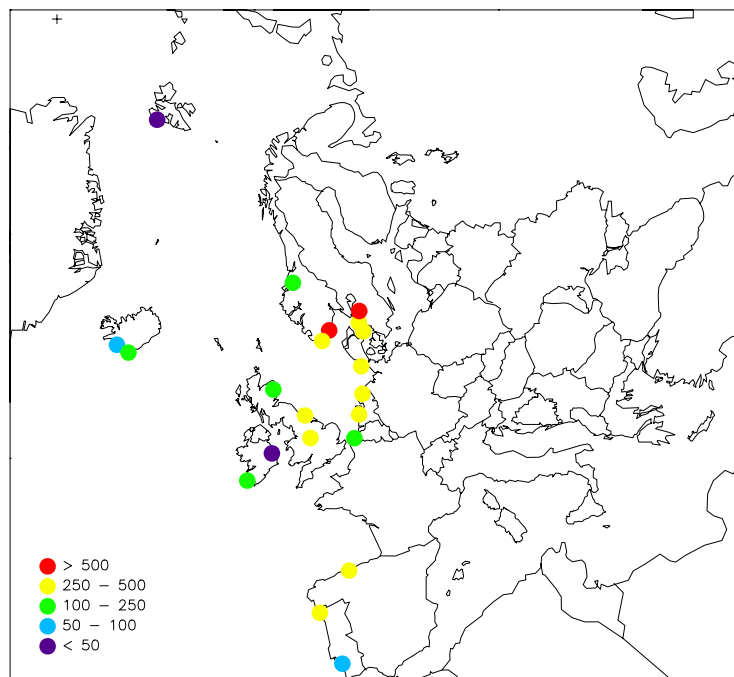


Figure 2.10: Nitrate depositions 2003, mg/m²

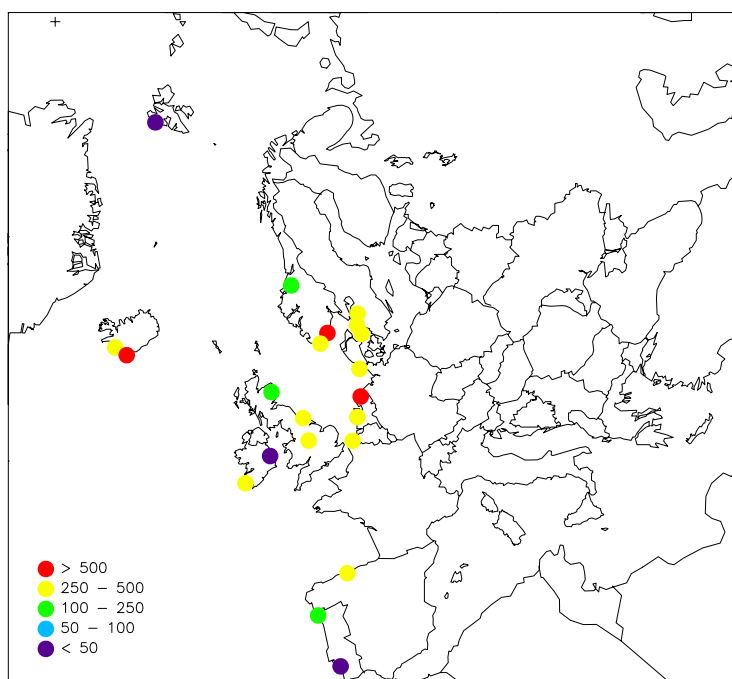


Figure 2.11: Ammonium depositions 2003, mg/m^2

3 Temporal trends, and quality control

3.1 Seasonal patterns

Nitrogen and lindane are selected here for display of temporal trends, metals having been displayed during 2002. An attempt has been made to provide broad geographical information through averaging across stations. The potential impact of the absence of data from France must be recognised in these figures.

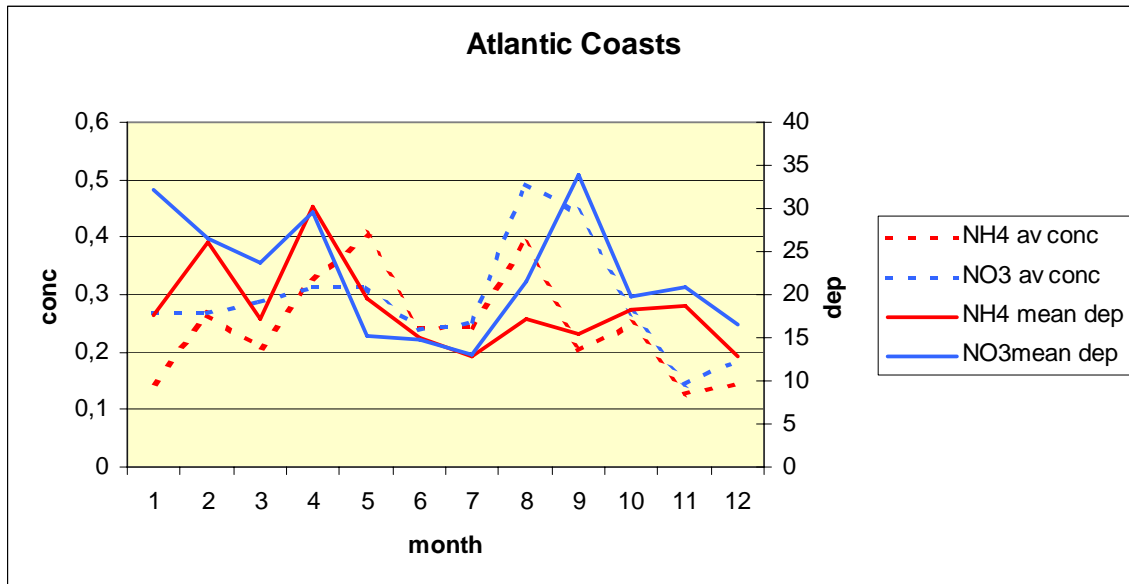


Figure 3.2 Seasonal pattern in nitrogen deposition to the Atlantic coastline during 2003, mg/l and mg/m²/month

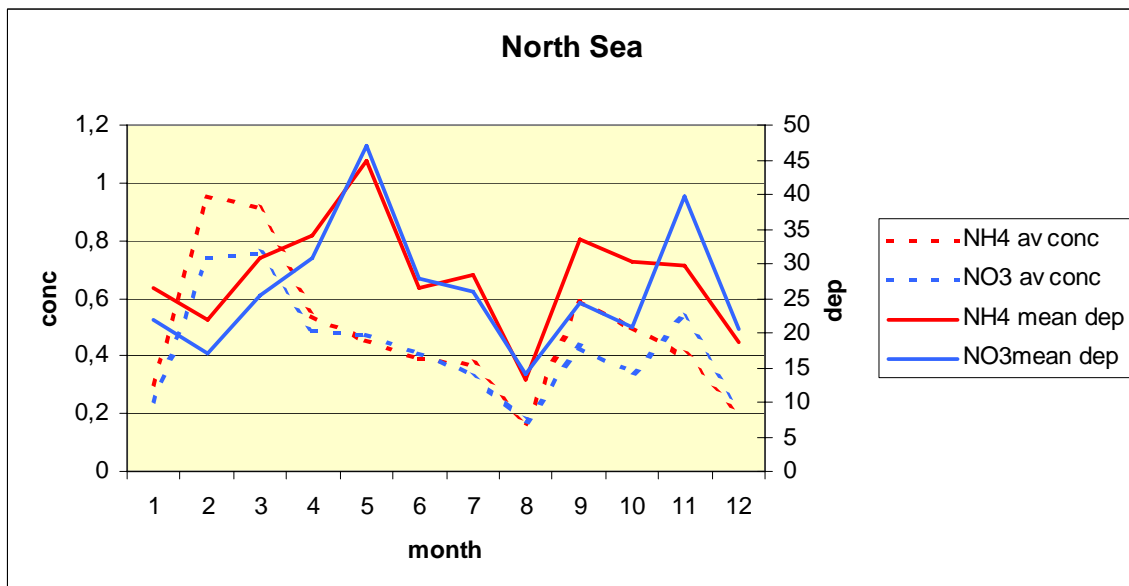


Figure 3.1 Seasonal pattern in nitrogen deposition to the North Sea coastline during 2003, mg/l and mg/m²/month

3.2 Quality Control

Quality control remains a serious issue. This task is undertaken by countries themselves, with NILU restricted to assembling and presenting data. However, there are important concerns. In this section two issues will be indicated:

- a) detection limits: the case of lindane
- b) internal quality control

a) detection limits: the case of lindane

Review of summary data during 2002 indicated elevated depositions of lindane occurring in the southern North Sea. Furthermore, the majority of Parties to INPUT 2005 did not support suggestions from some to remove lindane from the priority list on account of its continued presence. In follow up the reported data for 2003 has examined more closely. This indicates that there is likely a continued elevated deposition of lindane to the southern North Sea, despite the phasing out of lindane some years ago, thus confirming the value of observation. However, the magnitude of lindane deposition may be notably less than the summary data had suggested during previous years. At first review this appears due to uncertain monitoring and poor detection limits in Parties reporting the highest depositions.

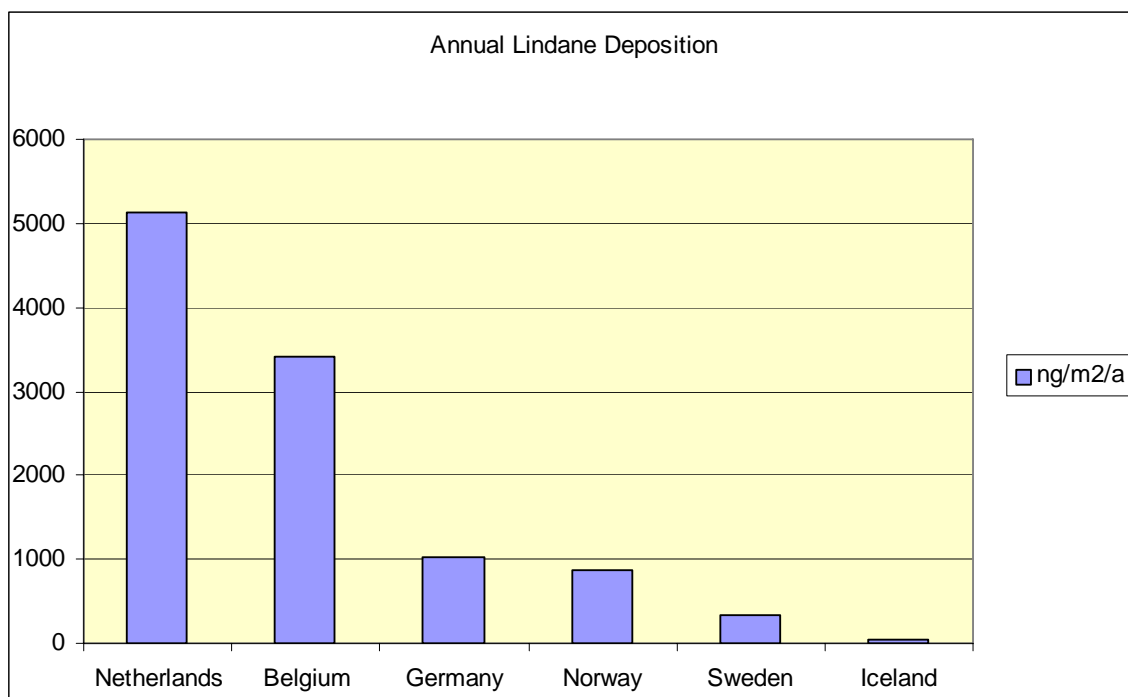


Figure 3.3. Summary annual data for lindane deposition, ng/m²/a, during 2003. Calculated according to CAMP Principles. Further review indicates that the data for Netherlands and Belgium likely overstates reality.

