

Chemical characteristics of surface systems in the Forsmark area

**Visualisation and statistical evaluation
of data from shallow groundwater,
precipitation, and regolith**

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Abstract

The Swedish Nuclear Fuel and Waste management Co (SKB) initiated site investigations for a deep repository for spent nuclear fuel at two different sites in Sweden, Forsmark and Oskarshamn, in 2002. This report evaluates the results from chemical investigations of the surface system in the Forsmark area during the period November 2002 – March 2005. The evaluation includes data from surface waters (lakes, streams and the sea), precipitation, shallow groundwater and regolith (till, soil, peat, sediments and biota) in the area. Results from surface waters are not presented in this report since these were treated in a recently published report /Sonesten 2005/, but statistics for surface water data are compiled on the enclosed CD.

The main focus of the study is to visualize the vast amount of data collected hitherto in the site investigations, and to give a chemical characterisation of the investigated media at the site. The results will be used to support the site descriptive models, which in turn are used for safety assessment studies and for the environmental impact assessment.

The data used consist of water chemical composition in lakes, streams, coastal sites, and in precipitation, predominantly sampled on a monthly basis, and in groundwater from soil tubes and wells, sampled up to four times per year. Moreover, regolith data includes information on the chemical composition of till, soil, sediment and vegetation samples from the area.

The characterisations include all measured chemical parameters, i.e. major and minor constituents, trace elements, nutrients, isotopes and radio nuclides, as well as field measured parameters. The evaluation of data from each medium has been divided into the following parts:

- Characterisation of individual sampling sites, and comparisons within and among sampling sites as well as comparisons with local, regional and national reference data.
- Analysis of time trends and seasonal variation (for shallow groundwater).
- Exploration of relationships among the various chemical parameters.

For all investigated parameters, the report presents selected statistics for each sampling site, as well as for available reference data. A more comprehensive statistical description of the data is given per investigated parameter in appendices on the enclosed CD.

Sammanfattning

Svensk Kärnbränslehantering AB (SKB) genomför sedan 2002 platsundersökningar på två platser i Sverige, Forsmark och Oskarshamn, med syftet att undersöka platsernas lämplighet för ett slutförvar för använt kärnbränsle. I denna rapport utvärderas resultaten från samtliga kemiska undersökningar av ekosystemet ovan bergrunden som har genomförts i Forsmarksområdet under perioden november 2002 – mars 2005. Utvärderingen omfattar data från ytvatten (sjöar, vattendrag och hav), nederbörd, ytligt grundvatten och kvartära avlagringar (morän, jordmån, torv och sediment) och biota i området. Resultaten från undersökningarna av ytvatten redovisas inte i denna rapport, eftersom dessa behandlades utförligt i en nyligen publicerad rapport /Sonesten 2005/. Detaljerad statistik finns dock sammanställd även för ytvattendata på den medföljande CD:n.

Denna rapport syftar dels till att sammanställa och visualisera den stora mängd kemiska data som hittills har insamlats från ekosystemet i samband med platsundersökningarna, och dels till att ge en beskrivning och karakterisering av de kemiska förhållandena i undersökta medier på platsen. Resultaten kommer att användas som underlag för de platsbeskrivande modeller som tas fram under platsmodelleringen, vilka i sin tur kommer att användas vid säkerhetsanalysen och miljökonsekvensbeskrivningen av ett eventuellt framtida slutförvar.

De data som används i utvärderingen består av vattenkemiska data från sjöar, vattendrag, hav och nederbörd, med provtagning i huvudsak en gång per månad, och från prover av ytligt grundvatten i borrade jordrör och brunnar, provtagna upp till 4 gånger per år. Vidare ingår data som beskriver den kemiska sammansättningen i prover av morän, jordmån, sediment och vattenlevande växter från området. Beskrivningarna inkluderar samtliga analyserade parametrar, dvs. huvudkomponenter, spårämnen, närsalter, isotoper och radionuklider, samt ett antal fältmätta parametrar.

Utvärderingen av data från respektive medium har delats upp i följande delar:

- Karakterisering av enskilda provtagningsobjekt, jämförelser mellan olika provtagningsobjekt, och jämförelser mellan platsdata och tillgängliga lokala, regionala och nationella referensdata.
- Analys av tidsserier och säsongsvariation (för data från yt- och grundvatten).
- Analys av samband mellan olika kemiska parametrar och mellan olika provtagningsobjekt.

I rapporten presenteras, för samtliga undersökta parametrar, ett antal statistiska mått för varje provtagningsobjekt och för referensdata. En mer utförlig statistisk beskrivning av data ges i de appendix som finns på den CD som medföljer den tryckta rapporten.

Extended summary

The Swedish Nuclear Fuel and Waste management Co (SKB) is currently conducting site investigations at two sites, Oskarshamn and Forsmark, with the objective of siting a geological repository for spent nuclear fuel. This report evaluates the results from chemical investigations of the surface system in the Forsmark area during the period November 2002 – March 2005. The main focus of the report is to visualise the vast amount of data collected hitherto in the site investigations, and to give a chemical description of surface waters, precipitation, groundwater and regolith in the area. Underlying processes, and important premises for the evolution of the chemical composition of surface water and groundwater, are only to a minor extent discussed in this report.

The data used consist of water chemical composition in lakes, streams, coastal sites, and precipitation, predominantly sampled on a monthly basis, and in groundwater from soil tubes and wells. Moreover, regolith data includes information on the chemical composition of till, soil and sediment samples from the area. The characterisations include all measured chemical parameters, i.e. major and minor constituents, trace elements, nutrients, isotopes and radio nuclides, as well as field measured parameters.

Results from surface waters are not presented in this report since these were treated in a recently published report /Sonesten 2005/. However, statistics for surface water data are compiled on the enclosed CD.

Chemical characteristics of shallow groundwater in the Forsmark area

The shallow groundwater in the Forsmark area is characterised by high pH-values and high contents of major constituents, especially calcium and bicarbonate. ‘Lower’ located soil tubes, in presumably discharge areas, are strongly influenced by marine relics, resulting in high content of e.g. chloride, bromide, sodium and manganese. Soil tubes at ‘higher’ locations, presumably in recharge areas, show clear influences of the calcite rich overburden, resulting in very high levels of calcium, bicarbonate and strontium.

Several parameters show large deviations when the Forsmark data is compared with national reference data. For calcium, bicarbonate and manganese, the median concentrations in the Forsmark area corresponds to the 90th percentile of the national reference data from Swedish wells, indicating very high values in a national context.

Summary per element

Major and minor constituent

The shallow groundwaters in the Forsmark area can be divided in two main water types with respect to the content of major constituents: the Ca-HCO₃ type that is found in ‘higher’ located soil tubes (presumably recharge areas) and the Na-HCO₃ or Na-Cl types that are found in most ‘lower’ located soil tubes (presumably discharge areas).

The calcium and bicarbonate levels deviate substantially from the levels normally found in excavated wells of Sweden. The median values in the Forsmark area corresponds to the 90:th percentile of Swedish distributions. According to the classification in the Swedish Environmental Quality Criteria for groundwater/Naturvårdsverket 1999b/, the alkalinity in all samples from shallow groundwater is ‘very high’ (the major part of the alkalinity consists of bicarbonate).

Strontium, which is closely correlated to calcium, shows elevated levels compared to the measurements in the Simpevarp area. When data from lake water in the Forsmark area is compared to other lakes in Sweden, the strontium concentrations are seven times higher, indicating that strontium occur in elevated levels.

Manganese occurs in elevated concentrations in the Forsmark area compared to the rest of Sweden. In soil tubes situated at 'higher' locations the concentrations are elevated 40 times compared to the median value of undisturbed shallow groundwaters of Sweden.

The major constituents of sea water, e.g. chloride, sodium, magnesium and sulphate occur in elevated levels in many of the soil tubes due to influences of relict marine water. This fact is also reflected in many surface waters, where elevated concentrations are measured compared to most lakes in Sweden. In the upstream sub-catchments of the Forsmark area, e.g. Eckarfjärden, there are no elevated levels of chloride, underlining the rather recent marine origin of these constituents.

Carbon, nitrogen and phosphorus

Most of the *organic carbon* occurs as dissolved carbon species. The particulate fraction usually constitutes a minor part of the total organic carbon. The lowest concentrations of organic carbon are found in 'lower' located soil tubes, especially in the groundwater in the quaternary deposits below lakes and sea. Most of the *dissolved inorganic carbon* consists of bicarbonate.

In soil tubes at 'lower' levels (presumably in discharge areas) the major part of the *total nitrogen* usually occurs as ammonium. In contrast, most of the soil tubes at 'higher' levels (presumably in recharge areas) occur as dissolved organic nitrogen. Most of the *total phosphorus* occurs as particulate species. In general, only a minor fraction of the total phosphorus consists of phosphate.

Redox potential

The coarse classification of redox potential, based on a scheme from the Swedish Environmental Quality Criteria for groundwater /Naturvårdsverket 1999b/, shows that the redox potential is 'low' in most soil tubes. There are two exceptions, SFM0009 and SFM0060, where the redox potential is 'high'. These findings agree with the results of the in situ sonde measurements.

In soil tubes where the redox potential is classed as low, hydrogen sulphide concentrations are usually elevated and the fraction of Fe^{2+} of total iron is usually substantial. On the contrary, soil tubes classed as high redox potential usually shows a fraction of Fe^{2+} lower than 50% of total iron.

Trace elements

Almost forty trace elements have been measured in samples from shallow groundwater and surface water. When the concentrations are studied along the flow paths, there are examples of both increasing and decreasing concentrations from recharging groundwater to sea water.

The concentrations of the rare earth elements (REE), e.g. lanthanum, ytterbium and lutetium, tend to occur in higher concentrations in recharge waters compared to discharge waters and surface waters. When concentrations in lakes in the Forsmark area are compared to other lakes in Sweden, there are no clear differences, indicating rather normal levels in a national perspective.

There is tendency that the arsenic concentration is slightly elevated in shallow groundwater in the Forsmark area. However, when arsenic concentrations in the Forsmark lakes and streams are compared to rest of Sweden, there is no obvious elevation of the arsenic levels.

The uranium content in shallow groundwater shows rather normal values compared to other Swedish groundwaters. The concentrations in the lakes are, on the other hand, highly elevated compared to most lakes in Sweden. The latter is also seen for molybdenum, possibly indicating that the distribution of these rather mobile elements is different in the Forsmark area compared to other areas in Sweden.

Rubidium and molybdenum generally show higher concentrations in ‘lower’ located soil tubes compared to ‘higher’ located tubes, and the highest concentrations are found in sea water. This pattern is analogue to most of the major constituents of sea water.

For metals such as chromium, nickel and vanadium, the differences in concentration levels are negligible when precipitation, shallow groundwater and surface waters are compared, implicating that deposition may be an important source for these elements. In some of the soil tubes, especially in ‘higher’ located soil tubes, the vanadium concentrations are markedly elevated, approximately 30 times compared to the lowest concentrations observed.

Isotopes of hydrogen, oxygen and carbon

Deuterium and *oxygen-18* data for precipitation and most of the observations from shallow groundwater plot on or close to the Global Meteoric Water Line (GMWL), indicating a meteoric origin of most samples from shallow groundwater.

Data from streams and lakes forms an ‘evaporation line’ indicating enrichments of the heavier isotopes due to evaporation. This is also seen as a gradual decrease of the deuterium deviations along the flow path from ‘higher’ to ‘lower’ located soil tubes, to streams, lakes and finally the Baltic Sea. Median values are –78 (precipitation), –85 (‘higher’ soil tubes), –81 (‘lower’ soil tubes), –74 (stream), –70 (lake) and –64 (sea) respectively.

‘Lower’ located soil tubes, presumably in discharge areas, usually show smaller variation of these isotopes compared to ‘higher’ located soil tubes. This tendency is most accentuated for deuterium.

The *tritium* levels in most soil tubes range from 8–15 TU, an interval that overlap the range of surface waters and precipitation that are approximately 8–16 TU. In a few soil tubes low tritium values, corresponding to sub modern levels, have been observed. Of these are SFM0011, SFM0012, SFM0015, SFM0022, SFM0023 located in till below lake sediments, whereas SFM0010 and SFM0056 are located at higher topographical levels.

Most soil tubes show *carbon-14* values below 100 percent modern carbon, whereas most surface waters exceed 100 percent modern carbon. The lowest proportions of modern carbon, approximately 50%, are found for SFM0012 and SFM0023 in Lake Gällsboträsket and Lake Bolundsfjärden.

In combination with carbon-14, the stable isotope of *carbon-13* discriminates the soil tubes in three different groups:

- The soil tube in the quaternary deposits below Lake Eckarfjärden show unusual positive values of carbon-13 and slightly more than 80 percent modern carbon is observed.
- The soil tubes located in the lakes Gällsboträsket and Bolundsfjärden show low carbon -14 values in combination with carbon-13 values ranging from $-10\text{\textperthousand}$ to 0\textperthousand PDB.
- In the third group, comprising most soil tubes, the content modern carbon is ranging from 80–90 pmC, whereas the carbon-13 values are generally between $-15\text{\textperthousand}$ and $-10\text{\textperthousand}$, indicating a dominantly biogenic carbon source.

Isotopes of boron, chlorine, sulphur and strontium

The **boron-10** ratios found in shallow groundwater are generally higher than ratios in lake, stream and especially sea water. Boron-10 is most depleted in the soil tubes located the till below the sediments of lakes and sea, e.g. SFM0012, SFM0015, SFM0023, SFM0024 and SFM0025, whereas it is most enriched in the soil tubes SFM0074, SFM0062 and SFM0032, all located in the catchment of Lake Bolundsfjärden.

The **chlorine-37** ratios found in the Forsmark area are centred on the international standard, indicating an average ratio of about 0.324 (SMOC). The soil tubes in the catchment of Lake Fiskarfjärden are most depleted in chlorine-37 (SFM0022 and SFM0027). Soil tubes located in till below the lake sediments of Lake Eckarfjärden, Lake Gällsboträsket and Lake Bolundsfjärden (SFM0015, SFM0012 and SFM0023) are most enriched in chlorine-37. There is a tendency that streams draining topographically higher areas show some enrichments of chlorine-37.

The recorded values of **sulphur-34** in shallow groundwater vary within a wide range between $-17\text{\textperthousand}$ to $41\text{\textperthousand}$ CDT, indicating different sources of dissolved sulphate. Surface waters from lakes and streams range between $-10\text{\textperthousand}$ and $10\text{\textperthousand}$ CDT, with most of the samples ranging between 2% and 8% CDT. All measurements from sea water are very close to 20% CDT (Figure 4-65). Sulphur-34 is enriched in the soil tubes located in till below the lake sediments (SFM0012, SFM0022, SFM0023, SFM0024, SFM0025), with values significantly exceeding 20% CDT (sea water). Also SFM0057 and SFM0049 show enriched sulphur-34 values. A number of soil tubes at ‘higher’ locations are depleted in sulphur-34 (e.g. SFM0008, SFM009, SFM0031, SFM0060), showing values well below 0% CDT. The ‘higher’ located soil tubes usually show sulphur-34 values in the range from -10 to $10\text{\textperthousand}$ CDT, similar to values measured in the surface waters.

Strontium-87 is generally enriched relative the natural abundance ratio by 5% to 40%. The recorded ratio in the Forsmark soil tubes ranges from 0.712 to 0.738, compared to the natural abundance ratio of 0.712 (Sr-87/Sr-86). The spatial distribution patterns for strontium-87 differ from most patterns observed for other isotopes, as well as major and minor constituents. Strontium-87 is least enriched in SFM0015, SFM0024 and SFM0022. The highest enrichment is found in SFM0027, located near the outlet of Lake Fiskarfjärden.

Isotopes of radium, radon, thorium and uranium

The **radium-226** activities are higher in the Forsmark area than the median value of the reference data from drilled wells in Sweden, whereas the **radon-222** activities are in the same order of magnitude as the references. There is a weak correlation between the activities of radium and radon. SFM0027 and SFM0031 marks out by having elevated radon levels compared to the radium activity measured. SFM0002, SFM0015 and SFM0009 display the highest activity when both radium and radon are considered.

Evaluation per catchment

In this section, conclusions are summarised per catchment in order to make the compilation compatible with the corresponding work on surface waters in Forsmark /Sonesten 2005/. The compilation per catchment area is also appropriate for shallow groundwater since the catchment boundaries often coincide with the groundwater divides. The measurements from streaming waters and lakes may also be seen as the sum of groundwater discharge in the area. That is especially the case in an area where local recharge-discharge patterns dominate.

The seven different catchment areas investigated are to a large degree similar in their water chemical composition, but there are also numerous differences both between the catchment areas and within them.

A) The **Gunnarsbo-Lillfjärden catchment (1:1–4)** in the north-western part of the study area does not include any measurements of groundwater, except for a single private well. The surface waters in this catchment are characterised by high levels of calcium and alkalinity. The alkalinity measured in this catchment is the highest of all investigated fresh waters in the Forsmark area /Sonesten 2005/. The concentrations of most other ions as sodium and chloride are low compared to other fresh surface waters in the area. Based on the conditions observed in the surface waters, the discharging groundwater in this area probably show low concentrations of ions of marine origin and is probably dominated by Ca-HCO₃ groundwater types.

B) The chemical composition of both shallow groundwater and surface waters varies considerably in the large **catchment of Norra Bassängen (2:1–11)**. This catchment, which is the largest of the investigated areas, can be divided into three different sub-catchments.

The **Lake Eckarfjärden sub-catchment (2:10)** constitutes the upper part of the Norra Bassängen catchment. The soil tubes in this catchment deviates considerably with respect to several parameters. In the Piper plot, all soil tubes in this sub-catchment are classed as Na-HCO₃ type. Compared to most other catchments, the concentrations of several ions, e.g. calcium, potassium, chloride and sulphate, are significantly lower in most soil tubes except for SFM0015, located in the till below the sediments of Lake Eckarfjärden. SFM0015 shows instead high concentrations of magnesium, potassium, iodine, lithium, manganese, barium, rubidium and bicarbonate, and especially low values of sulphate and uranium. Among the isotopes, this soil tube also shows deviating high values of carbon-13, chlorine-37, deuterium and oxygen-18, and low values of tritium and strontium-87. The deviating observations of major and minor constituents observed in SFM0015 are also found in surface water from the outlet of the lake, but not from the inlet, indicating that discharging groundwater in the lake may be important for the water chemical composition of Lake Eckarfjärden /Sonesten 2005/.

The soil tubes in the ***sub-catchment of Bolundskogen/Lake Gällsboträsket (2:8)*** show elevated levels of most ions, e.g. sodium, magnesium, chloride, sulphate, bromide, and uranium, in the ‘lower’ located soil tubes SFM0011 and SFM0012. These tubes also show low pH-values and low values of tritium, carbon-14 and strontium-87. The streams draining this catchment show elevated concentrations of major and minor constituents.

Most soil tubes in the ***sub-catchment of Norra Bassängen and Bolundsfjärden (2:1–3)*** show normal values compared to most soil tubes in the Forsmark area, except for SFM0023 located in till below the sediments of Lake Bolundsfjärden. This soil tube deviates from all other soil tubes in the Forsmark area by showing a very high salinity, even higher than the present sea water. Besides high chloride concentration, also sulphate, bromide, lithium, strontium, rubidium, deuterium and sulphur-34 show high values. Low values are found for bicarbonate, barium, pH, uranium, vanadium, tritium and carbon-14.

C) Of the three soil tubes situated in the ***catchment of Fiskarfjärden (8:1)***, SFM0022 which is located in till below the lake sediments, show a deviating pattern compared to SFM0026 and SFM0027. The latter two tubes are characterised by low calcium and TOC contents and high silicon content compared to most other soil tubes. SFM0027, located in a thick layer of till, displays the highest radon-222 activities measured in the Forsmark area. SFM0022 shows, except for generally elevated levels of most major constituents, also high levels of iodide, strontium, strontium-87, and low levels of chlorine-37, tritium and carbon-14. The iodine concentration in Lake Fiskarfjärden also show outstanding high values compared to all other surface water sampling sites in the area, analogue to the elevated iodine levels in the soil tube SFM0022. The saturation indices calculated for several minerals show the highest values in the soil tube SFM0022. For example is calcite oversaturated in all observations of SFM0022.

D) The shallow groundwater in the small ***catchment of Bredviken (5:1)*** show deviating chemical composition compared to most other catchments. The soil tubes SFM0006 and SFM0008 are characterised by rather low concentrations of marine ions as chloride, bromide, magnesium and sodium. Instead, elevated levels are found for calcium, potassium, barium and uranium, compared to most other soil tubes. The corresponding pattern is seen in the measurements of streaming water in the inlet of Lake Bredviken.

E) The soil tubes in the small ***catchment of Lake Vambörsfjärden (2:6)*** (SFM0009 and SFM0020), as well as those in the ***catchment of Lake Märrbadet (7:1–4)*** (SFM0059 and SFM0061), show no considerable deviations in their water chemical characteristics compared to typical shallow groundwater in the Forsmark area.

F) There are a number of soil tubes which fall outside the catchments above. These are lumped in the supplementary category ‘Coastal areas’. Of these are SFM0024 and SFM0025 located in shallow bays of brackish water and these two soil tubes show very similar patterns with a few exceptions: SFM0024 show higher content of magnesium, potassium, deuterium and lower strontium-87. SFM0025 show elevated levels of strontium, calcium, iodine and lower levels of carbon-14 and bicarbonate compared to SFM0024.

Chemical characteristics of the regolith in the Forsmark area

The chemical investigations of the regolith in the Forsmark area have hitherto included analyses of till, soil and sediment samples.

Till

The majority of the elements in the till samples from the Forsmark area occur in normal concentrations, compared to Swedish reference data. Calcium and strontium are two exceptions, where the content is markedly elevated compared to normal till in Sweden.

Most till samples in the Forsmark area contain between 10 to 30 percent calcite (calcium carbonate) per dry weight, which is about 30 times higher than the median value of the Swedish reference data. The calcite in the Forsmark area originates from the seafloor of Gävlebukten, a bay of Östersjön about 100 km north of the Forsmark site which is covered by Cambrian and Ordovician sedimentary bedrock. The calcium-rich material was transported from Gävlebukten and deposited in the Forsmark area during the latest glacial period /Ingemar and Moreborg 1976/. This explanation is supported by the fact that extraordinary high contents of calcite is measured in till, whereas the bedrock dominated by granite lacks calcite. The shallow groundwater in the area also shows highly elevated concentrations of calcium and bicarbonate, the products formed by the dissolution processes of calcite in the Quaternary deposits.

The strontium content in till from the Forsmark area is about seven times higher than normal values of Swedish till. A similar elevation is also seen when surface waters in the Forsmark area are compared to most Swedish surface waters. The elevated strontium concentration in surface water is likely caused by the high content of strontium in the till the area, and similar to calcium the high strontium content probably originates from the sedimentary bedrock of Gävlebukten.

The variation in bedrock geochemistry is reflected in the chemical composition of the till. In the vicinity of Lake Eckarfjärden, in the south-western part of the Forsmark area, the deviating rock composition is probably reflected by the elevated contents of aluminium, magnesium, iron and some trace elements as e.g. bismuth, uranium and vanadium.

Sediments

The content of calcium carbonate shows considerable variation both within and among the five marine and lacustrine sediment sampling sites in the Forsmark area. There are examples of both very low and very high content of calcium carbonate, reflecting varying conditions during the formation of the sediments. The calcareous gyttja of Lake Stocksjön shows extremely high content of calcium carbonate (60%), originating from precipitation of dissolved calcium carbonate.

The content of organic carbon, sulphur and nitrogen usually shows a decreasing trend from younger (superficial) to older (deeper) sediments. There are usually distinct transitions in the concentrations at certain depths, coinciding with the successions from sea bottom, to brackish lagoon and finally a fresh water lake.

In a sediment profile from Lake Stocksjön most elements occur at higher levels in the marine sediments, except for e.g. calcium, manganese, mercury, antimony and lead which show higher levels in the superficial lacustrine sediments. Strontium, phosphorus and sulphur show only minor correlations to the transition from marine to fresh water. At a depth of 15–20 cm in the sediment profile, air transported pollutants, e.g. mercury, zinc, cadmium, lead and antimony, occur at higher levels compared to both more superficial and deeper layers.

Peat

Most major constituents and trace elements occur at normal concentrations when the three available peat samples are compared to Swedish reference data. One of the peat samples from Lersättermyran show high contents of calcium, indicating that this fen is strongly influenced by the calcareous soils in the vicinity. The concentration of trace elements in the two mires shows normal values, except for lead and zinc that occur in 10–50 times higher concentrations compared to the median of the Swedish reference data /Fredriksson 2004/.

Soil

The pH in the top soil in the Forsmark area is in general high with values around pH six, whereas Swedish soils on average show values between four and five. The humus layer is influenced by the underlying calcareous mineral soil and the pH value is 6.5 on average, to be compared to values around 5 for most of Sweden.

Carbon concentrations in the humus layer are in accordance with ordinary Swedish conditions, but in the mineral soil the influence of CaCO₃ makes the concentration of carbon higher compared to typical values for Sweden. Nitrogen concentrations in the soil agree fairly well with most parts of Sweden, but are lower than usually observed in the Uppsala County

Element contents in amphibious plants

The content of calcium is markedly elevated in the roots of amphibious plants in the Forsmark area, compared to both Uppsala County and Sweden. The remaining major constituents occur in approximately normal concentrations.

Most trace metals occur in normal or slightly lower concentrations compared to the normal levels in Uppsala county and Sweden. An exception is arsenic that shows tendencies for slightly increased concentrations in plant roots in the Forsmark area.

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Appendices on enclosed CD

Appendix 1 Detailed statistics on surface waters (lake, stream and sea)

Appendix 2 Detailed statistics on shallow groundwater (soil tubes)

Appendix 3 Detailed statistics on precipitation

Appendix 4 Raw data – water

Appendix 5 Raw data – regolith

1 Introduction

1.1 Background

The Swedish Nuclear Fuel and Waste management Co (SKB) is currently conducting site investigations at two sites, Oskarshamn and Forsmark, with the objective of siting a geological repository for spent nuclear fuel. The results from the investigations at the sites are used as a basic input to the site descriptive modelling. A Site Descriptive Model (SDM) is an integrated description of the site and its regional setting, covering the current state of the geosphere and the biosphere, as well as ongoing natural processes of importance for long-term safety. The SDM shall summarise the current state of knowledge of the site, and provide parameters and models to be used in further analyses within Safety Assessment, Repository Design and Environmental Impact Assessment.

The site investigation programme involves extensive studies of the surface ecosystem as well as of the bedrock, in order to provide a detailed characterisation of the site (see /SKB 2001/ for a description of the general execution programme). The strategy which is adopted by SKB for developing a descriptive ecosystem model based on site data, is described in /Löfgren and Lindborg 2003/. An important part of the description of the surface ecosystem is the characterisation of chemical properties of surface waters, groundwater and regolith in the area.

1.2 This report

This report evaluates the results from chemical investigations of the surface system in the Forsmark area during the period November 2002 – March 2005. Moreover, available data from chemical investigations performed before the start of the site investigations was also included in the evaluation. The data used is not associated to any special data freeze, as is usually the case in the site descriptive modelling work. Instead, all data from chemical investigations of the surface system, available in the Sicada database in May 2005, was used in the evaluation. In a parallel report /Tröjbom and Söderbäck 2006/, data from chemical investigations of the surface system in the Simpevarp area in Oskarshamn are evaluated.

The main focus of the report is to visualise the vast amount of data collected hitherto in the site investigations, and to give a chemical description of shallow groundwater, precipitation, and regolith (till, soil, peat, sediments and biota) in the area. Underlying hydrogeochemical processes, and important premises for the evolution of the chemical composition of surface water and groundwater, are only to a minor extent discussed in this report. Data and results from surface waters (lakes, streams and the sea) are not presented in this report, since these were treated separately in a recently published report /Sonesten 2005/. However, statistics for surface water data are compiled in Appendix 1 on the enclosed CD. The presentation of the data, as well as of the results, is separated according to the investigated media into three main parts; shallow groundwater, precipitation, and regolith.

The data used consist of water chemical composition of precipitation, predominantly sampled on a monthly basis, and in groundwater from soil tubes and wells, sampled up to four times per year. Moreover, regolith data includes information on the chemical composition of till, soil and sediment samples from the area. The characterisations include all measured chemical parameters, i.e. major and minor constituents, trace elements, nutrients, isotopes and radio nuclides, as well as field measured parameters.

The evaluation of data from each medium has been divided into two or three parts:

- Characterisation of individual sampling sites, and comparisons within and among sampling sites as well as comparisons with local, regional and national reference data.
- Analysis of time trends and seasonal variation (for shallow ground water).
- Exploration of relationships among the various chemical parameters.

For all investigated parameters, the report presents selected statistics for each sampling site, as well as for available reference data. For each investigated media, a more comprehensive statistical description of the data is given per parameter in Appendices 1–3 on the enclosed CD, and the primary data used in the evaluation can also be found on the CD in Appendices 4–5.

2 Study area

The Forsmark site is located in north-eastern part of Uppsala County within the municipality of Östhammar, about 170 km north of Stockholm. The candidate area for the repository is located along the shoreline of Öregrundsgrepen and it extends from the Forsmark nuclear power plant in the northwest and towards the bay Kallrigafjärden in the southeast. The candidate area, marked in red in Figure 2-1, is approximately 6 km long and 2 km wide. The north-western part of the candidate area has been selected as the target area for continued site investigations /SKB 2005a/.

In the following section, premises important for the evolution of chemical and physical conditions in groundwater are summarised. For further information see /Lindborg et al. 2005/.

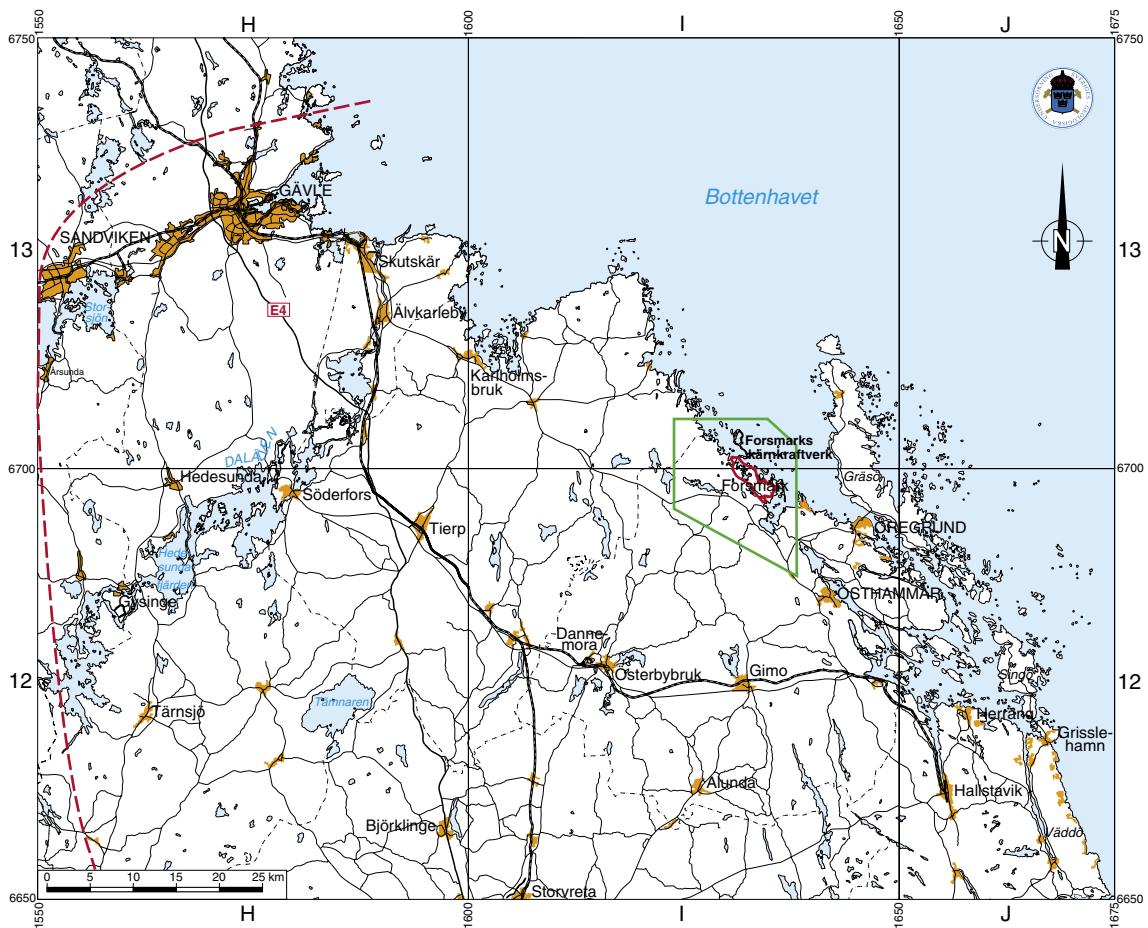


Figure 2-1. Map showing the Forsmark candidate area (red), the study area (green) and the surroundings.

2.1 Topography and climate

The Forsmark area belongs to the boreal forest region characterized by temperate climate and a mean annual precipitation of approximately 600–650 mm per year. The annual runoff has been estimated to approximately 200 mm /SKB 2005c/, and the effective recharge actually reaching the bedrock has been estimated to be very small, a few mm per year /Johansson et al. 2005/.

The Forsmark area forms a northern extension of the Stockholm and Roslagen archipelagos, characterized by a hilly, fissure-valley landscape. The topography of the Forsmark area relatively flat, and the elevation in the study area ranges from the sea level to about 20 m above sea level /SKB 2005b/ (Figure 2-2). The area is also characterised by an ongoing isostatic uplift, which results in new lands emerging from the Baltic and strong marine influences of the shallow groundwater /Lindborg et al. 2005/.

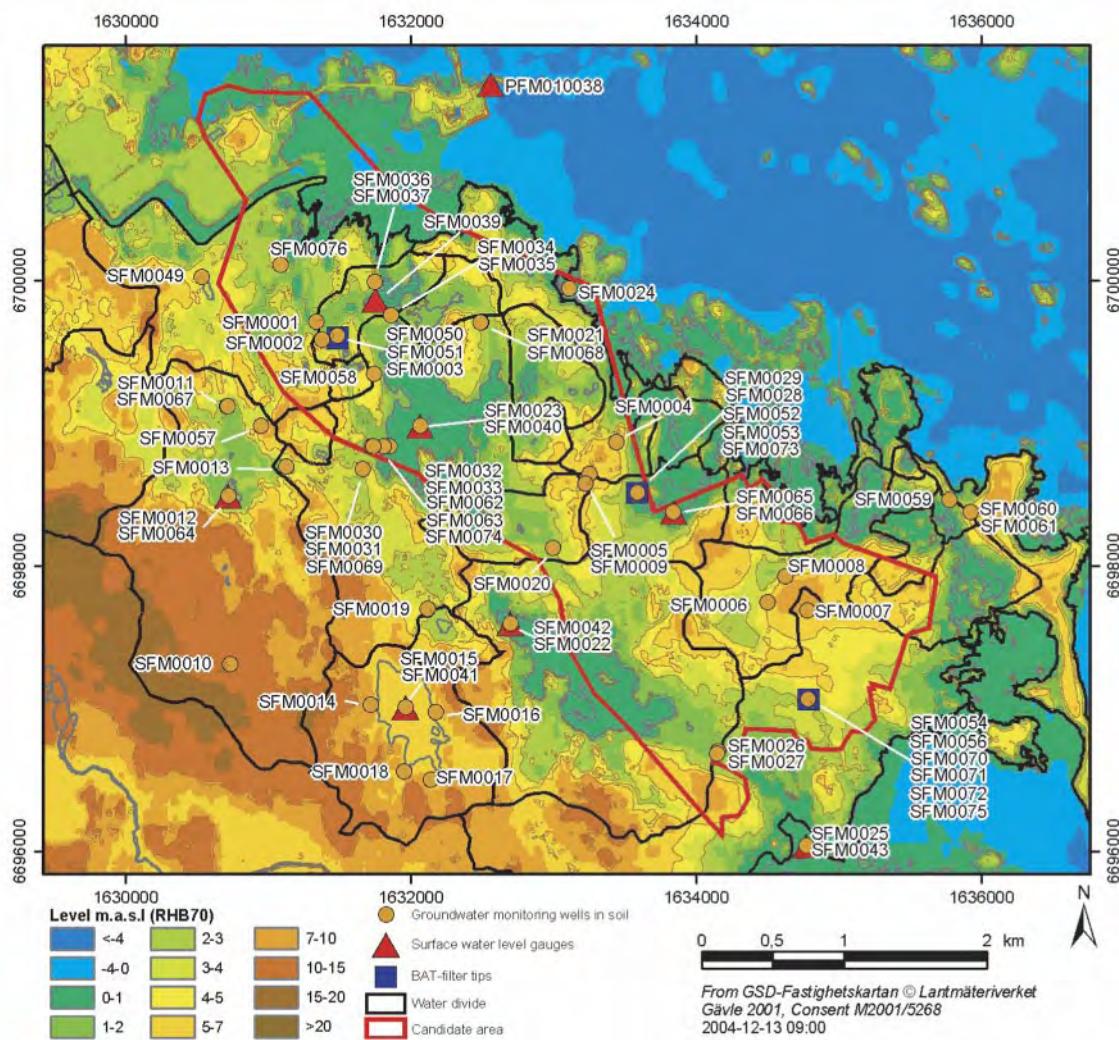


Figure 2-2. Topographic map showing locations of groundwater monitoring wells, abstraction wells, BAT-type filter tips and surface water level gauges in the Forsmark area (from /SKB 2005c/). Object identification codes starting with 'SFM' denotes the soil tubes evaluated in this report.