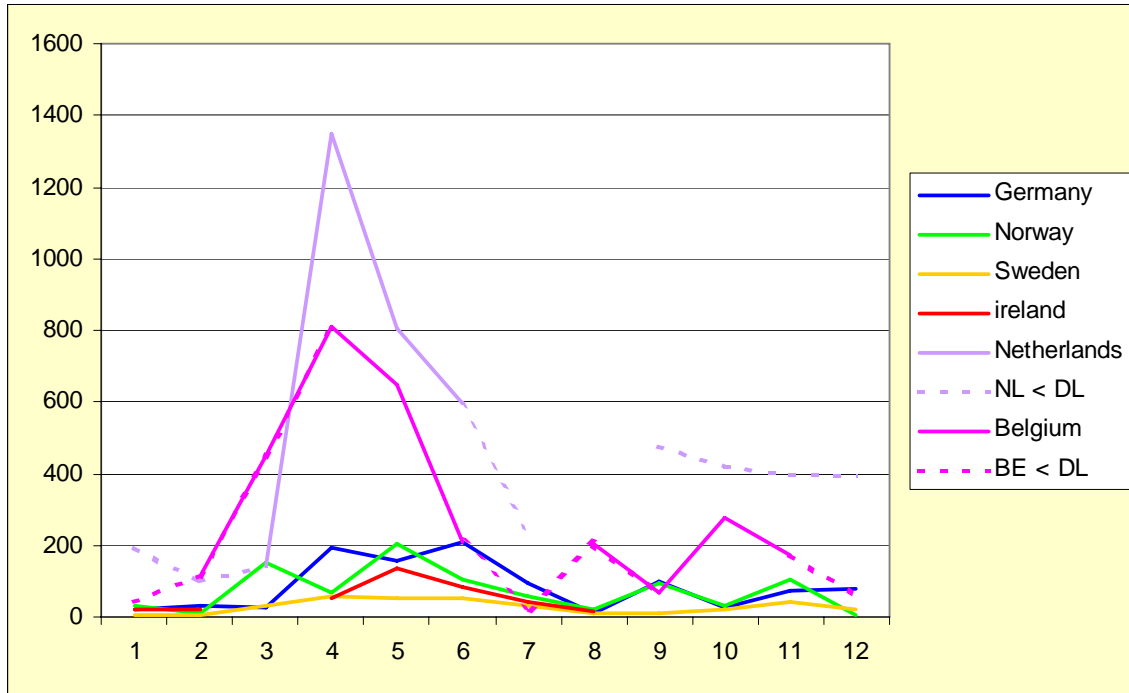


Figure 3.4 Monthly depositions of lindane (ng/m²/month). All values above detection limit except where indicated. Calculated according to CAMP Principles (below detection limit values are 50% of reported detection limit).

Table 3.1: Summary of analysis of low concentrations of lindane. Table shows the lowest concentrations successfully analysed without reaching the detection limit, and the highest reported detection limits. Each monitoring period is reported separately, hence detection limits vary.

Country	Lowest concentration analysed above detection limit	Highest reported detection limit
Belgium	6,000	2,000
Germany	0,150	none below DL
Iceland	0,030	none below DL
Ireland	none above DL	2,700
Netherlands	10,000	10,000
Norway	0,115	none below DL
Sweden	0,11	none below DL

When the monthly reported deposition data is examined, it is found that the countries reporting the greatest depositions are only able to successfully observe high concentrations. During the low input months, these countries typically find concentrations below detection limit. However, cross comparison indicates that other countries are quite able to observe lower concentrations throughout the whole year. The data from these countries displayed on a suitable scale does

indicate higher inputs between the months of March and June. Peak months supplying around 20% of the annual total at these sites, but still at a rate 4-6 times lower than reported from the high reporting stations. It is unclear why detection limits are elevated. Concentrations in the nanogram scale are not particularly low, and the very even step in monthly reported concentrations (above or below detection limit – see Appendix data tables) indicates uncertain data.

b) internal quality control

The discussion concerning high detection limits for lindane is of course equally relevant under the heading of internal quality control. The cross comparison between countries highlights an issue which should already be apparent at data source.

Whilst comparison between countries is a clear benefit of the coordinated CANP programme, this section will provide an example of the benefits of cross-comparison within countries. The CAMP Principles call for side by side observation in order to check the results produced by bulk precipitation sampling. This provides the opportunity for in-country quality control of data prior to submission.

Table 3.2 gives the results from one country of side-by-side wet-only and bulk samplers. These show higher depositions in the wet only samplers than in the wet plus dry bulk samplers, and the patterns between samplers and metals is very inconsistent. The precipitation values alone (not shown) also indicate the likelihood that the sampler is not opening sufficiently quickly.

Such errors can be noted by data originators, thus permitting in-house quality control prior to data submission. In response to the problems encountered with data in table 3.2, the data originator in Belgium lodged a response with the CAMP data manager after INPUT 2005, including the following:

“In 2003 we have performed background measurements with bulk sampling at 6 other sites in Flanders . Data from these locations have shown us that the Knokke site is for some elements probably influenced by non-located local sources. Duplo measurements at this site have also shown in some cases an unexplainable big variability which indicates external influences. Action: At the end of 2004 the measurements at the Knokke site have been stopped and new sampling equipment has been installed at a new location.....”

Table 3.2: Comparison of wet only and bulk sampler results from one country.

		calculated deposition - $\mu\text{g}/\text{m}^2/\text{month}$											
		j	f	m	a	m	j	j	a	s	o	n	d
arsenic	bulk	26160,00	14640,00	10080,00	11760,00	19920,00	10080,00	11040,00	11280,00	30240,00	19680,00	25920,00	35280,00
	wet-only	10,62	4,66	2,02	10,22	15,53	8,29	4,68	0,00	15,99	0,00	0,00	15,13
cadmium	bulk	2943,00	1647,00	4620,00	7791,00	2241,00	1134,00	2898,00	9964,00	73206,00	2214,00	2916,00	3969,00
	wet-only	32,74	20,59	10,36	51,53	51,76	52,88	38,65	0,00	44,64	0,00	0,00	220,64
copper	bulk	227,81	127,49	87,78	208,45	173,47	87,78	96,14	98,23	566,50	171,38	225,72	307,23
	wet-only	399,35	40,59	136,14	89,01	135,22	72,23	40,80	0,00	139,24	0,00	0,00	131,75
lead	bulk	154,56	183,85	173,42	306,15	133,13	152,96	98,03	130,43	495,31	231,98	142,45	174,64
	wet-only	340,21	146,04	363,15	681,44	249,74	260,93	148,55	0,00	267,81	0,00	0,00	1296,10
zinc	bulk	1067,22	454,76	1052,94	1401,65	2273,62	838,07	1116,70	2460,26	14696,64	2532,73	1238,76	1451,92
	wet-only	8671,48	3722,43	2688,25	5331,42	4219,09	4665,60	4755,27	0,00	8132,30	0,00	0,00	3489,26

4 Some points

- Reporting by OSPAR countries was poorer during 2003. One country did not deliver any data whatsoever. Only a third of countries completed the Mandatory monitoring programme.
- Reporting occurred largely in adherence to the timetable. However, some deliveries were extremely late, being received on April 1 2005, four months after the draft data report had been delivered to INPUT.
- Review of reported data on lindane indicates a continued deposition some years after the substance was legally phased out and formal emissions ceased, thus underlining the value of observation.
- However, there are issues of data quality to be answered. There is some evidence of rather superficial data quality control on occasions, which undermines the validity of the picture being presented. Very high reported concentrations being indicated as valid by national data originators whilst observations in neighbouring countries are much lower is an example. Consideration of such spatial features across national borders may assist national data originators identify potential weaknesses not evident in national datasets.
- Participation in international intercomparison exercises is strongly encouraged. This has produced benefits during 2003, and can be taken further in future.

Appendix A

Reported monthly observations of Mandatory, Voluntary, and additional components

(major ions used solely for QA not listed)

Belgium

PRECIPITATION

mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
BE0004R-Bulk sampler														
arsenic ^a	µg/l	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00	240,00
cadmium	µg/l	27,00	27,00	110,00	159,00	27,00	27,00	63,00	212,00	581,00	27,00	27,00	27,00	122,66
copper	µg/l	2,09	2,09	2,09	4,25	2,09	2,09	2,09	2,09	4,50	2,09	2,09	2,09	2,52
lead	µg/l	1,42	3,01	4,13	6,25	1,60	3,64	2,13	2,78	3,93	2,83	1,32	1,19	2,52
zinc	µg/l	9,79	7,46	25,07	28,61	27,39	19,95	24,28	52,35	116,64	30,89	11,47	9,88	32,47
precipitation_amount	mm	109,00	61,00	42,00	49,00	83,00	42,00	46,00	47,00	126,00	82,00	108,00	147,00	942,00
BE0004R-Wet only sampler														
arsenic ^a	µg/l	0,24	0,24	0,24	0,24	0,24	0,24	0,24		0,24			0,24	0,24
cadmium	µg/l	0,74	1,06	1,23	1,21	0,80	1,53	1,98		0,67				3,50
chromium	µg/l	2,18	0,40	6,17	3,97	1,07	0,81	1,78		0,40				0,40
copper	µg/l	9,03	2,09	16,17	2,09	2,09	2,09	2,09		2,09				2,09
lead	µg/l	7,69	7,52	43,13	16,00	3,86	7,55	7,61		4,02				20,56
mercury	ng/l	0,01	0,01	0,01	0,04	0,01	0,01	0,01		0,01				0,03
nickel	µg/l	6,59	2,14	4,65	2,74	0,67	1,29	2,92		1,64				0,98
zinc	µg/l	196,01	191,68	319,27	125,18	65,21	135,00	243,61		122,07				55,35
gamma_HCH	ng/l	1,00	6,00		19,00	10,00	6,00	1,00		6,00				1,00
precipitation_amount	mm	44,24	19,42	8,42	42,59	64,70	34,56	19,52		66,62				63,04
BE0014R														
ammonium	mg/l	0,39	0,27	0,89	1,40	0,81	0,95	0,55	0,58	0,64	0,34	0,59	0,33	0,62
nitrate	mg/l	0,27	0,29	0,36	0,72	0,48	0,47	0,45	0,47	0,49	0,31	0,42	0,20	0,41
precipitation_amount	mm	29,70	15,60	21,00	31,30	66,10	41,40	44,10	64,60	21,30	58,10	74,80	62,90	530,90

^a the wet only and bulk arsenic in precipitation values have both been reported as µg/l

voluntary

not reported

PCB_101	ng/l
PCB_118	ng/l
PCB_138	ng/l
PCB_153	ng/l
PCB_180	ng/l
PCB_28	ng/l
PCB_52	ng/l
phenanthrene	ng/l
anthracene	ng/l
flouranthene	ng/l
pyrene	ng/l
benzo(a)anthracene	ng/l
chrysene	ng/l
benzo(a)pyrene	ng/l
benzo(ghi)perylene	ng/l
indeno(1,2,3-cd)pyrene	ng/l

Extra reported non-CAMP components

BE0004R

aldrin	ng/l	0,50	0,50		0,50	0,50	0,50	0,50		0,50			0,50	0,50
alpha_HCH	ng/l	0,50	0,50		0,50	0,50	0,50	0,50		0,50			0,50	0,50
dieldrin	ng/l	1,00	1,00		1,00	1,00	1,00	1,00		1,00			1,00	1,00
endrin	ng/l	1,50	1,50		1,50	1,50	1,50	1,50		1,50			1,50	1,50
heptachlor	ng/l	1,00	1,00		1,00	1,00	1,00	1,00		1,00			1,00	1,00
pp_DDD	ng/l	0,50	0,50		0,50	0,50	0,50	0,50		0,50			0,50	0,50
pp_DDE	ng/l	1,00	1,00		1,00	1,00	1,00	1,00		1,00			1,00	1,00
pp_DDT	ng/l	0,50	0,50		0,50	0,50	0,50	0,50		0,50			0,50	0,50
precipitation_amount	mm	44,24	19,42		42,59	64,70	34,56	19,52		66,62			63,04	354,69

Airborne components

		january	february	march	april	may	june	july	august	september	october	november	december	mean	
mandatory															
BE0011R	nitrogen_dioxide	μg/m ³	7,00	10,65	9,13	7,00	5,48	6,09	5,48	5,48	6,09	8,52	7,91	8,52	7,28
BE0013R	nitrogen_dioxide	μg/m ³	5,48	8,83	7,91	6,09	4,57	4,26	3,65	4,87	6,39	7,30	6,09	7,30	6,06
not reported															
	NH ₃ + NH ₄	μg/m ³													
	HNO ₃ + NO ₃	μg/m ³													
voluntary															
BE0011R	NO	μg/m ³	1,40	6,53	2,80	1,40	0,93	0,93	0,93	0,93	1,87	2,80	4,67	9,33	2,88
BE0013R	NO	μg/m ³	0,93	4,67	3,27	0,93	0,93	0,47	0,47	0,93	1,40	2,33	2,33	5,13	1,98
not reported															
	PCB_118	pg/m3													
	PCB_138	pg/m3													
	PCB_153	pg/m3													
	PCB_180	pg/m3													
	PCB_28	pg/m3													
	PCB_52	pg/m3													
	anthracene	ng/m3													
	phenanthrene	ng/m3													
	benz_a_anthracene	ng/m3													
	benzo_a_pyrene	ng/m3													
	benzo_ghi_perylene	ng/m3													
	inden_123cd_pyrene	ng/m3													
	pyrene	ng/m3													
	mercury	ng/m3													
	γ-HCH	pg/m3													
	arsenic	ng/m3													
	cadmium	ng/m3													
	chromium	ng/m3													
	copper	ng/m3													
	lead	ng/m3													
	nickel	ng/m3													
	zinc	ng/m3													

Denmark

PRECIPITATION

mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
DK0008R														
ammonium	mg/l	0,312	0,796	1,384	0,492	0,582	0,312	0,563	0,483	0,912	0,475	0,333	0,268	0,50297
nitrate	mg/l	0,542	1,037	1,409	0,386	0,531	0,449	0,485	0,646	0,701	0,586	0,496	0,438	0,537368
precipitation	mm	31,559	9,02	9,361	57,656	65,048	49,808	79,072	27,123	55,435	32,366	72,283	57,66	546,391
arsenic	µg/l	0,292	0,414	0,513	0,235	0,138	0,161	0,148	0,203	0,369	0,344	0,194	0,137	0,218
cadmium	µg/l	0,055	0,086	0,118	0,062	0,046	0,037	0,029	0,062	0,576	0,05	0,036	0,031	0,098
chromium	µg/l	0,204	0,3	0,653	0,449	0,15	0,166	0,117	0,274	0,378	0,232	0,089	0,114	0,216
copper	µg/l	0,914	3,164	2,763	1,445	0,895	1,374	0,722	1,579	1,875	0,969	0,629	1,443	1,204
lead	µg/l	2,4	4,493	3,971	1,939	0,975	1,437	1,024	1,316	0,7	1,577	1,207	0,087	1,286
nickel	µg/l	0,254	0,621	0,822	0,492	0,244	0,354	0,257	0,434	0,516	0,316	0,192	0,248	0,335
zinc	µg/l	8,193	20,531	25,8	8,599	4,896	9,41	6,66	10,246	14,373	12,242	4,637	5,618	8,501
precipitation	mm	29,963	9,27	9,611	58,276	66,857	51,855	78,798	28,481	55,213	34,125	71,909	55,187	549,835
DK0031R														
arsenic	µg/l	0,155	0,146	0,331	0,455	0,161	0,158	0,311	0,17	0,151	0,124	0,147	0,108	0,189
cadmium	µg/l	0,058	0,046	0,102	0,068	0,046	0,036	0,112	0,043	0,034	0,021	0,031	0,03	0,047
chromium	µg/l	0,159	0,149	0,47	0,563	0,153	0,158	0,298	0,181	0,126	0,073	0,076	0,065	0,182
copper	µg/l	0,779	1,685	2,673	3,144	3,267	1,453	4,65	1,401	0,885	0,544	0,415	0,408	1,68
lead	µg/l	0,8	1,089	3,265	2,16	1,099	0,946	2,186	0,492	0,934	0,666	0,754	0,411	1,09
nickel	µg/l	0,256	0,357	0,837	0,604	0,333	0,293	0,357	0,209	0,301	0,173	0,168	0,188	0,303
zinc	µg/l	10,178	10,031	58,789	14,591	9,81	6,24	10,635	6,18	5,801	5,408	5,34	5,508	9,205
precipitation	mm	47,473	23,458	20,291	55,306	75,666	117,242	55,345	48,338	70,674	57,933	81,046	61,515	714,74
not reported														
mercury	ng/l													
γ-HCH	ng/l													
voluntary														
not reported														
PCB_101	ng/l													
PCB_118	ng/l													
PCB_138	ng/l													
PCB_153	ng/l													
PCB_180	ng/l													
PCB_28	ng/l													
PCB_52	ng/l													
phenanthrene	ng/l													
anthracene	ng/l													
flouranthene	ng/l													
pyrene	ng/l													
benzo(a)anthracene	ng/l													
chrysene	ng/l													
benzo(a)pyrene	ng/l													
benzo(ghi)perylene	ng/l													
indeno(1,2,3-cd)pyrene	ng/l													

Airborne components

mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
DK0008R														
NO ₂		2,36	3,24	2,70	1,60	1,35	1,18	1,57	0,99	1,18	1,24	3,07	2,26	1,89
NH ₃ + NH ₄		1,11	2,05	2,70	1,51	1,47	0,88	1,09	0,85	1,24	0,78	1,36	0,79	1,32
HNO ₃ + NO ₃		0,77	1,30	1,66	0,89	0,98	0,56	0,67	0,50	0,84	0,62	0,91	0,55	0,85
voluntary														
DK0008R														
arsenic	ng/m3	0,65	1,12	0,67	0,31	0,30	0,21	0,29	0,18	0,29	0,32	0,65	0,59	0,46
cadmium	ng/m3	0,10	0,24	0,18	0,06	-0,01	-0,02	0,14	0,05	0,12	-0,02	0,25	0,15	0,10
chromium	ng/m3	0,30	0,37	0,52	0,34	0,26	0,26	0,27	0,15	0,37	0,35	0,34	0,28	0,32
copper	ng/m3	1,44	1,80	1,27	0,99	0,83	0,76	0,89	0,57	1,10	0,76	1,33	0,90	1,05
lead	ng/m3	5,82	11,05	6,95	3,23	2,14	2,15	2,32	1,12	3,39	2,59	6,83	4,16	4,31
nickel	ng/m3	1,60	2,20	2,89	2,02	1,92	1,96	1,94	1,14	1,48	0,76	1,70	1,01	1,72
zinc	ng/m3	10,42	23,03	14,50	10,77	5,20	6,69	6,21	3,86	9,10	7,53	13,98	8,79	10,01
DK0031R														
arsenic	ng/m3	0,31	0,30		0,51	0,18	0,18	0,20	0,11	0,28	0,25	0,46	0,32	0,28
cadmium	ng/m3	0,15	0,03		0,14	-0,01	0,01	0,02	-0,03	0,03	0,02	0,18	0,16	0,06
chromium	ng/m3	0,13	0,32		0,83	0,23	0,28	0,27	0,13	0,17	0,21	0,11	0,43	0,28
copper	ng/m3	1,00	0,19		1,60	0,50	0,66	0,84	0,41	0,96	0,79	1,08	1,46	0,86
lead	ng/m3	3,79	2,31		4,34	1,84	2,11	2,45	0,79	3,36	2,96	4,93	4,57	3,04
nickel	ng/m3	0,88	0,17		1,45	1,10	1,07	1,23	0,62	0,96	0,47	1,04	0,85	0,89
zinc	ng/m3	8,59	5,74		13,89	5,29	6,47	6,54	3,31	9,19	9,35	11,80	9,55	8,16
not reported														
PCB_118	pg/m3													
PCB_138	pg/m3													
PCB_153	pg/m3													
PCB_180	pg/m3													
PCB_28	pg/m3													
PCB_52	pg/m3													
anthracene	ng/m3													
phenanthrene	ng/m3													
benz_a_anthracene	ng/m3													
benzo_a_pyrene	ng/m3													
benzo_ghi_perylene	ng/m3													
inden_123cd_pyrene	ng/m3													
pyrene	ng/m3													
mercury	ng/m3													
γ-HCH	pg/m3													

France

PRECIPITATION

	january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory													
not reported													
ammonium													mg/l
nitrate													mg/l
arsenic													µg/l
cadmium													µg/l
chromium													µg/l
copper													µg/l
lead													µg/l
mercury													ng/l
nickel													µg/l
zinc													µg/l
γ-HCH													ng/l
precipitation													mm
voluntary													
not reported													
PCB_101													ng/l
PCB_118													ng/l
PCB_138													ng/l
PCB_153													ng/l
PCB_180													ng/l
PCB_28													ng/l
PCB_52													ng/l
phenanthrene													ng/l
anthracene													ng/l
flouranthene													ng/l
pyrene													ng/l
benzo(a)anthracene													ng/l
chrysene													ng/l
benzo(a)pyrene													ng/l
benzo(ghi)perylene													ng/l
indeno(1,2,3-cd)pyrene													ng/l

Airborne components

	january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory													
not reported													
NO ₂													µg/m ³
NH ₃ + NH ₄													µg/m ³
HNO ₃ + NO ₃													µg/m ³
voluntary													
not reported													
PCB_118													pg/m ³
PCB_138													pg/m ³
PCB_153													pg/m ³
PCB_180													pg/m ³
PCB_28													pg/m ³
PCB_52													pg/m ³
anthracene													ng/m ³
phenanthrene													ng/m ³
benz_a_anthracene													ng/m ³
benzo_a_pyrene													ng/m ³
benzo_ghi_perylene													ng/m ³
inden_123cd_pyrene													ng/m ³
pyrene													ng/m ³
mercury													ng/m ³
γ-HCH													pg/m ³
arsenic													ng/m ³
cadmium													ng/m ³
chromium													ng/m ³
copper													ng/m ³
lead													ng/m ³
nickel													ng/m ³
zinc													ng/m ³
NO													µg/m ³

Germany

Mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
DE0001R															
ammonium	mg/l		0,47	2,01	2,34	0,75		1,25	0,88		0,86		0,54	0,29	0,73
nitrate	mg/l		0,48	0,68	1,41	0,47		0,77	0,64		0,67		0,92	0,66	0,62
precipitation	mm		228,80	4,70	10,50	35,50		80,20	61,20		81,80		25,20	50,80	578,70
arsenic	µg/l		0,11	0,29	0,37	0,11		0,15	0,18		0,15		0,13	0,13	0,14
cadmium	µg/l		0,03	0,05	0,09	0,03		0,05	0,06		0,05		0,04	0,03	0,04
chromium	µg/l		0,14	0,26	0,26	0,18		0,12	0,11		0,13		0,13	0,14	0,14
copper	µg/l		0,66	1,29	1,75	0,79		1,31	0,82		0,91		0,48	0,37	0,78
lead	µg/l		1,02	1,13	3,01	1,05		1,46	1,14		1,48		0,85	0,93	1,17
mercury	ng/l		7,17	38,80	12,20	6,90		13,20	14,30		7,20		7,70	6,30	8,91
nickel	µg/l		0,21	0,73	0,39	0,21		0,25	0,28		0,25		0,31	0,19	0,24
zinc	µg/l		6,88	15,80	11,70	6,20		8,20	7,50		9,00		6,10	3,90	7,16
precipitation	mm		265,60	5,40	14,40	38,40		83,90	62,30		82,80		39,40	67,70	659,90
not reported															
γ-HCH	ng/l														
voluntary															
anthracene	ng/l		0,3	0,3	0,7	0,2	0,1	0,1	0,2	0,4	0,1	0,1	0,2	0,5	0,23
benzo(a)pyrene	ng/l		4,8	2,6	8,9	2,3	0,6	1,2	2	1,5	0,5	1,5	1,9	2,7	1,88
benzo(ghi)perylene	ng/l		8,3	3,6	12,3	2	0,5	1,3	2,3	1,3	0,9	2,3	2,5	3,9	2,42
chrysene	ng/l		13,2	7	20	5,4	1,7	2,5	3,3	1,8	2,5	4,3	4,7	6,6	4,46
indeno(123cd)pyrene	ng/l		10,7	3,7	14,8	2,1	0,3	1,3	2,9	1,6	0,3	2,6	2,4	3,9	2,60
phenanthrene	ng/l		21,4	16	35,1	9,7	5,3	7,6	12,5	5,6	7,3	9,9	12	15,6	10,69
pyrene	ng/l		19,5	12	34,4	10,6	4,2	7,2	7,9	3	5,3	8,2	7,9	10,3	8,37
precipitation	mm		21,882	25,332	14,786	42,886	60,229	81,886	42,274	64,834	61,697	49,777	54,96	65,057	585,90
not reported															
PCB_101	ng/l														
PCB_118	ng/l														
PCB_138	ng/l														
PCB_153	ng/l														
PCB_180	ng/l														
PCB_28	ng/l														
PCB_52	ng/l														
flouranthene	ng/l														
benzo(a)anthracene	ng/l														