2.2 Quaternary deposits

Unconsolidated Quaternary deposits of varying depth cover c 84% of the land area in the Forsmark regional model area /Lindborg 2005/. These deposits play an important role in formation of shallow groundwater with respect to both chemical properties and hydrological characteristics. All known Quaternary deposits in the Forsmark area were formed during or after the latest glaciation. The oldest deposits are of glacial origin, deposited directly from the inland ice, or by water from the melting ice. Fine-grained sediment has been deposited in local depressions such as the lakes and the lower parts of the present sea bottom and the overburden is dominated by glacial till (Figure 2-3). Due to an undulating upper surface of the bedrock, there are large variations in thickness of the Quaternary cover (0–17 m /SKB 2005b/). Based on soil depth modelling in GeoEditor /Vikström 2005/, the depth to the bedrock is shown in Figure 2-4.

The Quaternary deposits are rich in calcite (CaCO_3). These deposits originate from the Bothnian Palaeozoic limestone deposits at the bottom of the Baltic Sea north of the Forsmark area /Ingemar and Moreborg 1976/. These deposits together with the recent emergence of the area from the Baltic Sea affect the chemistry of shallow groundwaters causing high pH and high alkalinity and in some cases high salinity.

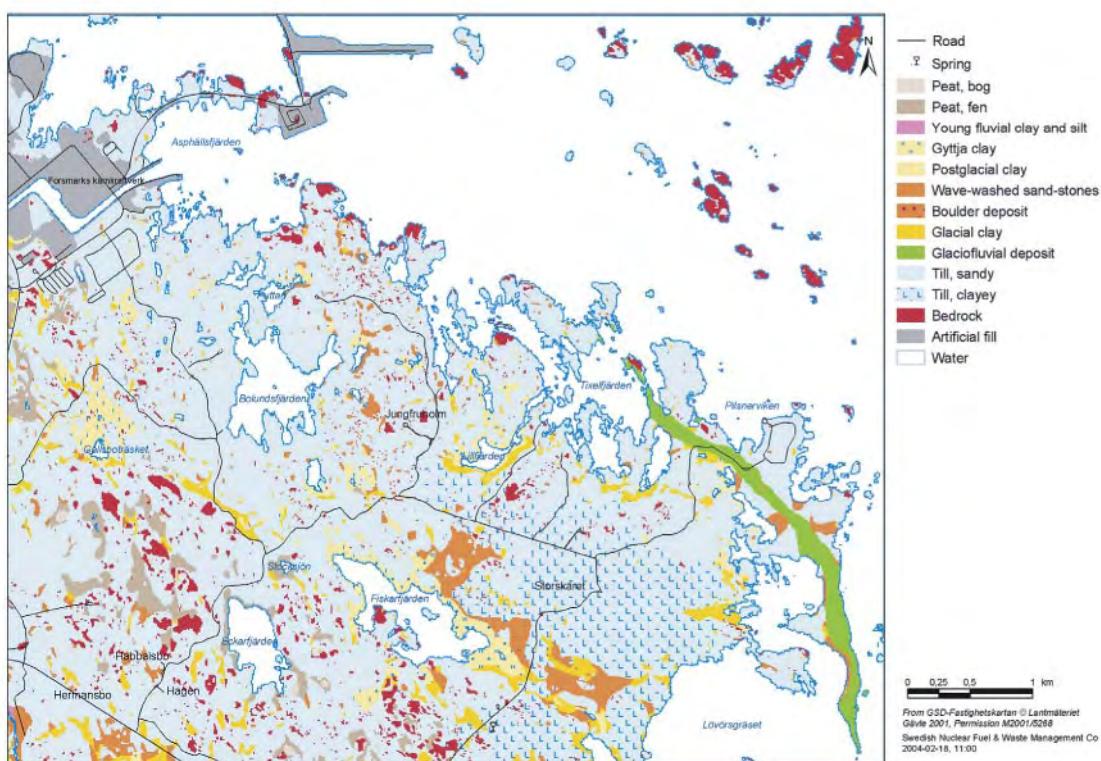


Figure 2-3. Map showing the spatial distribution of Quaternary deposits in the central part of the Forsmark regional model area, from /Sohlenius et al. 2004/.

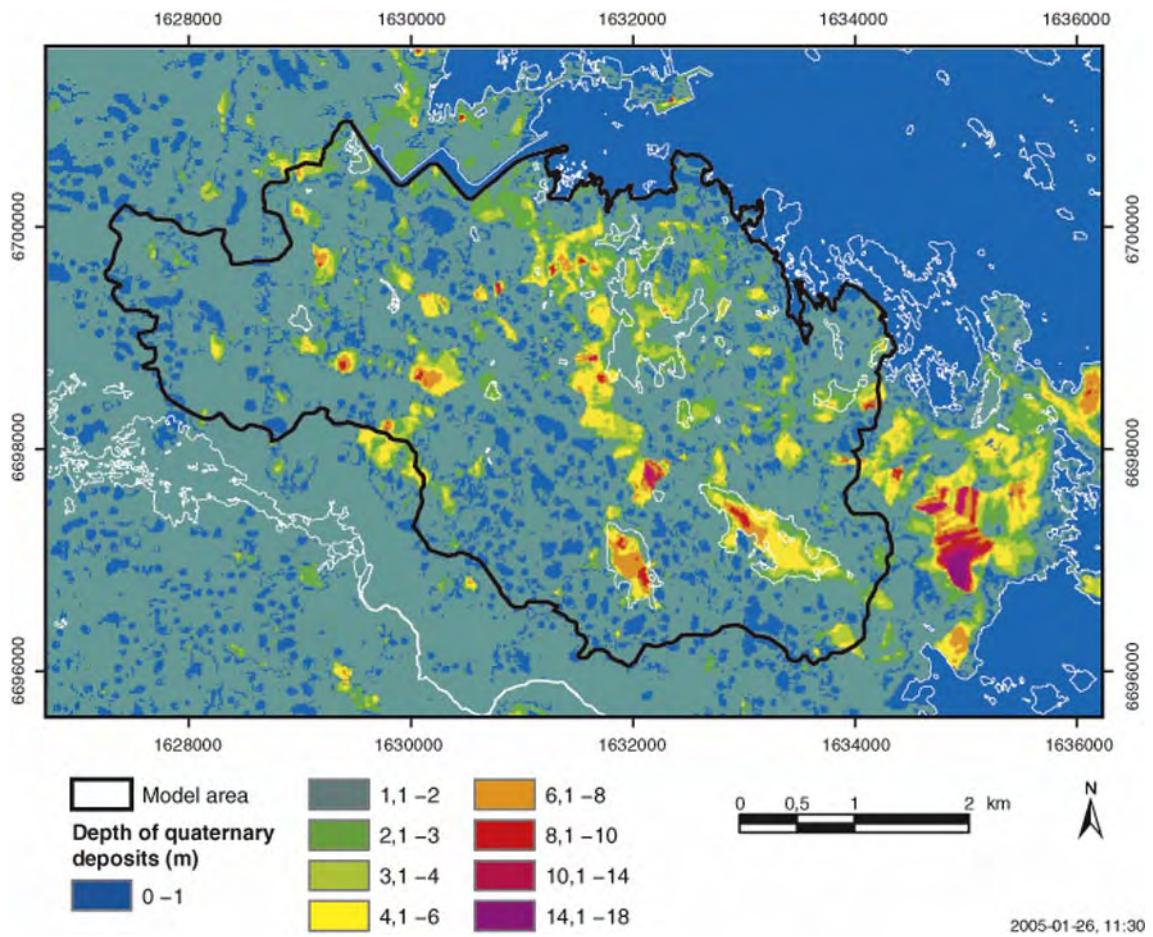


Figure 2-4. Map showing the depth to bedrock in the central part of the Forsmark area, based on the soil depth modelling in GeoEditor (from /Lindborg 2005/). The model is valid for the area within the black solid line.

2.3 Recharge and discharge areas

Another factor that is important for the chemical composition of groundwater is the residence time, i.e. the time period during which different hydrogeochemical processes can alter the composition of the recharging meteoric water. The small-scale topography in the area implies that many local, shallow groundwater flow systems with relatively short residence times are formed in the quaternary deposits, overlying more large-scale flow systems associated with groundwater flows at greater depths and longer residence times.

As the residence time usually differs significantly between groundwaters in recharge and discharge areas, significant differences can be expected between these two types of areas depending on differences in the contact time with overburden and bedrock.

In Figure 2-5, a modelled distribution of recharge, intermediate and discharge areas is shown. As the distribution of these three categories is rather arbitrary, depending on modelling assumptions, season and spatial resolution, only the overall picture should be pointed out. From Figure 2-5, it can be concluded that recharge and discharge areas forms a fine cut pattern in the area. This fact implies that any categorization of the soil tubes in terms of recharge and discharge should take these small-scale variations into account, and not be based on topographical constraints at a large scale.

2.4 Bedrock and fracture zones

The bedrock in the candidate area is dominated by one lithological domain. The dominant rock type in this domain is a medium-grained metagranite that extend downwards to a depth of at least 1,000 m. Rock domains with strongly deformed, and also in part, banded and inhomogeneous rocks occur along the south-western and the north-eastern margins of the candidate area (Figure 2-6).

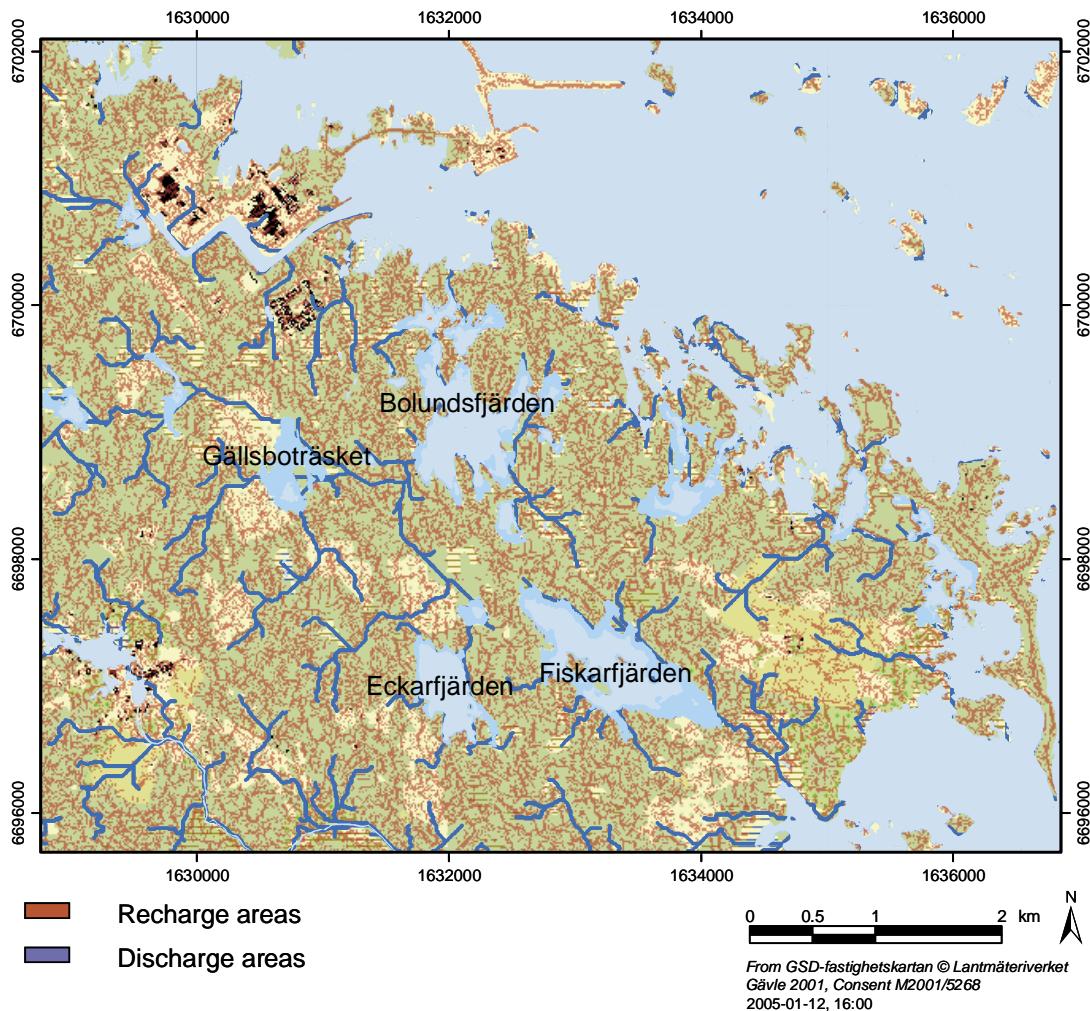


Figure 2-5. Identification of recharge and discharge areas using a GIS model. Areas with colours other than blue and red are “intermediate areas”, i.e. neither recharge nor discharge areas based on the definitions used in the modelling /Johansson et al. 2005/.

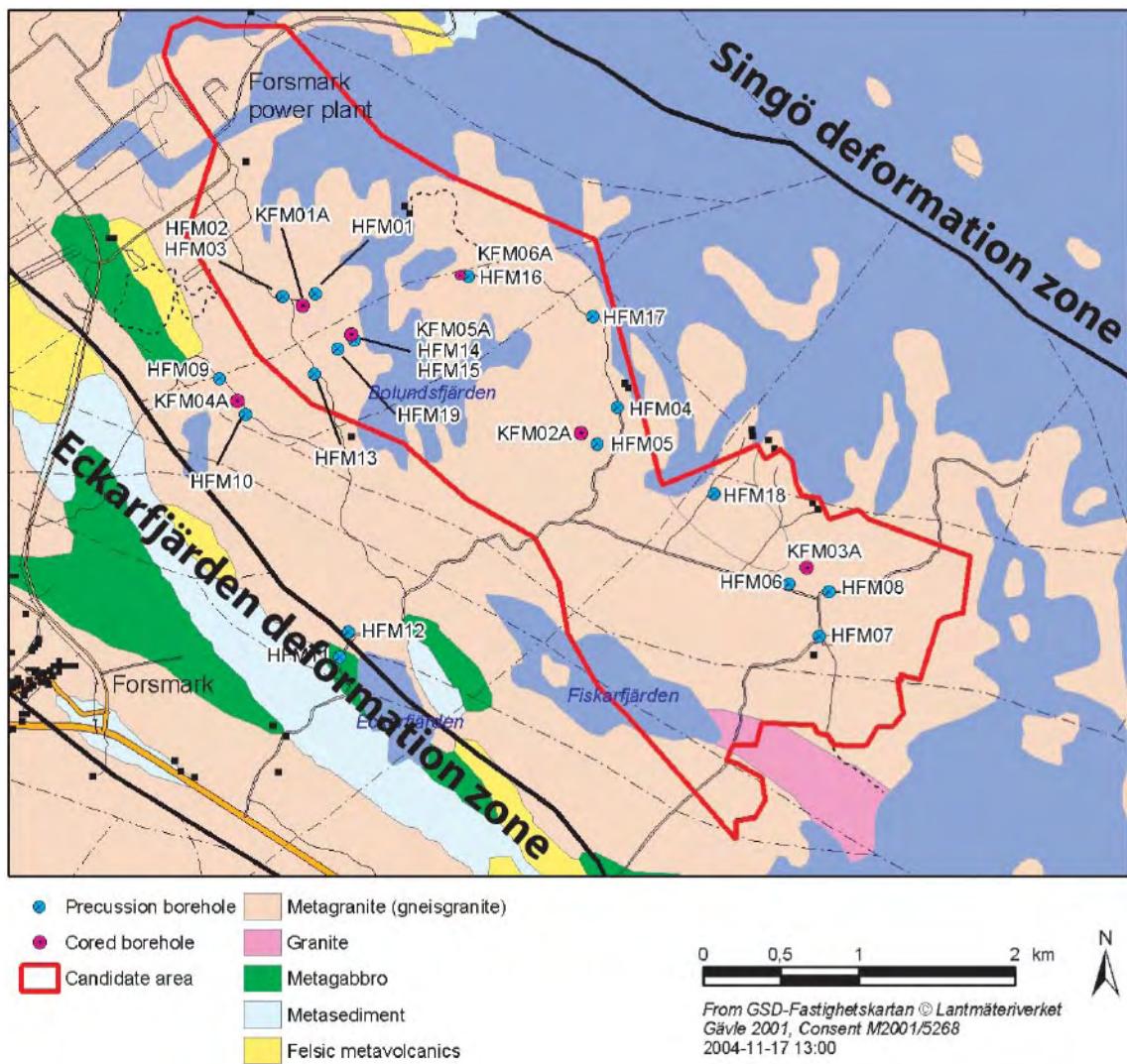


Figure 2-6. Schematic geological map of the Forsmark area showing the candidate area and major deformation zones (from /SKB 2005c/).

3 Summary of available data

In this section, available data from shallow groundwater and Quaternary deposits in the Forsmark area are summarised, beside various data used as reference on the local, regional and national scales.

3.1 Shallow groundwater

3.1.1 Investigations and previous evaluations

The Preliminary Site Description of Forsmark 1.2 includes a brief description of the chemistry in shallow groundwater, based on available data from the site investigations /SKB 2005c/. Detailed descriptions of drilling and sampling of soil tubes, as well as analytical issues and some initial calculations on data quality are found in the reports compiled in Table 3-1.

Table 3-1. Summary of reports containing both detailed descriptions of drilling and sampling of soil tubes, as well as analytical issues and some initial calculations on data quality (chemistry reports are marked in bold).

Description	SKB report number	Reference
Description of climate, surface hydrology, and near-surface hydrogeology. Forsmark 1.2.	R-05-06	/Johansson et al. 2005/
Preliminary site description Forsmark area – version 1.2.	R-05-18	/SKB 2005c/
Drilling of groundwater monitoring wells SFM0001–SFM0003 in soil at drillsite DS1.	P-03-13	/Claesson and Nilsson 2003a/
Sampling and analyses of groundwater in percussion drilled boreholes and shallow monitoring wells at drillsite DS1.	P-03-47	/Nilsson 2003a/
Sampling and analyses of groundwater in percussion drilled boreholes and shallow monitoring wells at drillsite DS2.	P-03-48	/Nilsson 2003b/
Drilling of groundwater monitoring wells SFM0004–SFM0005 in soil at drillsite DS2.	P-03-50	/Claesson and Nilsson 2003b/
Drilling of groundwater monitoring wells SFM0006–SFM0008 in soil at drillsite DS3.	P-03-57	/Claesson and Nilsson 2003c/
Drilling and sampling in soil. Installation of groundwater monitoring wells and surface water level gauges.	P-03-64	/Johansson 2003/
Slug tests in groundwater monitoring wells in soil.	P-03-65	/Werner and Johansson 2003/
Undisturbed pore water sampling and permeability measurements with BAT filter tips. Soil sampling for pore water analyses.	P-04-136	/Johansson 2004/
Drilling and pumping test of wells at Börstilåsen.	P-04-138	/Werner et al. 2004/
Supplementary drilling and soil sampling, installation of groundwater monitoring wells, a pumping well and surface water level gauges.	P-04-139	/Werner and Lundholm 2004a/
Supplementary slug tests in groundwater monitoring wells in soil.	P-04-140	/Werner 2004/
Pumping test in wells SFM0074.	P-04-142	/Werner and Lundholm 2004b/
Sampling and analyses of near surface groundwaters.	P-05-171	/Nilsson and Borgiel 2005/

3.1.2 Soil tube data

Since July 2002, totally 48 soil tubes in the Forsmark area have been monitored for chemical composition and physical/hydrological properties. An evaluation of the chemical composition of groundwater in 46 of these soil tubes, covering the period July 2002 to February 2005, is presented in this report.

The evaluation of chemical properties of shallow groundwaters is based on the data available in the SKB database SICADA on May 2005, covering the period 2002-07-18 to 2005-02-10. During a preliminary data evaluation prior to May 2005, all erroneous data found was reported to the SICADA database. These corrections were included in the final data delivery in May 2005. There are no further corrections made in the material presented in this report.

The sampling programme for water chemistry in shallow groundwater includes a total of 46 soil tubes, sampled predominantly at four times per year /Nilsson and Borgiel 2005/. Some of the soil tubes have been sampled only once, while some tubes show time series of up to ten samples. The sampling techniques and chemical analyses program has been thoroughly described by /Nilsson 2003ab/.

In Table 3-3, the number of samples per soil tube (IDCODE) is shown for a selection of parameters, representative for the parameter categories that are explained in Table 3-2. The locations of the sampling sites are shown in Figure 4-2.

Table 3-2. Listing of the different parameters that are included in each parameter category used in Table 2-3. The selected elements are representative for each parameter group.

Selected element	Other parameters in category
pH	Conductivity
Na	K, Ca, Mg, HCO ₃ , Cl, SO ₄ , Br, I, F, Li, Sr, Si
SiO ₂	
Fe	Mn
Fe(II)	Fe(tot)
S ²	O ₂
Tot-N	NH ₄ -N, NO ₂₃ -N, tot-P, PO ₄ -P, TOC, DOC, DIC
PON	POP, POC
D	Tr, O-18
C13	C-14, S-34, B-10, Cl-37, Sr-87
Zn	Cu, Pb, Cd, Cr, Al, Ni, Hg, Co, V
La	U, Th, Sc, Rb, Y, Zr, Mo, In, Sb, Cs, Ba, Hf, Tl, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu
U-238	U-235, U-234, Th-232, Th-230
Ra-226	Rn-222

Table 3-3. Number of observations per soil tube and parameter group (see Table 2-2) in the Forsmark area. SICADA database on May 2005. The selected elements represent different parameter categories explained in Table 3-1. The lumped categories that are shown at the bottom of the table are explained in Section 4.2.

Idcode	First date	Last date	pH	Na	SiO ₂	Fe	Fe(II)	S ²	N _{tot}	PON	D	C13	Zn	La	U238	Ra226
SFM0001	020718	050124	10	10	11	9	5	7	10	3	10	7	7	6	2	4
SFM0002	020718	050120	11	11	11	9	5	6	10	3	10	6	5	6	2	4
SFM0003	020718	050124	10	10	11	8	5	7	10	2	10	6	7	6	2	4
SFM0005	021216	050124	6	6	6	6	4	4	5	1	5	3	4	3	1	1
SFM0006	030507	050119	5	5	5	5	2	4	5	1	4	3	3	2	1	1
SFM0008	030602	050125	7	7	8	6	5	4	7		7	3	5	5	1	3
SFM0009	030331	050124	6	7	6	5	5	4	5		7	2	5	5		2
SFM0010	030403	030403		1								1				
SFM0011	030331	030331		1								1				
SFM0012	030424	050119	8	9	7	4			1	6		8	4	1	1	1
SFM0013	030331	030331		1								1				
SFM0014	030218	030218	1	1								1				
SFM0015	030226	050118	7	8	6	3			1	5		7	5	1	1	1
SFM0016	030227	030227	1	1								1				
SFM0017	030225	030225		1								1				
SFM0018	030227	030227		1								1				
SFM0019	030325	030325		1								1				
SFM0020	030319	030319		1								1				
SFM0021	030408	030408		1		1						1				
SFM0022	040205	050118	4	4	3	2			3		2	1				
SFM0023	030304	050124	7	8	6	3			5		7	3	1	1		
SFM0024	030326	031106	2	3	2				1		3	2				
SFM0025	030320	050120	7	8	6	3			5		7	3	1	1		
SFM0026	030324			1								1				
SFM0027	030425	050119	7	8	6	6	4	3	5		7	3	5	5		2
SFM0028	030317	030317		1								1				
SFM0029	030708	050121	6	6	5	5	5	3	4		6	2	5	5		2
SFM0030	030311	030311		1								1				
SFM0031	030709	050120	7	7	6	6	5	3	5		6	3	5	5		2
SFM0032	030304	050119	9	9	6	6	5	4	5		8	4	5	5		2
SFM0034	030311	030311		1								1				
SFM0035	040422	040422														
SFM0036	030312	030312		1								1				
SFM0037	030710	050120	7	7	6	5	4	2	5		6	3	4	4		2
SFM0049	030401	050125	3	4	3	3	2	1	3		4	1	3	3		1
SFM0051	030625	050203	6	6		5	4				5	5	4	4		
SFM0053	030626	050210	6	6		5	4				5	5	4	4		
SFM0056	030622	050201	6	5		5					5		4	4		
SFM0057	031104	050121	6	5	5	6	4	4	4		5	3	5	5		2
SFM0059	031202	031202	1	1								1				
SFM0060	040121	050125	3	3	3	3	3	1	3		3	2	3	3		1
SFM0061	031202	031204	3	3								2				
SFM0062	040218	040528	3	3		3						2				
SFM0063	040218	040511	2	2		2						2				
SFM0065	040218	040218	1	1		1						1				
SFM0074	040511	040524	10	10		10						10				
Soil tubes at 'Higher' levels			67	78	47	43	12	11	39		69	27	22	22	2	8
Soil tubes at 'Lower' levels			111	119	81	92	59	48	72	10	111	52	65	62	9	27
Soil tubes in lakes			32	35	22	18		2	19		29	13	3	3	2	2
Soil tubes at sea			9	11	8	3			6		10	5	1	1		
All soil tubes			178	197	128	135	71	59	111	10	180	79	87	84	11	35

3.1.3 Reference data from private wells in the Forsmark area

Parallel to the sampling of soil tubes seven private wells have been sampled. Prior to the PLU, 27 private wells were studied in an inventory at the Forsmark site. These data are used as a local reference to the soil tube data and in comparisons with regional and national data from wells (see /Ludvigson 2002/ for a detailed description of private wells in the Forsmark area). The well data are also directly comparable to the national database of private wells, which makes them suitable in putting local data in a regional and national context. The private wells are also included in the maps in order to increase the spatial coverage. In Table 3-4 the number of observations per category and element are listed for the private wells. The locations of the private wells are shown in Figure 4-2.

Table 3-4. Summary of observations in private wells in the Forsmark area. Number of observations per element for drilled (Dri) and excavated (Exc) wells.

Element		Dri	Exc	Element		Dri	Exc
Aluminium	Al	13	12	Magnesium	Mg	30	20
Boron-10	B-10	5	2	Manganese	Mn	19	16
Bromide	Br	14	6	Total nitrogen	Tot-N	6	2
Calcium	Ca	30	20	Sodium	Na	27	18
Chloride	Cl	29	20	Ammonium nitrogen	NH ₄ -N	25	18
Chemical Oxygen Demand	COD	16	14	Nitrate/Nitrite nitrogen	NO ₂₃ -N	9	4
Conductivity	COND	26	18	Oxygen-18	O18	5	2
Copper	Cu	16	14	Total phosphorus	Tot-P	6	2
Deuterium	D	5	2	pH	pH	26	18
Dissolved Inorganic Carbon	DIC	9	4	Phosphate phosphorus	PO ₄ -P	25	18
Dissolved Organic Carbon	DOC	9	4	Silicon	Si	14	6
Fluoride	F	29	20	Silicon as silica	SiO ₂ -Si	9	4
Iron	Fe	19	16	Sulphate	SO ₄	30	20
Bicarbonate	HCO ₃	26	18	Strontium	Sr	14	6
Iodide	I	3		Total Organic Carbon	TOC	10	4
Potassium	K	27	18	Tritium	Tr	5	2
Lithium	Li	14	6	Zinc	Zn	13	12

3.1.4 Reference data from the National database of private wells

A database from the Swedish Geological Survey, containing data from private wells, was used as reference for the major constituents of shallow groundwater /SGU 2005a/. In Table 3-5 there is a listing of the number of observations per element that was used as reference statistics. Data from excavated and drilled wells are presented separately. Excavated wells are most comparable to the soil tubes.

Table 3-5. Number of observations from the National database of private wells used as reference statistics /SGU 2005a/.

Element		Uppsala County		Sweden	
		Excavated	Drilled	Excavated	Drilled
Aluminium	Al	46	70	1,423	1,668
Calcium	Ca	47	73	900	2,056
Chloride	Cl	66	672	6,822	12,433
Chemical Oxygen Demand	COD	9	12	5,374	2,887
Fluoride	F	66	647	1,464	9,362
Iron	Fe	66	672	4,555	11,091
Bicarbonate	HCO ₃	66	672	8,897	13,579
Potassium	K	56	85	974	2,223
Magnesium	Mg	56	85	1,058	2,231
Manganese	Mn	66	672	4,252	10,934
Sodium	Na	56	85	1,054	2,237
Ammonium nitrogen	NH ₄ -N	65	669	1,611	9,805
Nitrite nitrogen	NO ₂ -N	66	672	1,635	10,119
Nitrate nitrogen	NO ₃ -N	66	671	1,724	10,134
pH	pH	59	667	8,948	13,745
Phosphate phosphorus	PO ₄ -P	18	571	713	7,532
Sulphate	SO ₄	65	299	7,762	8,726

3.1.5 Reference data from Simpevarp

When available, reference data of soil tubes and private wells from the Simpevarp area are shown in box plots and statistical compilations. These data are described in /Tröjbom and Söderbäck 2006/, a parallel report to the present report for the Forsmark area.

3.1.6 Reference data – trace elements

From the report “Grundvattnets kemi i Sverige” /Naturvårdsverket 1995/ reference values were derived for the trace metals aluminium, copper, cadmium, zinc, arsenic and lead. These values, which represent non-disturbed shallow groundwaters, are based on data from the national and regional monitoring programmes “Grundvattennätet” and “PMK-grundvatten”.

Thorium and uranium reference data were derived from /SSI 2005/. These data, which may be assumed to represent typical conditions in Sweden, originates from a partly published research programme at SGU. During 2006, data on several more trace elements included in the same programme will be published.

For most other trace elements, e.g. rare earth metals, there are no reference data available for groundwater. As a complement, data from surface waters (lakes) are used as a reference. These data were derived from the background documents of the Swedish Environmental Quality Criteria for lakes and streams /Naturvårdsverket 1999a/ and the National survey of Swedish lakes and streams conducted at the year 2000 /IMA 2005/.

Reference data of precipitation were derived from Gårdsjön in the western part of Sweden /Eriksson 2001/.

3.2 Precipitation

Precipitation has been measured at two meteorological stations in the Forsmark area.

Descriptions of the meteorological sampling stations as well as some evaluations of chemical composition of precipitation is found in /Nilsson 2005/. Some meteorological data have been evaluated in the preliminary site description of Forsmark 1.2 /Johansson et al. 2005/.

3.2.1 Chemical data from precipitation

The chemical composition of precipitation has been analysed for 24 parameters at the meteorological sampling stations in the Forsmark area. During 2002 and most of 2003, the chemical sampling took place at PFM002457 and since the end of 2003 chemical sampling is conducted at PFM002564. The number of chemical analyses per month included in the compilations in this report is listed in Table 3-6.

Table 3-6. Number of analyses per month in precipitation at the sampling stations PFM002457 and PFM002564 in the Forsmark area.

Station Year Month	PFM002457												PFM002564											
	2002		2003		2004																			
	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	
Aluminium	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Bicarbonate	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Bromide	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Calcium	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Chloride	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Conductivity						2				1	1		1		1	1	1	1	1	1			1	
Deuterium											1				1	1	1	1	1	1			1	1
Dissolved organic carbon	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Fluoride																1								
Iodide																1								
Iron	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Magnesium	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Nitrogen (Kjeldahl)	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Nitrogen (nitrate)	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Nitrogen (total)												1												
Oxygen-18												1				1	1	1	1	1	1		1	1
pH	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Phosphorus	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Potassium	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Silicon																1								
Sodium	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Sulphur as sulphate	1	1			1		2			1	1		1		1	1	1	1	1	1			1	
Sulphate																1								
Tritium												1			1	1	1	1	1	1			1	1

3.2.2 Reference data from precipitation

Reference data of chemical composition was derived from two national sampling stations in Enköping (IVL:289) and Gotland (IVL:1554), respectively /IVL 2005/. These reference data represent the distribution of the yearly averages during the period 2000–2004.

3.3 Regolith

3.3.1 Investigations and previous evaluations

The Preliminary Site Description of Forsmark 1.2 includes a brief description of the chemistry of Quaternary deposits, based on available data from the site investigations /Lindborg et al. 2005/. Detailed descriptions of sampling and analytical issues are found in the reports compiled in Table 3-7.

Table 3-7. Summary of reports containing detailed descriptions of sampling and chemical analysis of Quaternary deposits in the Forsmark area.

Description	SKB report number	Reference
Description of the surface systems, Forsmark area – version 1.2.	R-05-03	/Lindborg et al. 2005/
Preliminary site description Forsmark area – version 1.2.	R-05-18.	/SKB 2005c/
Mapping of unconsolidated Quaternary deposits. Forsmark.	P-03-11	/Sohlenius et al. 2003/
Mapping of unconsolidated Quaternary deposits.	P-03-14	/Sohlenius and Rudmark 2003/
Mapping of unconsolidated Quaternary deposits 2002–2003.	R-04-39	/Sohlenius et al. 2004/
Modelling of soil depth and lake sediments. An application of the GeoEditor at the Forsmark site. Svensk Kärnbränslehantering AB.	R-05-07	/Vikström 2005/
Element distribution in till at Forsmark – a geochemical study.	P-03-118	/Nilsson 2003/
Stratigraphical and analytical data from auger drillings and pits.	P-04-111	/Hedenström et al. 2004/
Stratigraphical and analytical data of Quaternary deposits. Forsmark site investigation.	P-04-148	/Hedenström 2004b/
Stratigraphical investigation of till in machine cut trenches.	P-04-34	/Sundh et al. 2004/
Drilling and sampling in soil. Installation of groundwater monitoring wells and surface water level gauges.	P-03-64	/Johansson 2003/
Drilling and pumping test of wells at Börstilåsen.	P-04-138	/Werner et al. 2004/
Supplementary drilling and soil sampling, installation of groundwater monitoring wells, a pumping well and surface water level gauges.	P-04-139	/Werner and Lundholm 2004a/
Boremap mapping of percussion boreholes HFM01–03.	P-03-20	/Nordman 2003/
Sampling and analyses of groundwater in percussion drilled boreholes at drillsite DS3. Results from the percussion boreholes HFM06 and HFM08.	P-03-49	/Nilsson 2003c/
Drilling of five percussion boreholes, HFM11–12 and HFM17–19, on different lineaments.	P-04-106.	/Claesson and Nilsson 2004/
Investigation of marine and lacustrine sediment in lakes.	P-03-24	/Hedenström 2003/
Sampling and analyses of surface sediment in lakes and shallow bays.	P-04-05	/Borgiel 2004/
Investigation of marine and lacustrine sediment in lakes – Stratigraphical and analytical data.	P-04-86	/Hedenström 2004a/
Peatland investigation Forsmark.	P-04-127	/Fredriksson 2004/
Soils and site types in the Forsmark area.	R-04-08	/Lundin et al. 2004/

3.3.2 Chemical data from Quaternary deposits

Samples of Quaternary deposits have been taken either during drilling of boreholes and soil tubes or in test pits and machine-excavated trenches. There are also a number of organic sediment samples taken from the bottom of lakes as well as a few peat samples from bogs. In Table 3-8 the available chemical data in the SICADA database on May 2005 is compiled. Details about the sampling techniques, descriptions of local conditions and stratigraphy of the sampling sites are described in the reports cited in Table 3-7 and 3-8. In the reports, there are often compilations of raw data and in some cases evaluations of data.

At some sampling sites of till, several sub-samples were taken at different depths, representing different levels of the deposits at each site. In one or two of these sub-samples the chemical composition were analysed /Sohlenius and Rudmark 2003/. In the following presentations these samples are either handled as separate observations or compiled as mean values. All individual samples of till are compiled in Appendix 5

The sampling of marine and lacustrine sediments consists of core samples analysed as sub-samples representing different depth intervals /Hedenström 2004ab/.

The chemical composition of peat was analysed in three general samples consisting of a large number of pooled sub-samples. At Lersättermyran, two different depth intervals were analysed separately /Fredriksson 2004/.

Soil sampling was conducted in sample plots where the different soil horizons were sampled in a few pits at each site /Lundin et al. 2004/. The sampling points of the different categories are shown in Figure 3-1.

Table 3-8. Compilation of available samples from till, sediment, peat and soil in the Forsmark area in the SICADA database in May 2005. Number of objects per category denotes the number of samples within the categories HCNS (pH, carbon, nitrogen, sulphur), calcium carbonate (CaCO_3), major constituents (Major), trace elements (Trace) and miscellaneous analyses (Misc). The different sampling campaigns are described in the SKB reports listed under 'Reference'. See Table 3-7 for further references on the SKB report numbers.

Sample	Objekt	From	To	HCNS	CaCO_3	Major	Trace	Misc	Reference SKB report
Till	Core drilling	KFM01A	KFM01A	1					–
Till	Percussion drilling	HFM01	HFM13	9	4	4			b)
Till	Soil tube	SFM0001	SFM0072	35	14	14			c)
Till	Soil depth test	PFM002461	PFM002574	7	3	3			P-03-64
Till	Test pit	PFM002687	PFM003742	10	5	5			P-03-14
Till	Trench	PFM002576	PFM004761	15	8	8			P-04-34
Till	No info	PFM004531	PFM004762						–
Soil	Sample area	AFM001066	AFM001081	14					R-04-08
Peat	Sample area	AFM001078	AFM001079	2					R-04-08
Peat	Bog	PFM004414	PFM004429		2	2			P-04-127
Sediment	Lake	PFM004193	PFM004294	3	8				P-04-86
Sediment	Lake	AFM000010	AFM000076				7 (a)		P-04-05
Sediment	Lake	Lake Stocksjön				1 (d)	1 (d)		–

a. Aliphatics, PCB, and tin-compounds.

b. P-03-20, P-03-49, P-04-106.

c. P-03-64, P-04-138, P-04-139, P-04-148.

d. Unpublished data from Anna Brunberg, Uppsala University.