Airborne components

mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
DE0001R															
NO ₂	µg/m ³		3,7	4,4	3,2	2,2	1,5	1,2	1,2	0,9	1,7	3,3	4,5	4,3	2,68
NH ₃ + NH ₄	µg/m ³		1,5	4,2	4,1	3,4	2,5	3	2,6						3,04
HNO ₃ + NO ₃	µg/m ³		1,1	2,5	2,6	1,8	1,3	1,1	1						1,63
voluntary															
not reported															
PCB_118	pg/m ³														
PCB_138	pg/m ³														
PCB_153	pg/m ³														
PCB_180	pg/m ³														
PCB_28	pg/m ³														
PCB_52	pg/m ³														
anthracene	ng/m ³														
phenanthrene	ng/m ³														
benz_a_anthracene	ng/m ³														
benzo_a_pyrene	ng/m ³														
benzo_ghi_perylene	ng/m ³														
inden_123cd_pyrene	ng/m ³														
pyrene	ng/m ³														
mercury	ng/m ³														
γ-HCH	pg/m ³														
arsenic	ng/m ³														
cadmium	ng/m ³														
chromium	ng/m ³														
copper	ng/m ³														
lead	ng/m ³														
nickel	ng/m ³														
zinc	ng/m ³														
NO	µg/m ³														

Iceland

PRECIPITATION

Mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean	
IS0090R	ammonium	mg/l	0,72	0,53	0,44	0,43	0,20	0,25	0,24	0,16	0,24	0,46	0,23	0,35	0,35
	nitrate	mg/l	0,16	0,18	0,08	0,10	0,10	0,12	0,06	0,06	0,13	0,14	0,06	0,10	
	precipitation	mm	25,70	126,40	87,60	55,20	44,30	85,20	67,80	75,80	74,40	43,50	63,80	95,10	844,80
	arsenic	µg/l	0,09	0,11	0,27	0,20	0,09	0,04	0,04	0,07	0,08	0,29	0,41	0,26	0,17
	cadmium	µg/l	0,01	0,02	0,02	0,03	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
	chromium	µg/l	0,27	0,19	0,07	0,34	0,67	0,99	0,22	0,36	0,29	0,33	0,42	0,29	0,34
	copper	µg/l	4,37	1,26	1,27	1,44	2,93	3,25	1,60	1,84	1,61	2,11	2,00	1,57	1,84
	lead	µg/l	1,06	0,52	0,29	0,82	0,61	0,49	0,47	0,34	0,34	0,47	0,44	0,23	0,49
	nickel	µg/l	0,76	0,44	0,39	0,66	0,87	0,99	0,29	0,34	0,82	0,74	1,16	0,43	0,61
	zinc	µg/l	9,38	2,44	3,19	4,09	9,05	8,42	7,41	4,38	3,97	7,55	4,09	2,22	4,69
	precipitation	mm	37,21	145,32	108,60	165,53	51,25	82,13	71,54	92,89	87,45	52,42	67,94	134,74	1097,02
IS0091R	ammonium	mg/l	0,23	0,13	0,14	0,18	0,54	0,12	0,47	3,06	0,08	0,17	0,27	0,01	0,34
	nitrate	mg/l	0,04	0,12	0,16	0,27	0,06	0,08	0,05	0,11	0,02	0,10	0,10	0,01	0,09
	precipitation	mm	133,67	318,15	152,33	110,80	29,69	78,80	182,13	95,16	182,49	147,10	146,63	193,47	1770,42
	arsenic	µg/l	3,67	0,87	0,52	0,91	0,28	0,27	0,23	0,46	0,34	0,37	0,29	0,73	0,77
	cadmium	µg/l	0,02	0,03	0,01	0,04	0,02	0,03	0,02	0,06	0,02	0,01	0,03	0,01	0,02
	chromium	µg/l	0,42	1,08	0,58	0,27	1,50	2,37	2,90	1,78	1,46	1,05	0,83	0,62	1,19
	copper	µg/l	1,26	7,36	268,45	52,87	2,79	3,67	6,37	3,88	2,72	15,88	9,38	1,29	31,42
	lead	µg/l	2,68	0,81	1,02	0,87	0,68	0,30	0,37	0,32	0,23	0,59	0,46	0,17	0,70
	nickel	µg/l	1,08	1,20	2,35	0,84	4,25	0,98	0,63	0,77	1,02	1,94	0,54	0,26	1,11
	zinc	µg/l	16,26	13,75	13,98	14,28	12,56	7,62	10,39	8,66	7,83	9,20	11,34	10,23	11,51
	precipitation	mm	133,67	318,15	152,33	110,80	29,69	78,80	182,13	95,16	182,49	147,10	146,63	193,47	1770,42
	gamma_HCH	ng/l	0,06	0,06	0,07	0,07	0,20	0,19	0,04	0,05	0,05	0,08	0,07	0,03	0,07
	precipitation	mm	59,00	89,00	75,00	56,00	21,50	61,00	61,00	43,00	62,00	37,00	77,00	103,00	744,50
not reported	mercury	ng/l													
Voluntary															
IS0091R	PCB_101	ng/l	0,01	0,01	0,01	0,01	0,03	0,01	0,01	0,01	0,01	0,01	0,00	0,00	0,01
	PCB_118	ng/l	0,01	0,01	0,01	0,01	0,04	0,01	0,00	0,01	0,00	0,01	0,00	0,00	0,01
	PCB_138	ng/l	0,01	0,01	0,01	0,01	0,06	0,01	0,01	0,01	0,01	0,00	0,00	0,00	0,01
	PCB_153	ng/l	0,01	0,02	0,01	0,01	0,05	0,01	0,01	0,01	0,01	0,00	0,00	0,00	0,01
	PCB_180	ng/l	0,01	0,01	0,00	0,00	0,04	0,01	0,00	0,01	0,00	0,01	0,00	0,00	0,00
	PCB_28	ng/l	0,14	0,05	0,04	0,04	0,12	0,04	0,12	0,17	0,12	0,19	0,10	0,07	0,09
	PCB_52	ng/l	0,04	0,02	0,02	0,02	0,05	0,02	0,03	0,05	0,03	0,05	0,03	0,02	0,03
	precipitation	mm	58,52	85,70	69,64	63,24	23,36	57,82	63,33	43,09	60,90	37,47	77,52	97,13	737,71
not reported	phenanthrene	ng/l													
	anthracene	ng/l													
	flouranthene	ng/l													
	pyrene	ng/l													
	benzo(a)anthracene	ng/l													
	chrysene	ng/l													
	benzo(a)pyrene	ng/l													
	benzo(ghi)perylene	ng/l													
	indeno(1,2,3-cd)pyrene	ng/l													
Extra reported non-CAMP components															
IS0091R	alpha_HCH	ng/l	0,18	0,12	0,12	0,06	0,24	0,12	0,09	0,16	0,16	0,24	0,19	0,10	0,14
	beta_HCH	ng/l	0,01	0,01	0,01	0,01	0,02	0,01	0,01	0,01	0,01	0,01	0,00	0,00	0,01
	dieldrin	ng/l	0,03	0,03	0,04	0,03	0,03	0,02	0,01	0,01	0,03	0,03	0,05	0,02	0,03
	pp_DDD	ng/l	0,01	0,01	0,01	0,01	0,02	0,01	0,00	0,01	0,00	0,01	0,01	0,01	0,01
	pp_DDE	ng/l	0,01	0,01	0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,00	0,00	0,01
	pp_DDT	ng/l							0,01	0,01	0,02	0,01	0,01	0,01	0,01
	op_DDT	ng/l					0,01	0,00	0,01	0,01	0,02	0,06	0,01	0,01	0,01
	HCB	ng/l	0,04	0,01	0,01	0,01	0,02	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
	PCB_105	ng/l	0,01	0,00	0,00	0,00	0,02	0,01	0,00	0,01	0,00	0,01	0,00	0,00	0,00
	PCB_156	ng/l	0,01	0,00	0,00	0,01	0,01	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	PCB_31	ng/l	0,12	0,05	0,04	0,04	0,12	0,04	0,11	0,15	0,11	0,18	0,09	0,06	0,08
	cis_CD	ng/l	0,01	0,00	0,00	0,00	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	trans_CD	ng/l	0,00	0,01	0,00	0,00	0,01	0,00	0,00	0,01	0,00	0,01	0,00	0,00	0,00
	trans_NO	ng/l	0,01	0,00	0,00	0,00	0,01	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	Toxaphene-26	ng/l	received from Icelandic data provider												
	Toxaphene-26	ng/l	received from Icelandic data provider												
	Toxaphene-26	ng/l	received from Icelandic data provider												
	precipitation_amount	mm	59,00	89,00	75,00	56,00	21,50	61,00	61,00	43,00	62,00	37,00	77,00	103,00	744,50

Airborne components

		january	february	march	april	may	june	july	august	september	october	november	december	mean	
Mandatory															
IS0091R															
	NO ₃	µg/m ³	0,05	0,08	0,11	0,12	0,05	0,05	0,06	0,05	0,03	0,08	0,04	0,02	0,06
not reported															
	NO ₂	µg/m ³													
	HNO ₃	µg/m ³													
	NH ₃	µg/m ³													
	NH ₄	µg/m ³													
voluntary															
IS0091R															
	arsenic	ng/m3	0,19	0,23	0,21	0,16	0,12	0,11	0,08	0,08	0,14	0,13	0,20	0,13	0,15
	cadmium	ng/m3	0,01	0,03	0,02	0,02	0,01	0,01	0,01	0,02	0,04	0,01	0,03	0,01	0,02
	chromium	ng/m3	6,73	14,93	10,87	3,55	0,64	3,81	0,44	0,72	6,79	4,12	10,62	5,57	5,73
	copper	ng/m3	0,84	0,56	0,66	0,85	1,53	0,62	0,37	0,22	0,56	0,51	0,65	0,35	0,64
	lead	ng/m3	0,28	0,63	0,59	0,76	0,31	0,22	0,32	0,44	0,56	0,40	1,11	0,47	0,51
	mercury	ng/m3	0,85	0,95	0,80	0,71	1,77	0,77	0,75	0,45	0,50	0,86	0,71	0,50	0,80
	nickel	ng/m3	5,16	8,85	6,93	2,38	0,64	3,04	0,53	0,70	4,05	2,55	6,49	3,31	3,72
	zinc	ng/m3	4,63	3,14	3,01	2,91	3,56	2,21	6,15	5,20	4,37	2,55	24,44	7,27	5,78
	γ-HCH	pg/m3	3,97	6,96	7,02	9,10	7,28	7,55	8,77	8,16	7,87	8,40	8,89	6,28	7,52
	PCB_28	pg/m3	1,36	1,56	1,74	2,09	2,11	2,07	6,05	6,03	6,08	5,62	11,89	5,81	4,37
	PCB_52	pg/m3	0,58	0,66	0,73	0,88	0,89	0,87	1,67	1,65	1,67	1,54	3,07	1,59	1,32
	PCB_101	pg/m3	0,21	0,24	0,27	0,32	0,49	0,32	1,09	1,11	1,03	0,63	1,18	0,24	0,59
	PCB_118	pg/m3	0,21	0,24	0,27	0,32	0,33	0,32	0,17	0,17	0,17	0,15	0,58	0,16	0,26
	PCB_138	pg/m3	0,26	0,30	0,33	0,40	0,41	0,40	0,26	0,25	0,25	0,23	0,26	0,24	0,30
	PCB_153	pg/m3	0,26	0,30	0,33	0,40	0,41	0,40	0,26	0,25	0,25	0,23	0,59	0,24	0,33
	PCB_180	pg/m3	0,16	0,18	0,20	0,24	0,25	0,24	0,17	0,17	0,17	0,15	0,17	0,16	0,19
not reported															
	phenanthrene	ng/m3													
	anthracene	ng/m3													
	flouanthene	ng/m3													
	pyrene	ng/m3													
	benzo(a)anthracene	ng/m3													
	chrysene	ng/m3													
	benzo(a)pyrene	ng/m3													
	benzo(ghi)perylene	ng/m3													
	indeno(1,2,3-cd)pyrene	ng/m3													
	NO	µg/m ³													
Extra reported non-CAMP components															
IS0091R															
	alpha_HCH	pg/m3	7,20	5,30	7,92	8,09	8,53	8,83	6,78	7,35	10,92	6,39	6,43	4,85	7,38
	dieldrin	pg/m3	0,67	0,68	0,65	0,85	1,16	1,26	0,82	0,77	0,85	0,79	0,80	0,52	0,82
	pp_DDD	pg/m3	0,11	0,12	0,13	0,16	0,16	0,16	0,17	0,17	0,17	0,15	0,28	0,16	0,16
	pp_DDE	pg/m3	0,39	0,35	0,33	0,38	0,30	0,48	0,25	0,38	0,55	0,22	0,43	0,24	0,36
	pp_DDT	pg/m3	0,22	0,24	0,27	0,33	0,32	0,32	0,42	0,41	0,41	0,36	1,44	0,40	0,43

Ireland

PRECIPITATION

Mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
IE0001R														
ammonium	mg/l	0,23	0,30	0,11	0,74	0,29	0,13	0,14	0,25	0,26	0,15	0,18	0,09	0,24
nitrate	mg/l	0,08	0,27	0,11	0,23	0,10	0,06	0,10	0,30	0,18	0,14	0,08	0,05	0,13
precipitation	mm	132,00	163,00	82,00	138,00	142,00	147,00	126,00	25,00	64,00	59,00	293,00	136,00	1507,00
arsenic	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
cadmium	µg/l	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
chromium	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
copper	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
lead	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
mercury	ng/l	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00
nickel	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
zinc	µg/l	56,00	25,00	59,00	21,00	24,00	12,00	21,00	69,00	30,00	55,00	41,00	22,00	32,46
precipitation	mm	132,00	163,00	82,00	138,00	142,00	147,00	126,00	25,00	64,00	59,00	293,00	136,00	1507,00
IE0002R														
ammonium	mg/l													0,00
nitrate	mg/l													0,00
precipitation	mm	144,10	131,60	90,50	107,80	161,50	154,50	89,80	12,60	71,60	186,10	217,00	149,20	1516,30
arsenic	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50					0,50
cadmium	µg/l	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05					0,05
chromium	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50					0,50
copper	µg/l	0,50	2,00	0,50	0,50	0,50	2,00	2,00	2,00					1,15
lead	µg/l	0,50	3,00	0,50	2,00	0,50	0,50	0,50	0,50					1,05
mercury	ng/l	50,00	50,00	50,00	50,00	50,00	50,00	50,00	50,00					50,00
nickel	µg/l	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50					0,50
zinc	µg/l	2,00	12,00	9,00	22,00	0,50	13,00	12,00	12,00					9,38
precipitation	mm	144,10	131,60	90,50	107,80	161,50	154,50	89,80	12,60	71,60	186,10	217,00	149,20	1516,30
γ-HCH	ng/l	0,15	0,15		0,50	0,85	0,55	0,45	1,35					0,25
precipitation	mm	144,10	131,60	90,50	107,80	161,50	154,50	89,80	12,60	71,60	186,10	217,00	149,20	1516,30
voluntary														
PCB_52	ng/l	0,05	0,05		0,20	0,35	0,20	0,20	0,55					0,17
PCB_101	ng/l	0,05	0,05		0,20	0,35	0,20	0,20	0,55					0,17
PCB_118	ng/l	0,05	0,05		0,10	0,15	0,10	0,10	0,25					0,09
PCB_138	ng/l	0,05	0,05		0,20	0,35	0,20	0,20	0,55					0,17
PCB_153	ng/l	0,05	0,05		0,20	0,35	0,20	0,20	0,55					0,17
precipitation	mm	144,10	131,60	90,50	107,80	161,50	154,50	89,80	12,60	71,60	186,10	217,00	149,20	1516,30
not reported														
PCB_180	ng/l													
PCB_28	ng/l													
phenanthrene	ng/l													
anthracene	ng/l													
flouranthene	ng/l													
pyrene	ng/l													
benzo(a)anthracene	ng/l													
chrysene	ng/l													
benzo(a)pyrene	ng/l													
benzo(ghi)perylene	ng/l													
indeno(1,2,3-cd)pyrene	ng/l													
Extra reported non-CAMP components														
IE0002R														
aldrin	ng/l	0,05	0,05		0,10	0,15	0,10	0,10	0,25					0,09
alpha_HCH	ng/l	0,15	0,15		0,50	0,85	0,55	0,45	1,35					0,42
dieldrin	ng/l	0,05	0,05		0,50	0,85	0,55	0,45	1,35					0,39
endrin	ng/l	0,35	0,35		0,50	0,85	0,55	0,45	1,35					0,48
heptachlor	ng/l	0,05	0,05		0,10	0,15	0,10	0,10	0,25					0,09
pp_DDD	ng/l													
pp_DDE	ng/l	0,05	0,05		0,10	0,15	0,10	0,10	0,25					0,09
pp_DDT	ng/l													
precipitation_amount	mm	144,10	131,60	90,50	107,80	161,50	154,50	89,80	12,60	71,60	186,10	217,00	149,20	1516,30

Airborne components

	january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory													
not reported													
NO ₂													µg/m ³
NH ₃ + NH ₄													µg/m ³
HNO ₃ + NO ₃													µg/m ³
voluntary													
not reported													
PCB_118													pg/m ³
PCB_138													pg/m ³
PCB_153													pg/m ³
PCB_180													pg/m ³
PCB_28													pg/m ³
PCB_52													pg/m ³
anthracene													ng/m ³
phenanthrene													ng/m ³
benz_a_anthracene													ng/m ³
benzo_a_pyrene													ng/m ³
benzo_ghi_perylene													ng/m ³
inden_123cd_pyrene													ng/m ³
pyrene													ng/m ³
mercury													ng/m ³
γ-HCH													pg/m ³
arsenic													ng/m ³
cadmium													ng/m ³
chromium													ng/m ³
copper													ng/m ³
lead													ng/m ³
nickel													ng/m ³
zinc													ng/m ³
NO													µg/m ³

Netherlands

PRECIPITATION

Mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
NL0009R														
ammonium	mg/l	0,77	0,77			1,22	1,62		3,29	0,77	0,45	0,63	0,55	0,81
nitrate	mg/l	0,49	0,29			0,76	0,95		3,10	0,24	0,32	0,43	0,34	0,46
precipitation	mm	145,80	25,90	12,10	1,90	95,90	70,10	26,60	1,80	132,10	82,10	40,20	83,93	718,43
arsenic	µg/l	0,20	0,08		0,20		0,16	0,32	1,73	0,41	0,36	0,77	0,08	0,28
cadmium	µg/l	0,09	0,04		0,06		0,08	0,09	0,34	0,02	0,02	0,10	0,04	0,06
chromium	µg/l	0,26	0,26		0,26		0,26	0,26	2,10	0,26	0,53	0,94	0,26	0,34
copper	µg/l	0,83	0,76		1,76		1,74	3,72	12,35	1,18	1,68	1,83	0,54	1,36
lead	µg/l	1,54	0,49		2,22		2,04	1,98	8,61	1,52	1,63	3,15	0,62	1,64
nickel	µg/l	0,21	0,21		0,52		0,21	0,49	2,55	0,21	0,44	0,77	0,21	0,31
zinc	µg/l	6,49	5,00		7,70		7,60	10,90	34,80	7,30	5,80	12,00	4,71	7,10
precipitation	mm	138,80	22,70		47,90		68,70	26,30	1,90	132,80	82,90	37,10	77,75	636,85
NL0091R														
ammonium	mg/l	0,22	1,37	0,36	1,61	0,43	1,22	1,22		0,63	0,18	0,32	0,53	0,59
nitrate	mg/l	0,24	0,59	0,31	0,80	0,48	0,53	0,81		0,46	0,21	0,41	0,34	0,42
precipitation	mm	182,30	15,70	22,50	59,80	73,40	52,30	38,80		87,90	71,00	72,00	69,90	745,60
arsenic	µg/l	0,08	0,15	0,18	0,16	0,22	0,23	0,23	1,72	0,08	0,08			0,13
cadmium	µg/l	0,05	0,05	0,06	0,08	0,07	0,07	0,09	0,67	0,04	0,02			0,06
chromium	µg/l	0,26	0,26	0,65	0,26	0,26	0,26	0,26	1,39	0,26	0,26			0,27
copper	µg/l	0,96	1,40	2,89	1,65	1,74	4,24	5,42	51,26	1,43	0,96			1,87
lead	µg/l	2,08	2,67	2,11	2,18	2,39	2,54	3,87	61,38	1,99	1,96			2,31
nickel	µg/l	0,21	0,48	0,63	0,21	0,21	0,50	0,84	7,27	0,21	0,21			0,30
zinc	µg/l	4,75	8,30	9,50	8,30	10,20	7,40	15,50	109,80	5,30	4,50			7,09
precipitation	mm	186,50	16,40	20,60	57,40	81,60	53,10	39,70	0,30	87,80	70,10			613,50
γ-HCH	ng/l	5,00	5,00	5,00	20,00	10,00	10,00	5,00	20,00	5,00	5,00	5,00	5,00	7,58
precipitation	mm	38,60	19,40	28,60	67,50	80,70	59,40	44,50	2,40	95,60	83,20	80,00	78,40	678,30
mercury	ng/l	5,40	7,00	9,74	12,30	12,06	12,44	18,80	13,00	9,31	4,16	5,18	4,46	8,60
precipitation	mm	58,60	16,80	32,20	37,00	82,50	47,90	35,10	21,40	66,00	69,90	81,40	81,60	630,40
voluntary														
not reported														
PCB_101	ng/l													
PCB_118	ng/l													
PCB_138	ng/l													
PCB_153	ng/l													
PCB_180	ng/l													
PCB_28	ng/l													
PCB_52	ng/l													
phenanthrene	ng/l													
anthracene	ng/l													
flouranthene	ng/l													
pyrene	ng/l													
benzo(a)anthracene	ng/l													
chrysene	ng/l													
benzo(a)pyrene	ng/l													
benzo(ghi)perylene	ng/l													
indeno(1,2,3-cd)pyrene	ng/l													

Airborne components

		january	february	march	april	may	june	july	august	september	october	november	december	mean	
mandatory															
NL0009R															
	nitrate	$\mu\text{g}/\text{m}^3$	0,51	1,38	1,18	0,76	0,55	0,59	0,49	0,5	1,04	0,74	0,96	0,66	0,78
	nitrogen_dioxide	$\mu\text{g}/\text{m}^3$	5,15	7,01	4,16	3,45	2,56	1,90	1,67	1,74	3,05	3,78	6,54	6,79	3,98
NL0091R															
	nitrate	$\mu\text{g}/\text{m}^3$	0,69	1,73	1,59	0,97	0,48	0,53	0,20	0,30	0,59	0,60	0,66	0,54	0,74
	nitrogen_dioxide	$\mu\text{g}/\text{m}^3$	7,71	12,93	7,90	5,84	4,36	4,80	4,04	3,52	6,61	6,92	9,33	9,06	6,92
	ammonium	$\mu\text{g}/\text{m}^3$	1,06	2,91	2,48	1,41	0,90	1,19	0,69	0,94	1,10	0,83	1,48	0,97	1,33
	ammonia	$\mu\text{g}/\text{m}^3$	0,17	6,81	2,87	2,11	0,90	1,44	1,28	0,99	1,29	0,82	0,87	1,00	1,71
voluntary															
NL0009R															
	arsenic	ng/m^3	0,65	1,98	0,68	0,64	0,35	0,44	0,44	0,44	0,77	0,49	1,01	0,78	0,72
	cadmium	ng/m^3	0,23	0,45	0,16	0,27	0,09	0,10	0,10	0,09	0,20	0,18	0,26	0,28	0,20
	lead	ng/m^3	12,65	16,14	7,31	8,90	4,32	5,24	4,66	3,76	9,34	6,14	10,74	11,88	8,42
	zinc	ng/m^3	24,37	43,88	18,92	24,07	11,54	16,85	14,54	14,40	27,72	18,04	27,15	32,61	22,84
	NO	$\mu\text{g}/\text{m}^3$	0,48	1,53	0,63	0,45	0,32	0,35	0,46	0,44	0,52	1,15	1,85	5,33	1,13
NL0091R															
	NO	$\mu\text{g}/\text{m}^3$	2,19	7,34	1,84	0,92	0,67	0,91	0,86	0,52	2,97	3,32	6,94	13,42	3,49
not reported															
	PCB_118	pg/m^3													
	PCB_138	pg/m^3													
	PCB_153	pg/m^3													
	PCB_180	pg/m^3													
	PCB_28	pg/m^3													
	PCB_52	pg/m^3													
	anthracene	ng/m^3													
	phenanthrene	ng/m^3													
	benz_a_anthracene	ng/m^3													
	benzo_a_pyrene	ng/m^3													
	benzo_ghi_perylene	ng/m^3													
	inden_123cd_pyrene	ng/m^3													
	pyrene	ng/m^3													
	chromium	ng/m^3													
	copper	ng/m^3													
	nickel	ng/m^3													
	mercury	ng/m^3													
	γ -HCH	pg/m^3													