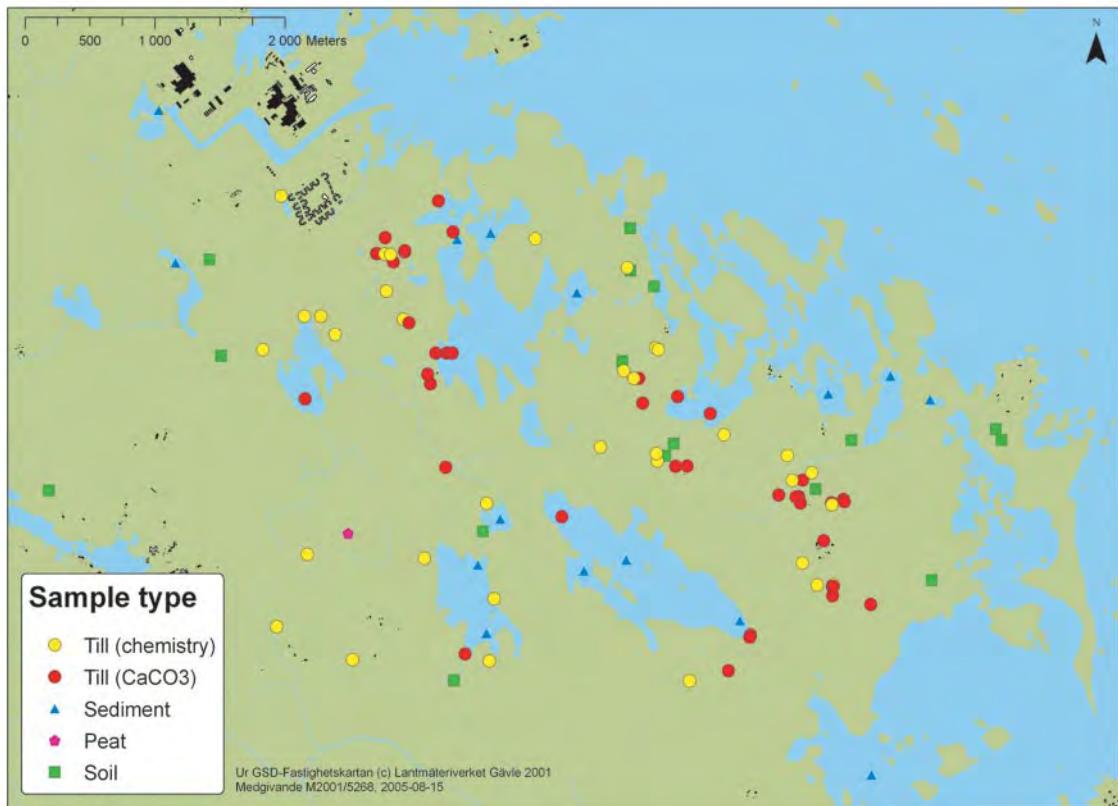


Figure 3-1. Map showing sampling sites for the different categories of samples in the Quaternary deposits in the Forsmark area. Till samples marked yellow denotes extended analysis of chemical composition and not only calcium carbonate (red).

3.3.3 Reference data from till samples

The geochemical database from the Geological Survey of Sweden, SGU was used as reference to till data from the Forsmark area. This database contains about 15 000 geochemical data of mostly fine-grained soils, sampled at a depth of 0.6 to 1.0 m. The database, which covers more than half the area of Sweden, is judged to be representative for the country. Since the region around Forsmark has not yet been surveyed, there are no regional reference data available for this region. The database contains element analyses based on various techniques as well as various solvents, a fact that has been accounted for at comparisons with data from the site investigations.

Descriptive statistics from the geochemical database was compiled by SGU. Statistics based on all Swedish till data is used as a national reference to the till data from the Forsmark area.

3.3.4 Reference data from sediment samples

The geochemical database of SGU also contains element analyses of fine grained sediments as glacial and post glacial clays. These data are sampled at a depth of about one meter below the soil surface. Median values of all sediment data in the geochemical database is used as a reference to the element analyses on samples from a sediment core from Lake Stocksjön. In addition, element concentrations of Swedish lake sediments, compiled by Lithner and Holm 2003/, is used as a complementary reference.

3.3.5 Reference data peat samples

Peat data are compared with Swedish reference data from peat lands, presented in /Fredriksson 1984/.

3.3.6 Reference data from soil samples

In the section dealing with chemical soil composition, reference data from the nation wide Swedish survey of forest Soils and Vegetation (sw. *Ståndortskarteringen*) are reproduced /SML 2005/.

3.3.7 Element contents in amphibious plants

As an independent reference to the geochemical data presented in this report, data from the biogeochemical survey of SGU is compiled /SGU 2005b/. This database contains approximately 36 000 element analyses of amphibious plants collected in minor water courses. The sampled species are mainly different *Carex* species, *Fontinalis antipyretica* and *Filipendula ulmaria*.

4 Statistical methods used in data evaluations

In this section details on data handling, statistical methods, classification and presentation techniques are summarised.

4.1 Handling of values below reporting limits

For many elements there is a variation in the reporting limit, sometimes depending on different analytical methods used, and sometimes because different labs use different reporting limits. Environmental factors, e.g. salinity, may also influence the reporting limits. In all statistical calculations, values below reporting limits were set to a value equivalent to half of the reporting limit. When different reporting limits occur for a single object, the highest limit is shown in statistics and figures.

4.2 Classification of soil tubes

In order to condense and aggregate soil tube characteristics, statistics are shown for few categories, besides values for individual soil tubes.

A factor that probably is important for the chemical composition of groundwater is whether the soil tube is located in a recharge or discharge area. When the present report was compiled, no hydrological classification with respect to the direction of the groundwater flow was available. The preliminary classification used in this report is based on a combination of coarse topographical considerations and chemistry of soil tubes. Specifically, the identification of recharge and discharge areas (blue and red areas on the map below) made by the hydrogeochemical modelling group, ChemNet /SKB 2005b; Appendix 3/, was used to classify the soil tubes as situated in possible recharge or discharge areas (Figure 4-1).

In order to emphasise the preliminary nature of this classification, the soil tubes located in presumably recharge areas are termed ‘higher’ and tubes located in presumably discharge areas ‘lower’. This designation reflects the fact that recharge areas usually are found at local topographical maxima and that discharge areas are found in lower points of the landscape, e.g. in the bottom of valleys or near lakes and streams. Among the soil tubes shown in Figure 4-1, 25 were classified as “higher” and 20 as “lower”.

In addition to the categories ‘all soil tubes’, ‘lower’ and ‘higher’, separate statistics are also shown for the categories ‘soil tubes in lake’ and ‘soil tubes at sea’. These soil tubes, which are installed in till below lake or sea sediments, show highly deviating chemical characteristics compared to the rest of the soil tubes. The category ‘lower’ includes the soil tubes located in lakes and at sea (Figure 4-2).

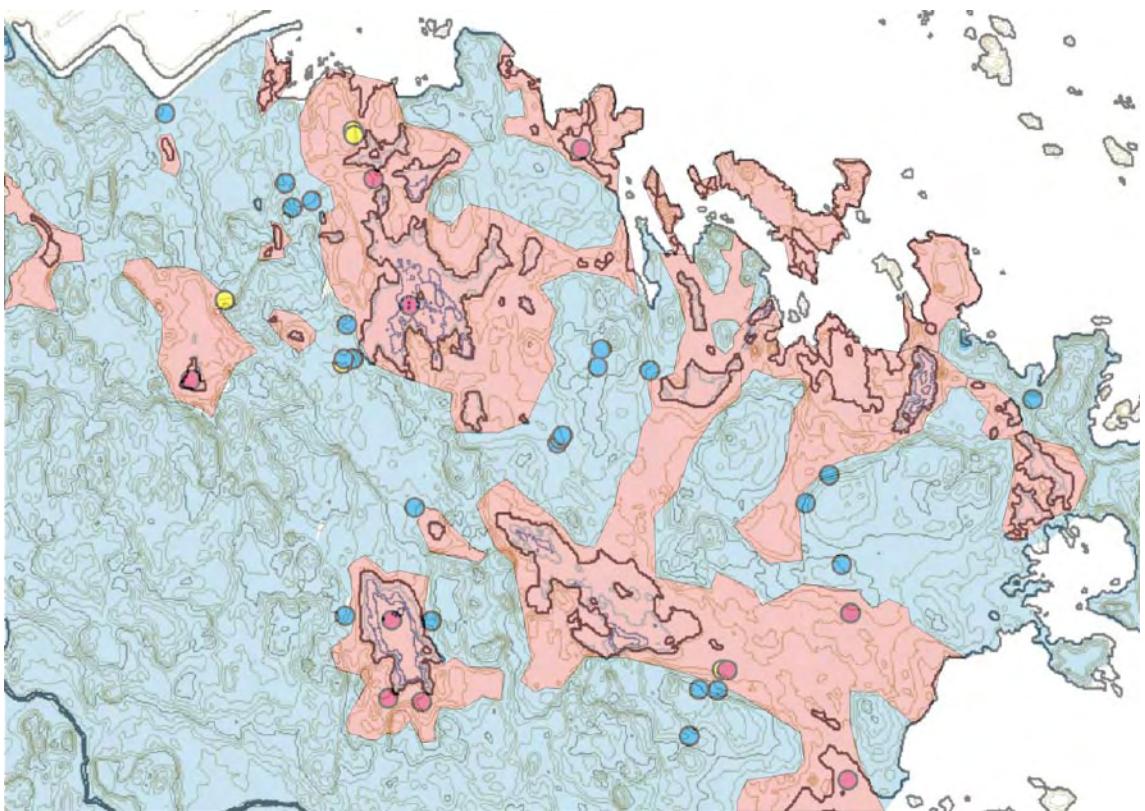


Figure 4-1. Hydrogeologic map showing presumably recharge (blue) and discharge (red) zones in Forsmark area /SKB 2005b/.

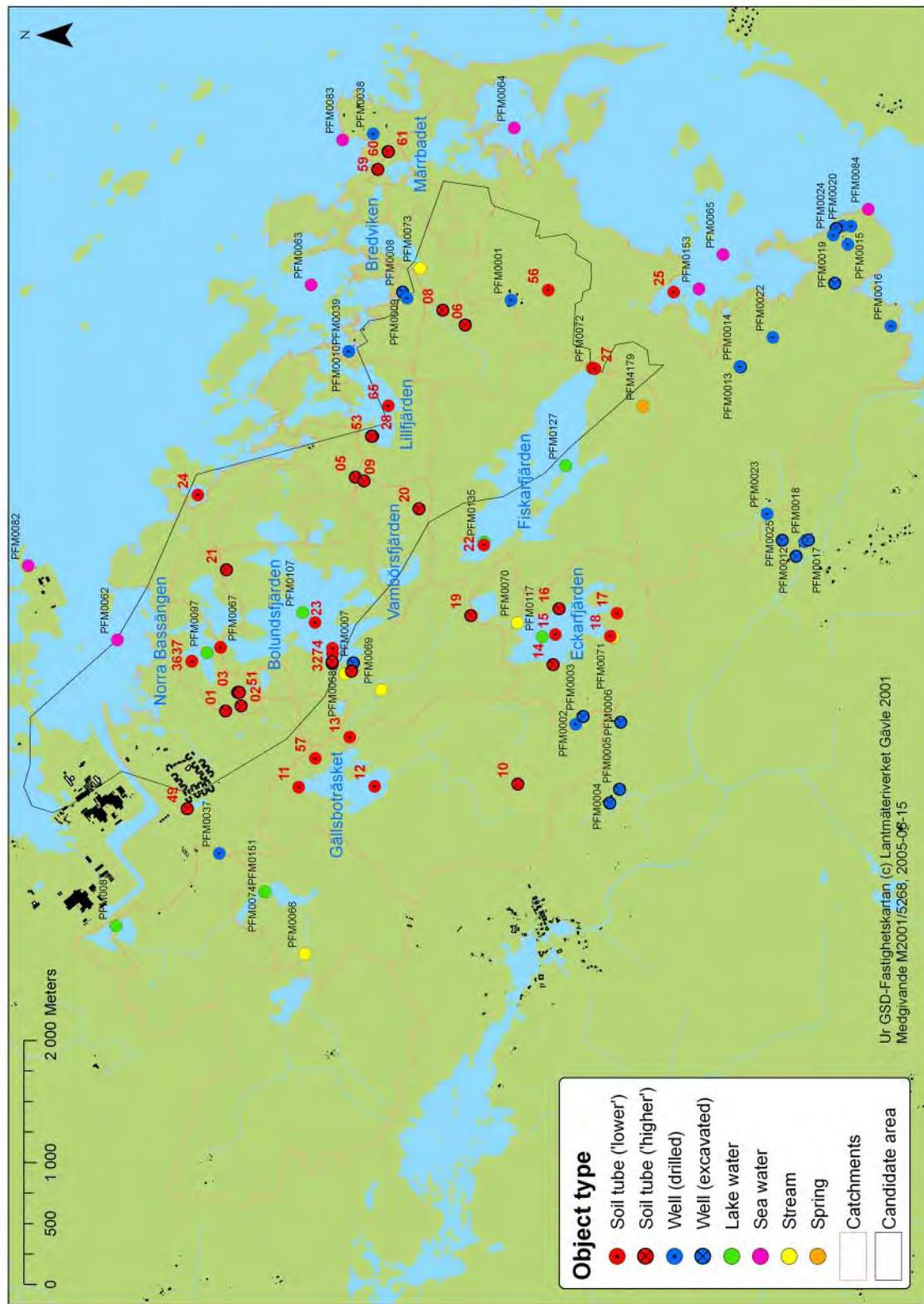


Figure 4-2. Map showing the preliminary classification of soil tubes in 'higher' and 'lower' located soil tubes (point or cross in red symbol). Identities for soil tubes are marked in red (SFM00XX). In addition, sampling sites for surface waters are marked in this map for orientation. The catchments are described in /Brumberg et al. 2004/.

4.3 Presentation techniques for comparisons among sampling sites

For data on water chemistry, the parameter values from individual sampling sites are compared among sites and with reference data by their statistical distributions. The statistical properties used in figures and tables are minimum, maximum, the 10-, 25-, 50- (median), 75- and 90-percentiles and the mean. The exact values of these properties, together with observation count, standard deviation and coefficient of variation (CV) are found in the appendices on the enclosed CD, where statistics for all parameters are compiled.

Box-plots are used to visualise the statistical distributions of the data. Depending on the amount of data available are the individual boxes more or less complete. When there are at least five observations, a full box including all statistical properties above is shown. When there is one observation available, only the mean is shown. When there are 2–4 observations, the minimum, mean and maximum values are shown (Figure 4-3).

Each sampling site is identified on the left side of the box-plot by the ID-code, the classification in ‘higher’ (H) or ‘lower’ (L) location (see previous section for the rationale behind the classification), the sub-catchment number, and finally the supplementary information if the soil tube is located at a drill site (ds), in till below lake sediments (la) or sea sediments (se). The rest of the soil tubes are marked ‘no’. For example has the soil tube located in till below the sediments of Lake Bolundsfjärden in sub-catchment 2:3 the identity **SFM0023 (L2:3) la**.

In the box-plots, sampling sites situated in different sub-catchments are separated by horizontal broken lines. The objects found in the top of the figures are part of the northernmost catchment. Additionally, all sub-catchments are assorted by the position in the water system when possible, i.e. the water flows from upstream to downstream in each catchment. When possible, data were compared with local, regional and national reference data, marked as ‘reference’ in the box-plots. The different reference data sets used are described earlier in this report.

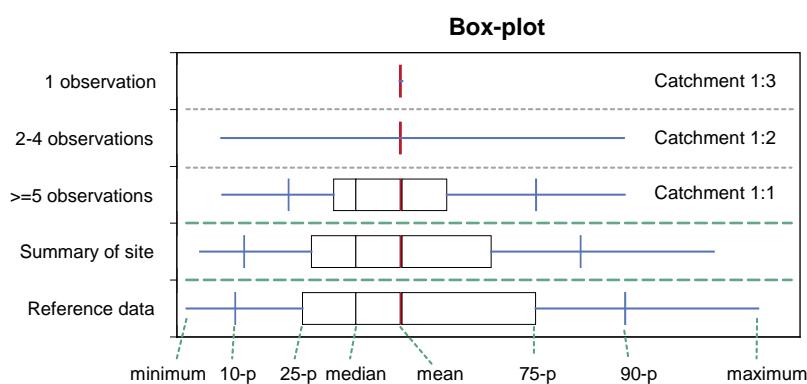


Figure 4-3. The construction of box-plots, showing statistical distributions of parameter values for individual sampling sites or soil tubes, and for different categories (summary of site). The corresponding distributions for local, regional and national reference data are included under ‘Reference data’. 10-p denotes the 10th percentile etcetera.

4.4 Spatial variation

The spatial variation in the area is outlined in maps where concentration differences are visualised by dots of different sizes, representing the arithmetic mean values for the individual objects. An automatic algorithm in ArcGis, called ‘natural breaks’ is in most cases used in order to find eight suitable classes. This method enhances the differences by making a non-linear scale, which should be held in mind when the maps are evaluated.

In addition to the soil tubes, also private wells and sampling sites in surface waters (lakes, streams and sea) are included in the maps. By this, it is possible to relate the concentrations in the shallow groundwater to the measurements in adjacent wells and surface waters.

4.5 Temporal variation

The time trends and temporal variation over time in the chemical composition of shallow groundwater was investigated by comparing coefficients of variation and by studying time series. In this study, soil tubes with seven or more observations were selected in order to exclude the shorter and possibly non-representative series. As the sampling occurs at only four times a year the possibilities to catch the seasonal variation are somewhat limited, especially in recharge areas.

4.6 Relationships among elements and among sampling sites

The relationships among both the sampling sites and the different chemical parameters were investigated by applying a *Principal Component Analysis* (PCA). A PCA was performed separately on data from groundwater, till, and sediment, respectively. In the PCA, mean values from each sampling site were used in order to isolate the spatial variation. The PCA analysis reveals underlying factors that influence the parameters to different extent. By comparing the co-variation (the loadings) between the parameters and these factors, conclusions could be drawn about the relationships among parameters and parameter groups. The analysis also reveals the influence from individual objects (scores), making it possible to identify soil tubes with similar properties. The PCA was based on a Pearson correlation matrix, with scaled and centred data. No transformations were made prior to the analysis. Missing data was handled by an automatic algorithm, which replace the missing values with the overall mean of the parameter.

In order to facilitate an interpretation of the processes involved in the forming of the chemical composition of shallow groundwater, a selection of *ratios* between elements or chemical species is presented. Ratios are calculated both between major elements and between environmental isotopes. To reveal rock-water interactions affecting the chemical composition of the shallow groundwater, *saturations indexes* were calculated for several minerals. The thermodynamic database WATEQ4F was used in these calculations /USGS 2005/. For some of the parameters and parameter groups *correlation plots* and *correlation matrices* are shown in order to facilitate the evaluation.

5 Shallow groundwater – presentation and evaluation of primary data

The evaluation of water chemical composition of shallow groundwater in the Forsmark area has been divided in three sections.

In the *first section* observations from individual soil tubes and different categories are compared to various reference data. The spatial variation is also shown in maps for most elements. This section is divided in six parts dealing with major constituents, nutrients (CNP), redox state, pH, trace elements and isotopes.

The *second section* deals with temporal and seasonal variations and time trends.

In the *third section*, relationships between variables are explored by methods such as principal component analysis, ratios and saturation indices.

5.1 Parameter overview

In the SICADA database there are nearly hundred different chemical parameters measured in groundwater, including isotopes and trace elements. In Figure 5-1 the concentration distributions are shown for a selection of these parameters.

The elements occur in concentrations differing about six orders of magnitude. The highest concentrations are found among the major elements, which range from a few milligrams per litre to more than a gram per litre. The lowest concentrations, which are found for trace elements as cadmium and thorium, are measured in nanograms per litre.

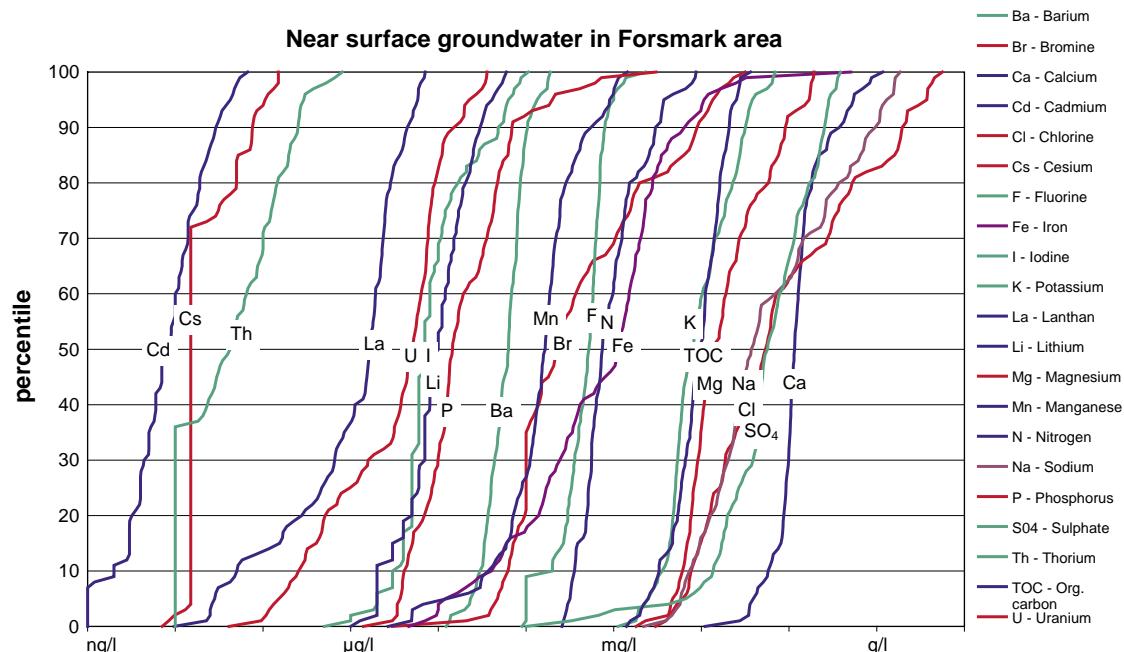


Figure 5-1. Concentration distributions for a selection of the parameters measured in soil tubes at Forsmark site.

5.2 Evaluation of data quality

The data quality in the material was evaluated by calculating the charge balance error for the major constituents. In the soil, tubes the average of the absolute deviations is 2.3%, which is well below 5%, the frequently used limit for individual analyses accepted as valid. Six percent of the analyses in soil tubes, and as much as 27 percent of the analyses of private wells exceed this limit (Table 5-1).

For some of the parameters, more or less of the observations falls below reporting limits. As these observations are included in the statistics by a value equivalent to half of the reporting limit, it is important to identify parameters and objects where a considerable fraction of the observations fulfil these criteria. In Figure 5-2 all parameters are shown, where more than 5% percent of the observations fall below the reporting limit.

This is the case for a total of 40 parameters. For some trace elements as scandium, terbium and thorium this fraction exceeds 30%. For cesium, mercury, thallium and the isotopes of thorium-232 and uranium-235 this fraction exceeds 70%, making these parameters difficult to evaluate.

It should be pointed out that the fraction that falls below reporting limits may constitute a considerably greater fraction when individual soil tubes are concerned, making the comparisons including these objects uncertain. In the appendices, all values below reporting limit is denoted by a ‘<’ sign followed by the reporting limit.

Table 5-1. Charge balance error (CBE) including Ca, Mg, Na, K, Cl, SO₄ and HCO₃. The error expressed in percent was calculated by the formula 100 * (cations-anions)/(cations+anions), with all ions expressed in meq/l.

Object	Total number of observations	Number of observations where CBE > 5% or CBE < 5%	Average of absolute CBE in all observations %
Soil tubes	189	11 (6%)	2.3
Private wells	48	13 (27%)	4.2

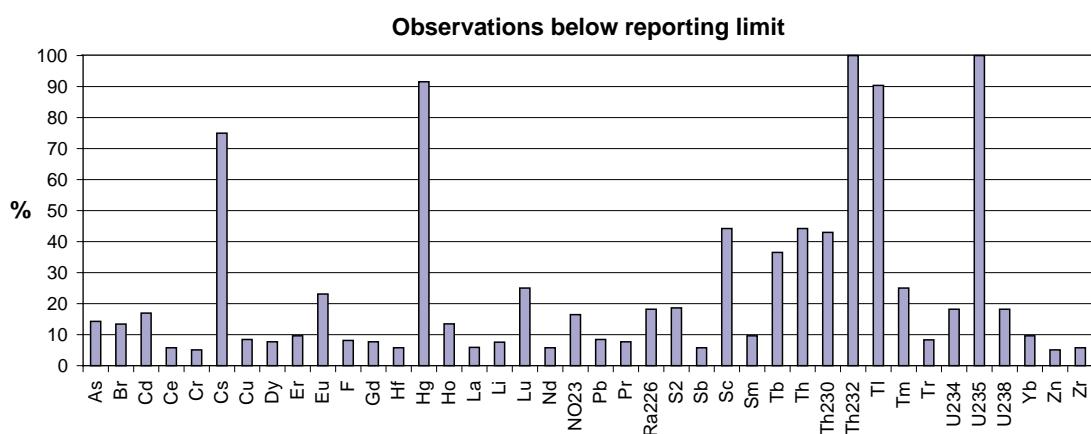


Figure 5-2. The portion of the observations that falls below the reporting limit of the used analytical methods in the soil tubes in the Forsmark area.

5.3 Major and minor constituents – overview

Shallow groundwater contains various dissolved and particulate minerals, organic substances and dissolved gases. Depending on factors in the catchments, the overburden and the underlying bedrock, the groundwater composition is influenced by a number of hydrogeochemical processes. These processes involve the atmosphere, biosphere and lithosphere. Examples of processes affecting the local chemistry of shallow groundwater are decomposition of organic matter, dissolution of soluble phases (e.g. calcite), and mixing with relict saline waters. As the groundwater composition is highly dependent on the contact time between water and bedrock or minerals in the overburden, younger ground waters can be assumed to differ significantly from waters with longer residence time.

The major constituents of groundwater are in general bicarbonate, calcium, chloride, magnesium, silicon, sodium, sulphate and carbonic acid. The minor constituents are in general boron, carbonate, fluoride, iron, nitrate, potassium and strontium. The rest of the elements presented in this section, that sometimes are considered as trace elements, are barium bromide, and iodide /Schwartz and Zhang 2003/.

Figure 5-3 shows a Piper diagram where average concentrations of the major constituents are plotted. Blue dots represent soil tubes at ‘higher’ levels and red dots tubes at ‘lower’ levels, according to the classification previously described.

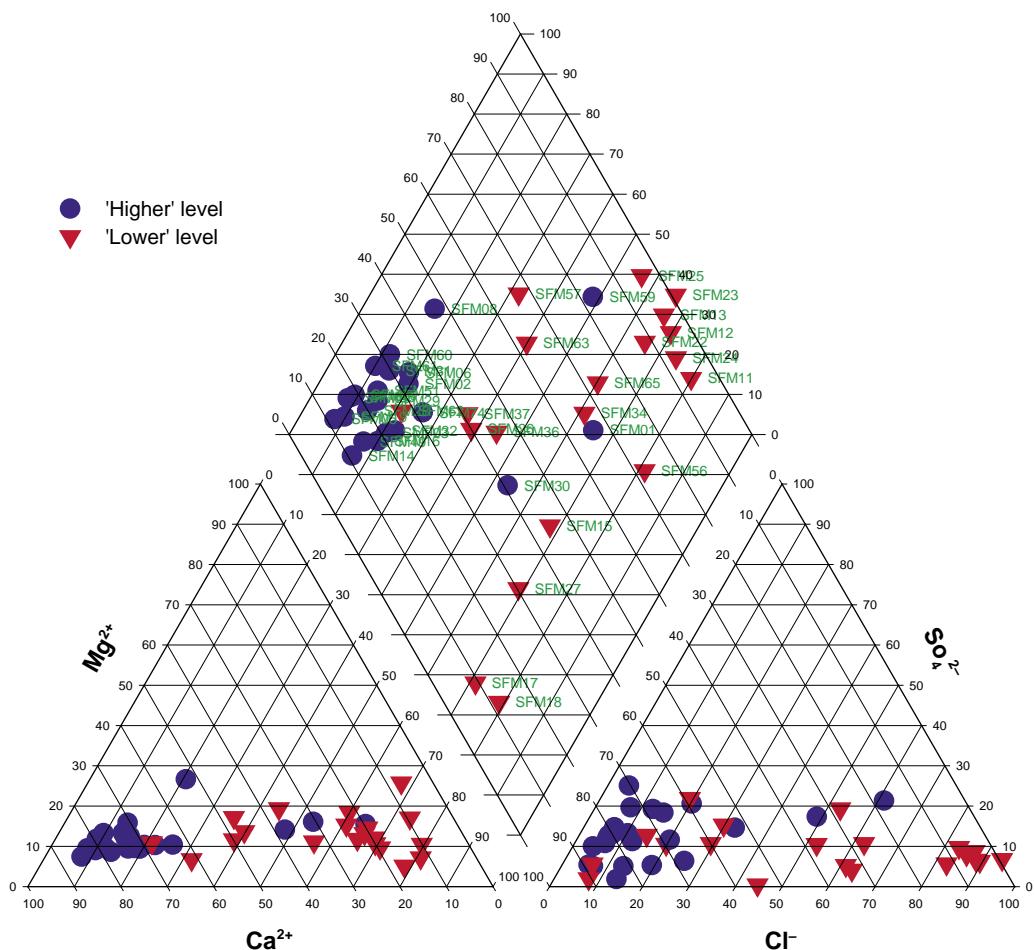


Figure 5-3. Piper diagram where mean concentrations of the major constituents are plotted for the soil tubes in the Forsmark area. The id-codes for the soil tubes are shown as green numbers. See Section 4.2 for an explanation of the classification in ‘higher’ and ‘lower’ soil tubes used in the plot.

Most of the soil tubes at 'higher' levels are of Ca-HCO₃ type (left side of the prism), indicating recently infiltrated water. Soil tubes at 'lower' levels forms two different groups; on the right side the Na-Cl type dominated by the soil tubes located in the lakes and at sea, and in the lower part the Na-HCO₃ type dominated by soil tubes in the vicinity of Lake Eckarfjärden.

There are a number of soil tubes in the middle of the Piper plot, showing intermediate characteristics in respect to the major constituents. Mixing of groundwaters of different origin could be an explanation to the observed pattern.

SFM0001, SFM0030 and SFM0059 are examples of soil tubes classified as ‘higher’ that falls into the area dominated by ‘lower’ located soil tubes in the Piper diagram. SFM0001 is located on a topographic maximum at drill site DS1, and the latter two are located near a lake or coast. The opposite applies to the soil tubes SFM0026, SFM0036, SFM0037, SFM0057, SFM0062 and SFM0063, which may indicate that the ground water in these tubes has mostly local origin with probably shorter residence times.

The electrical conductivity is a measure of the total content of dissolved ions. Some of the soil tubes, especially those located in lakes, show high conductivities, comparable to sea water (Figure 5-4). This is also the fact for some of the private wells near the coast. For most of the soil tubes classed as 'higher level' the conductivities are slightly higher than for the surface waters in the area. The highest conductivity is found in SFM0023, located in till below the sediments of Lake Bolundsfjärden.

In Table 5-2, median values of major and minor constituents are shown for individual soil tubes as well as for the categories ‘lake’, ‘sea’, ‘higher’ and ‘lower’. The median values represent very different numbers of observations. This table is compiled to facilitate comparisons between several elements. In the following sections each element is accounted for separately. See Appendix 2 for further details on number of observations, percentiles, mean values and variances.

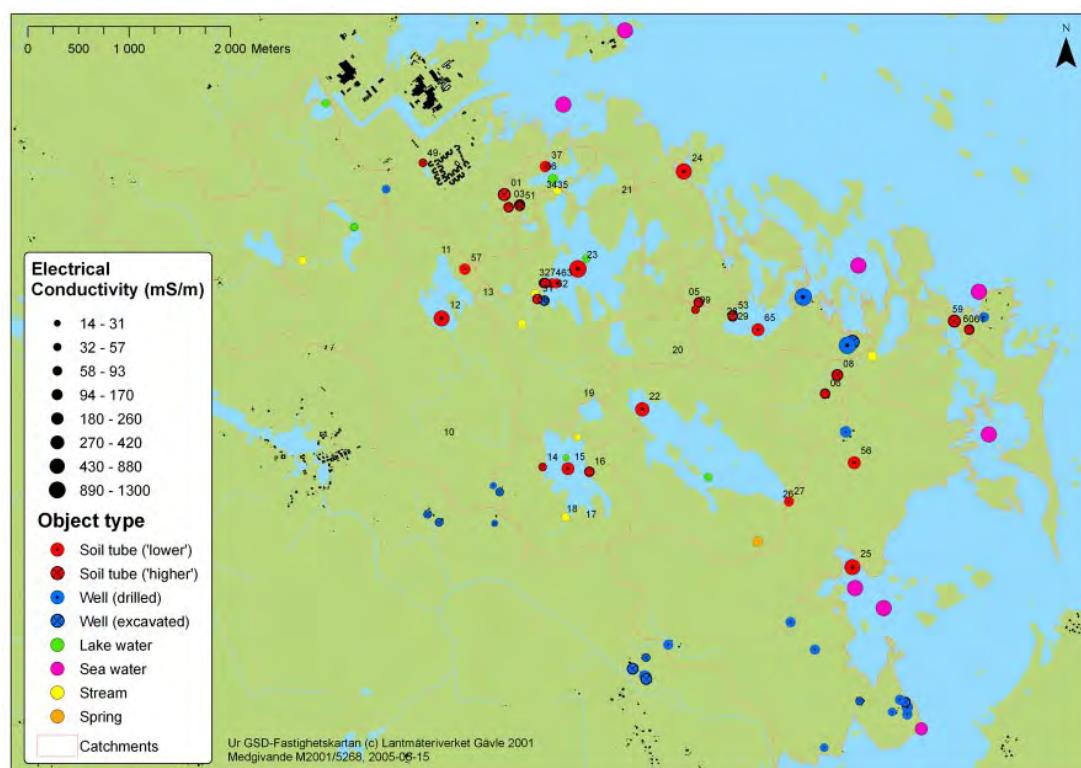


Figure 5-4. Electrical conductivity in soil tubes, private wells, lake, stream and sea water in the Forsmark area. The numbers corresponds to the last two digits in the id-codes of the soil tubes.

Table 5-2. Summary of some major and minor constituents of groundwater in the Forsmark area. Median values in mg/l. The figures corresponds in order from left to right to the identification code for the soil tube, the catchment name , the sub-catchment number, the classification in 'higher' (H) and ' lower' (L) located soil tubes.

Idcode	Catchment		Ca	Mg	Na	K	Sr	Li	Cl	HCO ₃	SO ₄	F	Br	I	
SFM0001	Coastal area	H	88	35	260	16	0.33	0.016	340	430	160	0.59	1.00	0.0080	
SFM0002	Norra bassängen	2:1	H	110	8.0	22	4.5	0.17	< 0.004	51	340	20	0.54	0.21	0.0070
SFM0003	Norra bassängen	2:1	H	93	26	26	13	0.46	0.015	13	420	57	0.69	< 0.2	0.0050
SFM0005	Coastal area	H	110	5.3	7.1	1.9	0.11	< 0.004	8.2	360	15	< 0.2	0.071	0.018	
SFM0006	Bredviken	5:1	H	140	10	20	26	0.19	< 0.004	40	410	81	0.30	0.21	0.0030
SFM0008	Bredviken	5:1	H	150	18	30	7.1	0.24	0.011	110	380	79	0.32	0.27	0.0010
SFM0009	Vambörsfjärden	2:6	H	89	5.8	5.9	2.7	0.098	0.0040	8.4	280	21	0.29	< 0.2	0.0045
SFM0010	Gällsboträsket	2:8	H	66	4.2	2.2	2.2	0.077	< 0.004		240			0.011	
SFM0011	Gällsboträsket	2:8	L	150	72	1,000	24	1.1	0.026	1,800	330	220	0.48	7.0	0.021
SFM0012	Gällsboträsket	2:8	L	280	91	1,100	35	2.0	0.034	2,200	340	220	0.60	9.5	0.057
SFM0013	Bolundsfjärden	2:3	L	250	96	790	31	2.4	0.025	1,800	240	160	0.96	8.8	0.027
SFM0014	Eckarfjärden	2:10	H	85	7.1	15	5.2	0.17	0.0050	7.2	320	14	0.68	0.048	0.0060
SFM0015	Eckarfjärden	2:10	L	36	61	270	29	0.50	0.018	310	740	0.49	0.56	1.4	0.087
SFM0016	Eckarfjärden	2:10	H	90	7.5	23	3.6	0.18	< 0.004	26	340	15	0.45	0.082	0.0060
SFM0017	Eckarfjärden	2:10	L	44	11	150	8.6	0.17	0.0070	18	540	7.4	1.2	0.071	0.0080
SFM0018	Eckarfjärden	2:10	L	29	4.4	130	6.1	0.080	< 0.004	12	430	20	1.5	0.054	0.0060
SFM0019	Bolundsfjärden	2:3	H	98	9.6	7.0	5.9	0.27	0.0050	5.1	350	30	0.63	0.097	0.0070
SFM0020	Vambörsfjärden	2:6	H	120	8.1	8.0	5.1	0.18	0.0050	11	370	43	0.68	0.057	0.0030
SFM0021	Bolundsfjärden	2:3	H	120	12	11	4.9	0.18	0.0070		380			0.036	0.0020
SFM0022	Fiskarfjärden	8:1	L	220	62	630	31	2.1	0.026	1,200	370	110	0.90	4.7	0.061
SFM0023	Bolundsfjärden	2:3	L	530	170	1,600	65	3.6	0.054	3,800	130	350	0.35	15	0.048
SFM0024	Coastal area	L	140	120	920	42	1.0	0.029	1,700	350	270	0.32	5.9	0.012	
SFM0025	Coastal area	L	430	78	730	19	4.3	0.023	1,900	240	240	0.36	7.9	0.029	
SFM0026	Fiskarfjärden	8:1	L	99	13	73	8.2	0.38	0.010	97	380	50	0.48	0.30	0.0060
SFM0027	Fiskarfjärden	8:1	L	39	13	130	8.2	0.27	0.011	62	410	48	0.45	0.25	0.0065
SFM0028	Lillfjärden	4:2	H	110	12	16	5.7	0.21	0.0070	13	380	46	0.46	0.070	0.0070
SFM0029	Lillfjärden	4:2	H	120	12	16	4.9	0.20	0.0080	19	400	51	0.35	< 0.2	0.0075
SFM0030	Bolundsfjärden	2:3	H	67	19	110	13	0.35	0.011	69	410	100	1.0	0.27	0.0080
SFM0031	Bolundsfjärden	2:3	H	140	18	19	9.8	0.43	0.011	8.1	440	120	0.53	< 0.2	0.0040
SFM0032	Bolundsfjärden	2:3	H	100	8.8	27	5.4	0.19	0.0070	24	350	39	0.65	< 0.2	0.0050
SFM0034	Norra bassängen	2:1	L	100	36	260	15	0.40	0.014	430	460	49	0.59	1.4	0.0080
SFM0036	Norra bassängen	2:1	L	110	33	130	12	0.40	0.014	150	520	110	0.64	0.56	0.0070
SFM0037	Norra bassängen	2:1	L	120	24	90	9.0	0.34	0.011	68	430	120	0.61	0.34	0.0060
SFM0049	Coastal area	H	62	4.4	12	2.7	0.083	< 0.004	16	200	2.5	0.34	< 0.2	0.0040	
SFM0051	Norra bassängen	2:1	H	120	7.2	17	5.1	0.18	0.0070	45	330	17	0.55	< 0.2	0.0060
SFM0053	Lillfjärden	4:2	H	130	11	9.6	4.5	0.18	0.0090	11	390	43	0.37	< 0.2	0.0070
SFM0056	Coastal area	L	57	20	500	9.8	0.40	0.017	510	460	250	0.63	1.7	0.012	
SFM0057	Gällsboträsket	2:8	L	170	9.0	83	4.7	0.25	< 0.004	310	260	25	< 0.2	1.2	0.013
SFM0059	Märrbadet	7:2	H	210	43	270	13	0.46	0.021	580	330	280	0.65	1.7	0.0090
SFM0060	Coastal area	H	120	8.3	6.6	5.1	0.14	0.0040	7.2	340	70	0.71	0.043	0.0020	
SFM0061	Märrbadet	7:2	H	100	6.5	9.4	4.4	0.12	0.0040	13	290	57	0.77	0.054	0.0020
SFM0062	Bolundsfjärden	2:3	L	88	8.5	26	5.3	0.17	0.0070	27	280	39	0.66	0.13	0.0060
SFM0063	Bolundsfjärden	2:3	L	75	12	61	6.9	0.29	0.0085	150	200	40	0.42	0.47	0.0085
SFM0065	Lillfjärden	4:2	L	83	38	220	14	0.36	0.013	370	310	87	< 0.2	1.2	0.0080
SFM0074	Bolundsfjärden	2:3	H	110	9.9	43	5.5	0.22	0.0070	55	350	45	0.62	0.22	0.0060
Soil tubes at 'higher' levels		H	110	9.8	22	5.4	0.20	0.0070	23	360	45	0.56	< 0.2	0.0060	
Soil tubes at 'lower' levels		L	120	53	340	18	0.48	0.018	400	350	120	0.52	1.7	0.014	
All soil tubes			110	13	37	7.8	0.25	0.0090	56	360	50	0.55	0.23	0.0070	

5.3.1 Calcium, magnesium, sodium and potassium

The **calcium** concentrations of the groundwaters are markedly elevated in the Forsmark area compared to the concentrations usually measured in wells in Sweden and Uppsala County. The median value of Forsmark soil tubes exceeds the 90-percentile of the concentrations measured in excavated Swedish wells (Figure 5-5).

Especially high calcium concentrations are found in soil tubes located in till below the sediments of lakes or at sea (e.g. SFM0012, SFM0023, SFM0022 and SFM0025). Except for these soil tubes, there are rather small differences between tubes at ‘higher’ and ‘lower’ levels, indicating small differences in calcium concentration between soil tubes in recharge and discharge areas.

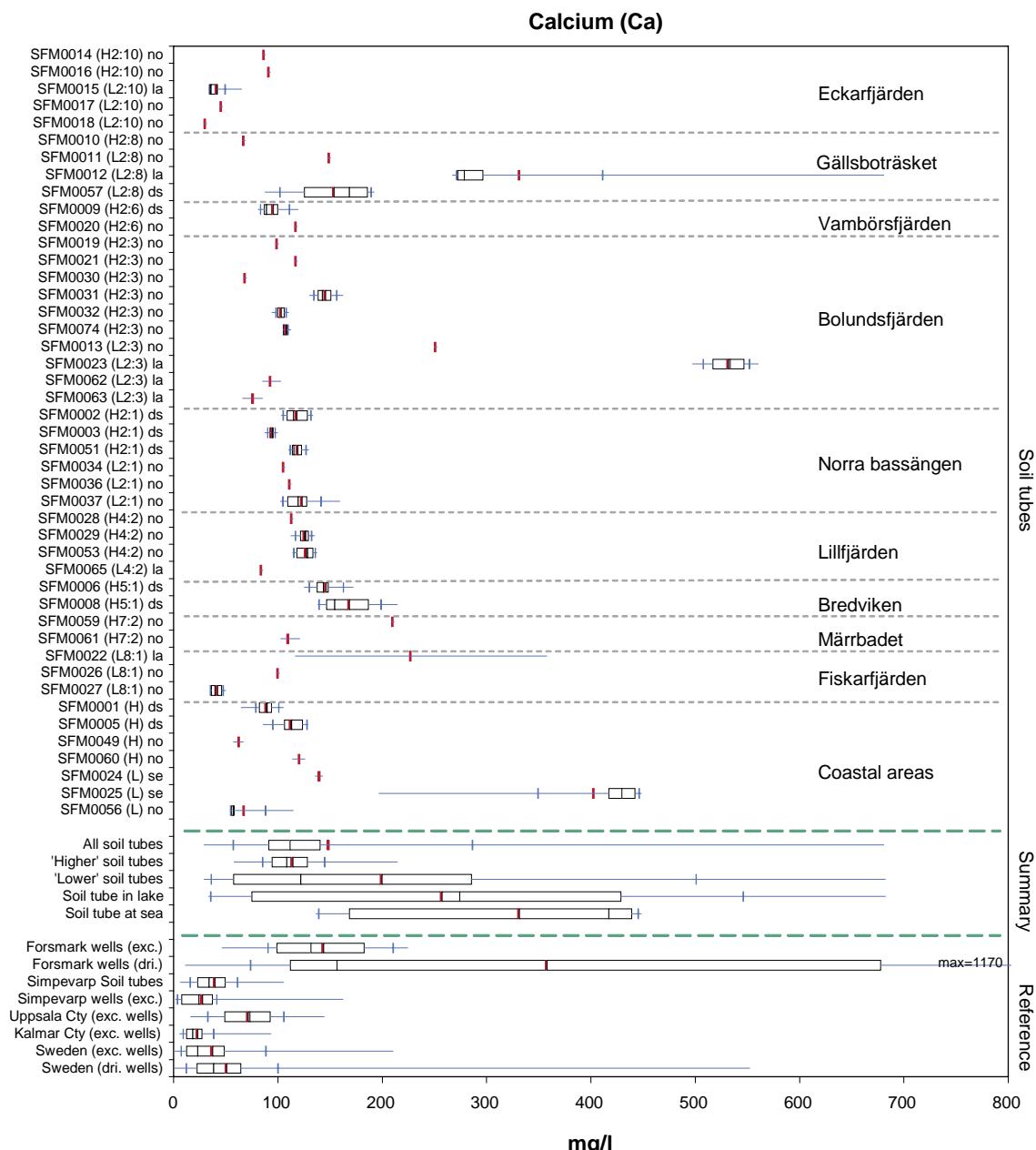


Figure 5-5. Calcium concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The soil tubes at 'lower' levels, in or south of Lake Eckarfjärden show especially low calcium content compared to the rest of the area. This condition is contrary to the pattern of the other soil tubes located in lakes where the concentration is generally higher than in the surrounding soil tubes.

The calcium concentrations are generally higher in shallow groundwaters compared to stream-, lake- and sea waters according to Figure 5-6. The calcium concentrations in precipitation usually range from 0.1 to 0.5 mg/l. In streams concentrations of 50 mg/l is usually measured, compared to 5 mg/l in the rest of Sweden. The values found in sea water are slightly higher, 70 mg/l.

The explanation for the elevated calcium concentrations in the groundwaters is found in the calcium rich quaternary deposits that cover the Forsmark area. The calcium content of these deposits originates from Gavlebukten, a bay of Östersjön about 100 km north of the Forsmark site that is covered by Cambrian and Ordovician sedimentary bedrock. The calcium rich material was transported from Gavlebukten and deposited in the Forsmark area during the latest glacial period. Very high contents of calcite, ranging from 18 to 24% CaCO₃, have been measured in till /SKB 2005c/.

The typical calcium concentration in shallow groundwater in the Forsmark area is 100 mg/l. Concentrations in the order of 500 mg/l are found in some soil tubes located in the till below the sediments of the lakes.

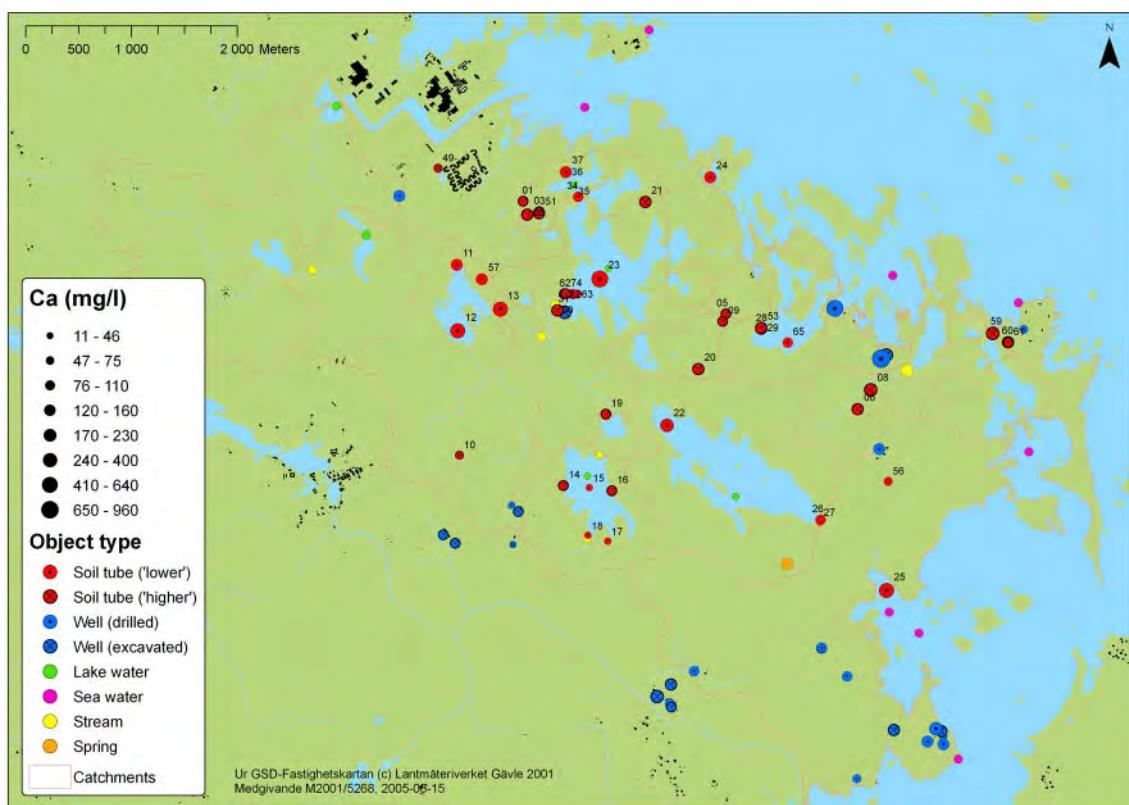


Figure 5-6. Calcium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **magnesium** concentrations in the groundwaters of the Forsmark area are slightly elevated compared to concentrations measured in wells in Sweden and Uppsala County. In comparison with the extremely high calcium levels found in the area are the magnesium levels not that noticeable.

Eight soil tubes shows considerably higher magnesium content. In these tubes the magnesium concentration is elevated about an order of magnitude compared to soil tubes at 'higher' levels. The highest magnesium content is found in SFM0023, located in till below the sediments of Lake Bolundsfjärden (Figure 5-7).

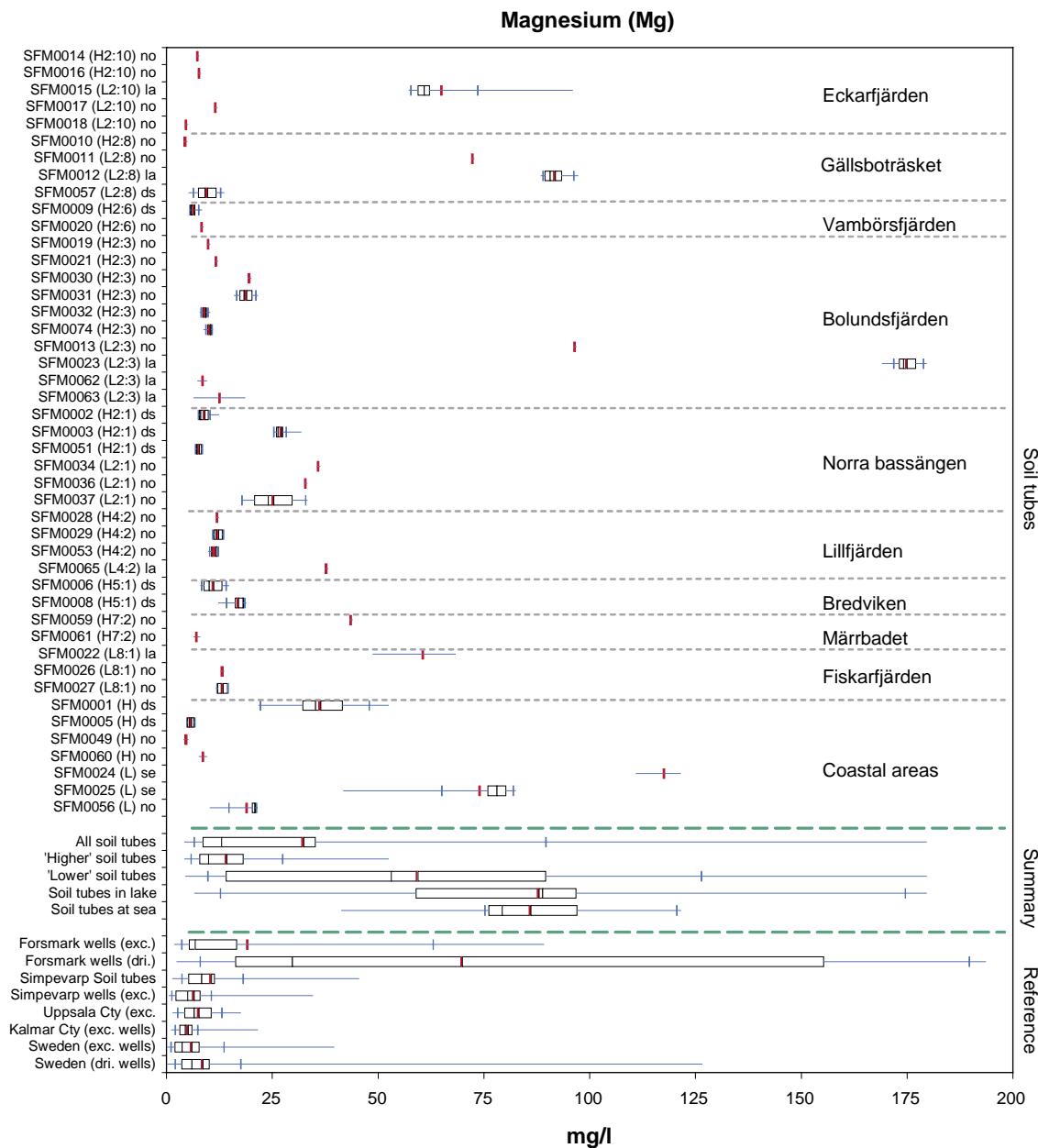


Figure 5-7. Magnesium concentrations in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

The lowest magnesium concentrations are, as for calcium, found near Lake Eckarfjärden. Contrary to calcium, elevated magnesium levels are found in the soil tube located in the middle of the lake. Comparisons between surface water from the inlet and outlet of Lake Eckarfjärden indicate that water with different origin and different composition might enter the lake besides the sampled inlet /Sonesten 2005/.

The magnesium concentrations are generally higher in shallow groundwaters compared to both stream and lake waters and lower, or in the same magnitude as sea water (Figure 5-8). The magnesium concentration in precipitation is usually around 0.08 mg/l. In streams concentrations of 5 mg/l are usually measured, compared to 1 mg/l in the rest of Sweden. The concentrations found in sea water are markedly higher, 170 mg/l.

The fact the lowest magnesium concentrations coincides with the highest topographical levels indicates that one of the most important factors behind the magnesium pattern probably is marine relics. The uplift is significant in the region and a substantial part of the study area has relatively recently emerged from the sea.

Typical magnesium concentrations in shallow groundwater in the Forsmark area are 10 mg/l at 'higher' levels and 50 mg/l at 'lower' levels.

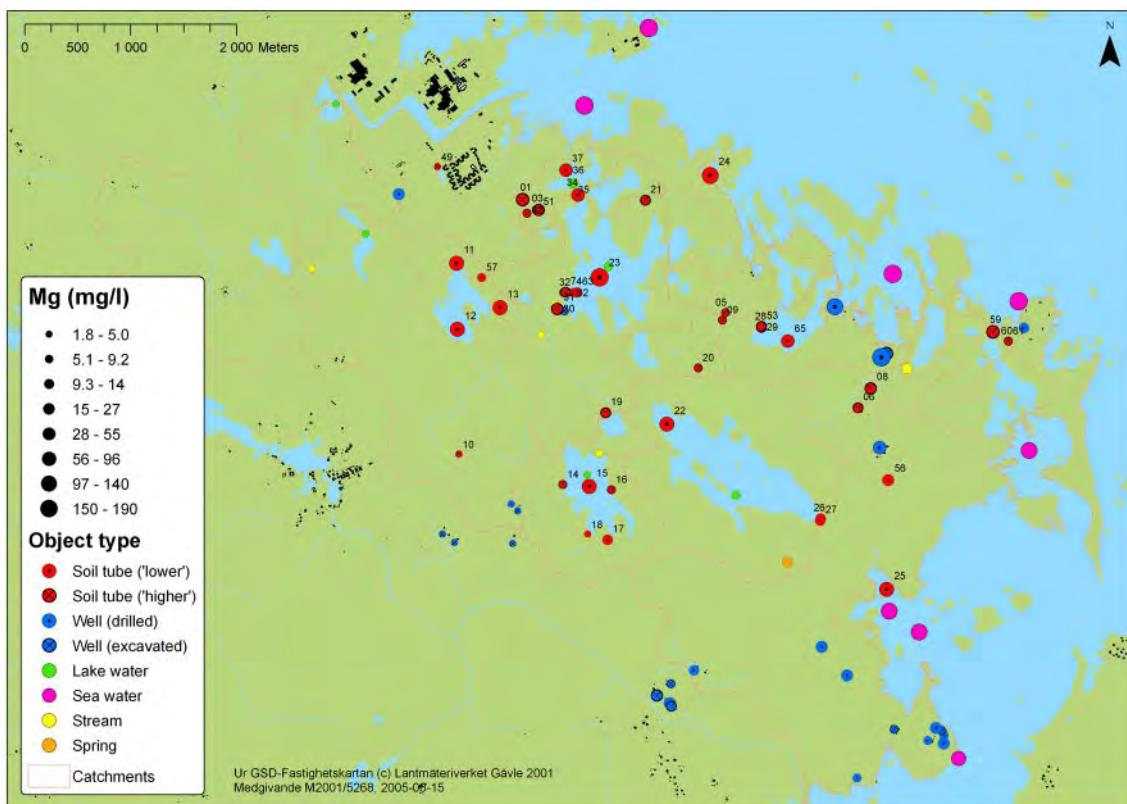


Figure 5-8. Magnesium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **sodium** concentrations in ‘higher’ located soil tubes in the Forsmark area are at the same level as the concentrations found in most excavated wells in Sweden. The soil tubes at ‘lower’ levels show markedly elevated sodium concentrations.

Similar to magnesium, eight soil tubes shows markedly elevated sodium concentrations with the highest concentrations found in SFM0023. However, compared to the pattern found for magnesium, the sodium concentration in the soil tube in Lake Eckarfjärden (SFM0015) is lower (Figure 5-9).

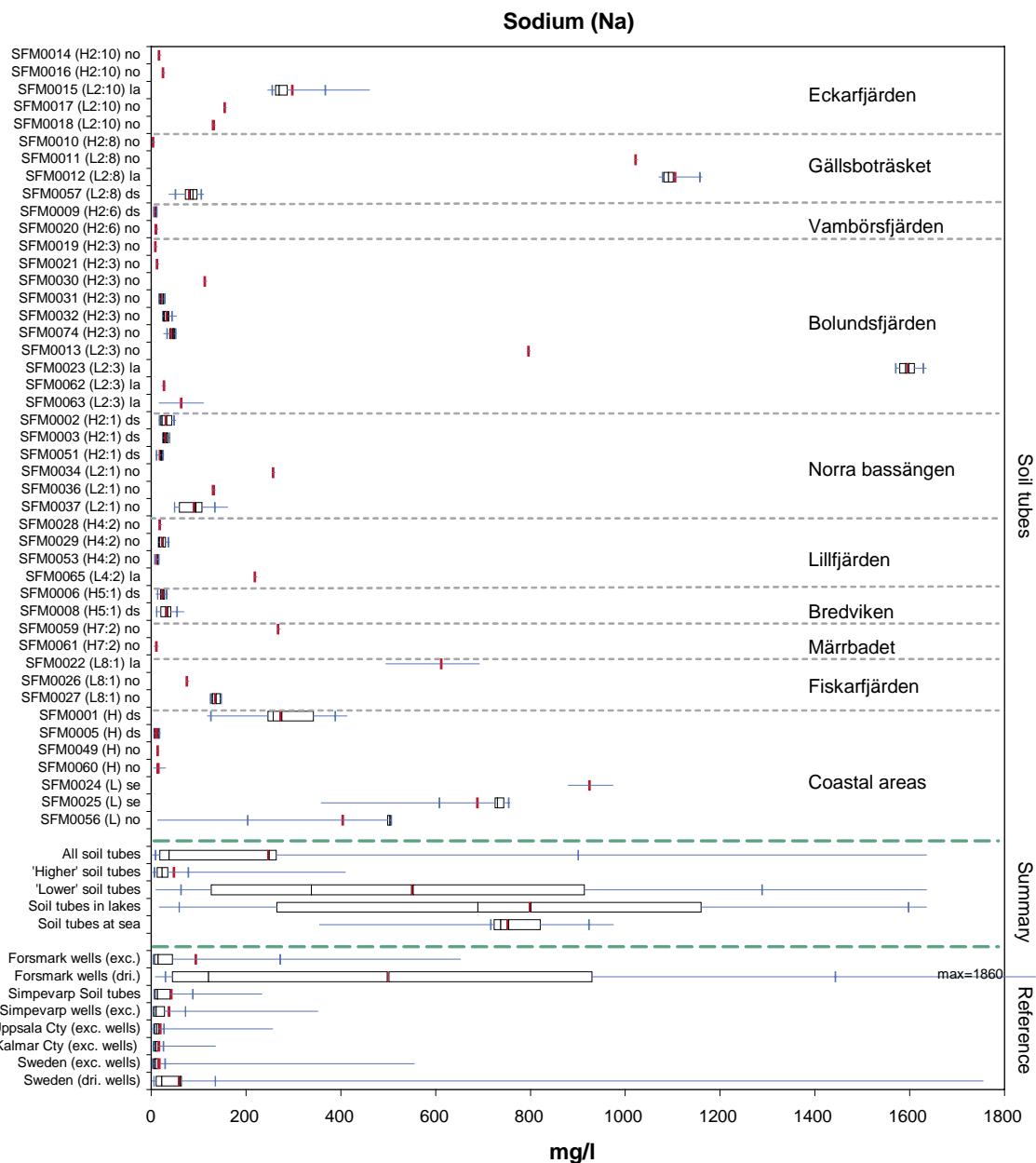


Figure 5-9. Sodium concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The lowest sodium concentrations are found at the topographical heights, showing a pattern very similar to magnesium, indicating that marine relics is the major factor behind the sodium pattern.

The sodium concentrations are generally higher in shallow groundwaters compared to both stream and lake waters and lower, or in the same magnitude as sea water (Figure 5-10). The sodium concentration in precipitation is usually around 0.5 mg/l. In streams concentrations of 12 mg/l is usually measured, compared to 3 mg/l in the rest of Sweden. The concentrations found in sea water are markedly higher, 1,400 mg/l.

The pattern for magnesium differs from sodium with respect to the ratio between the concentrations in ‘lower’ and ‘higher’ soil tubes. This ratio is 15 for sodium compared to 5 for magnesium, indicating that there are differences in the mechanisms controlling the concentrations of these elements.

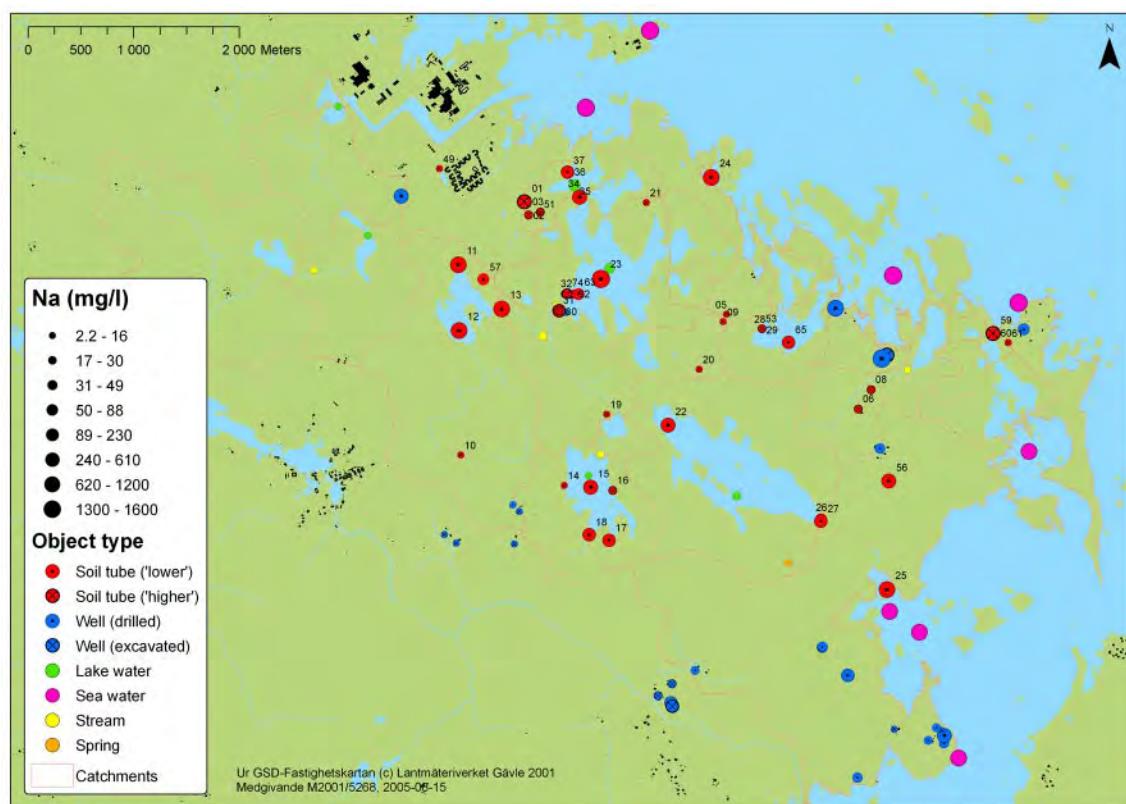


Figure 5-10. Sodium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

Typical sodium concentrations in shallow groundwater in the Forsmark area are 20 mg/l at ‘higher’ levels and 200 mg/l at ‘lower’ levels. Concentrations in the order of 1,000 mg/l are found in some soil tubes located in the open water of lakes.

The **potassium** concentrations in ‘higher’ located soil tubes in the Forsmark area are elevated compared to the levels found in most excavated wells in Sweden. The soil tubes at ‘lower’ levels show markedly elevated potassium concentrations compared to these wells.

Potassium follows the same pattern as magnesium and sodium, where a number of soil tubes show elevated concentrations with the highest concentrations found in SFM0023. Comparing sodium and magnesium, the potassium concentrations show a pattern most similar to magnesium. (Figure 5-11).

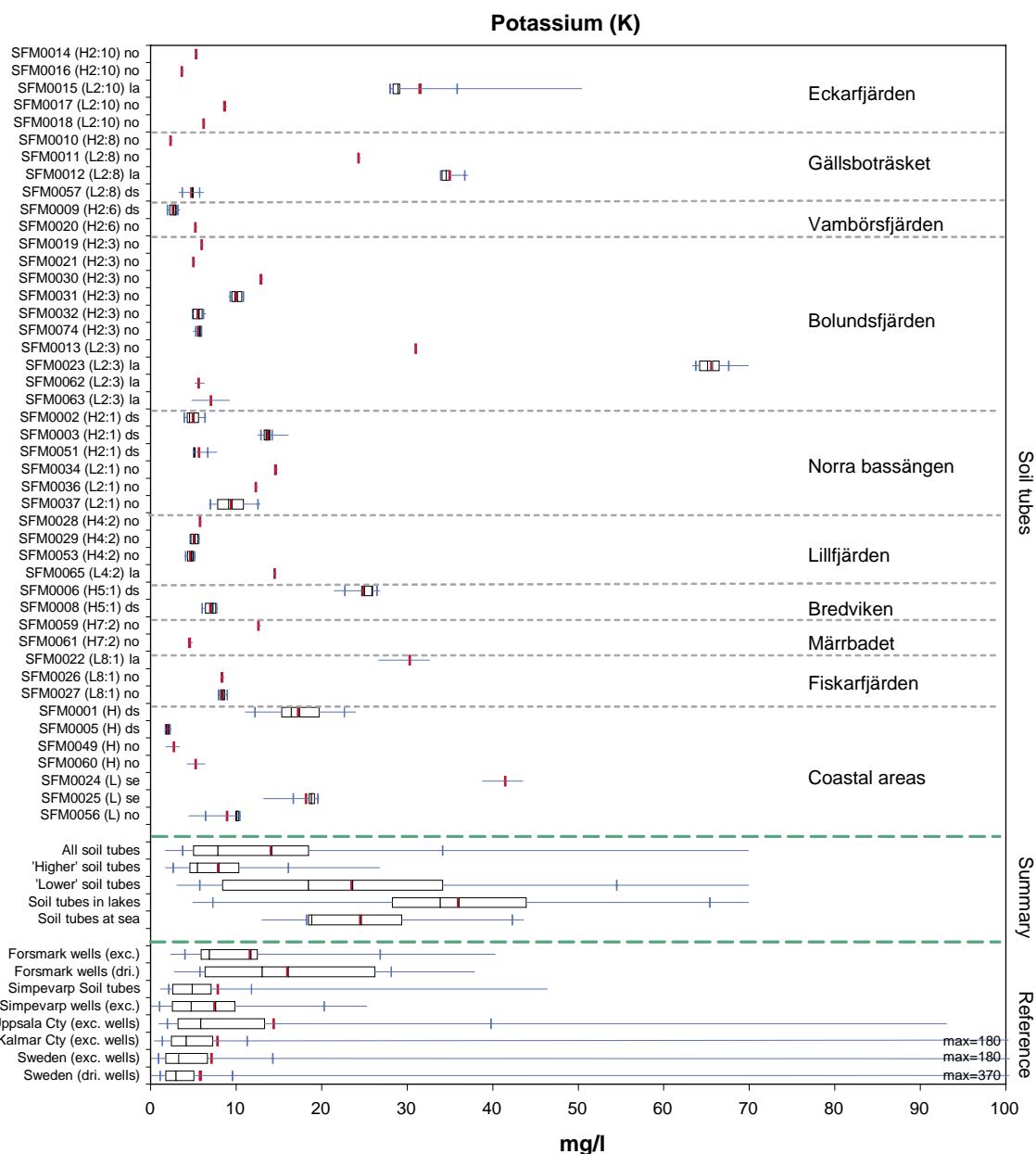


Figure 5-11. Potassium concentrations in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

The lowest potassium concentrations are found at the topographical heights, similar to magnesium and potassium. The ratio between concentrations found in 'lower' soil tubes and 'higher' soil tubes is four, approximately the same as for magnesium.

The potassium concentrations are generally higher in shallow groundwaters compared to both stream and lake waters and lower, or in the same magnitude as sea water (Figure 5-12). The potassium concentration in precipitation is usually around 0.1 mg/l. In streams concentrations of 2.3 mg/l is usually measured, compared to 0.7 mg/l in the rest of Sweden. The concentrations found in sea water are markedly higher, 50 mg/l.

In the catchment of Bredviken, elevated potassium concentrations are observed both in streaming water and in soil tubes. This catchment as well as the catchment of Lake Eckarfjärden shows deviating chemistry in respect to several parameters.

Typical potassium concentrations in shallow groundwater in the Forsmark area are 5 mg/l at 'higher' levels and 20 mg/l at 'lower' levels.

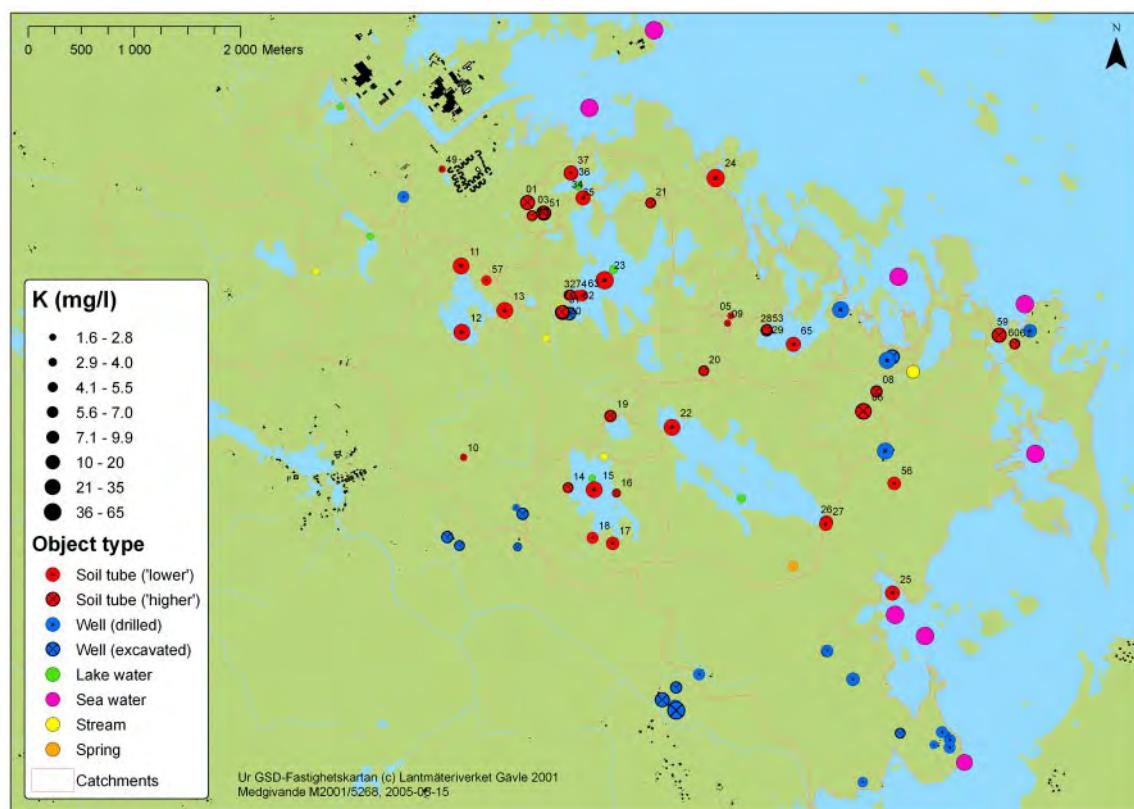


Figure 5-12. Potassium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.3.2 Silicon

Silicon is measured both as total-silicon and silica-silicon. As seen in Figure 5-14 the silica values are in most cases very close to the total concentrations. Most exceptions where silica constitutes a lesser part is found for groundwater samples compared to surface waters.

The silicon concentrations range from about 1 to 10 mg/l in both shallow groundwater and surface waters. The lowest concentrations are found in the catchment of Bolundsfjärden, in SFM0023. Typical concentrations of silicon are 5 mg/l in the ground waters in the Forsmark area, about half the levels measured in the Simpevarp area. (Figure 5-13).

The silicon content in lakes and streams are 2.3 mg/l and 3.6 mg/l, approximately in level with most lakes and streams in Sweden, where 1.6 mg/l and 2.9 mg/l are measured respectively. The silicon content in the sea is lower, about 0.5 mg/l (Figure 5-15).