Norway

PRECIPITATION

mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
NO0001R															
ammonium	mg/l		0,35	0,38	1,22	0,50	0,53	0,38	0,35	0,14	0,74	0,49	0,37	0,18	0,47
nitrate	mg/l		0,54	0,52	0,91	0,51	0,51	0,28	0,33	0,22	0,67	0,75	0,55	0,28	0,50
precipitation	mm		98,90	65,80	80,50	107,50	222,50	81,80	167,90	50,10	118,60	66,10	211,60	103,20	1374,50
cadmium	µg/l		0,02	0,03	0,10	0,03	0,03	0,04	0,01	0,01	0,09	0,05	0,04	0,07	0,04
lead	µg/l		1,75	2,01	4,50	1,28	0,99	0,65	0,64	0,73	2,58	1,46	1,33	1,76	1,57
zinc	µg/l		3,27	3,54	9,83	2,85	2,55	5,33	2,85	2,59	5,51	4,89	2,76	5,50	3,93
precipitation	mm		111,15	71,91	81,37	94,27	175,86	64,11	154,46	46,97	140,51	74,33	231,27	55,73	1301,94
NO0039R															
ammonium	mg/l		0,05	0,31	0,57	0,17	0,17	0,13	0,20	0,09	0,15	0,06	0,14	0,04	0,12
nitrate	mg/l		0,04	0,51	0,49	0,09	0,11	0,10	0,12	0,05	0,04	0,03	0,23	0,02	0,08
precipitation	mm		239,90	2,40	79,80	56,80	90,30	122,40	87,70	386,80	133,90	152,70	13,80	297,80	1664,30
NO0057R															
ammonium	mg/l		0,30	0,12	0,14	0,22	0,13	0,28	0,15	0,12	0,14	0,07	0,05	0,04	0,12
nitrate	mg/l		0,25	0,08	0,08	0,19	0,11	0,50	0,12	0,23	0,09	0,04	0,09	0,06	0,11
precipitation	mm		2,10	27,70	19,90	24,80	20,90	4,30	21,30	6,70	9,40	15,00	37,40	17,30	206,80
NO0099R															
ammonium	mg/l		0,73	0,77	1,18	0,64	0,87	0,61							0,85
nitrate	mg/l		0,54	1,10	1,03	0,77	1,06	0,51							0,83
precipitation	mm		99,40	37,40	122,60	39,80	93,00	77,70							469,90
arsenic	µg/l														
cadmium	µg/l		0,06	0,08	0,05	0,12	0,13	0,03	0,25	0,01	0,04	0,03	0,05	0,01	0,06
chromium	µg/l		0,65	0,22	0,16	0,47	0,43	0,27	0,55	0,48	0,16	0,10	0,10	0,10	0,31
copper	µg/l		1,75	2,02	0,70	1,48	2,97	0,90	1,59	1,55	1,14	0,99	0,72	0,64	1,30
lead	µg/l		1,55	3,82	2,27	3,00	2,57	1,35	1,90	4,77	2,21	1,46	1,39	0,67	1,95
nickel	µg/l		0,79	0,24	0,31	0,43	0,87	0,37	1,16	0,43	0,33	0,47	0,29	0,19	0,50
zinc	µg/l		10,21	7,34	5,54	7,88	13,87	4,16	11,72	4,40	10,86	6,01	3,99	3,12	7,76
precipitation	mm		212,20	38,89	114,08	38,12	85,61	73,47	77,01	50,80	170,64	80,73	135,02	114,32	1190,86
γ-HCH	ng/l		0,34	0,30	1,15	1,94	2,19	1,32	0,76	0,41	0,64	0,41	0,78	0,24	0,91
precipitation	mm		98,50	34,80	131,10	35,40	93,00	77,70	73,89	50,80	147,20	80,73	133,06	15,67	971,84
mercury	ng/l														
voluntary															
not reported															
PCB_101	ng/l														
PCB_118	ng/l														
PCB_138	ng/l														
PCB_153	ng/l														
PCB_180	ng/l														
PCB_28	ng/l														
PCB_52	ng/l														
phenanthrene	ng/l														
anthracene	ng/l														
flouranthene	ng/l														
pyrene	ng/l														
benzo(a)anthracene	ng/l														
chrysene	ng/l														
benzo(a)pyrene	ng/l														
benzo(ghi)perylene	ng/l														
indeno(1,2,3-cd)pyrene	ng/l														
NO0099R															
alpha_HCH	ng/l		0,37	0,43	0,36	0,66	0,38	0,33	0,28	0,49	0,39	0,37	0,41	0,28	0,39
HCB	ng/l		0,14	0,30	0,13	1,05	0,36	0,39	0,12	1,09	0,73	0,16	0,35	0,11	0,39
precipitation_amount	ng/l		98,50	34,80	131,10	35,40	93,00	77,70	73,89	50,80	147,20	80,73	133,06	15,67	971,84

Airborne components

			january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory															
NO0001R															
	NH ₄	µg/m ³	0,123	1,014	1,198	0,361	0,272	0,28	0,349	0,149	0,215	0,17	0,324	0,127	0,38
	NO ₃	µg/m ³	0,087	0,43	0,555	0,139	0,139	0,098	0,096	0,075	0,186	0,139	0,227	0,078	0,19
	NH ₃	µg/m ³	0,133	0,147	0,298	0,298	0,275	0,23	0,325	0,261	0,27	0,099	0,152	0,121	0,22
	NH ₃ + NH ₄	µg/m ³	0,255	1,162	1,497	0,658	0,549	0,51	0,675	0,41	0,485	0,271	0,476	0,248	0,60
	HNO ₃ + NO ₃	µg/m ³	0,121	0,664	0,684	0,224	0,228	0,162	0,171	0,115	0,228	0,165	0,271	0,113	0,26
NO0008R	nitrate						0,169	0,094	0,092	0,089	0,2	0,075	0,109	0,074	0,11
NO0039R	NH ₄	µg/m ³	0,066	0,082	0,256	0,427	0,09	0,159	0,198	0,103	0,104	0,029	0,05	0,012	0,13
	NO ₃	µg/m ³	0,032	0,064	0,117	0,174	0,045	0,056	0,048	0,037	0,088	0,04	0,04	0,031	0,06
	NH ₃	µg/m ³	0,293	0,684	0,746	0,617	1,164	1,302	1,76	0,904	1,639	0,497	0,2	0,184	0,83
	NO ₂	µg/m ³	0,205	0,434	0,29	0,217	0,278	0,398	0,265	0,199	0,359	0,3	0,515	0,207	0,31
	NH ₃ + NH ₄	µg/m ³	0,361	0,746	0,998	1,046	1,253	1,462	1,957	1,005	1,717	0,524	0,249	0,196	0,96
	HNO ₃ + NO ₃	µg/m ³	0,047	0,087	0,156	0,25	0,074	0,08	0,071	0,057	0,115	0,057	0,076	0,04	0,09
NO0042G	NH ₄	µg/m ³	0,074	0,046	0,085	0,068		0,024	0,013	0,015	0,012	0,009	0,029	0,061	0,04
	NO ₃	µg/m ³	0,025	0,016	0,021	0,029		0,015	0,016	0,015	0,018	0,016	0,015	0,023	0,02
	NH ₃	µg/m ³	0,18	0,218	0,189	0,266		0,246	0,246	0,318	0,256	0,25	0,228	0,124	0,23
	HNO ₃	µg/m ³	0,014	0,02	0,014	0,017		0,021	0,015	0,018	0,012	0,012	0,028	0,01	0,02
	NH ₃ + NH ₄	µg/m ³	0,254	0,264	0,274	0,336		0,27	0,259	0,333	0,269	0,257	0,258	0,184	0,27
	HNO ₃ + NO ₃	µg/m ³	0,04	0,036	0,037	0,044		0,039	0,031	0,032	0,032	0,028	0,044	0,039	0,04
voluntary															
NO0001R	γ-HCH	pg/m3										2,54	15,545	5,94	8,01
NO0042G	PCB_28	pg/m3	1,643	1,524	1,681	1,724	3,208	1,962	2,585	2,035	1,972	1,758	1,621	1,244	1,91
	PCB_52	pg/m3	1,01	1,216	1,263	1,014	1,322	0,851	1,048	0,87	0,851	0,999	1,107	0,947	1,04
	PCB_101	pg/m3	0,643	0,718	0,551	0,459	0,621	0,327	0,377	0,371	0,337	0,57	0,632	0,382	0,50
	PCB_118	pg/m3	0,303	0,321	0,216	0,167	0,232	0,107	0,149	0,206	0,183	0,343	0,349	0,185	0,23
	PCB_138	pg/m3	0,384	0,319	0,192	0,148	0,303	0,13	0,146	0,252	0,222	0,265	0,273	0,14	0,23
	PCB_153	pg/m3	0,755	0,542	0,262	0,223	0,401	0,152	0,21	0,403	0,4	0,307	0,408	0,207	0,36
	PCB_180	pg/m3	0,198	0,129	0,011	0,026	0,079	0,054	0,07	0,093	0,076	0,062	0,095	0,05	0,08
	anthracene	ng/m3	0,005	0,004	0,002	0,001	0,012	0,008	0,001	0,001	0,001	0,004	0,172	0,001	0,003
	phenanthrene	ng/m3	0,215	0,142	0,102	0,024	0,084	0,062	0,036	0,029	0,085	1,748	0,053	0,107	0,22
	benz_a_anthracene	ng/m3	0,021	0,008	0,004	0,001	0,001	0,001	0,001	0,001	0,001	0,002	0,08	0,003	0,014
	benzo_a_pyrene	ng/m3	0,016	0,006	0,002	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,022	0,001	0,008
	benzo_ghi_perylene	ng/m3	0,024	0,011	0,009	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,212	0,004	0,013
	inden_123cd_pyrene	ng/m3	0,024	0,008	0,006	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,056	0,002	0,015
	pyrene	ng/m3	0,095	0,048	0,037	0,009	0,011	0,008	0,009	0,005	0,009	0,415	0,017	0,063	0,06
	γ-HCH	pg/m3	3,971	3,33	4,83	5,314	6,563	3,924	3,266	3,336	5,236	3,577	4,25	3,164	4,23
NO0099R	γ-HCH	pg/m3	3,094	4,86	9,09	6,377	11,39	11,57	21,6	11,34	11,345	5,59	8,953	3,847	9,09
not reported															
	arsenic	ng/m3													
	cadmium	ng/m3													
	chromium	ng/m3													
	copper	ng/m3													
	lead	ng/m3													
	mercury	ng/m3													
	nickel	ng/m3													
	zinc	ng/m3													
	NO	µg/m ³													
Extra reported non-CAMP components															
NO0001R	alpha_HCH	pg/m3										6,22	12,17	7,36	8,58
NO0042G	alpha_HCH	pg/m3	18,10	13,12	15,48	17,35	21,42	19,21	19,82	26,11	25,84	16,75	16,60	15,22	18,75
	pp_DDD	pg/m3	0,06	0,17	0,02	0,09	0,04	0,01	0,05	0,07	0,04	0,07	0,13	0,12	0,07
	pp_DDE	pg/m3	1,53	2,02	0,64	0,56	0,41	0,15	0,44	0,72	0,71	0,62	1,85	1,08	0,90
	pp_DDT	pg/m3	0,17	0,23	0,11	0,09	0,08	0,03	0,08	0,13	0,13	0,16	0,34	0,21	0,15
NO0099R	alpha_HCH	pg/m3	7,98	8,20	7,62	11,72	10,96	13,73	21,95	16,70	15,38	12,86	10,35	8,45	12,16