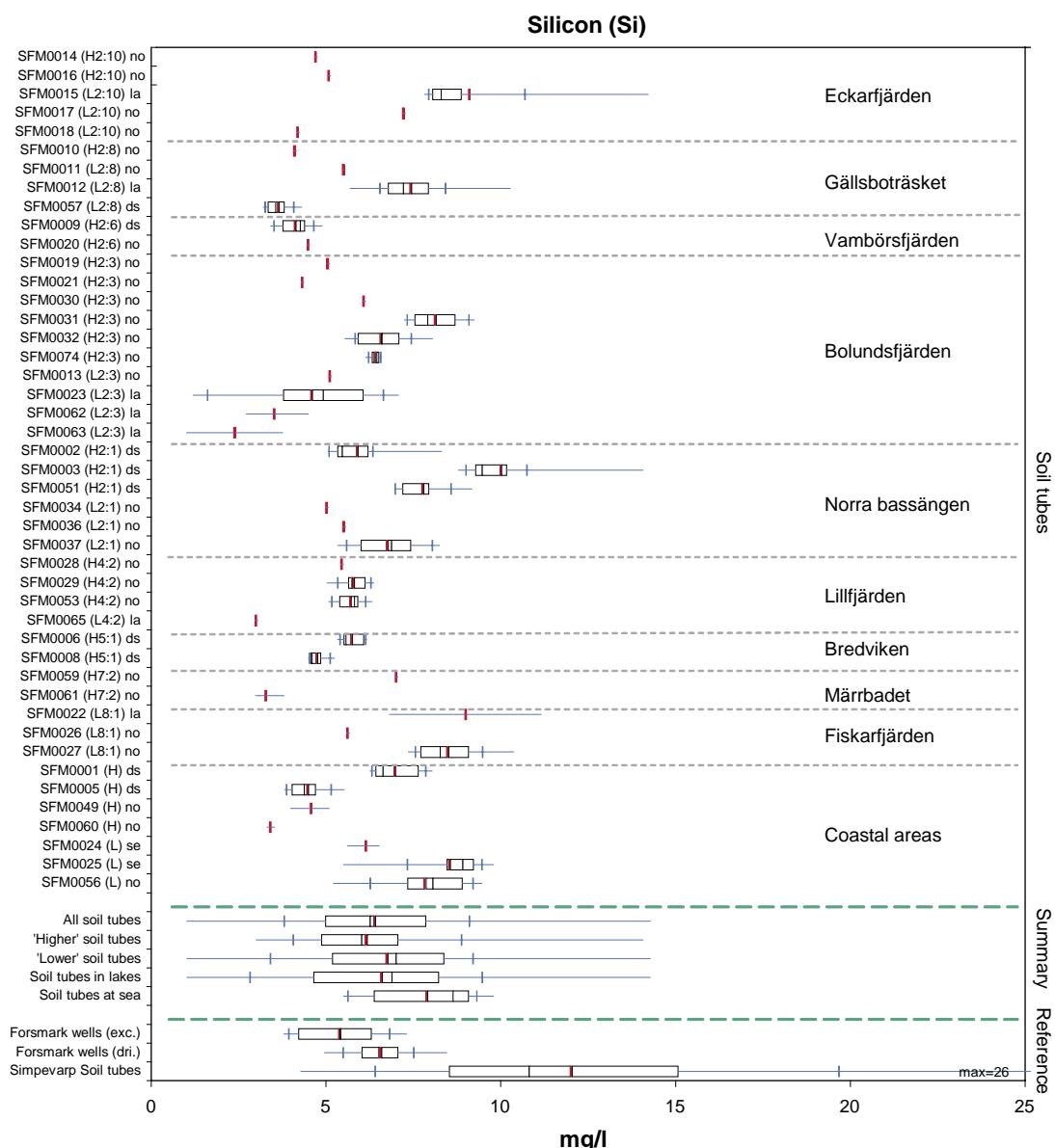


Figure 5-13. Silicon concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

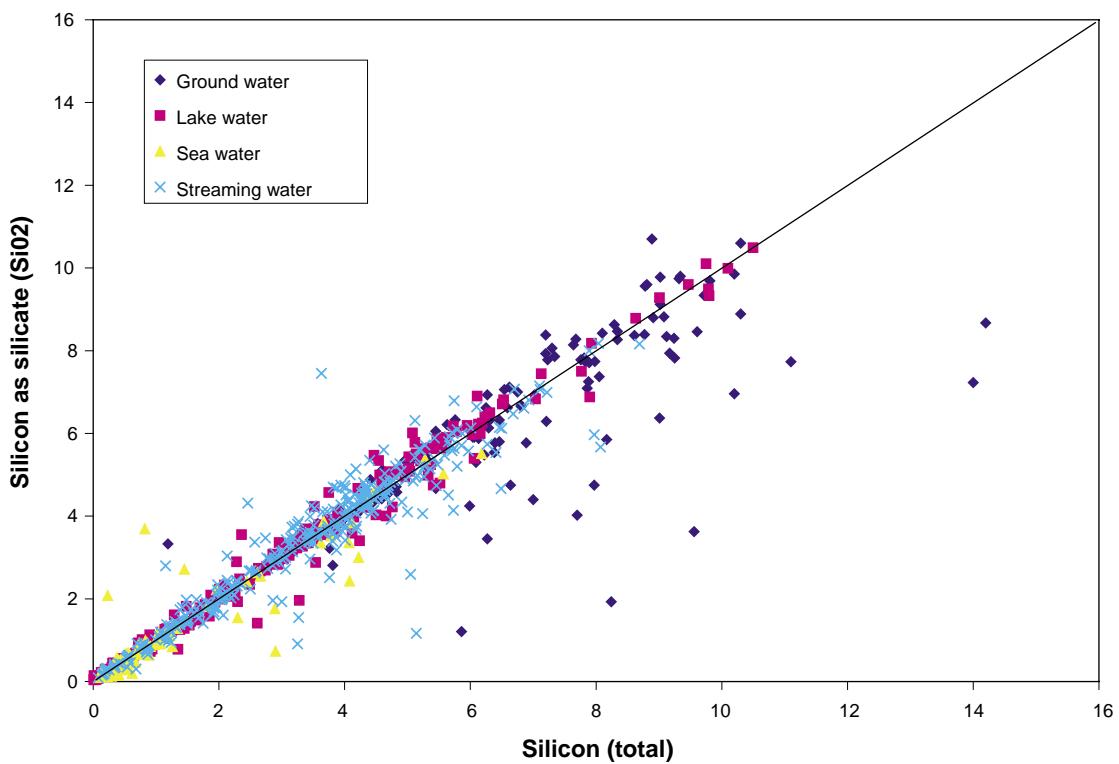


Figure 5-14. Fraction $\text{SiO}_2\text{-Si}$ versus total silicon in the Forsmark area.

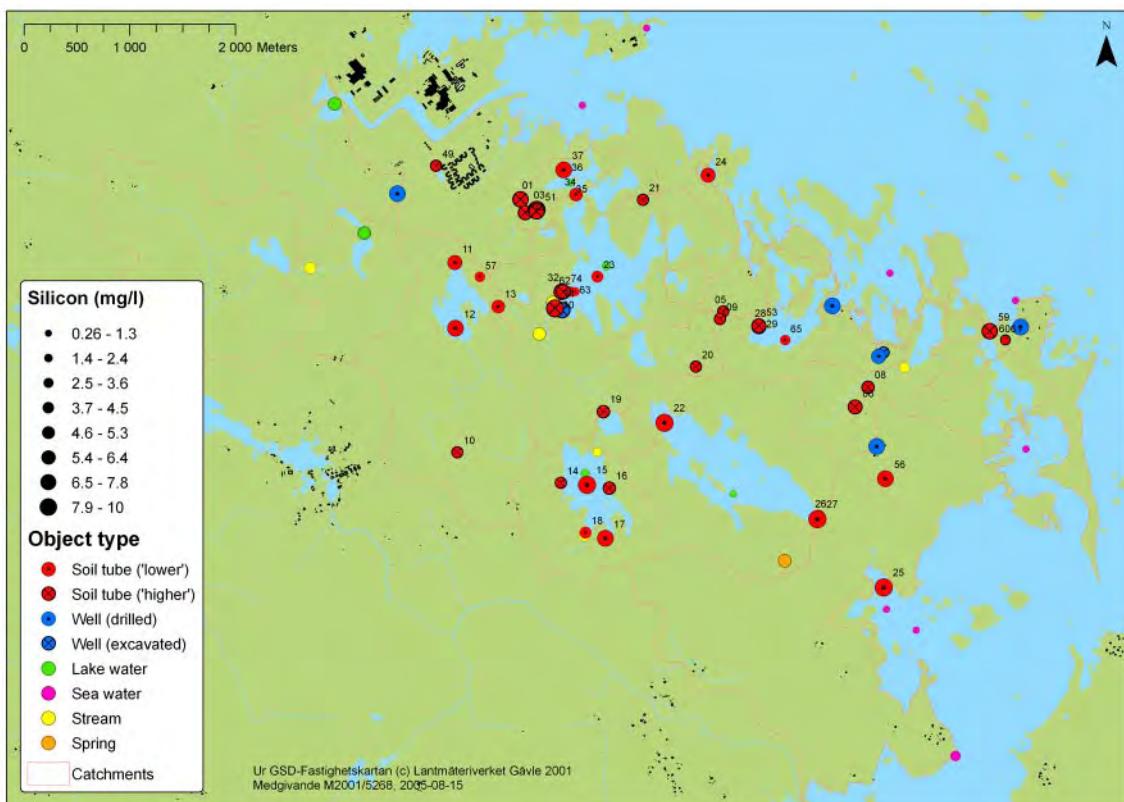


Figure 5-15. Silicon concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.3.3 Chloride, sulphate and bicarbonate

The **chloride** concentrations in the ‘higher’ soil tubes in the Forsmark area are only slightly increased compared to the concentrations found in most excavated wells in Sweden. The soil tubes at ‘lower’ levels show markedly elevated sodium concentrations.

Similar to sodium, seven soil tubes shows markedly elevated chloride concentrations with the highest concentrations found in SFM0023. If the sodium and chloride concentrations are compared between the two soil tubes located at sea (SFM0024 and SFM0025), the latter shows relatively higher chloride content. (Figure 5-16).

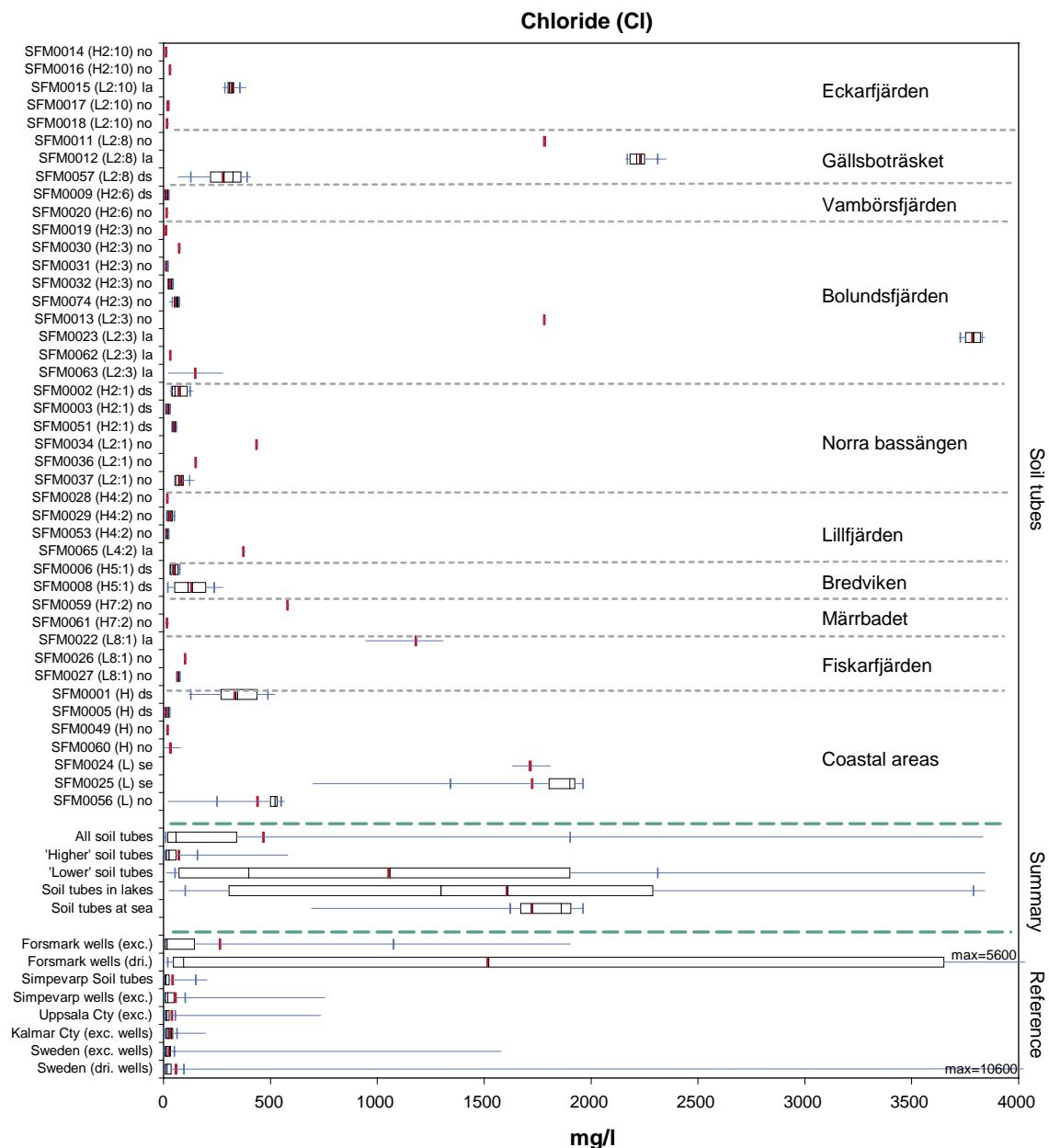


Figure 5-16. Chloride concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The lowest chloride concentrations are found in soil tubes at the topographical heights, in accordance with the other major constituents. The highest chloride concentrations are found in the soil tubes located in the catchments of Gällsboträsket and Bolundsfjärden, where the concentrations range from 2,000–4,000 mg/l.

The chloride concentrations in soil tubes at ‘lower’ levels are generally higher compared to both stream and lake waters (Figure 5-17). Soil tubes at ‘higher’ levels show concentrations at lower, or at the same level as stream and lake water. The chloride concentration in precipitation is usually around 0.7 mg/l. In the outlet from Lake Eckarfjärden chloride concentrations of 2.6 mg/l has been observed, which is in level with the rest of Sweden (2.9 mg/l). In the outlets of Gällsboträsket and Lake Bolundsfjärden distinctly higher concentrations are observed, often in the range of 30–50 mg/l. The concentrations found in sea water are markedly higher, 2,600 mg/l.

Typical chloride concentrations in shallow groundwater in the Forsmark area are 20 mg/l at ‘higher’ levels and 400 mg/l at ‘lower’ levels. In some of the soil tubes located in lakes and at sea concentrations range between 2,000–4,000 mg/l.

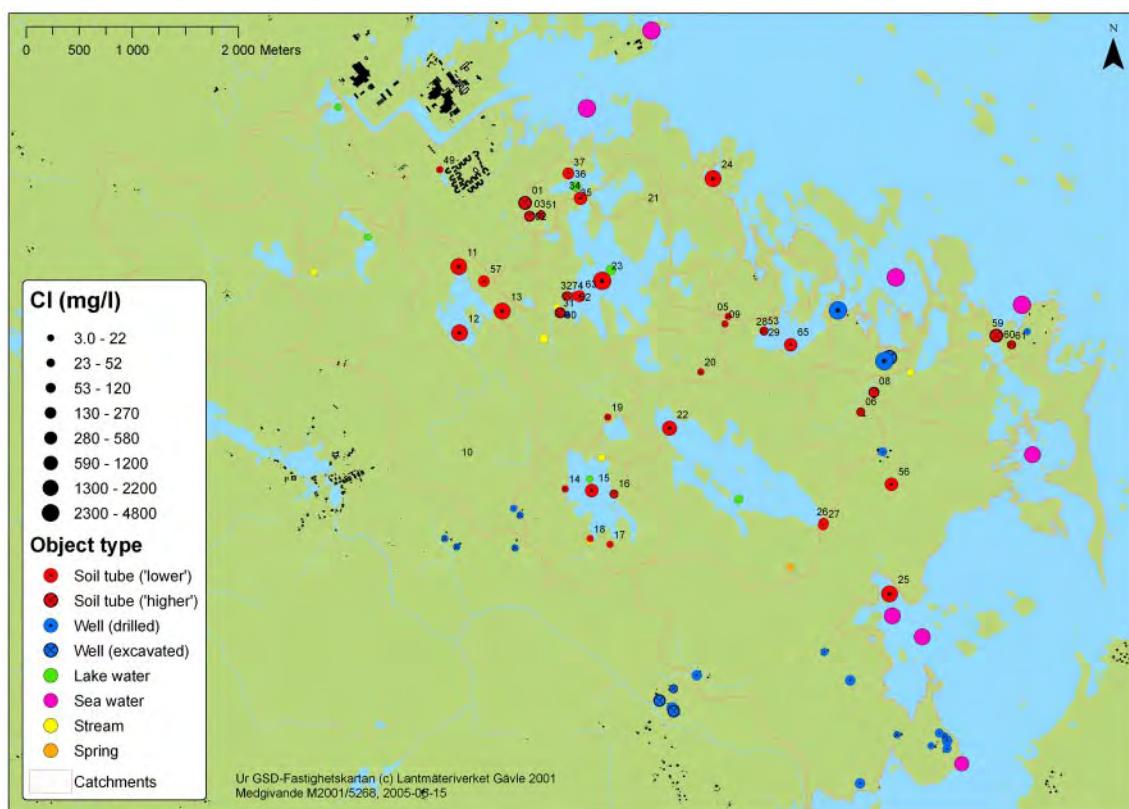


Figure 5-17. Chloride concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **sulphate** concentrations in soil tubes of the Forsmark area are elevated 3–6 times compared to concentrations observed in most excavated wells in Sweden.

Similar to chloride, soil tubes in the catchments Gällsboträsket, Bolundsfjärden and the coastal areas, show the highest concentrations. The highest sulphate concentration is found in SFM0023 in Lake Bolundsfjärden. In a few soil tubes, (SFM0001, SFM0036, SFM0037, SFM0056, SFM0059) elevated sulphate concentrations are observed, opposite to the pattern for chloride (Figure 5-18).

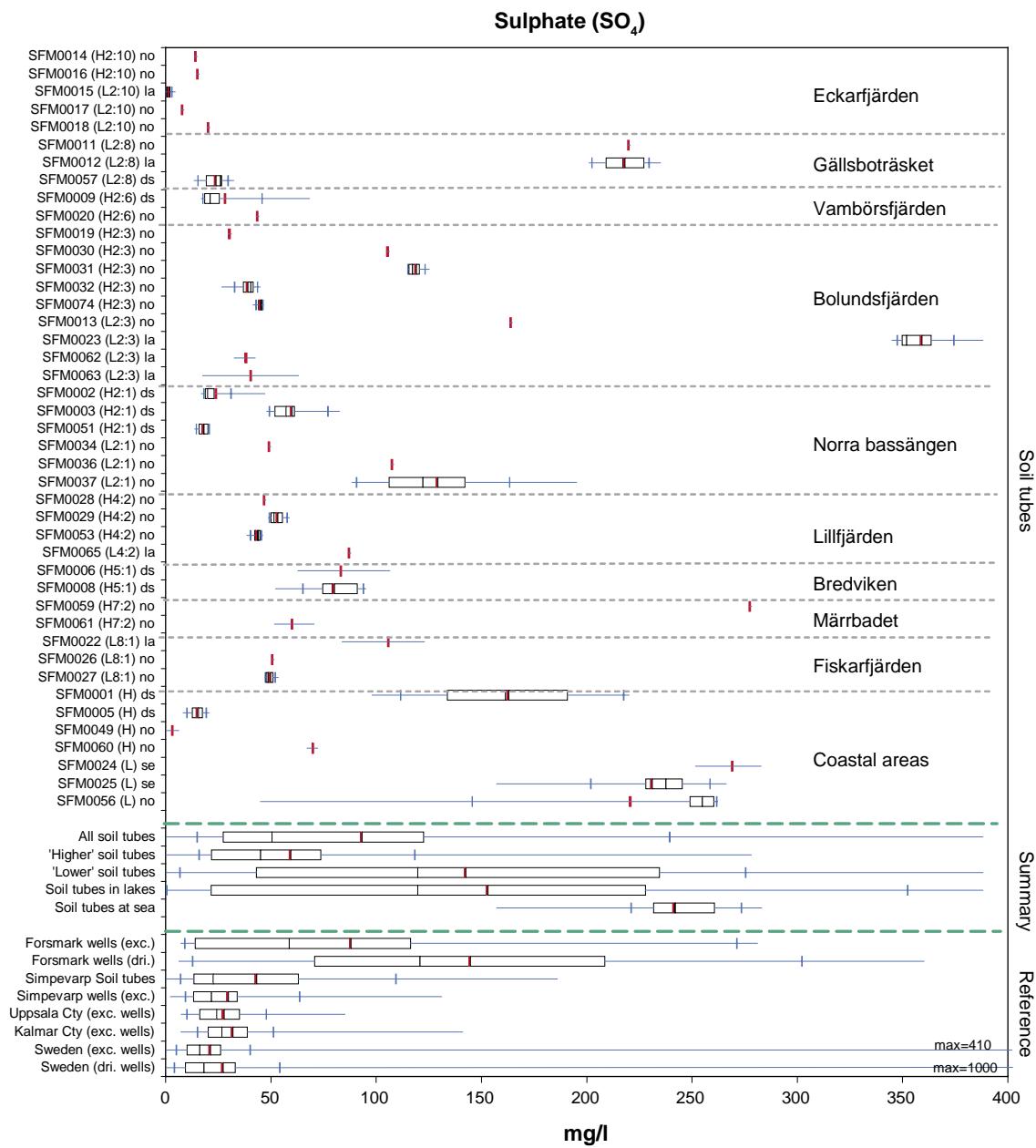


Figure 5-18. Sulphate concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The lowest sulphate concentrations are found at the topographical heights, similar to sodium. The catchment of Eckarfjärden marks out by especially low sulphate concentrations.

The sulphate concentrations are generally higher in shallow groundwaters compared to both stream and lake waters, and lower, or in the same magnitude as sea water (Figure 5-19). The sulphate concentration in precipitation is usually around 1.5 mg/l. In streams concentrations of 13 mg/l are usually measured, compared to 4 mg/l in the rest of Sweden. The concentrations found in sea water are markedly higher, 360 mg/l.

Compared to chloride, the ratio between the highest and lowest observed concentrations is considerably smaller, indicating that different groundwater forming processes are involved.

Typical sulphate concentrations in shallow groundwater in the Forsmark area are 50 mg/l at 'higher' levels and 150 mg/l at 'lower' levels.

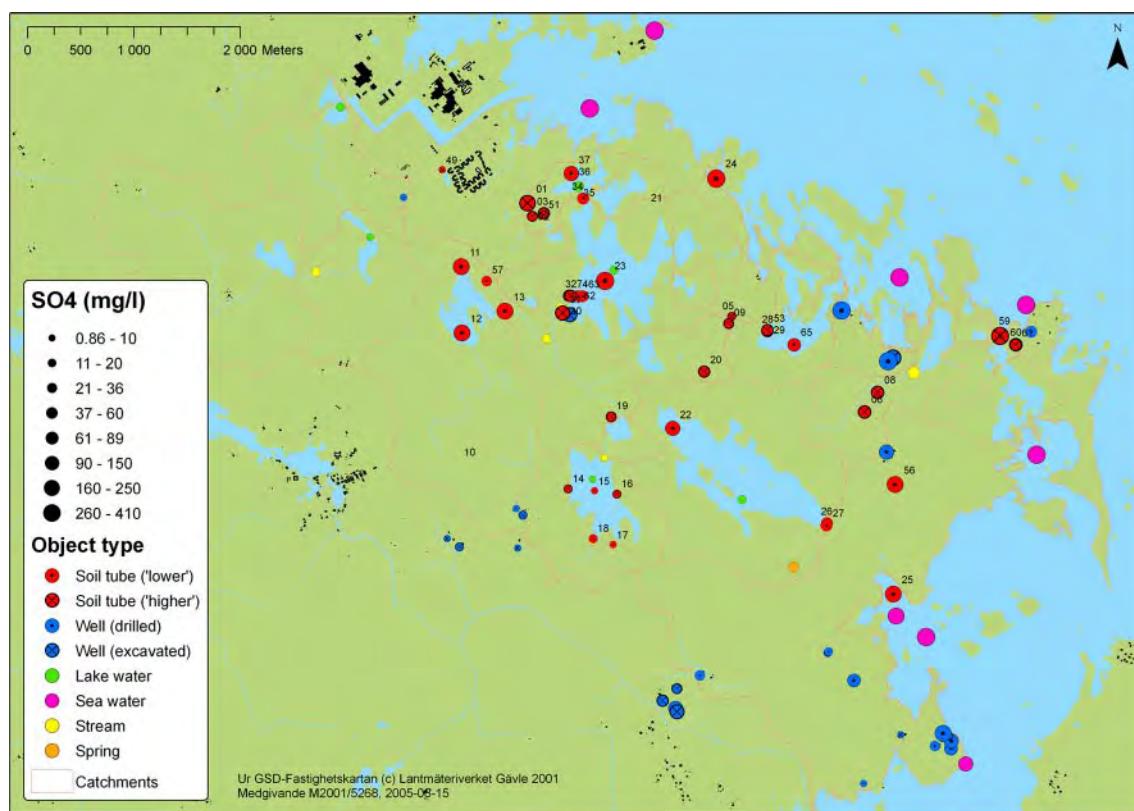


Figure 5-19. Sulphate concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **bicarbonate** concentrations in soil tubes of the Forsmark area are elevated ten times compared to concentrations observed in most excavated wells in Sweden.

Contrary to most other major constituents, soil tubes in the Lake Eckarfjärden catchment show the highest concentrations. The lowest concentrations are observed in SFM0023 in Lake Bolundsfjärden and in the Gällsbofjärden catchment. (Figure 5-20).

The bicarbonate concentrations are generally higher in shallow groundwater than in stream, lake and sea water (Figure 5-21). The bicarbonate concentration in precipitation is usually less than 1 mg/l. In streams concentrations of 170 mg/l is usually measured, compared to 12 mg/l in the rest of Sweden. The concentrations found in sea water are slightly lower, 80 mg/l.

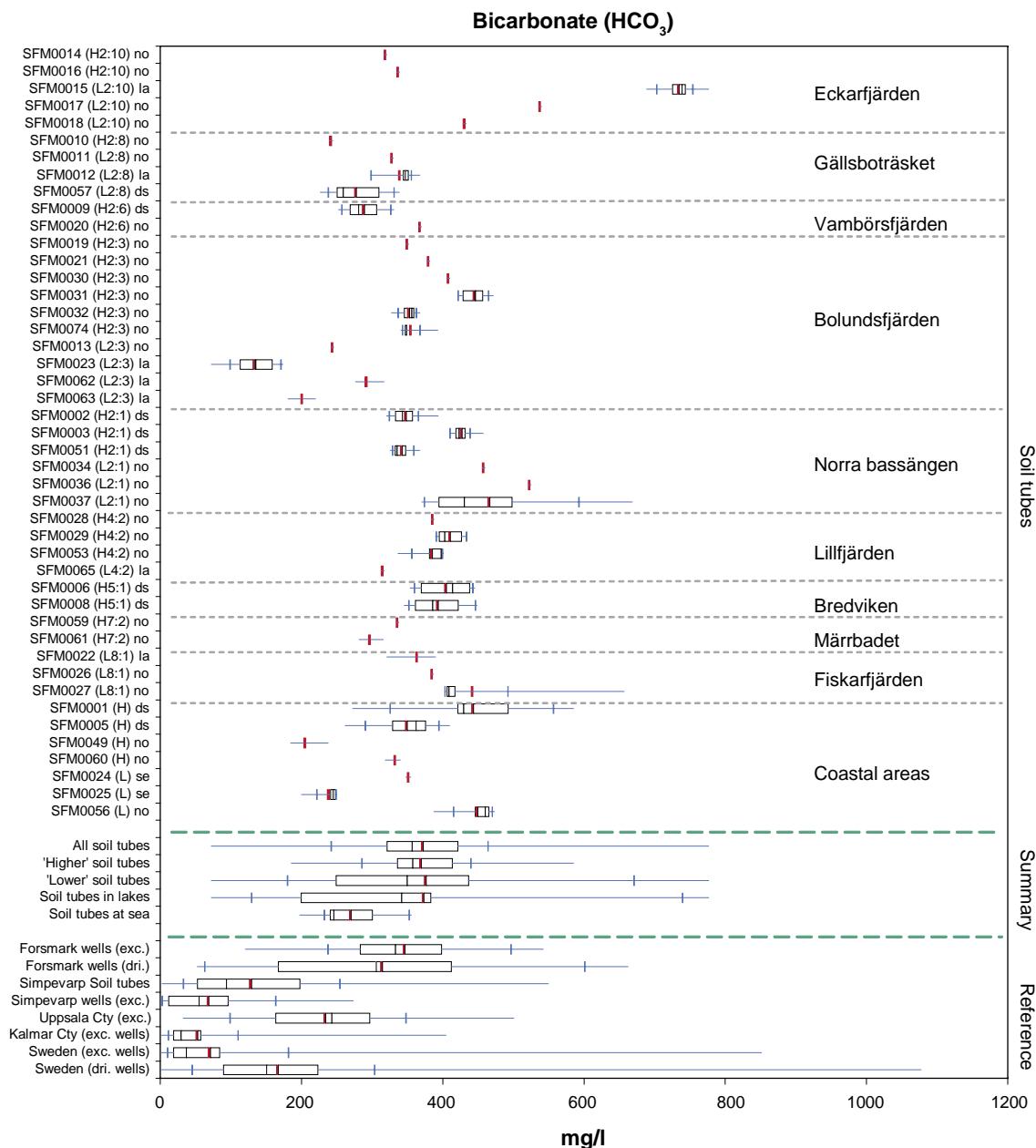


Figure 5-20. Bicarbonate concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The variation within the Forsmark area is considerably lower for bicarbonate compared to most other major constituents. The differences between soil tubes in recharge and discharge areas are probably small. Except for the especially high concentrations measured in the soil tube in Lake Eckarfjärden, and the especially low concentrations observed in the soil tube in Lake Bolundsfjärden, the bicarbonate concentrations are rather uniformly distributed throughout the whole area.

The explanation for the elevated bicarbonate concentrations in the shallow groundwaters is found in the calcite rich quaternary deposits that cover the Forsmark area (see calcium), where calcite dissolution processes occur. Very high contents of calcite, ranging from 18 to 24% CaCO₃, have been measured in till /SKB 2005c/.

Typical bicarbonate concentration in shallow groundwater in the Forsmark area is 350 mg/l.

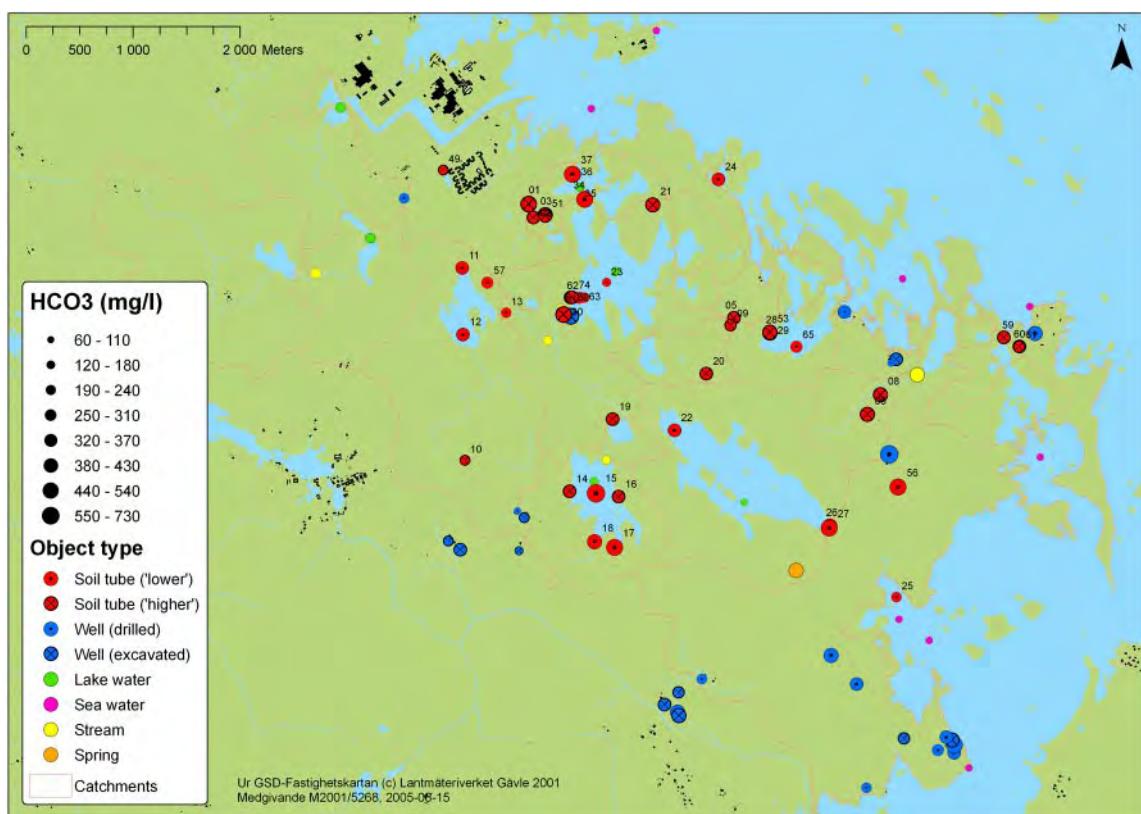


Figure 5-21. Bicarbonate concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.3.4 Fluoride, bromide, iodide

The **fluoride** concentrations in soil tubes of the Forsmark area are approximately twice the concentrations observed in most excavated wells in Sweden. 0.5 mg/l compared to 0.2 mg/l.

The fluoride concentrations are rather uniformly distributed within the area and the spatial pattern deviate from the pattern observed for most the major constituents. The highest fluoride concentrations are found in the catchments of Eckarfjärden, Bolundsfjärden and Fiskarfjärden (Figure 5-22).

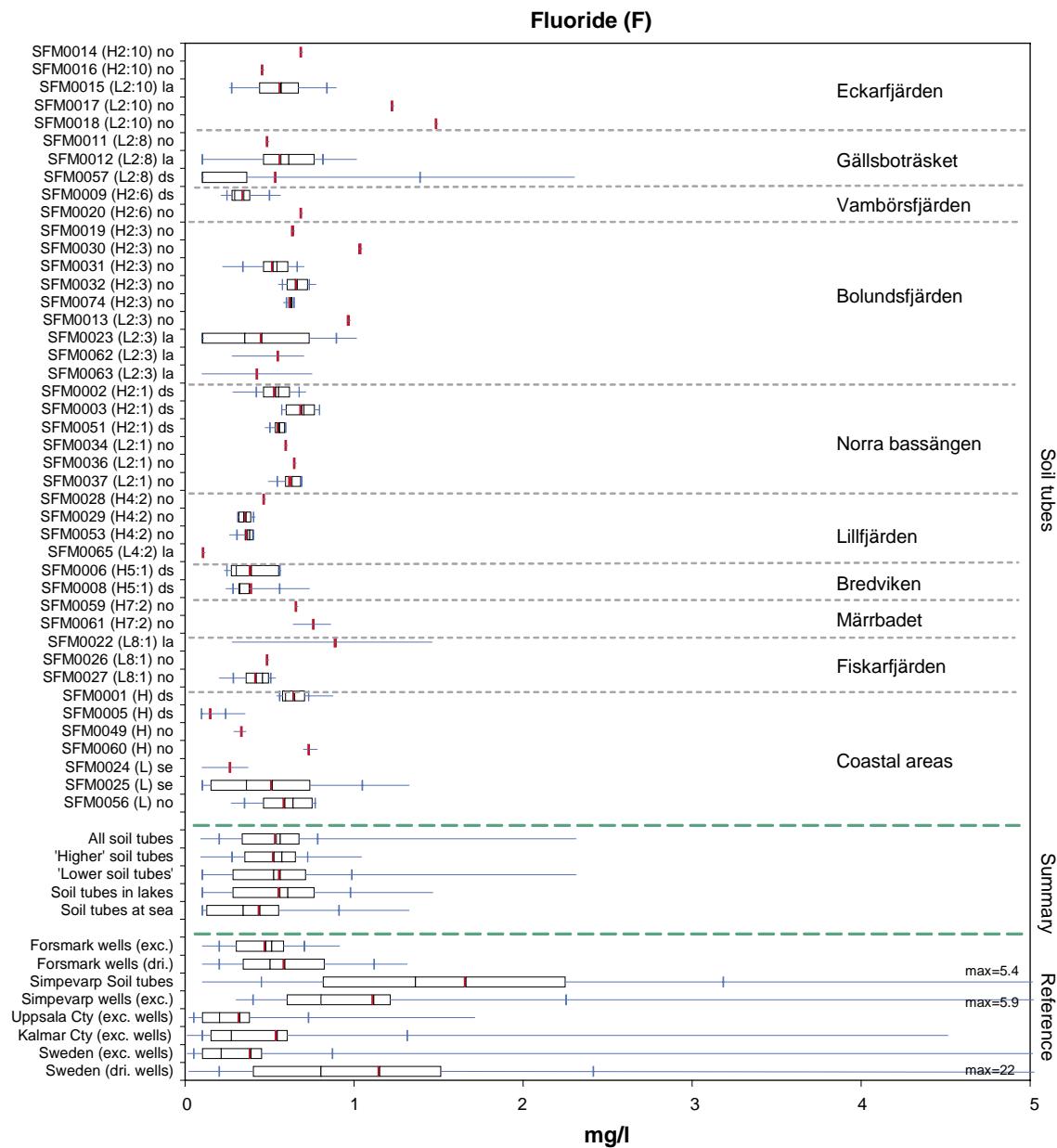


Figure 5-22. Fluoride concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The fluoride concentrations are generally higher in shallow groundwater than in stream, lake and sea water (Figure 5-23). The fluoride concentration in the single observation of precipitation is less than 0.2 mg/l. In streams concentrations of 0.2 mg/l are usually measured, compared to 0.1 mg/l in the rest of Sweden. The concentrations measured in sea water are usually lower than 0.2 mg/l.