Portugal

Airborne components

mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean
not reported														
	NO ₂													
	NH ₃ + NH ₄													
	HNO ₃ + NO ₃													

voluntary

not reported		
PCB_118	pg/m ³	
PCB_138	pg/m ³	
PCB_153	pg/m ³	
PCB_180	pg/m ³	
PCB_28	pg/m ³	
PCB_52	pg/m ³	
anthracene	ng/m ³	
phenanthrene	ng/m ³	
benz_a_anthracene	ng/m ³	
benzo_a_pyrene	ng/m ³	
benzo_ghi_perylene	ng/m ³	
inden_123cd_pyrene	ng/m ³	
pyrene	ng/m ³	
mercury	ng/m ³	
γ-HCH	pg/m ³	
arsenic	ng/m ³	
cadmium	ng/m ³	
chromium	ng/m ³	
copper	ng/m ³	
lead	ng/m ³	
nickel	ng/m ³	
zinc	ng/m ³	
NO	μg/m ³	

PRECIPITATION

Mandatory		january	february	march	april	may	june	july	august	september	october	november	december	mean	
PT0003R															
	ammonium	mg/l	0,07	0,14	0,25	0,13	0,67	0,10	0,28	0,17	1,04	0,11	0,04	0,10	0,14
	nitrate	mg/l	0,27	0,27	0,40	0,31	1,01	0,24	0,32	0,24	0,28	0,12	0,10	0,22	0,24
	precipitation	mm	294,90	132,20	142,40	176,90	20,10	76,90	60,70	36,10	31,00	193,10	290,50	121,80	1576,60
	cadmium	μg/l	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43
	copper	μg/l	0,60	2,43	0,74	0,59	2,60	0,65	1,85	4,81	2,64	0,62	0,51	1,05	1,91
	lead	μg/l	0,65	0,65	0,65	0,65	1,12	0,65	0,65	0,65	0,65	0,65	0,65	0,65	0,73
	nickel	μg/l	0,78	0,78	0,78	0,96	1,94	0,78	0,78	2,23	2,32	0,82	0,78	1,50	1,35
	zinc	μg/l	4,65	15,23	21,03	15,83	43,53	21,28	25,34	30,45	20,00	17,52	16,96	17,81	249,62
PT0004R															
	ammonium	mg/l	0,09	0,04	0,64	0,02				0,09	0,08	0,15	0,02	0,08	
	nitrate	mg/l	0,28	0,22	0,20	0,03				0,43	0,21	0,10	0,13	0,16	
	precipitation	mm	63,50	94,90	20,40	92,20	3,20	2,30	2,00	2,30	5,60	147,90	74,90	66,30	575,50
	cadmium	μg/l	0,43	0,43	0,43	0,43				0,43	0,43	0,43	0,43	0,43	
	copper	μg/l	0,46	0,38	0,93	0,45				2,21	1,05	1,40	0,69	1,18	
	lead	μg/l	0,65	0,65	0,65	0,65				0,65	0,65	0,65	0,65	0,65	
	nickel	μg/l	0,78	0,78	0,78	1,77				2,50	3,40	2,04	1,24	1,94	
	zinc	μg/l	6,44	2,58	9,00	5,13				18,00	14,00	14,95	14,74	84,84	
PT0010R															
	ammonium	mg/l	0,11	0,06	0,06	0,04	0,08	0,05	0,02	0,03	0,02	0,07	0,02	0,02	0,04
	nitrate	mg/l	0,37	0,33	0,42	0,41	0,91	0,65	1,88	0,37	0,60	0,31	0,23	0,18	0,42
	precipitation	mm	119,80	89,40	143,30	158,40	14,40	12,60	9,30	55,60	244,10	25,70	115,40	129,50	1117,50
	cadmium	μg/l	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43
	copper	μg/l	3,73	0,33	1,66	0,33	0,65	0,33	0,33	0,48	0,66	2,94	0,87	0,40	1,04
	lead	μg/l	0,65	0,65	0,65	1,03	3,65	0,65	7,13	0,65	7,30	4,20	3,49	0,65	4,09
	nickel	μg/l	14,94	2,88	1,98	8,61	2,63	3,02	7,56	2,87	3,27	6,01	3,69	24,24	6,50
	zinc	μg/l	42,35	15,82	52,39	12,81	29,00	46,00	73,00	89,99	300,36	99,00	11,80	83,50	856,02
not reported															
	chromium	μg/l													
	mercury	ng/l													
	γ-HCH	ng/l													
voluntary															
not reported															
	PCB_101	ng/l													
	PCB_118	ng/l													
	PCB_138	ng/l													
	PCB_153	ng/l													
	PCB_180	ng/l													
	PCB_28	ng/l													
	PCB_52	ng/l													
	phenanthrene	ng/l													
	anthracene	ng/l													
	flouranthene	ng/l													
	pyrene	ng/l													
	benzo(a)anthracene	ng/l													
	chrysene	ng/l													
	benzo(a)pyrene	ng/l													
	benzo(ghi)perylene	ng/l													
	indeno(1,2,3-cd)pyrene	ng/l													

Spain

PRECIPITATION

Mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
ES0008R	ammonium	mg/l	0,15	0,26	0,47	1,81	1,04	0,91	0,84	1,21	0,56	0,54	0,36	0,45	0,56
	nitrate	mg/l	0,37	0,42	0,42	1,37	0,75	0,94	0,83	1,38	0,90	0,69	0,42	0,93	0,68
	precipitation	mm	141,80	57,60	20,40	11,40	48,60	43,20	26,40	62,40	36,40	107,20	79,60	38,00	673,00

not reported

arsenic	µg/l
cadmium	µg/l
chromium	µg/l
copper	µg/l
lead	µg/l
mercury	ng/l
nickel	µg/l
zinc	µg/l
γ-HCH	ng/l

voluntary

not reported

PCB_101	ng/l
PCB_118	ng/l
PCB_138	ng/l
PCB_153	ng/l
PCB_180	ng/l
PCB_28	ng/l
PCB_52	ng/l
phenanthrene	ng/l
anthracene	ng/l
flouranthene	ng/l
pyrene	ng/l
benzo(a)anthracene	ng/l
chrysene	ng/l
benzo(a)pyrene	ng/l
benzo(ghi)perylene	ng/l
indeno(1,2,3-cd)pyrene	ng/l

Airborne components

mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
ES0008R	nitrate	µg/m3		0,41	1,34	0,72	0,50	0,35	0,32	0,37	0,55	0,38	0,40	0,23	0,51
	nitrogen dioxide	µg/m3	0,87	0,81	0,95	1,60	1,71	1,66	1,11	1,40	2,05	2,25	2,50	2,17	1,59
	sum_ammonia_and_ammonium	µg/m3	0,29	0,35	0,75	0,66	0,51	0,72	0,77	0,97	0,67	0,35	0,23	0,24	0,54
	sum_nitric_acid_and_nitrate	µg/m3	0,28	0,39	0,83	0,66	0,48	0,46	0,46	0,66	0,64	0,57	0,70	0,25	0,53
	NH ₃ ^a	µg/m3						0,10						0,10	

^a each one week campaigns. All observations BDL. Quoted value is 50% BDL as per CAMP Principles

voluntary

ES0008R

nitrogen monoxide also received.

arsenic ^b	ng/m3							0,15						0,08
cadmium ^b	ng/m3							0,07						0,05
chromium ^b	ng/m3							0,98						0,72
copper ^b	ng/m3							19,54						10,07
lead ^b	ng/m3							2,66						4,71
nickel ^b	ng/m3							4,47						1,95
zinc ^b	ng/m3							19,32						29,28

^b each one week campaigns. Daily observations. Where daily value is BDL, 50% of BDL used as per CAMP Principles

not reported

PCB_118	
PCB_138	
PCB_153	
PCB_180	
PCB_28	
PCB_52	
anthracene	
phenanthrene	
benz_a_anthracene	
benzo_a_pyrene	
benzo_ghi_ptylene	
inden_123cd_pyrene	
pyrene	
mercury	ng/m3
γ-HCH	

Extra reported non-CAMP components

ES0008R

benzene ^c	µg/m3	0,24
toluene ^c	µg/m3	0,15
xylene ^c	µg/m3	0,45

^c each two week campaigns. 30-minute observations.

Sweden

PRECIPITATION

mandatory

		january	february	march	april	may	june	july	august	september	october	november	december	mean	
SE0014R															
	ammonium	mg/l	0,38	0,76	1,13	0,62	0,48	1,05	0,25	0,12	1,38	0,33	0,26	0,26	0,45
	nitrate	mg/l	0,62	1,08	1,21	0,53	0,53	0,51	0,23	0,21	1,31	0,56	0,52	0,43	0,49
	precipitation	mm	37,30	17,60	10,60	90,90	59,10	53,70	84,10	48,00	10,20	44,50	61,80	83,00	600,80
	mercury	ng/l	11,50	22,00	24,00	7,40	7,20	24,00	7,10	9,70	13,00	8,30	6,60	5,20	9,04
	precipitation	mm	31,80	2,40	6,00	28,90	105,80	33,60	108,20	39,80	20,50	33,20	41,00	60,40	511,60
	γ -HCH	ng/m ² /d	0,11	0,23	1,13	2,01	1,80	1,78	1,09	0,32	0,46	0,71	1,45	0,81	0,99
SE0098R															
	ammonium	mg/l	0,65	0,57		0,41				0,19	0,93	0,31		0,18	0,40
	nitrate	mg/l	0,80	0,90		0,36				0,32	1,25	0,39		0,21	0,48
	precipitation	mm	419,00	36,00		84,00	101,00	80,00		38,00	19,00	75,00		176,00	1028,00
SE0097R															
	arsenic	μ g/l	0,31	0,27	0,33	0,21	0,08	0,03	0,03	0,03	0,20	0,03	0,26	0,13	0,16
	cadmium	μ g/l	0,06	0,06	0,09	0,06	0,04	0,04	0,03	0,03	0,09	0,02	0,08	0,03	0,05
	chromium	μ g/l	0,81	1,16	0,30	0,05	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,20
	copper	μ g/l	0,62	1,08	4,22	1,21	0,74	0,85	0,60	1,68	1,55	0,21	3,14	0,22	1,21
	lead	μ g/l	1,46	2,27	2,35	1,32	0,99	0,81	0,83	0,48	1,67	0,33	1,41	0,60	1,13
	nickel	μ g/l	0,02	0,09	0,55	0,20	0,18	0,20	0,15	0,26	0,36	0,13	0,21	0,21	0,19
	zinc	μ g/l	6,86	6,65	15,57	5,49	3,88	4,49	1,62	2,29	8,75	0,49	5,28	2,60	5,00
	precipitation	mm	118,00	22,24	53,04	55,82	77,75	68,70	58,86	18,60	22,23	76,77	85,21	96,18	76,75