The variation within the Forsmark area is considerably lower for fluoride compared to most major constituents. There are probably small differences in fluoride concentration between soil tubes in recharge and discharge areas.

Typical fluoride concentration in shallow groundwater in the Forsmark area is 0.5 mg/l.

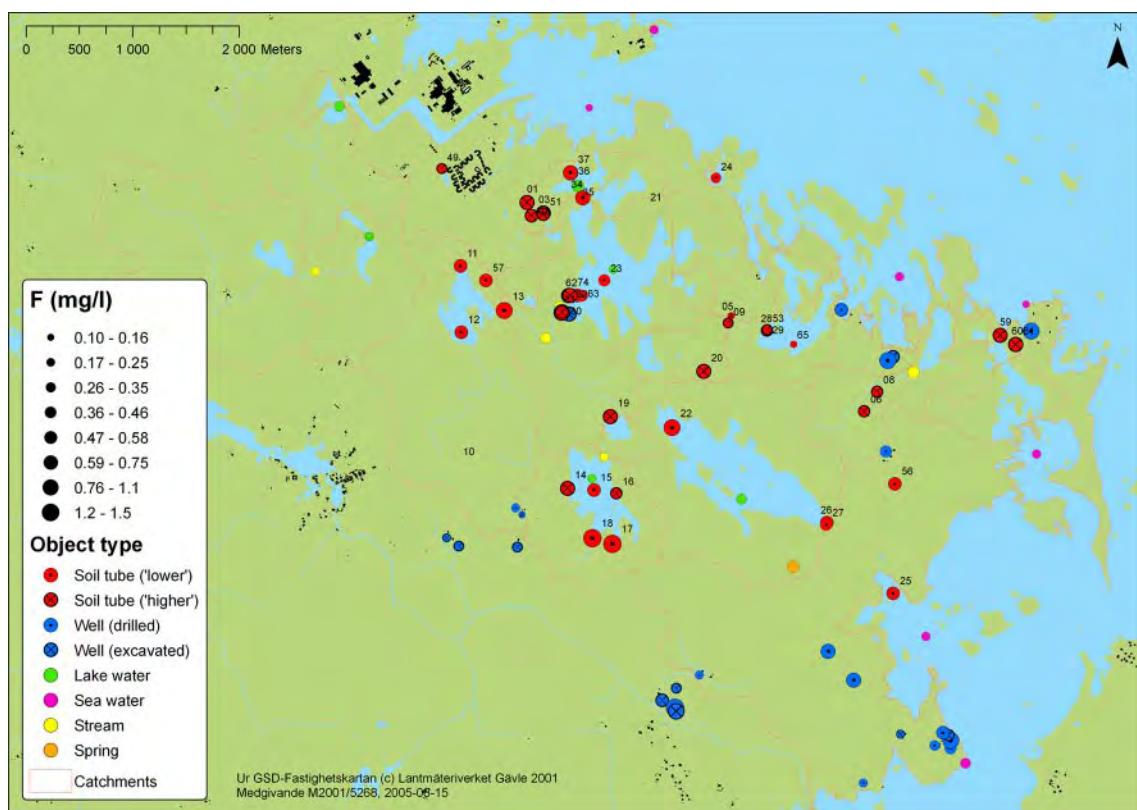


Figure 5-23. Fluoride concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

A large portion of the **bromide** concentrations in soil tubes, as well as surface waters, falls below the reporting limit of 0.2 mg/l. This fact makes the comparisons for bromide less reliable compared to most other ions.

The spatial pattern for bromide is much the same as the pattern seen for chloride, with the highest concentrations found in SFM001, SFM0012, SFM0013, SFM0023, SFM0024 and SFM0025 (Figure 5-24). However, the soil tubes with elevated bromide concentrations shows significant larger variation compared to chloride.

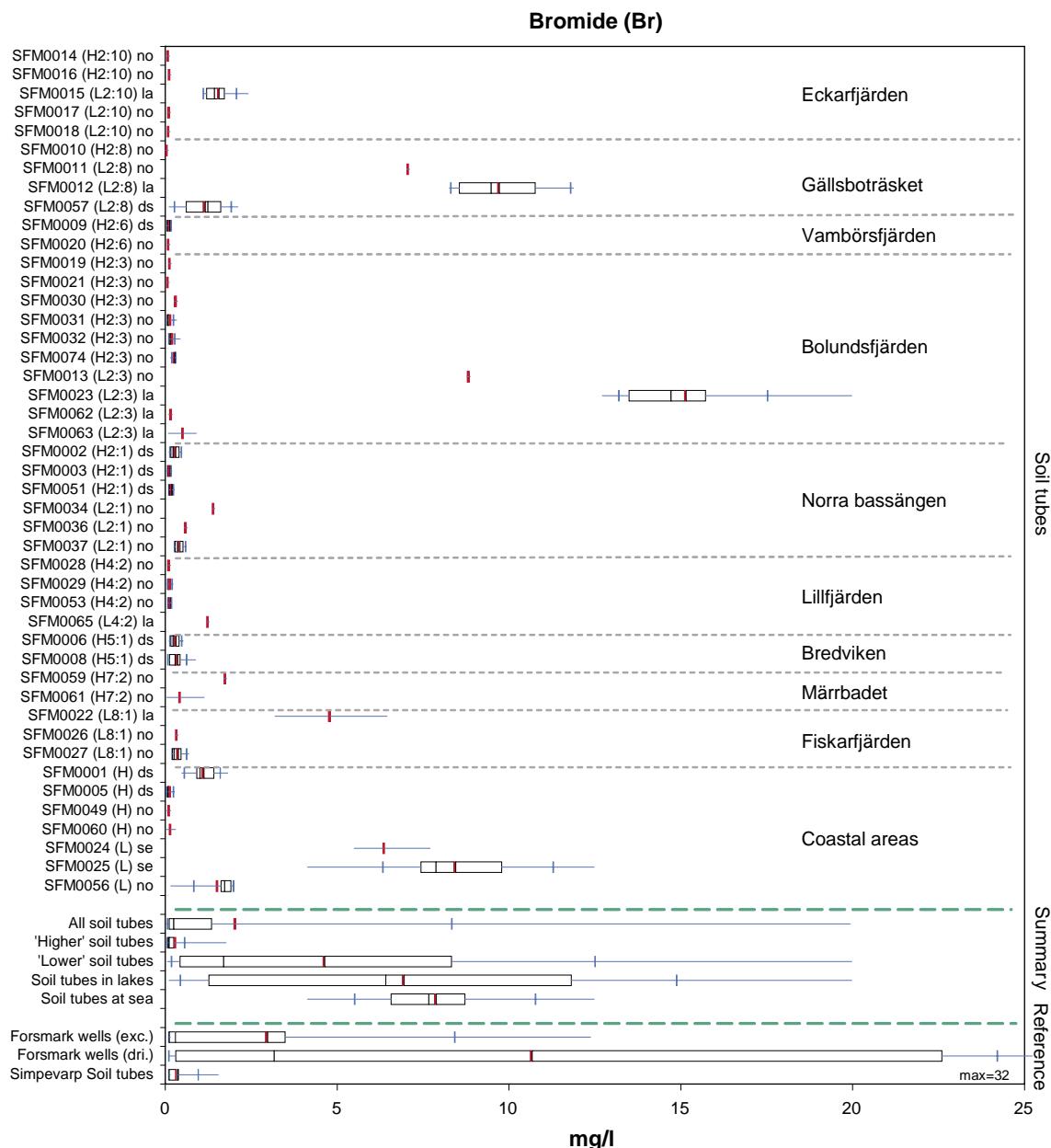


Figure 5-24. Bromide concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

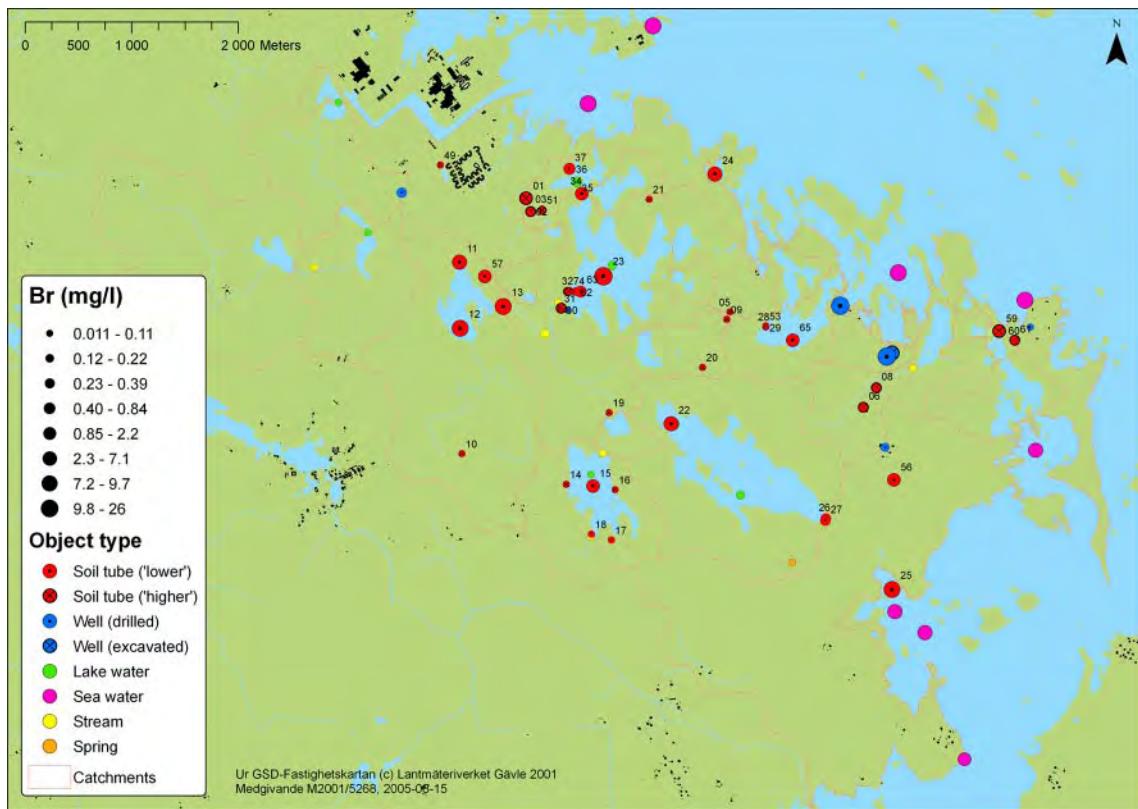


Figure 5-25. Bromide concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The bromide concentrations in soil tubes at 'lower' levels are generally higher than in both stream and lake waters (Figure 5-25). Soil tubes at 'higher' levels show lower or similar concentrations as stream and lake water. The bromide concentration in precipitation is usually less than 0.005 mg/l. In most surface waters in the Forsmark area, bromide concentrations less than 0.2 mg/l have been observed. The concentrations found in sea water are markedly higher, about 8 mg/l.

In a sample of 242 Swedish lakes the median bromide concentration was 0.007 mg/l /Naturvårdsverket 1999a/.

The major source for bromide in the shallow groundwater is probably marine relicts, analogue to chloride.

Typical bromide concentrations in shallow groundwater in the Forsmark area are usually less than 0.2 mg/l at 'higher' levels and about 2 mg/l at 'lower' levels. Concentrations in the order of 10 mg/l are found in some soil tubes located in the open water of lakes.

The **iodide** concentrations in the soil tubes of the Forsmark area range from 0.001 to 0.1 mg/l. The iodide concentrations are with exception of the high levels observed in SFM0015, SFM0012, SFM0023, SFM0022 rather uniformly distributed throughout the Forsmark area (Figure 5-26).

The spatial pattern of iodide is with a few notable exceptions similar to chloride: the soil tube in Lake Eckarfjärden (SFM0015) shows the highest concentrations observed and the soil tubes located at sea show only a minor elevation compared to most other soil tubes.

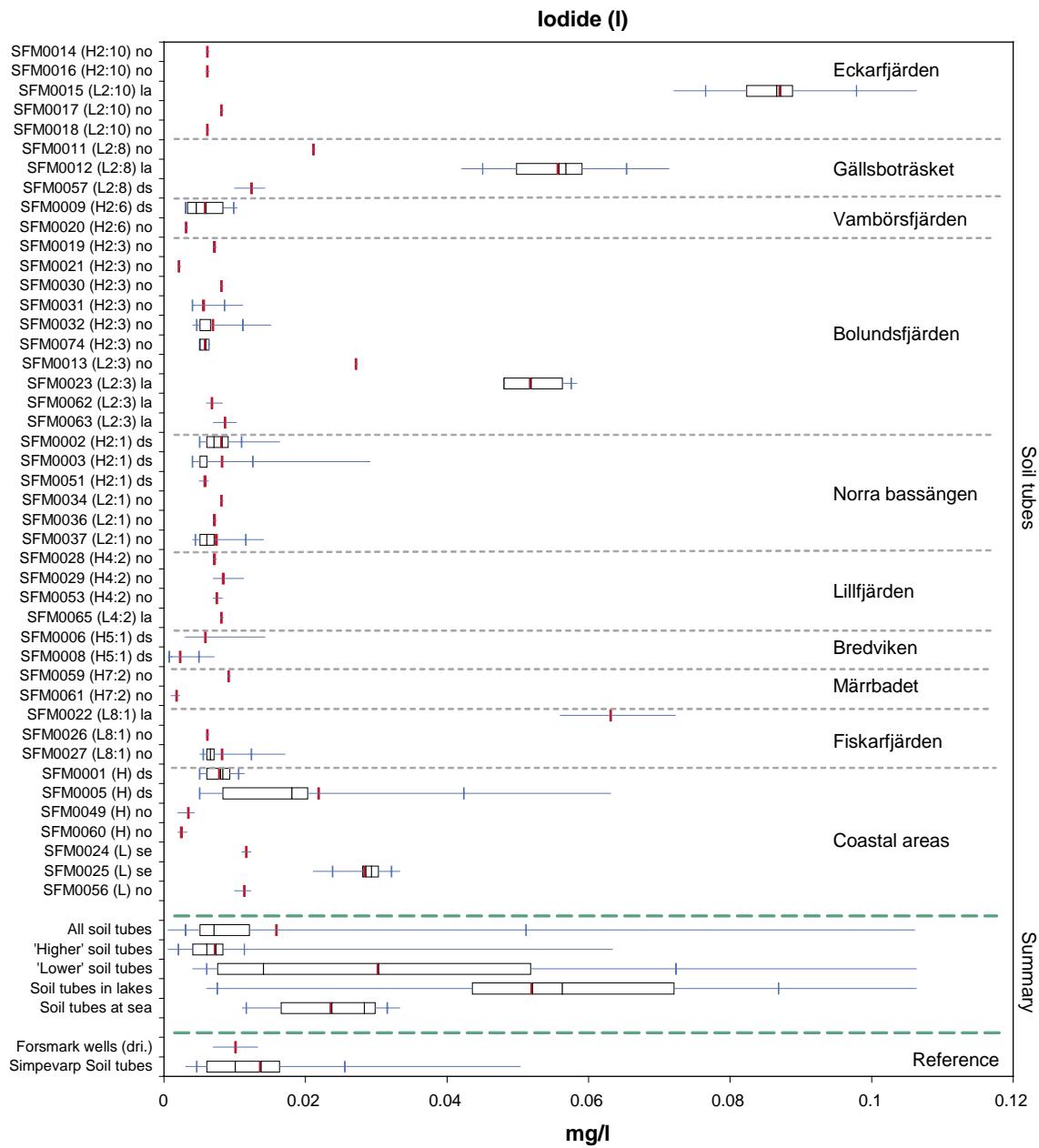


Figure 5-26. Iodide concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

In the catchment of Bredviken especially low iodide concentrations are found in both soil tubes and streaming water. This pattern is opposite for potassium, where the concentrations in both soil tubes and streams are elevated in this catchment.

The iodide concentrations in the Forsmark area are generally higher in shallow groundwaters compared to both stream, lake and sea water (Figure 5-27). The iodide concentration in the single observation of precipitation is less than 0.001 mg/l. In streams concentrations of 0.005 mg/l is usually measured. The concentrations measured in sea water are usually 0.009 mg/l.

In a sample of 242 Swedish lakes the iodide concentrations were ranging from 0.0002 to 0.0017 mg/l (10- and 90-percentile) /Naturvårdsverket 1999a/.

The typical iodide concentration in shallow groundwater in the Forsmark area is 0.01 mg/l. Soil tubes located in till below the lake sediments usually show concentrations almost an order of magnitude higher.

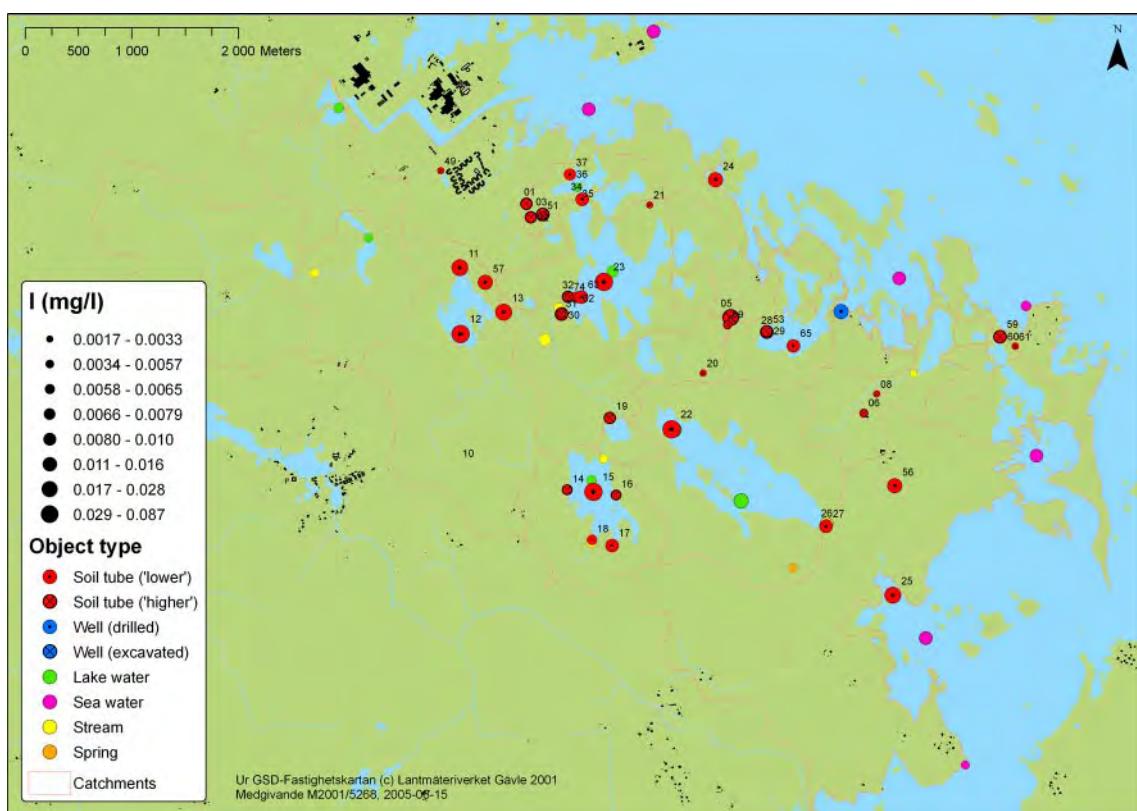


Figure 5-27. Iodide concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.3.5 Lithium, strontium, barium

Lithium shows a pattern most similar to potassium. A number of soil tubes show elevated concentrations with the highest concentrations found in SFM0023 (Figure 5-28).

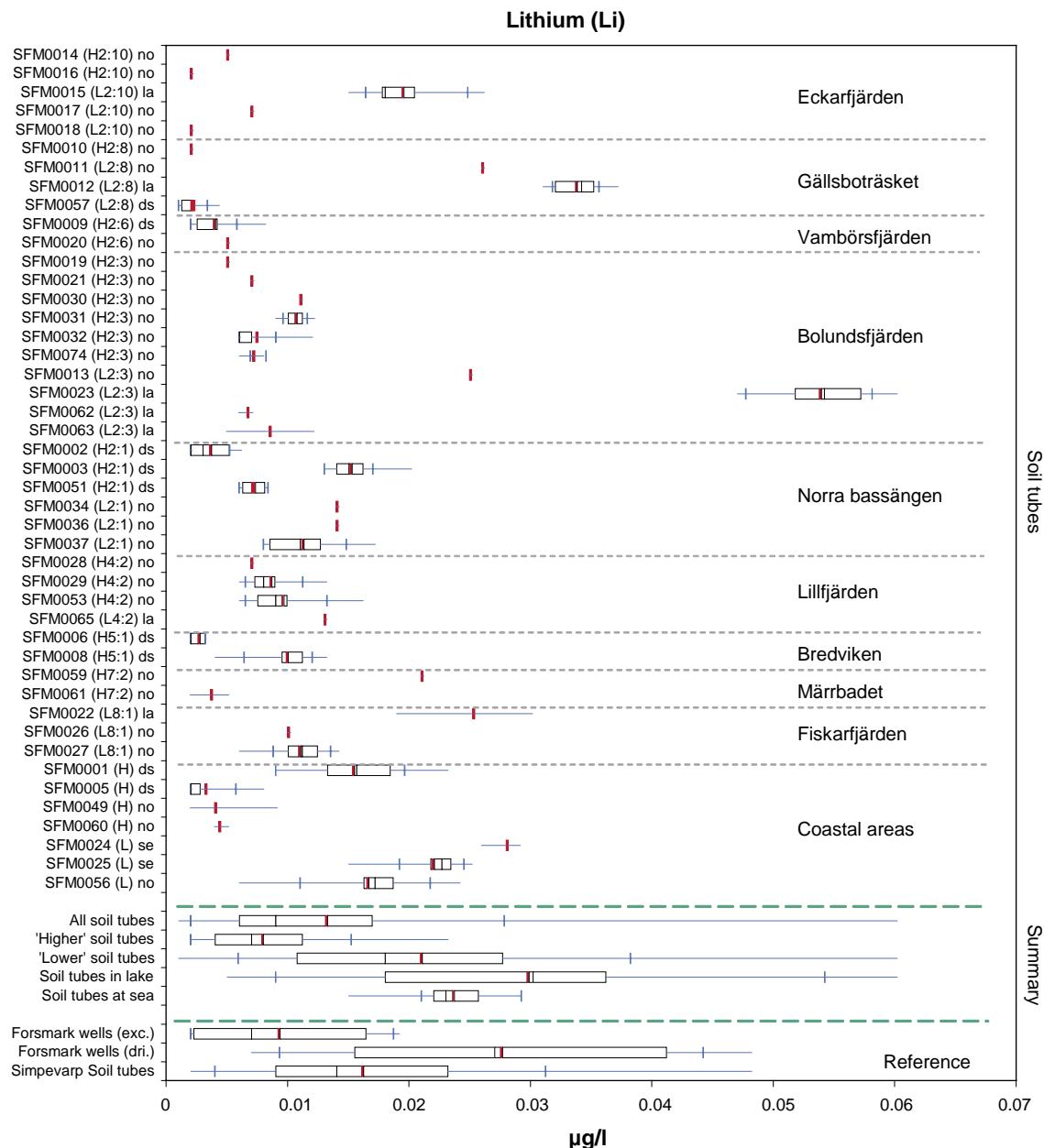


Figure 5-28. Lithium concentrations in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The lithium concentrations in the soil tubes at ‘higher’ levels are generally in the same level as both stream and lake water. Soil tubes at ‘lower’ levels often show higher concentrations compared to surface waters (Figure 5-29). The lithium content in precipitation, measured at Gårdsjön in western Sweden is 0.00005 mg/l /Eriksson 2001/. In streams of the Forsmark area concentrations usually less than 0.004 mg/l are measured. The concentrations found in sea water are markedly higher, 0.023 mg/l.

In a sample of 242 Swedish lakes the lithium concentrations were ranging from 0.0001 to 0.0014 mg/l (10- and 90-percentile) /Naturvårdsverket 1999a/.

The lowest lithium concentrations are found at the topographical heights, similar to magnesium and potassium, indicating that marine relicts probably are an important source for lithium.

Typical lithium concentrations in shallow groundwater in the Forsmark area are 0.01 mg/l at ‘higher’ levels and 0.02 mg/l at ‘lower’ levels.

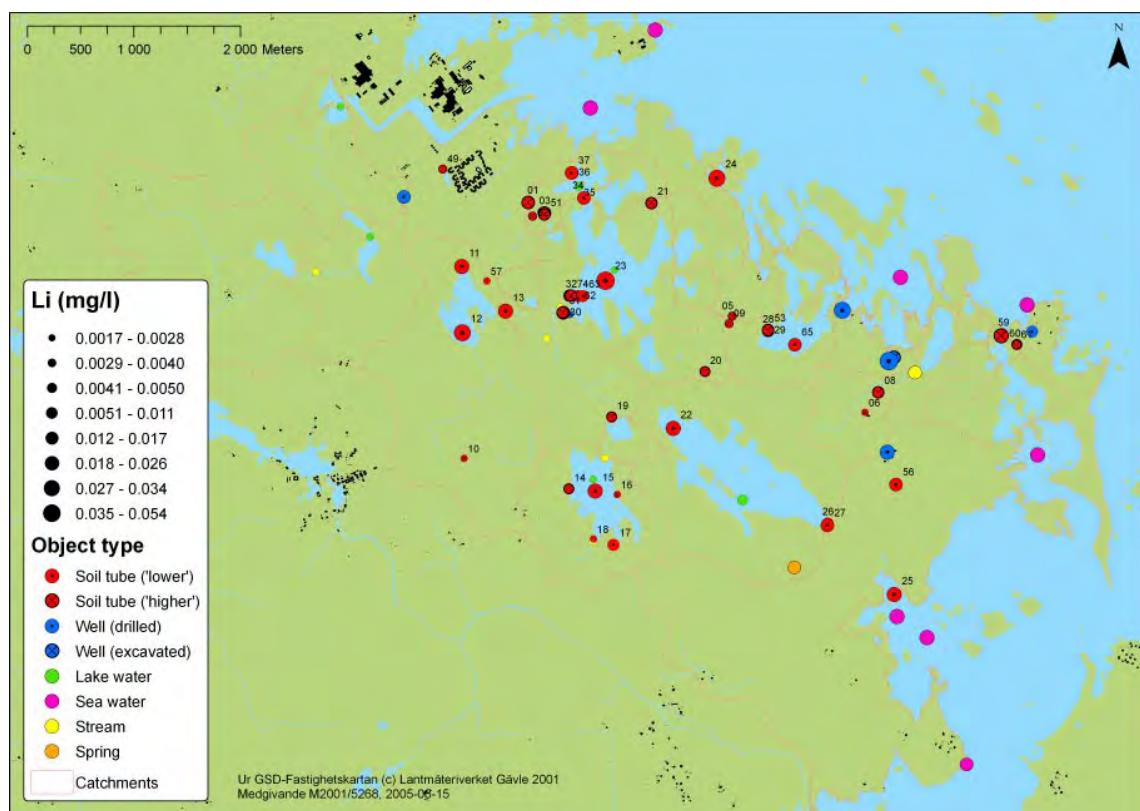


Figure 5-29. Lithium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **strontium** concentrations show a pattern most similar to calcium. A number of soil tubes show elevated concentrations and the highest concentrations are found in SFM0025. Compared to calcium, SFM0025 has relatively higher strontium content (Figure 5-30).

The strontium concentrations in the soil tubes are generally higher than in both stream and lake water (Figure 5-31). The strontium content in precipitation, measured at Gårdsjön in western Sweden is 0.0007 mg/l /Eriksson 2001/. In streams and lakes, strontium concentrations of about 0.08 mg/l are usually observed. The concentrations found in sea water are markedly higher, about 1 mg/l.

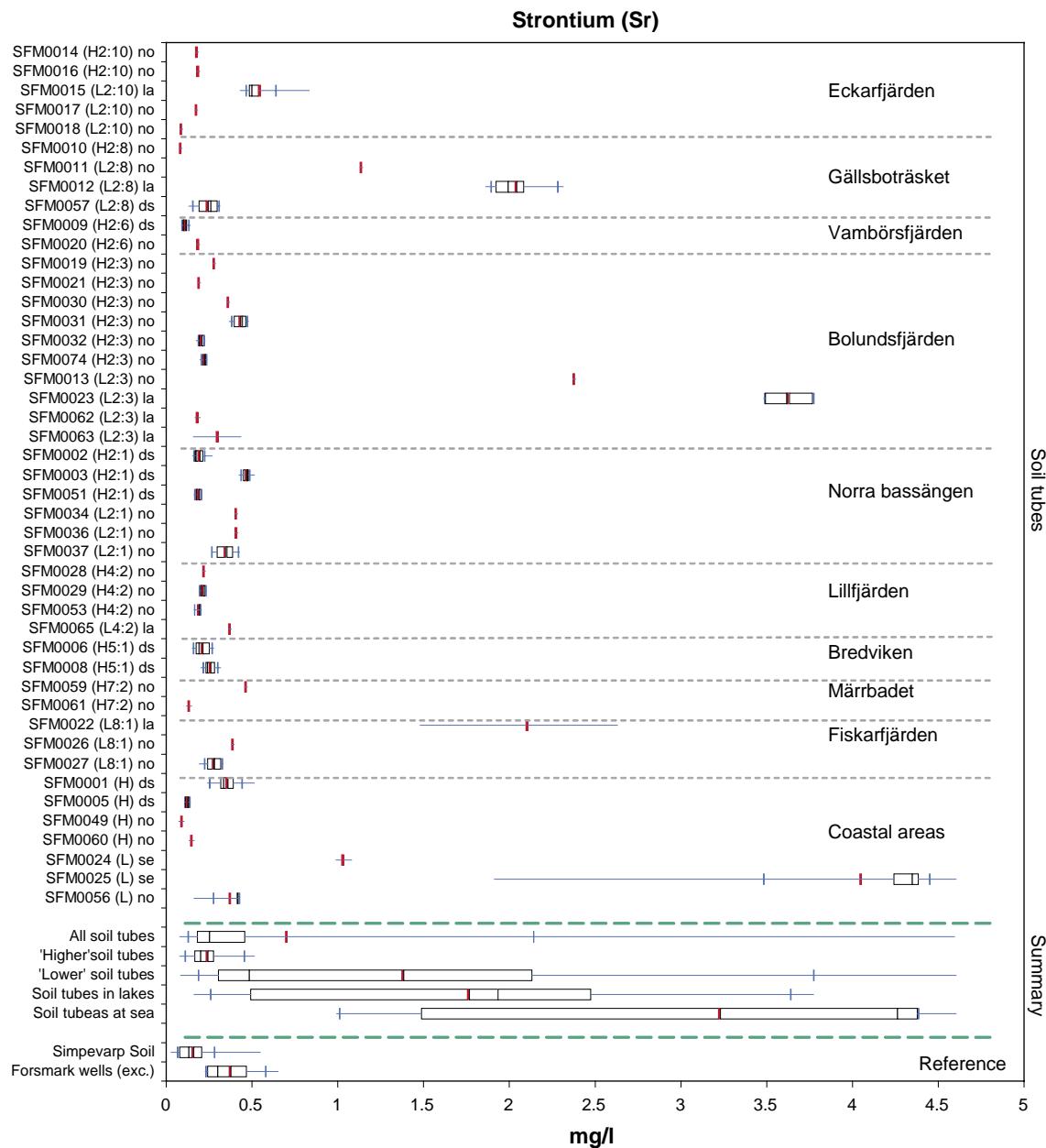


Figure 5-30. Strontium concentrations in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

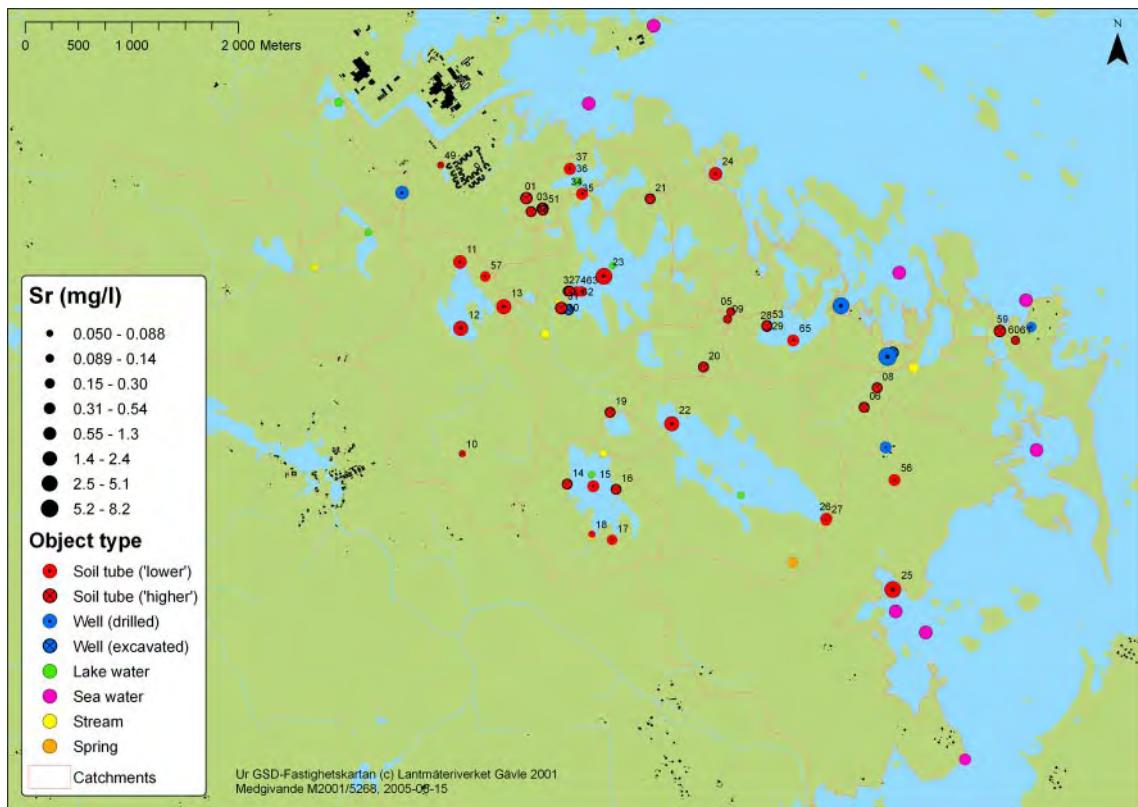


Figure 5-31. Strontium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

In a sample of 242 Swedish lakes the strontium concentrations were ranging from 0.004 to 0.041 mg/l (10- and 90-percentile) /Naturvårdsverket 1999a/. This indicates that the strontium concentrations in the Forsmark area are elevated compared to most lakes in Sweden.

Typical strontium concentration in shallow groundwaters in the Forsmark area is 0.25 mg/l. In groundwater in till below the lake sediments, strontium concentrations are usually an order of magnitude higher.

Barium shows a pattern almost contradictory to strontium and calcium. In soil tubes showing especially high strontium content, low barium values are observed.

Elevated barium concentrations are found for SFM0015, SFM0006 and SFM0057, of which the latter two are located at drill sites. There is no clear difference between 'higher' and 'lower' located soil tubes (Figure 5-32).

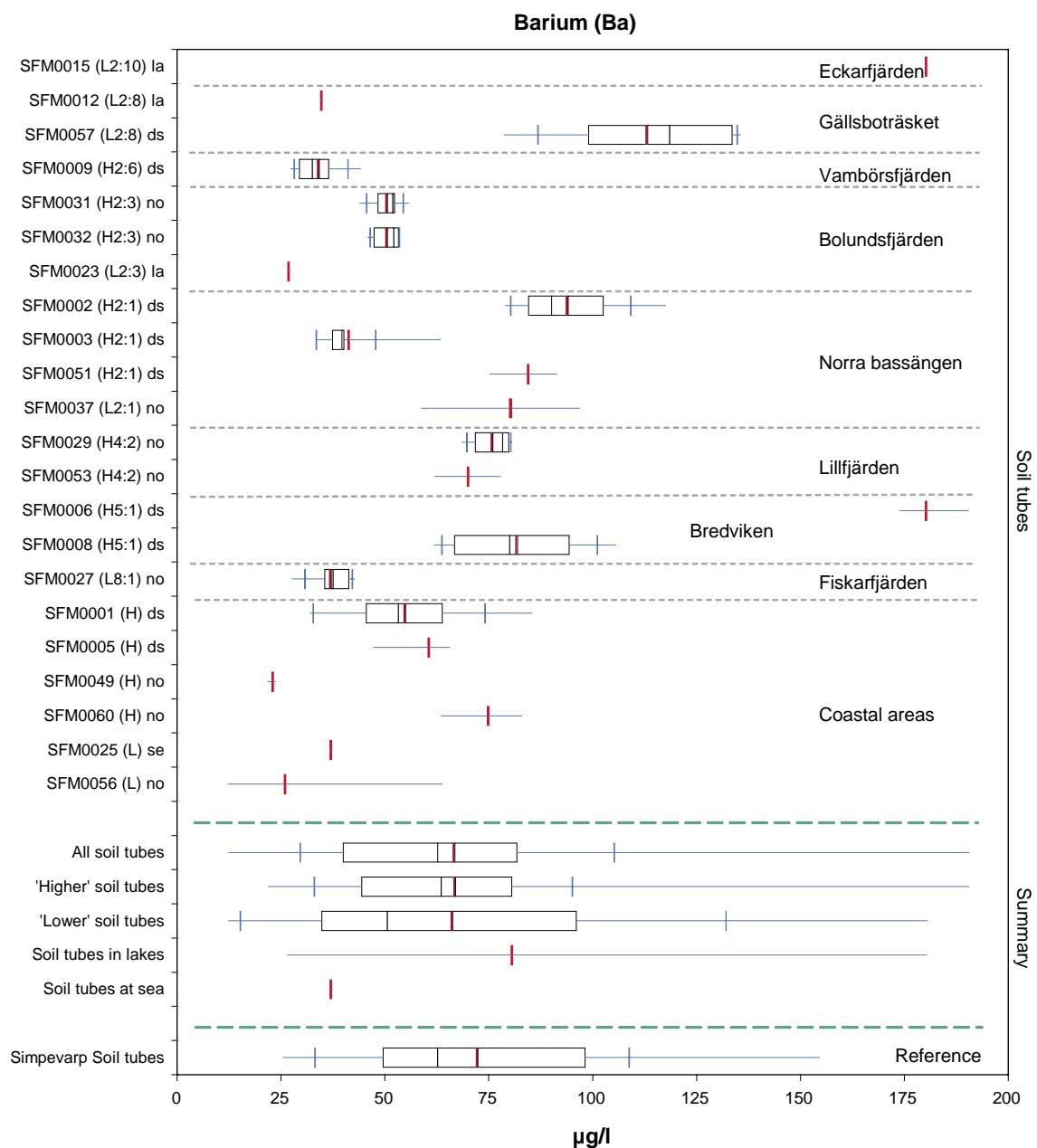


Figure 5-32. Barium concentrations in the Forsmark area. Note that barium concentrations are expressed in $\mu\text{g/l}$ in contrast to the preceding ions. Explanations are given in Section 4.3.

Except for the soil tubes mentioned above, the barium concentrations in the soil tubes are usually slightly higher compared to lake, stream and sea water (Figure 5-33). The barium content in precipitation, measured at Gårdsjön in western Sweden is 0.0008 mg/l /Eriksson 2001/. Median barium concentrations in stream, lake and sea water are 0.02 mg/l in the Forsmark area.

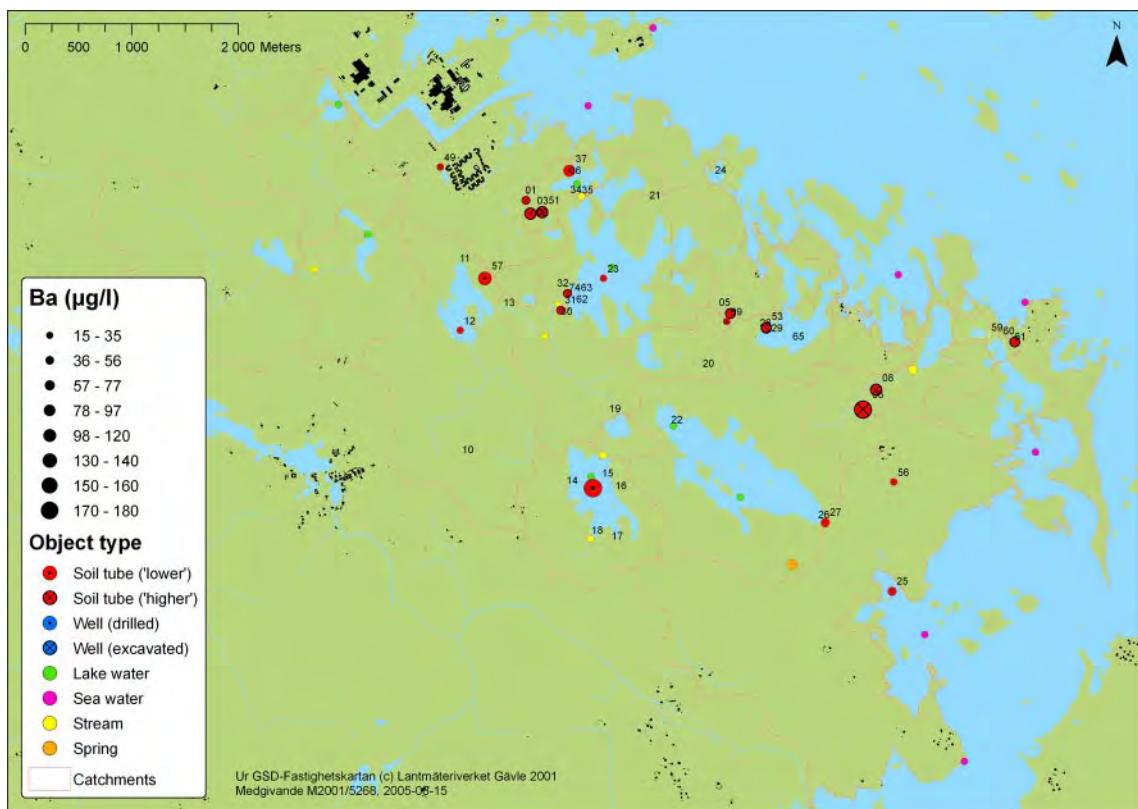


Figure 5-33. Barium concentrations in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

In a sample of 242 Swedish lakes the barium concentrations were ranging from 0.002 to 0.020 mg/l (10- and 90-percentile) /Naturvårdsverket 1999a/, indicating that the barium concentrations are elevated in the Forsmark area compared to most lakes in Sweden.

Typical barium concentration in shallow groundwater in the Forsmark area is 0.06 mg/l.

5.3.6 Summary – major and minor constituents

Typical values of the major and minor constituents are summarised in Table 5-3. Separate values are presented for soil tubes at 'higher' and 'lower' locations in the landscape, as there usually are great differences between the groundwater chemical compositions in these two categories. Typical values of the soil tubes located in till below the sediments of lakes and shallow bays are shown in brackets under 'lower' due to the differing character of these tubes. The elements are sorted in descending order after the typical concentrations of the higher located soil tubes.

Table 5-3. Typical concentrations (mg/l) of major and minor constituents in shallow groundwater from topographically higher and lower situated soil tubes in the Forsmark area. Typical values of groundwater in till below sediments of lakes and shallow bays are shown in brackets under 'Lower'.

Element	Abbreviation	'Higher' located soil tubes	'Lower' located soil tubes
Bicarbonate	HCO ₃	350	350
Calcium	Ca	100	100 (500)
Electrical conductivity	Cond	70	200
Sulphate	SO ₄	50	150
Sodium	Na	20	200 (1,000)
Chloride	Cl	20	400 (2,000)
Total organic carbon	TOC	13	5
Magnesium	Mg	10	50
pH	pH	7.2	7.2
Potassium	K	5	20
Silicon	Si	5	5
Total nitrogen	Tot-N	1	1
Iron	Fe	1	1
Fluoride	F	0.5	0.5
Strontium	Sr	0.25	0.25 (2.5)
Manganese	Mn	0.2	0.2 (1)
Bromide	Br	< 0.2	2 (10)
Barium	Ba	0.06	0.06
Total phosphorus	Tot-P	0.02	0.02
Iodide	I	0.01	0.01 (0.06)
Lithium	Li	0.01	0.02

5.4 Carbon, nitrogen and phosphorus

Species of carbon, nitrogen and phosphorus are measured in a minor selection of the soil tubes compared to e.g. major constituents. In Table 5-4 the median values are summarised for all species and in Figures 5-34 to 5-37 distributions are shown for total contents of carbon, nitrogen and phosphorus. In Appendix 2, detailed statistics are available for all carbon, nitrogen and phosphorus species.

Table 5-4. Summary of carbon, nitrogen, and phosphorus in shallow groundwater in the Forsmark area. Median values in mg/l.

Idcode	Catchment		TOC	DOC	POC	DIC	tot-N	NO ₃ -N	NH ₄ -N	PON	tot-P	PO ₄ -P	POP	
SFM0001	Coastal area	H	25	24	0.55	79	1.2	0.00070	0.21	0.0086	0.042	0.025	0.019	
SFM0002	Norra bassängen	2:1	H	15	15	0.54	56	0.50	0.0014	0.080	0.040	0.020	0.0044	0.049
SFM0003	Norra bassängen	2:1	H	11	11	0.70	72	0.56	0.0036	0.21	0.0064	0.045	0.018	0.042
SFM0005	Coastal area	H	11	11	0.65	59	0.52	0.065	0.0043	0.034	0.010	0.0046	0.020	
SFM0006	Bredviken	5:1	H	14	14	0.16	64	1.5	0.62	0.0053	0.037	0.017	0.0043	0.0094
SFM0008	Bredviken	5:1	H	6.3	6.5		58	0.29	0.0020	0.038		0.0090	0.0025	
SFM0009	Vambörsfjärden	2:6	H	16	15		52	0.69	0.025	0.0082		0.013	0.0018	
SFM0012	Gällsboträsket	2:8	L	3.3	3.4		42	3.6	0.00030	3.4		0.013	0.00090	
SFM0015	Eckarfjärden	2:10	L	8.6	8.7		140	8.4	0.00020	7.5		0.59	0.032	
SFM0022	Fiskarfjärden	8:1	L	4.9	5.4		60	2.3	0.0013	2.1		0.0076	0.00090	
SFM0023	Bolundsfjärden	2:3	L	2.9	3.0		15	2.9	0.00065	2.7		0.0051	0.0015	
SFM0024	Coastal area	L	7.8	9.0		46	1.00	0.00030	0.34		0.043	0.014		
SFM0025	Coastal area	L	2.1	2.4		30	1.3	0.00040	1.2		0.014	0.0020		
SFM0027	Fiskarfjärden	8:1	L	5.6	5.7		68	0.81	0.011	0.48		0.068	0.041	
SFM0029	Lillfjärden	4:2	H	7.8	7.8		73	0.32	0.00090	0.070		0.019	0.0088	
SFM0031	Bolundsfjärden	2:3	H	7.7	7.8		76	0.37	0.0045	0.082		0.0045	0.00070	
SFM0032	Bolundsfjärden	2:3	H	17	17		64	0.64	0.0022	0.075		0.013	0.0075	
SFM0037	Norra bassängen	2:1	L	21	21		75	0.84	0.00075	0.019		0.034	0.0041	
SFM0049	Coastal area	H	18	18		39	0.71	0.00020	0.10		0.013	0.0086		
SFM0057	Gällsboträsket	2:8	L	13	13		43	0.51	0.0017	0.021		0.0078	0.0042	
SFM0060	Coastal area	H	6.1	6.2		60	0.32	0.096	0.00050		0.0034	0.0017		
Soil tubes at 'Higher' levels		H	13	13	0.55	63	0.56	0.0035	0.074	0.032	0.015	0.0055	0.031	
Soil tubes at 'Lower' levels		L	5.5	5.7		55	1.4	0.00060	1.3		0.016	0.0027		
All soil tubes			10	11	0.55	62	0.72	0.0016	0.092	0.032	0.015	0.0050	0.031	

There are only minor discrepancies between the *total* (TOC) and *dissolved* (DOC) fractions of *organic carbon*, indicating that most of the carbon occurs as dissolved species. This finding is supported by the fact that the fractions of particulate organic carbon (POC) are generally small in the few observations that are available. In some soil tubes are the median values of DOC slightly higher than the median values of TOC. This discrepancy is probably mainly caused by analytical uncertainties. Most of the *dissolved inorganic carbon* consists of bicarbonate. As bicarbonate contains approximately 20% carbon, the typical bicarbonate concentrations of 350 mg/l correspond to about 70 mg/l dissolved inorganic carbon.

In soil tubes at 'lower' levels the major part of the *total nitrogen* usually occurs as ammonium. In contrast, most of the soil tubes at 'higher' levels occur as dissolved organic nitrogen. In SFM0006, which is an exception from this general pattern, nitrate constitutes a significant part of the total nitrogen.

Most of the phosphorus occurs as particulate species. In general, only a minor fraction of the total phosphorus consists of phosphate. There is a high variability in the measurements of POP indicating that the measurements of the particulate organic fraction are either rather uncertain or severely fluctuating.

The concentrations of ***total organic carbon*** range from about 2 to 40 mg/l in shallow groundwater. The lowest concentrations are found in soil tubes at 'lower' levels, e.g. SFM0012, SFM0023, SFM0025 that are located in lakes or at sea. The highest concentrations are observed in SFM0001 at drill site DS1 and in SFM0037 nearby (Figure 5-34 and 5-35). In surface waters of streams and lakes in the Forsmark area, median TOC concentrations are 17 mg/l.

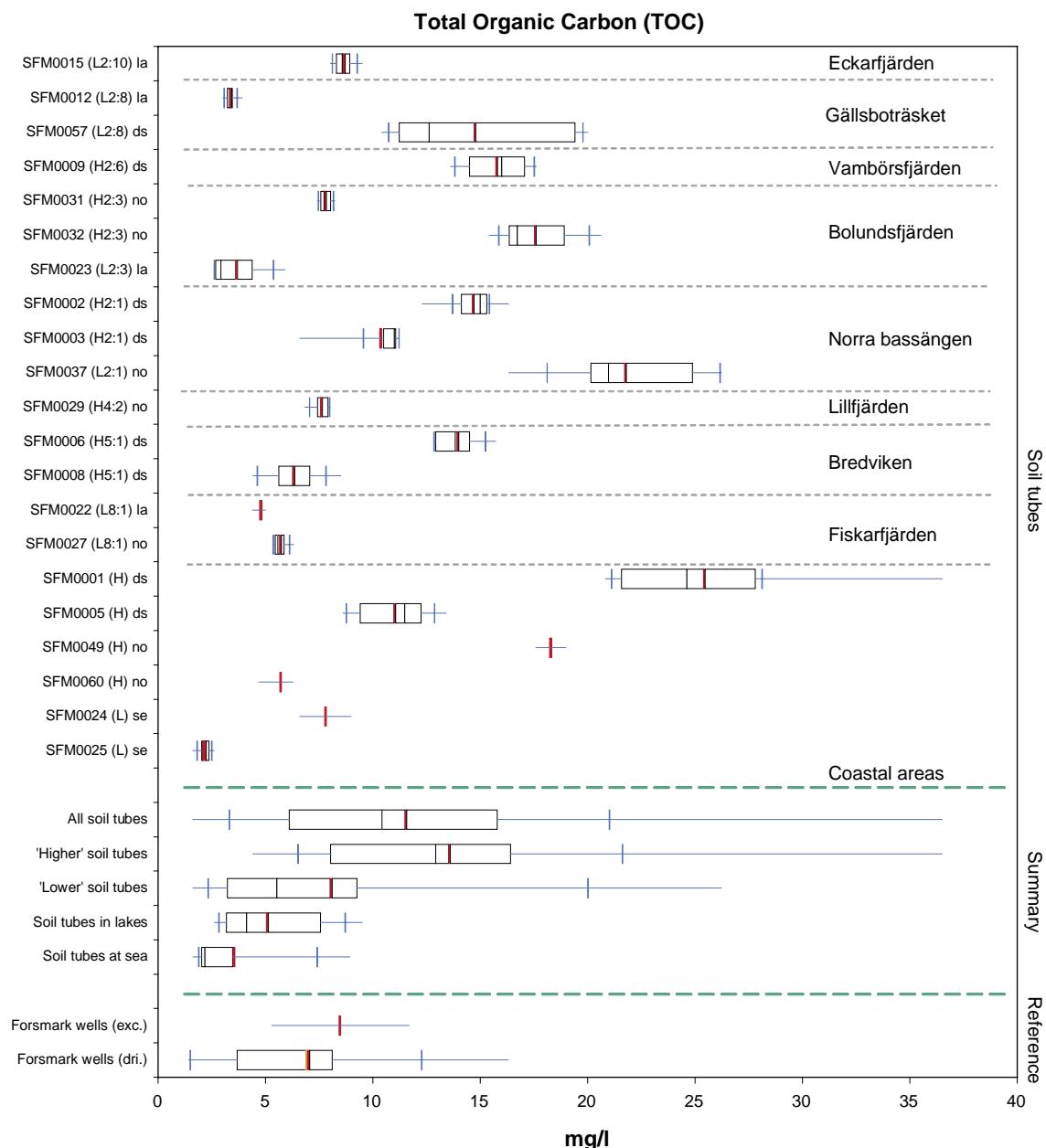


Figure 5-34. Total organic carbon in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

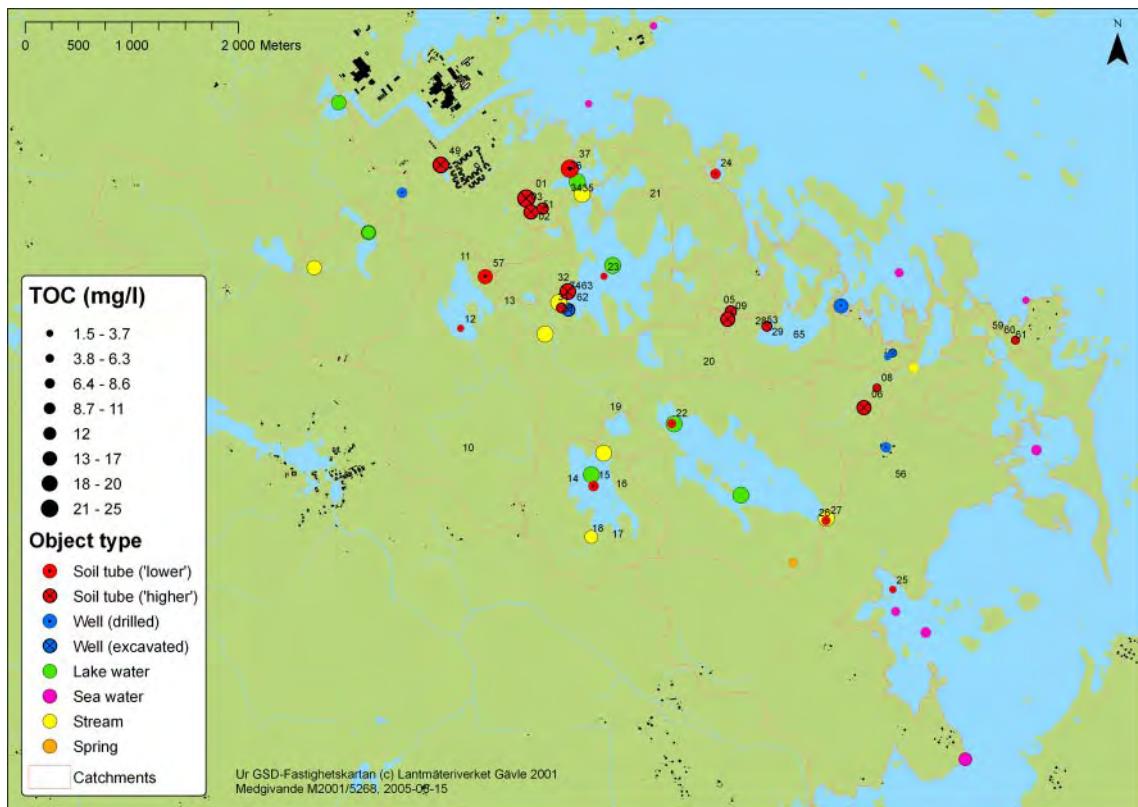


Figure 5-35. Concentrations of total organic carbon in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

Typical TOC concentrations in shallow groundwater in the Forsmark area are 13 mg/l at 'higher' levels and 5 mg/l at 'lower' levels. DOC constitutes a major part of TOC in both cases.

The concentrations of ***total nitrogen*** range from about 0.3 to 9 mg/l in shallow ground-water. The highest concentrations are found in soil tubes at ‘lower’ levels, for example SFM0015, located in Lake Eckarfjärden. Soil tubes at ‘higher’ levels usually show lower concentrations. In streaming waters of the Forsmark area, median total nitrogen concentrations are 1 mg/l (Figures 5-36 and 5-37).

Total phosphorus display higher variability compared to total nitrogen by occurring at concentrations ranging from 0.003 to 0.8 mg/l. The spatial pattern for ***total phosphorus*** also differs from the pattern of nitrogen as well as the difference between ‘higher’ and ‘lower’ located soil tubes that are less accentuated for total phosphorus compared to total nitrogen. The soil tube in Lake Eckarfjärden (SFM0015) marks out, similar to nitrogen, by showing markedly elevated concentrations. The soil tube SFM0003 at drill site one shows very high variability in the particulate fraction, between different measurements, probably indicating disturbances of some kind (Figures 5-36 and 5-37).

Typical concentrations in shallow groundwater in the Forsmark area are 1 mg/l for total nitrogen and 0.02 mg/l for total phosphorus.

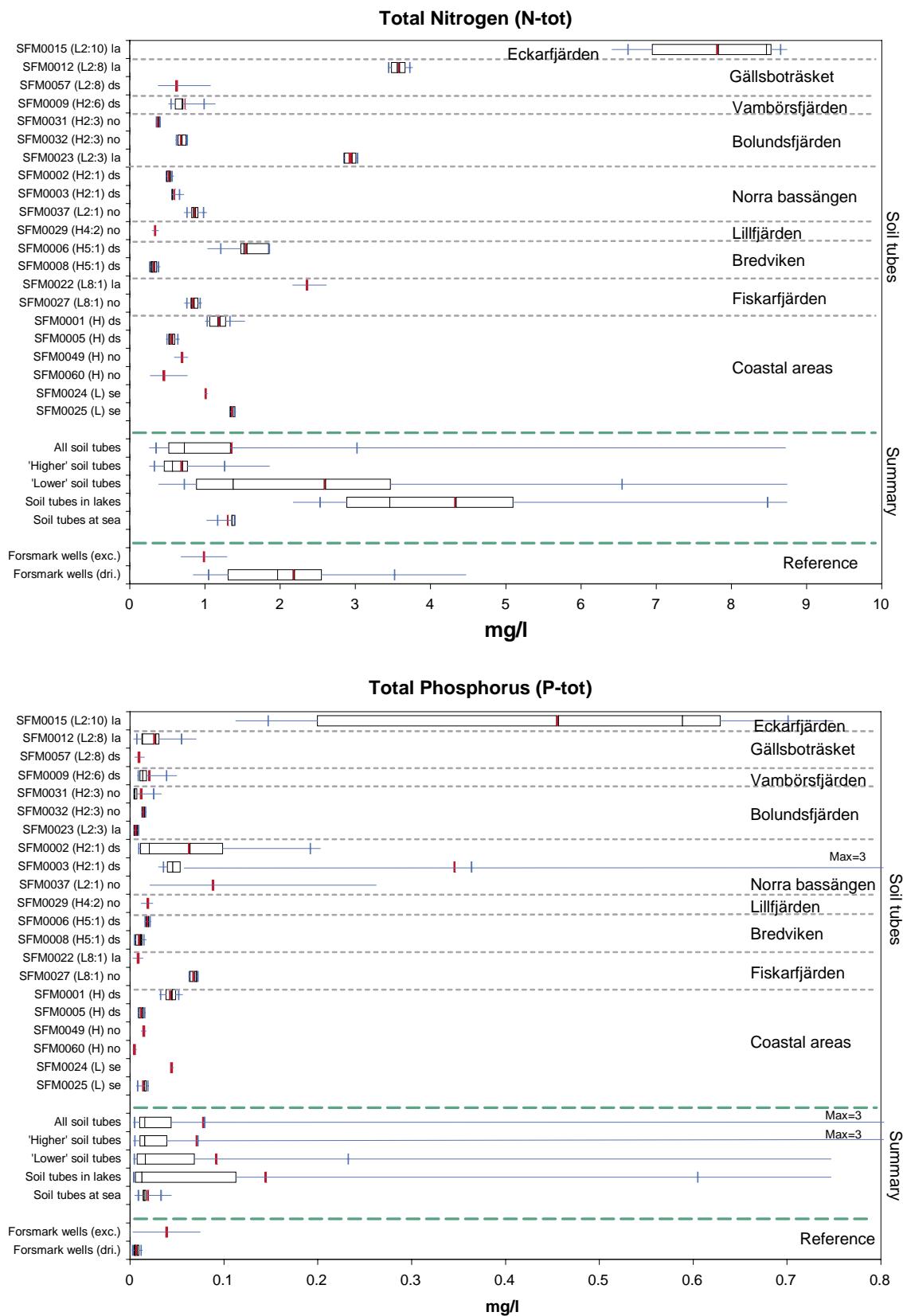


Figure 5-36. Concentrations of total nitrogen (upper) and total phosphorus (lower) in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

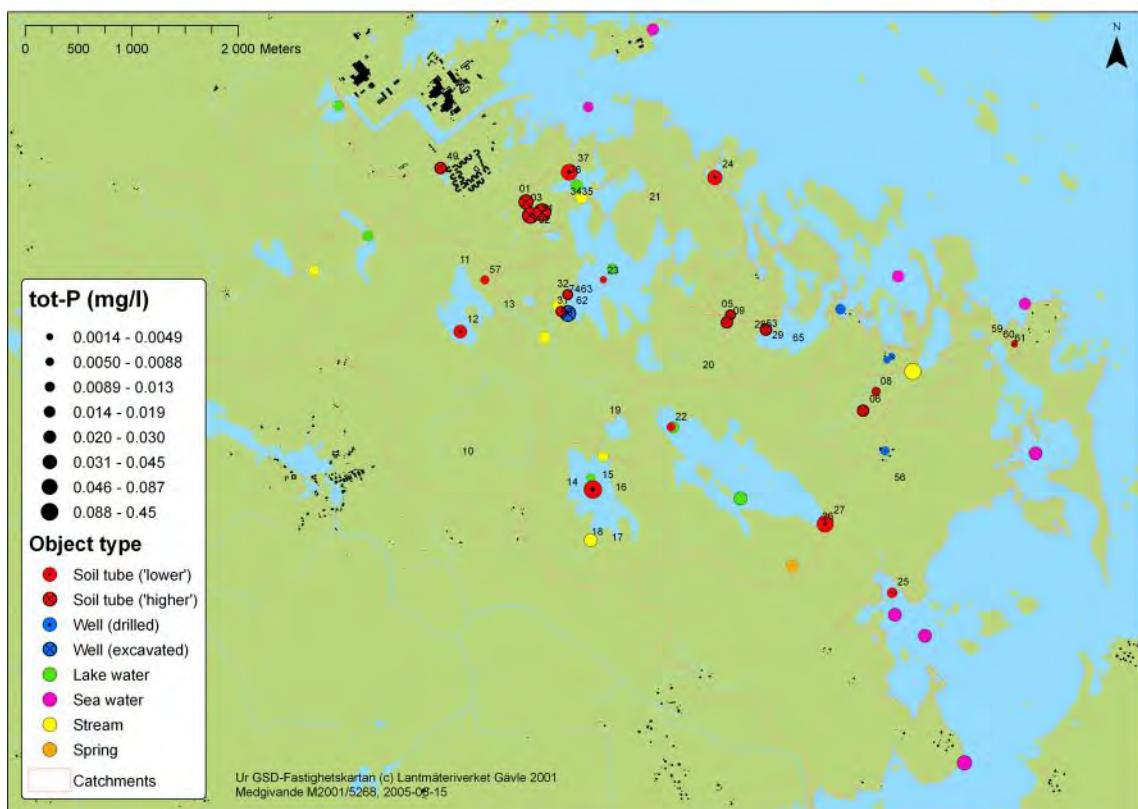
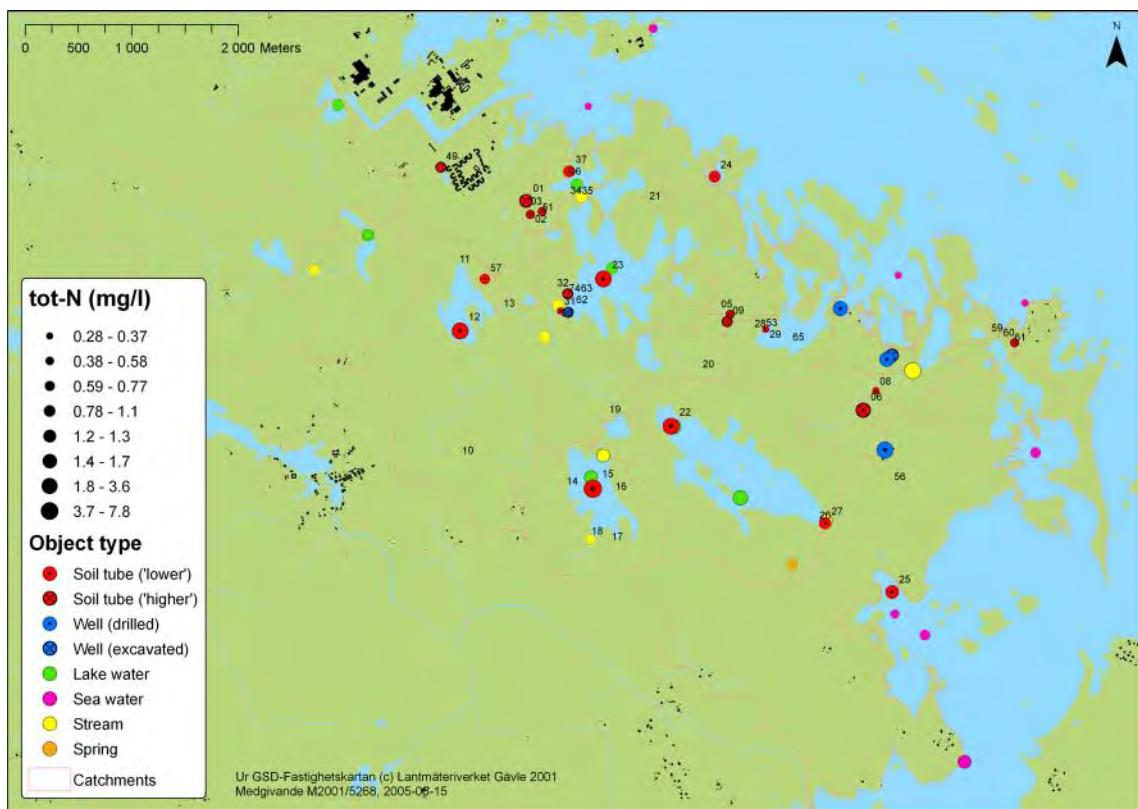


Figure 5-37. Concentrations of total nitrogen (upper) and total phosphorus (lower) in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.4.1 Summary – carbon, nitrogen and phosphorus

Typical concentrations of carbon, nitrogen and phosphorus are summarised in Table 5-5. The values of the particulate species are based on a limited amount of data.

Table 5-5. Typical concentrations of carbon, nitrogen and phosphorus (mg/l) in shallow groundwater from topographically higher and lower situated soil tubes in the Forsmark area.

Element	Abbreviation	'Higher' located soil tubes	'Lower' located soil tubes
Total organic carbon	TOC	13	5
Dissolved organic carbon	DOC	13	5
Particulate organic carbon	POC	0.5	–
Dissolved inorganic carbon	DIC	60	60
Total nitrogen	Tot-N	1	1
Nitrate nitrogen	NO ₃ -N	0.002	0.002
Ammonium nitrogen	NH ₄ -N	0.1	1
Particulate organic nitrogen	PON	0.03	–
Total phosphorus	Tot-P	0.02	0.02
Phosphate phosphorus	PO ₄ -P	0.005	0.005

5.5 Iron, manganese and redox potential

In this section some parameters important for the determination of the redox state is summarised. No calculations based on redox pairs are performed, but a simplified classification based on iron, manganese and sulphate content is presented.

5.5.1 Redox potential – overview

In Table 5-6 a selection of parameters important for evaluating the redox potential are summarised. The coarse classification of redox potential, shown in the rightmost column, is based on the total contents of iron, manganese and sulphate. The higher redox class (1–4), the lower is the redox potential. The classification scheme used is found in the Swedish Environmental Quality Criteria for groundwater /Naturvårdsverket 1999b/.

In soil tubes classed as low redox potential (note – high EQC redox class), hydrogen sulphide concentrations are usually elevated and the fraction of Fe²⁺ of total iron is usually substantial. On the contrary, soil tubes classed as high redox potential (i.e. class 1 and 2) usually show a fraction of Fe²⁺ lower than 50% of total iron.

The overall picture is that the redox classification according to the EQC gives a preliminary indication of the redox potential in the soil tubes. These findings also agree with the results of in situ sonde measurements described in /Nilsson 2005/.

Table 5-6. Median values of mg/l in the soil tubes in the Forsmark area. Redox potential class according to the Swedish EQC of groundwater. Class 1 = high redox potential. Class 4 = very low redox potential.

Idcode	Catchment		Iron tot-Fe	Iron Fe^{2+}	Manganese tot-Mn	Sulphate SO_4	Hydrogen sulphide as S^{2-}	Oxygen	Sw EQC Redox class	
SFM0001	Coastal area	H	1.7	1.5	0.19	160	0.054	0.05	3	
SFM0002	Norra bassängen	2:1	H	1.8	1.9	0.17	20	< 0.03	0.73	3
SFM0003	Norra bassängen	2:1	H	1.5	1.7	0.18	57	< 0.03	0.37	3
SFM0005	Coastal area		H	0.058	0.031	0.078	15	< 0.03	3.1	2
SFM0006	Bredviken	5:1	H	< 0.02	0.0040	0.065	81	0.0060	7.5	2
SFM0008	Bredviken	5:1	H	0.43	0.42	0.13	79	< 0.03	0.3	3
SFM0009	Vambörsfjärden	2:6	H	0.039	0.017	0.033	21	0.028		1
SFM0012	Gällsboträsket	2:8	L	7.1		0.44	220	0.13	0.3	3
SFM0015	Eckarfjärden	2:10	L	5.7		0.49	0.49	0.091	0.9	4
SFM0021	Bolundsfjärden	2:3	H	0.055		0.0062				
SFM0022	Fiskarfjärden	8:1	L	6.8		0.52	110			2
SFM0023	Bolundsfjärden	2:3	L	25		0.89	350			3
SFM0025	Coastal area		L	6.5		1.0	240			3
SFM0027	Fiskarfjärden	8:1	L	0.079	0.10	0.074	48	0.0090		2
SFM0029	Lillfjärden	4:2	H	1.9	1.8	0.20	51	0.012		3
SFM0031	Bolundsfjärden	2:3	H	0.28	0.33	0.23	120	0.024		3
SFM0032	Bolundsfjärden	2:3	H	2.1	2.3	0.21	39	0.047		3
SFM0037	Norra bassängen	2:1	L	2.3	2.2	0.26	120	0.17		3
SFM0049	Coastal area		H	1.3	1.4	0.14	2.5	0.44		4
SFM0051	Norra bassängen	2:1	H	6.6	3.6	0.25	17			3
SFM0053	Lillfjärden	4:2	H	3.1	3.6	0.15	43			3
SFM0056	Coastal area		L	0.35		0.069	250			3
SFM0057	Gällsboträsket	2:8	L	0.15	0.12	0.085	25	0.0060		3
SFM0060	Coastal area		H	0.020	0.0050	0.020	70	0.018		1
SFM0062	Bolundsfjärden	2:3	L	4.4		0.086	39			3
SFM0063	Bolundsfjärden	2:3	L	5.2		0.45	40			2
SFM0065	Lillfjärden	4:2	L	< 0.02		0.63	87			2
SFM0074	Bolundsfjärden	2:3	H	1.2		0.13	45			3
All soil tubes				1.3	1.5	0.17	50	< 0.03		

5.5.2 Iron and manganese

With the exception of SFM0065 in Lake Lillfjärden, soil tubes located in till below lake sediments show high **iron** concentrations, e.g. SFM0023 in Lake Bolundsfjärden (Figure 5-38). The elevated iron as well as manganese concentration in these soil tubes is probably caused by contamination from the steel pipes used at these sites. These data, that later were excluded from the SICADA database, are however included in this compilation to give a complete transcription of the database in May 2005.