voluntary

		january	february	march	april	may	june	july	august	september	october	november	december	mean	
SE0014R															
	PCB_101	ng/m ² /day	0,12	0,11	0,32	0,35		0,14	0,10	0,07	0,11		0,10	0,11	0,15
	PCB_118	ng/m ² /day	0,09	0,07	0,20	0,21		0,14	0,09	0,06	0,11		0,10	0,13	0,12
	PCB_138	ng/m ² /day	0,22	0,23	0,43	0,61		0,46	0,26	0,16	0,33		0,38	0,38	0,35
	PCB_153	ng/m ² /day	0,23	0,26	0,41	0,48		0,44	0,22	0,19	0,25		0,30	0,32	0,31
	PCB_180	ng/m ² /day	0,14	0,18	0,32	0,41		0,30	0,18	0,12	0,24		0,30	0,24	0,24
	PCB_28	ng/m ² /day	0,01	0,01	0,01	0,01		0,01	0,01	0,01	0,01		0,01	0,01	0,01
	PCB_52	ng/m ² /day	0,01	0,01	0,01	0,01		0,01	0,01	0,01	0,01		0,01	0,01	0,01
	alpha_HCH	ng/m ² /day	0,31	0,05	0,15	0,56		0,42	0,59	0,21	0,18		0,30	0,27	0,31
	anthracene	ng/m ² /day	1,00	1,00	1,00	1,00		0,00	0,00	0,00	1,00		2,00	2,00	0,90
	benz_a_anthracene	ng/m ² /day	5,05	4,00	4,00	4,00		2,00	1,00	1,00	0,00		10,00	14,00	4,52
	benzo_a_pyrene	ng/m ² /day	6,55	6,00	6,00	5,00		4,00	2,00	1,00	3,00		14,00	22,00	6,97
	benzo_b_fluoranthene	ng/m ² /day	14,13	14,00	11,00	8,00		6,00	4,00	2,00	4,00		36,00	36,00	13,51
	benzo_ghi_perylene	ng/m ² /day	6,55	8,00	5,00	5,00		4,00	3,00	2,00	3,00		15,00	26,00	7,77
	benzo_k_fluoranthene	ng/m ² /day	5,55	5,00	5,00	4,00		3,00	2,00	1,00	2,00		14,00	15,00	5,66
	chrysene_thriphenylene	ng/m ² /day	14,13	13,00	11,00	10,00		5,00	4,00	2,00	4,00		37,00	36,00	13,61
	fluoranthene	ng/m ² /day	24,24	34,00	30,00	33,00		13,00	9,00	4,00	9,00		50,00	73,00	27,89
	gamma_HCH	ng/m ² /day	1,25	0,11	0,79	2,10		1,80	1,20	0,31	0,35		1,50	0,81	1,03
	phenanthrene	ng/m ² /day	28,00	30,00	23,00	28,00		10,00	9,00	4,00	7,00		38,00	52,00	22,86
	pyrene	ng/m ² /day	16,65	19,00	18,00	18,00		9,00	6,00	3,00	5,00		34,00	55,00	18,38
Extra reported non-CAMP components															
SE0014R	alpha_HCH	precip+dry	0,31	0,05	0,15	0,56		0,42	0,59	0,21	0,18		0,30	0,27	0,31

NOTE: organic measurements at SE0014R are of combined dry and wet deposition

Airborne components

mandatory			january	february	march	april	may	june	july	august	september	october	november	december	mean
SE0014R															
NO ₂	µg/m ³		2,35	2,57	2,63	1,48	1,43	0,95	1,08	1,10	1,14	1,40	2,45	2,08	1,72
NH ₃ + NH ₄	µg/m ³		0,97	2,25	2,61	1,16	1,14	0,87	0,88	0,57	0,89	0,54	1,04	0,78	1,14
HNO ₃ + NO ₃	µg/m ³		0,81	1,08	1,42	0,83	0,89	0,57	0,54	0,35	0,72	0,46	0,75	0,63	0,75
voluntary															
SE0014R															
PCB_118	pg/m3		0,50	0,48	0,52	0,75	0,75	1,74	2,23	1,70	1,12	0,88	0,70	0,45	0,98
PCB_138	pg/m3		1,09	1,11	0,94	1,55	1,40	3,79	5,14	3,67	2,23	1,88	1,71	0,97	2,12
PCB_153	pg/m3		1,29	1,32	1,17	1,82	1,74	4,19	5,80	4,17	2,64	2,01	2,00	1,13	2,44
PCB_180	pg/m3		0,63	0,68	0,46	0,59	0,48	1,36	1,93	1,23	0,77	0,75	0,85	0,39	0,84
PCB_28	pg/m3		1,43	1,26	1,50	1,79	1,77	3,84	2,02	1,71	1,58	1,25	1,81	1,70	1,81
PCB_52	pg/m3		1,90	1,88	2,17	2,71	3,05	8,73	6,13	4,51	3,70	2,34	2,19	1,63	3,41
anthracene	ng/m3		0,06	0,07	0,02	0,01	0,00	0,01	0,00	0,01	0,01	0,05	0,06	0,02	0,03
phenanthrene	ng/m3		2,88	3,93	1,85	0,99	0,53	0,47	0,44	0,43	0,48	2,02	3,33	1,77	1,59
benz_a_anthracene	ng/m3		0,23	0,32	0,10	0,04	0,03	0,11	0,01	0,03	0,02	0,23	0,22	0,10	0,12
benzo_a_pyrene	ng/m3		0,25	0,40	0,14	0,05	0,02	0,05	0,01	0,02	0,03	0,21	0,26	0,12	0,13
benzo_ghi_perylene	ng/m3		0,26	0,40	0,17	0,06	0,02	0,01	0,01	0,01	0,03	0,19	0,36	0,15	0,14
inden_123cd_pyrene	ng/m3		0,28	0,48	0,21	0,07	0,02	0,02	0,01	0,02	0,02	0,16	0,17	0,12	0,13
pyrene	ng/m3		0,97	1,26	0,50	0,24	0,07	0,06	0,06	0,05	0,11	0,61	0,96	0,44	0,44
mercury	ng/m3		12,34	20,41	11,31	8,33	7,31	7,13	7,45	4,51	5,54	5,43	13,46	10,60	9,48
γ-HCH	pg/m3		4,12	3,93	6,07	7,40	12,87	10,11	14,45	9,32	8,50	4,81	7,07	6,00	7,89
not reported															
arsenic	ng/m3														
cadmium	ng/m3														
chromium	ng/m3														
copper	ng/m3														
lead	ng/m3														
nickel	ng/m3														
zinc	ng/m3														
NO	µg/m ³														
SE0014R															
alpha_HCH	pg/m3	7.000	7.000	8.714	9.000	9.240	9.400	10.000	10.750	8.400	7.000	6.333			
pp_DDD	pg/m3	0.215	0.173	0.296	0.326	0.466	1.456	0.597	0.625	0.946	0.455	0.457			
pp_DDE	pg/m3	2.525	2.475	1.800	3.080	2.772	2.260	1.260	2.700	2.276	5.350	4.667			
pp_DDT	pg/m3	1.450	1.340	0.879	1.400	1.510	2.260	1.170	1.725	0.808	1.558	1.073			

United Kingdom

PRECIPITATION

	january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory													
GB0014R ammonium mg/l	0,232	0,862	0,93	0,72	0,785	0,694	0,706	1,236	0,628	0,272	0,466	0,417	0,57
nitrate mg/l	0,237	0,623	0,51	0,41	0,542	0,622	0,663	1,096	0,546	0,491	0,507	0,369	0,492
precipitatio mm	103,586	33,429	26,086	29,886	86,457	41,679	44,693	17,364	48,821	48,829	83,486	64,286	628,6
GB0017R													
ammonium mg/l	1,54	5,179	0	0,41	0,322	0,184	0,226	0,28	2,55	2,55	1,998	0,917	0,941
nitrate mg/l	0,253	0,613	0	0,95	0,842	0,558	0,315	0,74	0,29	0,29	1,633	0,563	0,574
precipitatio mm	54,364	10,411	0,625	22	75,979	106,75	57,087	14,884	10,9	48,271	18,871	35,657	455,8
arsenic µg/l								0,19	0,19	0,173	0,112	0,13	0,147
cadmium µg/l								0,02	0,02	0,043	0,02	0,02	0,026
chromium µg/l								0,24	0,24	0,08	0,038	0,12	0,105
copper µg/l								1,85	1,85	1,096	0,626	0,58	0,975
lead µg/l								1,63	1,63	1,219	0,827	0,79	1,076
nickel µg/l								0,52	0,52	0,464	0,193	0,23	0,335
zinc µg/l								8,71	8,71	5,601	4,461	5,53	5,805
precipitatio mm								15,164	41,357	76,225	97,825	62,128	292,7
GB0091R													
ammonium mg/l	0,139	1,113	0,765	0,776	0,24	0,86	0,587	0,453	0,129	0,132	0,169	0,12	0,405
nitrate mg/l	0,164	1,229	0,858	0,686	0,306	1,194	0,549	0,56	0,156	0,326	0,296	0,137	0,464
precipitatio mm	63,333	22,824	30,093	75,964	95,4	20,986	20,286	16,486	19,829	30,286	58,014	32,8	486,3
arsenic µg/l			2,582	2,38	0,298	0,346	0,265	0,174	0,12	0,161	0,238	0,129	0,55
cadmium µg/l			0,022	0,063	0,016	0,094	0,119	0,099	0,033	0,026	0,047	0,021	0,043
chromium µg/l			1,53	0,487	0,238	0,401	0,25	0,228	0,211	0,254	0,199	0,095	0,291
copper µg/l			2,301	0,815	0,419	1,378	1,496	1,144	0,4	0,377	0,915	0,407	0,747
lead µg/l			0,887	1,814	0,615	1,67	1,189	0,62	0,33	0,359	2,495	0,612	1,175
nickel µg/l			0,163	0,234	0,146	1,284	0,631	2,101	0,442	0,199	0,504	0,093	0,412
zinc µg/l			7,344	10,28	4,879	17,113	24,134	12,179	5,981	6,002	9,41	6,697	8,817
precipitatio mm			10,1	44,529	106,791	36,722	25,358	10,4	25,929	20,057	65,3	48,114	393,3
not reported													
mercury ng/l													
γ-HCH ng/l													
voluntary													
not reported													
PCB_101 ng/l													
PCB_118 ng/l													
PCB_138 ng/l													
PCB_153 ng/l													
PCB_180 ng/l													
PCB_28 ng/l													
PCB_52 ng/l													
phenanthre ng/l													
anthracene ng/l													
flouranther ng/l													
pyrene ng/l													
benzo(a)ar ng/l													
chrysene ng/l													
benzo(a)py ng/l													
benzo(ghi) ng/l													
indeno(1,2, ng/l)													

Airborne components

		january	february	march	april	may	june	july	august	september	october	november	december	mean
mandatory														
GB0014R														
	NO ₂										2,593	4,741	4,852	4,062
	NH ₃	0,11	0,22	0,36	0,45	0,21	0,34	0,32	0,33	0,4	0,16	0,15	0,11	0,263333
	NH ₄	0,18	0,95	1,17	0,87	0,21	0,46	0,3	0,29	0,43	0,21	0,42	0,27	0,48
	HNO ₃	0,26	0,41	0,47	0,38	0,17	0,38	0,26	0,27	0,19	0,42	0,42	0,45	0,34
	NO ₃	0,34	2,13	2,38	1,75	0,41	0,85	0,5	0,7	0,45	0,91	0,87	0,59	0,99
voluntary														
GB0017R														
	arsenic								0,264	0,827	0,833	2,589		1,12825
	cadmium								0	0,157	0,15	0,304		0,15275
	chromium								1,023	1,624	1,286	4,017		1,9875
	copper								0,791	2,8	2,404	4,033		2,507
	lead								2,1	9,56	7,983	16,356		8,99975
	nickel								0,756	2,684	1,814	1,994		1,812
	zinc								18,382	29,31	20,142	42,826		27,665
GB0091R														
	arsenic			0,883	0,587	0,235	0,253	0,294	0,223	0,393	0,397	0,89	0,618	0,4773
	cadmium			0,139	0,163	0,029	0,003	0	0	0,023	0,006	0,087	0,064	0,0514
	chromium			1,586	3,121	0,888	1,102	1,082	1,122	1,077	0,072	2,128	2,625	1,4803
	copper			2,006	1,5	0,61	0,997	1,552	1,071	1,347	0,674	1,753	8,45	1,996
	lead			9,15	7,5	1,871	1,783	2,081	2,752	2,29	1,639	7,71	6,218	4,2994
	nickel			1,374	1,602	0,578	0,966	1,046	0,923	0,487	0,304	0,965	2,775	1,102
	zinc			21,256	20,613	8,848	11,55	22,384	17,097	17,457	9,184	23,25	53,177	20,4816
not reported														
	PCB_118													
	PCB_138													
	PCB_153													
	PCB_180													
	PCB_28													
	PCB_52													
	anthracene													
	phenanthrene													
	benz_a_anthracene													
	benzo_a_pyrene													
	benzo_ghi_perylene													
	inden_123cd_pyrene													
	pyrene													
	mercury													
	γ-HCH													
	NO													