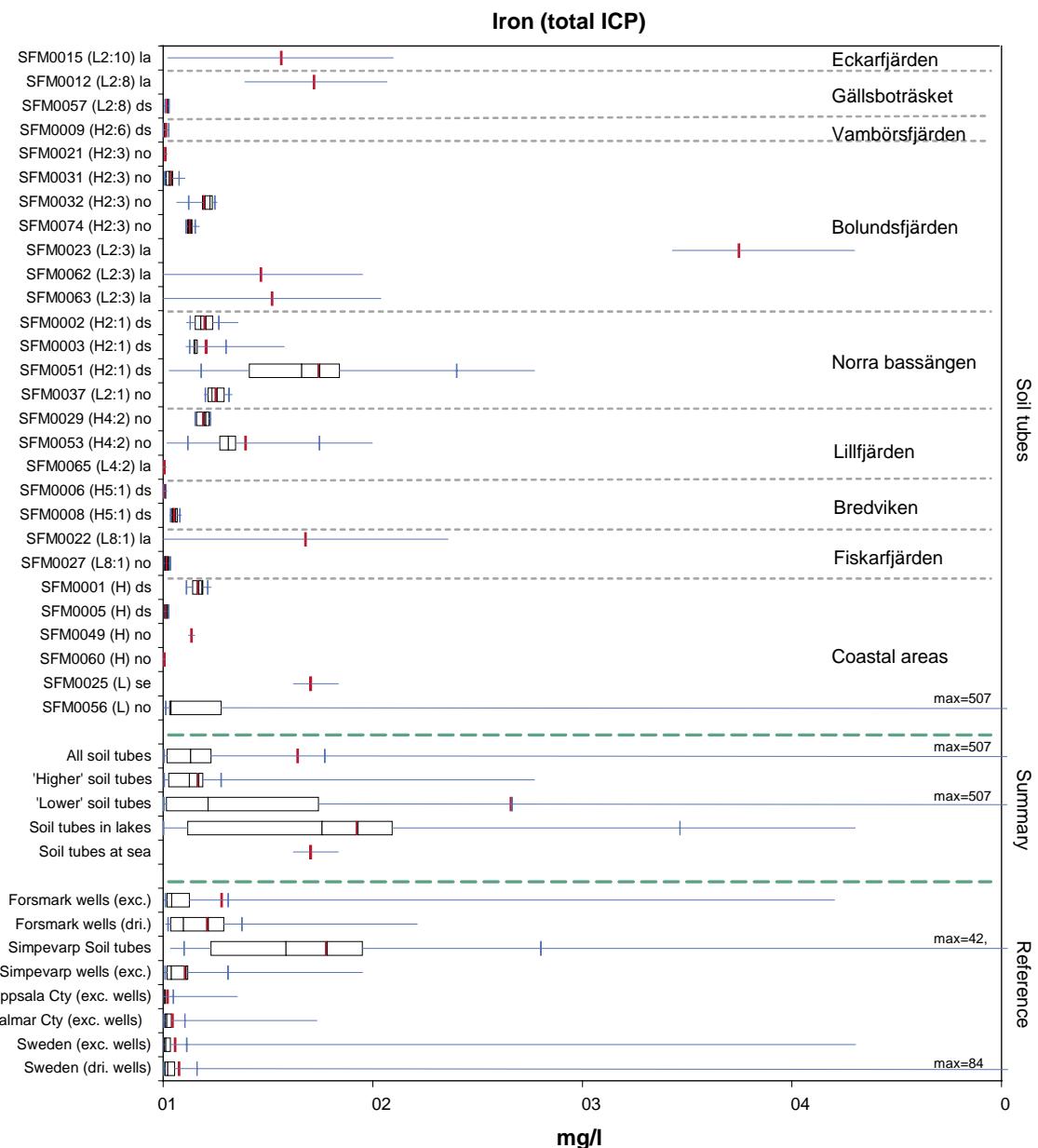


Figure 5-38. Concentration of total (ICP) iron in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

The iron concentrations are generally higher in shallow groundwaters compared to both stream, lake and sea water. The iron concentration in precipitation is about 0.01 mg/l in the Forsmark area. In streams and lakes median concentrations about 0.1 mg/l are usually measured, compared to 0.2 mg/l in the rest of Sweden. The median concentrations measured in sea water are 0.03 mg/l (Figure 5-39).

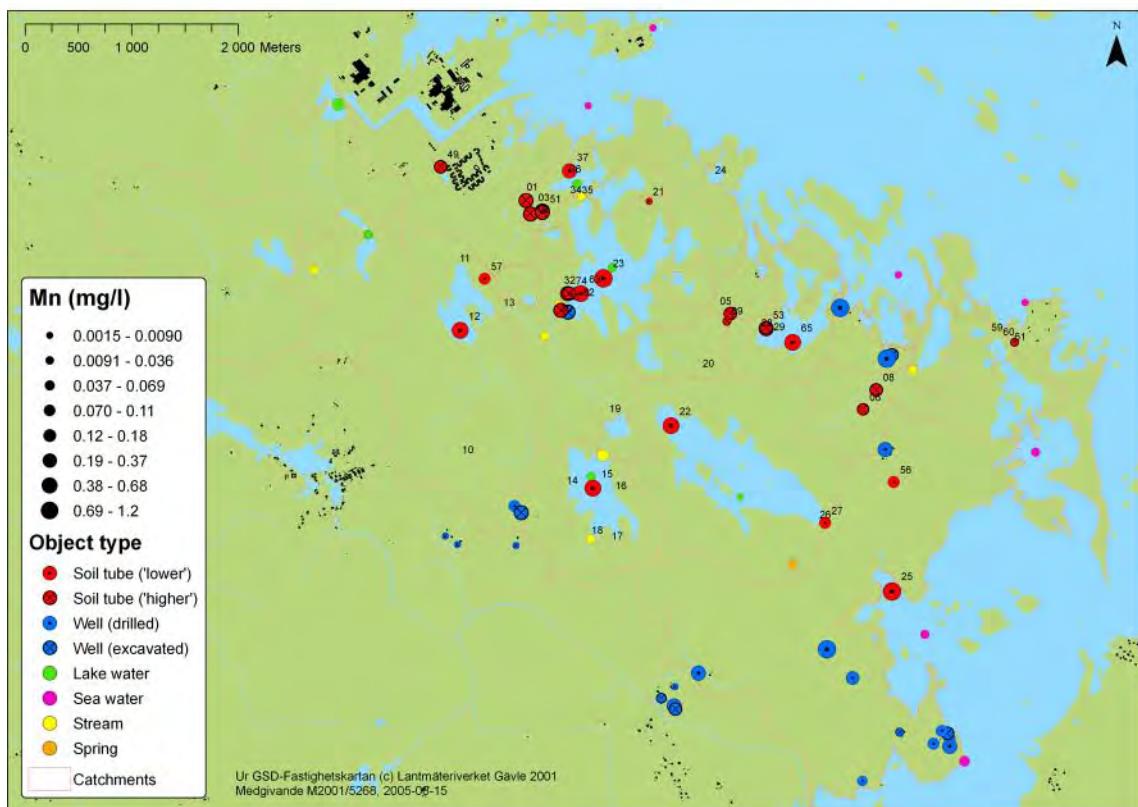
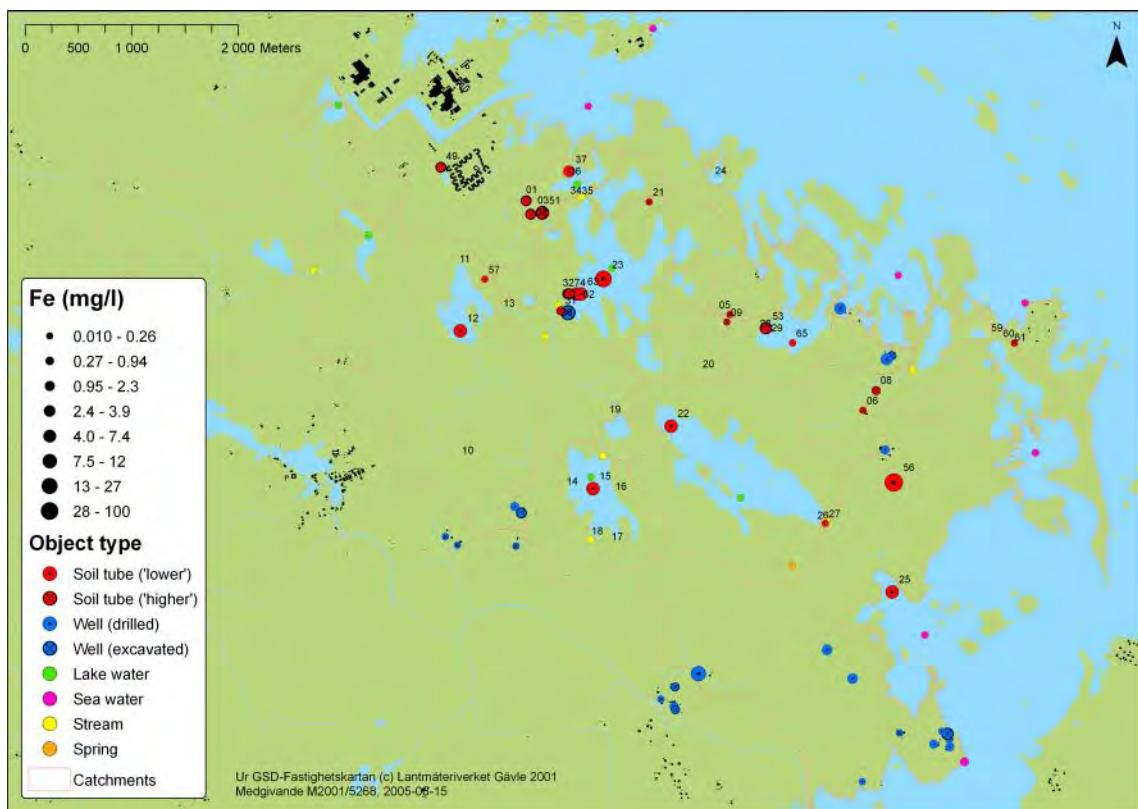


Figure 5-39. Concentrations of total iron (upper) and manganese (lower) in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The spatial pattern of **manganese** is similar to iron. One of the most notable differences between iron and manganese are found for a single observation in SFM0065, where the iron concentration is low and manganese is high, probably due to precipitation of iron after mounting of the soil tube (Figure 5-40).

When compared to wells in Sweden, both iron and manganese concentrations of the wells in Forsmark are clearly higher, indicating generally elevated levels in the shallow groundwaters of the area. The median value of non-disturbed shallow groundwater in Sweden is 0.005 mg/l /Naturvårdsverket 1995/ compared to 0.2 mg/l in the Forsmark area. In streams, lakes and sea water median concentrations are around 0.01 mg/l.

Typical concentration in shallow groundwater in the Forsmark area is 1 mg/l for iron and 0.2 mg/l for manganese. In soil tubes located in the lakes are both iron and manganese concentrations elevated probably due to contamination from the steel pipes used.

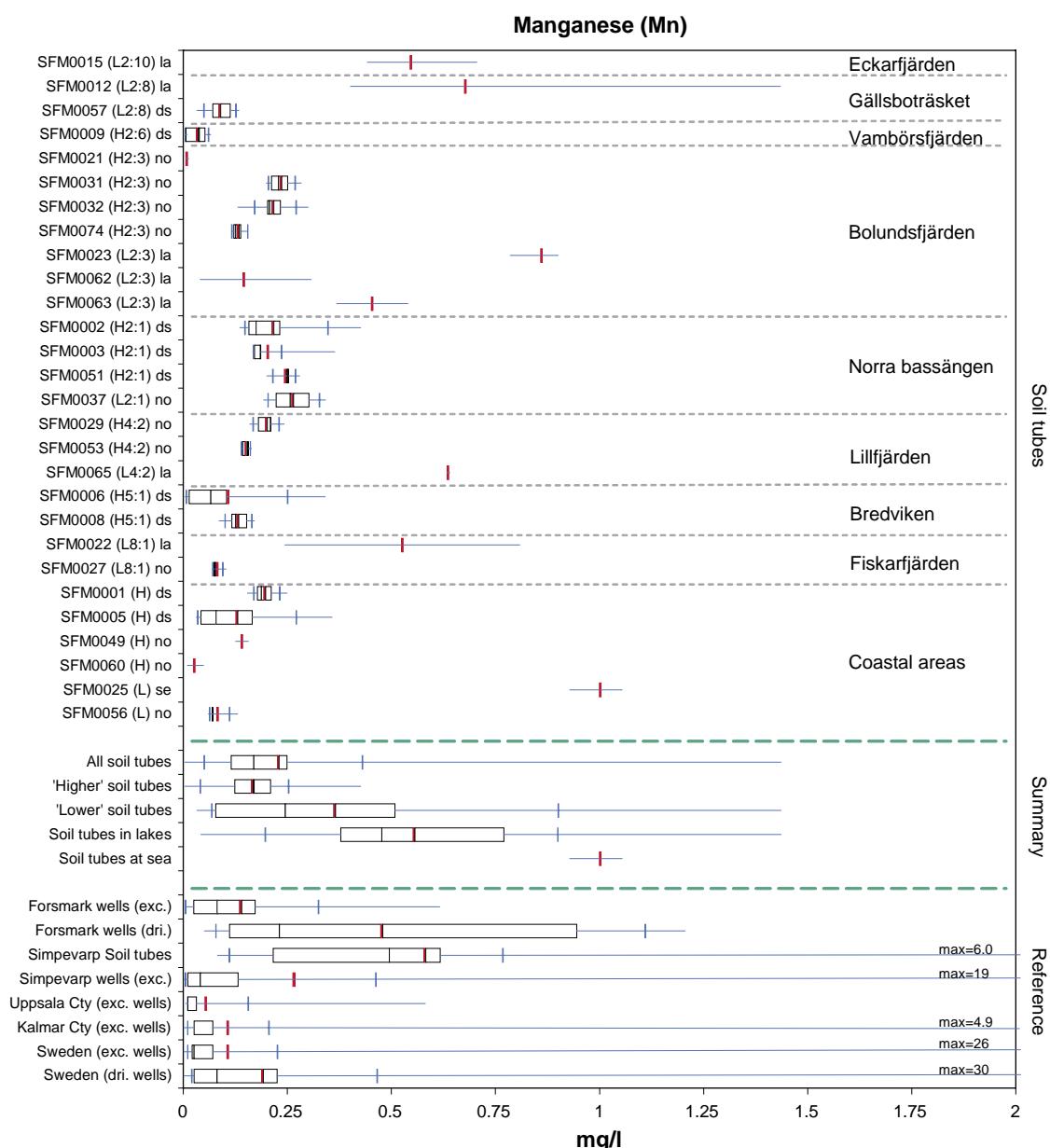


Figure 5-40. Concentration of total (ICP) manganese in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

5.6 Alkalinity and pH

The Forsmark area is characterised by neutral or slightly basic pH values in the shallow groundwaters. All measurements of alkalinity is classed as ‘very high’ according to the Swedish Environmental Quality Criteria /Naturvårdsverket 1999b/. Alkalinity measured as bicarbonate content is also accounted for under Section 4.3.2 dealing with the major constituents.

The pH-level and alkalinity in the private wells of the Forsmark area are both elevated compared to wells of Uppsala County and the rest of Sweden. The median value for wells in Forsmark area correspond to the 90-percentile of Swedish wells (Figure 5-41).

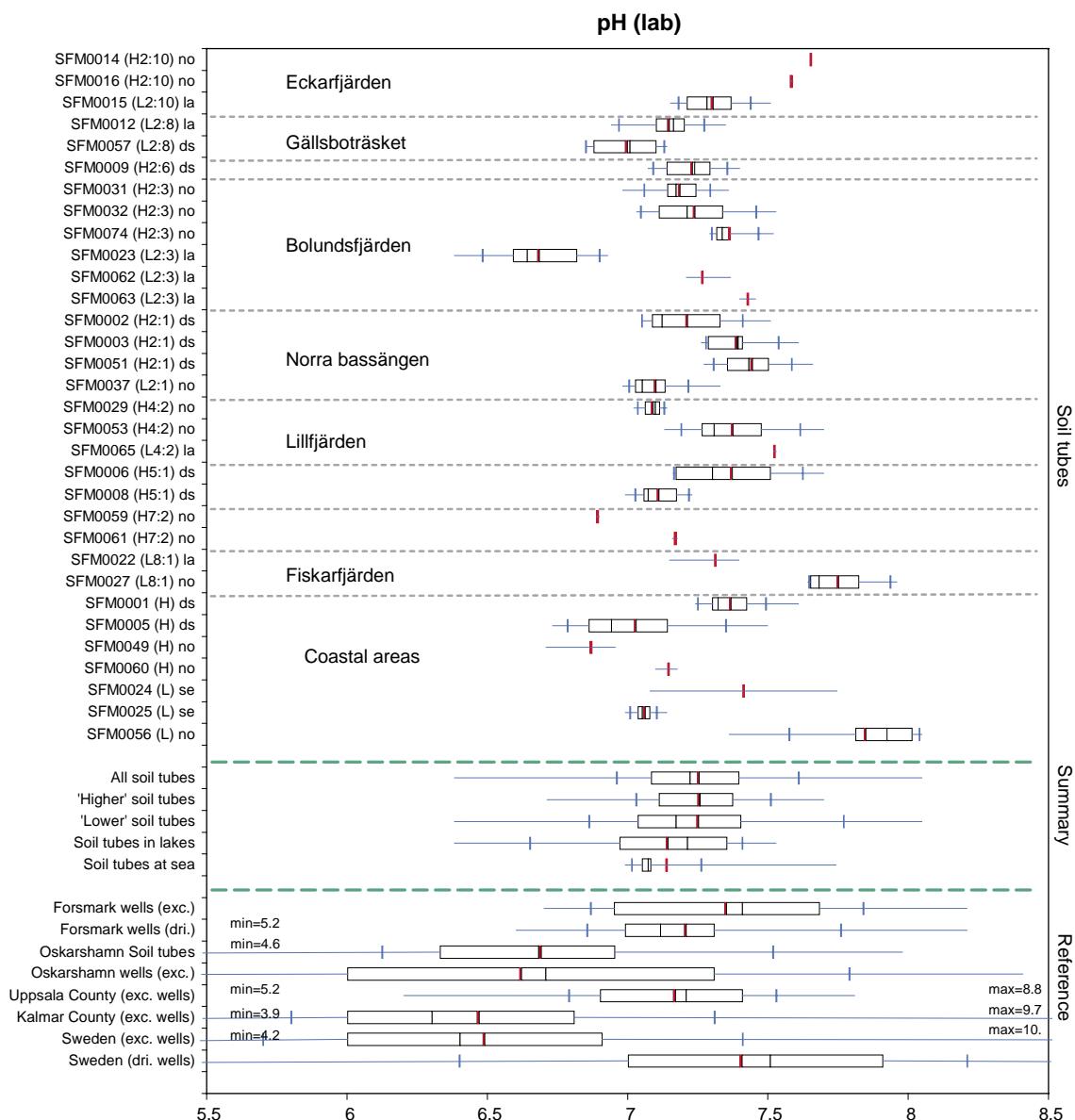


Figure 5-41. pH in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

The pH is generally lower in shallow groundwaters compared to both stream, lake and sea water. The pH in precipitation is about 5.0 in the Forsmark area. In streams median pH values around 7.5 are usually measured, compared to 6.6 in the rest of Sweden. The median pH measured in sea water are 7.9 (Figure 5-42).

There are no obvious differences when soil tubes at ‘higher’ and ‘lower’ levels are compared. The lowest pH is found for the soil tube SFM0023 in Lake Bolundsfjärden and the highest are found for SFM0027 and SFM0056, both located in the eastern part of the area.

In the catchment of Bredviken the soil tubes (SFM0006 and SFM0008) shows slightly lowered pH-values compared to most other tubes at 'higher' levels. Also one of the soil tubes located at the esker Börstilsåsen, shows a low pH value.

A typical pH value in shallow groundwater in the Forsmark area is 7.2. A typical value of alkalinity is 350 mg HCO₃/l (5.7 mekv/l).

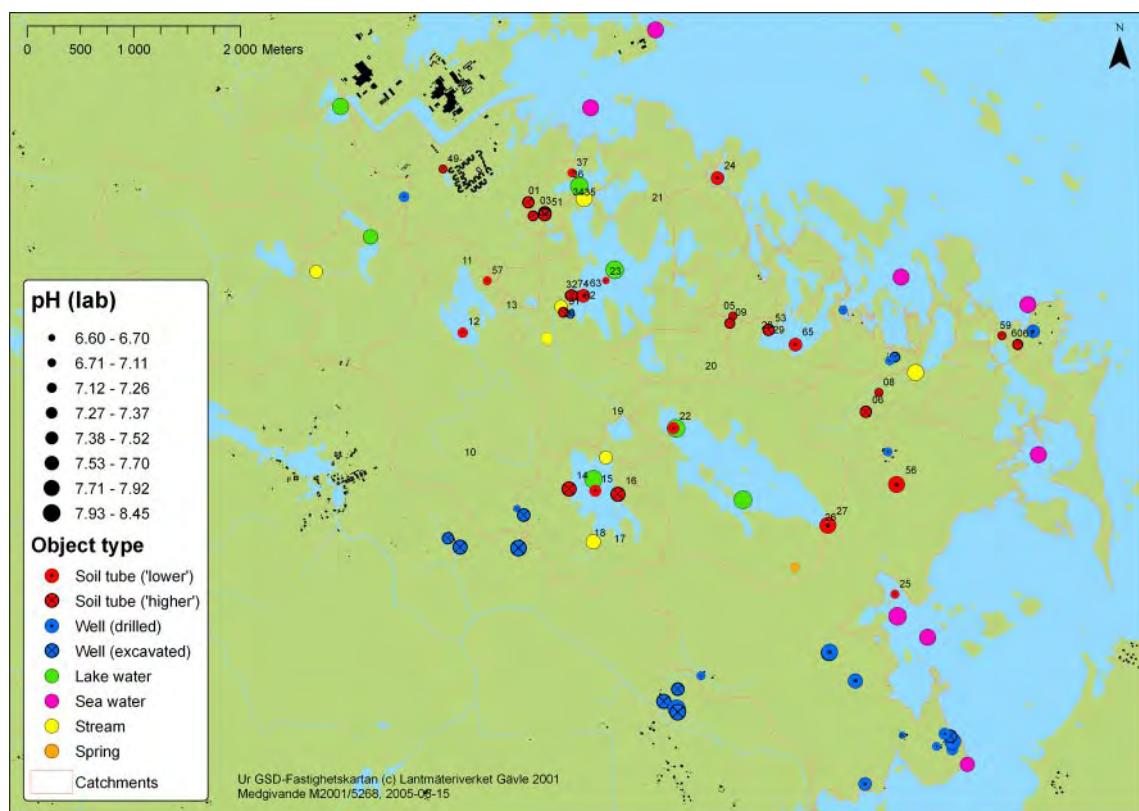


Figure 5-42. pH values in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.7 Trace elements

In this section the abundance of 36 trace elements in shallow groundwater are compiled. Comparisons are made to other regions as well as surface waters and precipitation. A few selected elements are described in more detail by box plots showing statistical distributions and in maps showing spatial patterns.

For some of the trace elements a significant portion of the observations falls below the reporting limit of the analysis method. This is particularly the case for cesium, mercury, scandium, terbium, thorium and thallium, making the conclusions more uncertain for these elements.

5.7.1 Overview of trace elements

In Table 5-7 median values in Forsmark soil tubes are compared to concentrations observed in lakes, streams, sea water and precipitation. Iodine, lithium, strontium and barium are also described in a previous section besides major constituents, iron and manganese. In Appendix 2 detailed statistics per element are presented for individual soil tubes as well as different categories.

The concentrations differ among the trace elements by several orders of magnitude. The highest concentrations are found for aluminium, uranium, rubidium, lanthanum and ytterbium. The lowest are found for mercury, hafnium, cadmium and some of the lanthanides, such as lutetium.

When comparing the concentrations of trace elements observed in the soil tubes of Forsmark to other Swedish groundwaters the following preliminary conclusions could be drawn:

- The concentrations of the ‘rare earth elements’ (REE), e.g. lanthanum, ytterbium and lutetium, are only a tenth of the concentrations measured in soil tubes in the Simpevarp area. The concentrations of the lakes in the Forsmark area are, however, comparable to the levels measured in most Swedish lakes.
- When comparing the median values of all observations of the REE there is a tendency that these elements occur at higher concentrations in ‘higher’ located soil tubes compared to ‘lower’ located soil tubes. There is however a few soil tubes that do not fit this pattern, as seen for lanthanum in Figure 5-44. It should be noted that the classification in ‘higher’ and ‘lower’ located soil tubes is rather arbitrary.
- Rubidium and molybdenum show an opposite pattern to the REE with generally higher concentrations in ‘lower’ located soil tubes compared to ‘higher’. For other elements, e.g. chromium, cobalt and vanadium, the differences are small.
- There are tendencies that the arsenic concentration is slightly elevated in the shallow groundwaters in the Forsmark area. When the concentrations of lakes and streams are compared to rest of Sweden, there is no obvious elevation of the arsenic levels.
- The uranium content in shallow groundwater shows rather normal values compared to other Swedish groundwaters. The concentrations in the lakes are on the other hand highly elevated compared to most lakes in Sweden. The latter is also seen for molybdenum.

Table 5-7. Median values of trace-elements ($\mu\text{g/l}$) in Forsmark soil tubes. Reference data from surface waters in Forsmark, soil tubes in the Simpevarp area and various Swedish surveys of groundwater, lakes, rivers, sea and precipitation, are also given. Values below the reporting limit are marked by a '<-sign and the highest reporting limit included in each calculation are shown in the statistics.

Element		All soil tubes	'Higher'	'Lower'	Simpevarp soil tubes	Swedish ground-waters ^a	Forsmark lakes	Swedish lakes ^b	Forsmark streams	Swedish rivers ^c	Precipi-tation ^d	Forsmark sea
Aluminium	Al	23	21	23		57	15	45	13	–	0.06	< 0.2
Antimony	Sb	< 0.1	< 0.1	< 0.1			0.08	0.04	0.08	0.63	0.13	< 100
Arsenic	As	1.1	1.1	0.80	0.62	< 0.3	0.40	0.29	0.36	0.10	0.029	< 0.05
Barium	Ba	63	63	50	63		20	7	23	0.8	18	
Cadmium	Cd	< 0.02	< 0.02	< 0.02	0.05	0.025	0.003	0.018	0.004	0.01	0.024	< 0.05
Cerium	Ce	1.3	1.4	0.14	29		0.08	0.09	0.10	0.029	< 0.05	
Cesium	Cs	< 0.3	< 0.3	< 0.3	0.57		< 0.03	0.01	< 0.03	0.007	< 0.3	
Chromium	Cr	0.20	0.20	0.19			0.13	0.18	0.14	0.85	0.24	0.14
Cobalt	Co	0.22	0.22	0.19			0.08	0.05	0.08	0.54	0.017	< 0.05
Copper	Cu	< 1	< 1	< 1		0.84	0.6	0.5	0.7	0.9	0.80	< 1
Dysprosium	Dy	0.17	0.19	< 0.05	1.6		0.015	0.004	0.020	0.002	< 0.05	
Erbium	Er	0.100	0.11	< 0.05	0.85		0.013	0.002	0.014	0.0007	< 0.05	
Europium	Eu	< 0.05	< 0.05	< 0.05	0.43		< 0.005	0.001	< 0.005	0.0005	< 0.05	
Gadolinium	Gd	0.27	0.28	< 0.05	2.7		0.014	0.006	0.019	0.002	< 0.05	
Hafnium	Hf	< 0.05	< 0.05	< 0.05	0.05		0.010	< 0.001	0.010	0.001	< 0.05	
Holmium	Ho	< 0.05	< 0.05	< 0.05	0.31		< 0.005	< 0.001	< 0.005	0.0003	< 0.05	
Indium	In	< 0.3	< 0.3	< 0.3			4.1		< 0.05	< 0.001	15	
Lanthanum	La	1.7	1.8	0.087	19		0.06	0.08	0.09	0.017	< 0.05	
Lead	Pb	< 0.1	< 0.1	< 0.1		< 0.5	0.09	0.28	0.07	0.24	1.4	< 0.3
Lithium	Li	9	7	18	14		< 4	0.4	< 4	0.05	23	
Lutetium	Lu	< 0.05	< 0.05	< 0.05	0.12		< 0.005	< 0.001	< 0.005	0.0001	< 0.05	
Mercury	Hg	< 0.002	< 0.002	< 0.002	0.001		< 0.002	0.002	< 0.002	< 0.002	< 0.002	< 0.02
Molybdenum	Mo	1.4	1.4	2.2			0.47	0.05	0.42	0.03	1.5	
Neodymium	Nd	1.4	1.5	0.093	17		0.08	0.05	0.08	0.012	< 0.05	
Nickel	Ni	0.91	1.00	0.82			0.41	0.39	0.48	2.3	0.29	0.94
Praseodymium	Pr	0.36	0.39	< 0.05	4.5		0.02	0.02	0.02	0.004	< 0.05	
Rubidium	Rb	2.3	2.2	3.2	8.7		2.4	1.1	2.2	0.12	17	
Samarium	Sm	0.24	0.24	< 0.05	2.7		0.016	0.007	0.017	0.002	< 0.05	
Scandium	Sc	< 0.5	< 0.5	< 0.5	0.82		< 0.05	< 0.05		0.003	< 0.8	
Strontium	Sr	250	200	480	130		79	11	82	0.7	1000	
Terbium	Tb	< 0.5	< 0.5	< 0.5	0.34		< 0.05	< 0.001	< 0.05	0.0003	< 0.5	
Thallium	Tl	< 0.3	< 0.3	< 0.3	0.06		< 0.03	0.005	< 0.03	0.006	< 0.3	
Thorium	Th	< 0.2	< 0.2	< 0.2	1.5	0.04	< 0.02	0.014	< 0.02	0.002	< 0.4	
Thulium	Tm	< 0.05	< 0.05	< 0.05	0.11		< 0.005	< 0.001	< 0.005	0.0001	< 0.05	
Uranium	U	5.0	5.3	2.2	5.2	7.2	2.0	0.05	2.0	0.002	0.83	
Vanadium	V	0.58	0.61	0.53	7.8		0.25	0.13	0.28	0.84	0.43	0.23
Ytterbium	Yb	1.7	1.7	0.44	11		0.013	0.003	0.015	0.008	< 0.05	
Zinc	Zn	< 2	< 2	< 2		9.3	1.1	2.2	1.5	10	< 2	
Zirconium	Zr	1.1	1.3	0.98	3.6		0.31	0.03	0.27	0.025	< 10	

a. Uranium and thorium from /SSI 2005/, the remaining from /Naturvårdsverket 1995/.

b. Samples of 781 lakes in southern Sweden for commonly measured elements as heavy metals. 242 randomly sampled Swedish lakes for rarely measured elements /Naturvårdsverket 1999a/. Mercury from /Logan 2002/.

c. 76 watercourses of various sizes in southern Sweden /Naturvårdsverket 1999a/.

d. At Gårdsjön in the south west of Sweden /Eriksson 2001/.

In Figure 5-43 the relative mean concentrations are shown for a selection of elements where most observations exceed reporting limits. All rare earth elements (here Ce, Gd, La, Nd and Yb) show a similar pattern where the highest concentrations are found in soil tubes in recharge areas. There is no reliable information for this group concerning the content in sea water as all observations fall below the reporting limits.

Another group of elements that marks out are the metals chromium, nickel and vanadium, where the concentrations in precipitation (measured at Gårdsjön in western Sweden) are comparable to the concentrations observed both in groundwater and surface water in the Forsmark area. This pattern indicates that deposition may be an important source of these elements.

For rubidium are the highest concentrations found in sea water. Most of the major constituents follow this pattern, e.g. sodium, potassium, magnesium and chloride.

5.7.2 Examples – lanthanum, uranium, rubidium and vandium

The observations of lanthanum in the Forsmark area may be discriminated in three groups according to Figure 5-44. Five soil tubes, all located in till below lake sediments show very low concentrations of lanthanum, whereas most other soil tubes show about 100 times higher concentrations. Two soil tubes located in the vicinity of lakes, SFM0057 and SFM0037 show especially high concentrations of lanthanum.

In some of the soil tubes, **uranium** and **rubidium** show opposite concentration patterns. In SMF0015 and SFM0023 the content of uranium is especially low whereas the rubidium content is especially high (Figures 5-45 and 5-46).

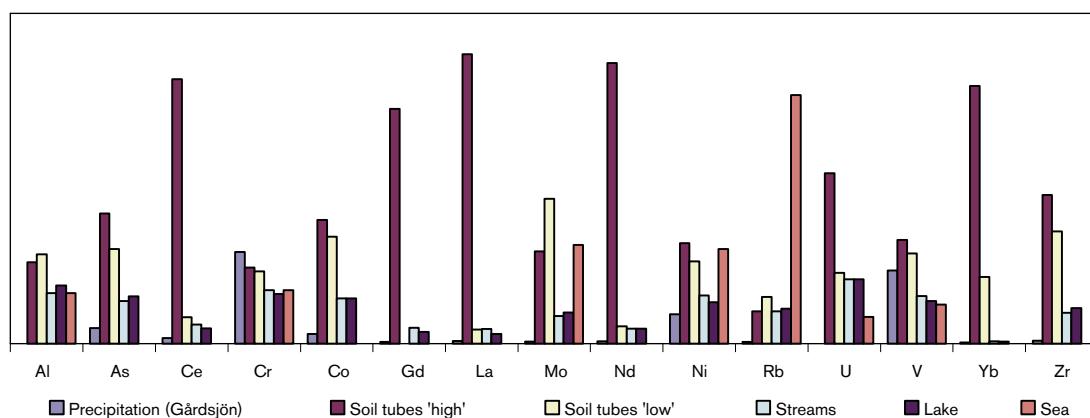


Figure 5-43. Relative mean concentrations in precipitation (measured at Gårdsjön in western Sweden), soil tubes at 'higher' and 'lower' levels, streams, lakes and in sea water in the Forsmark area. The figure is based on all available data from the Forsmark area.

Lanthanum (La)

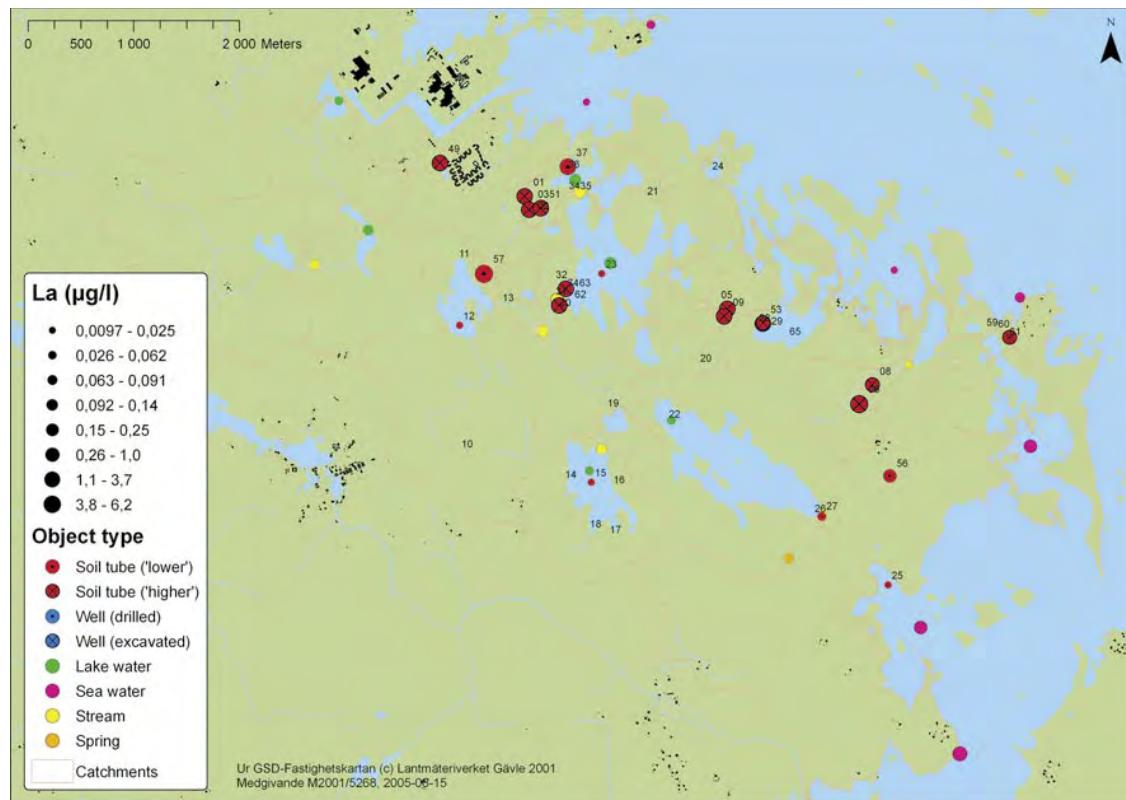
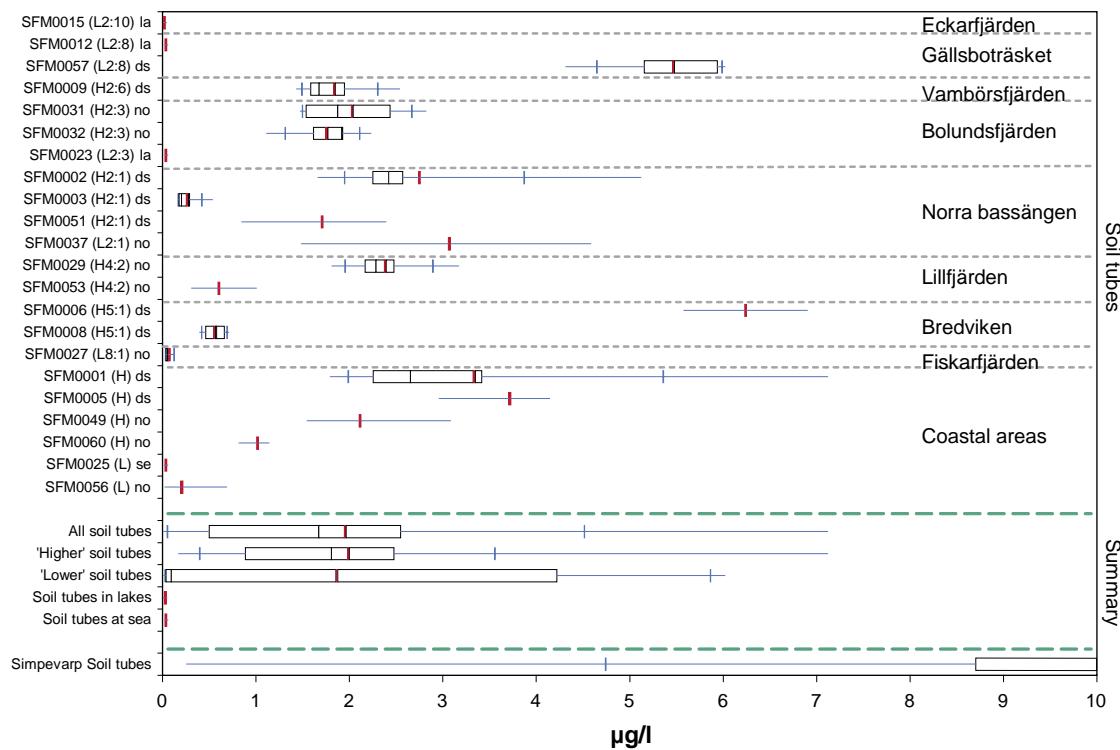


Figure 5-44. Concentrations of lanthanum in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

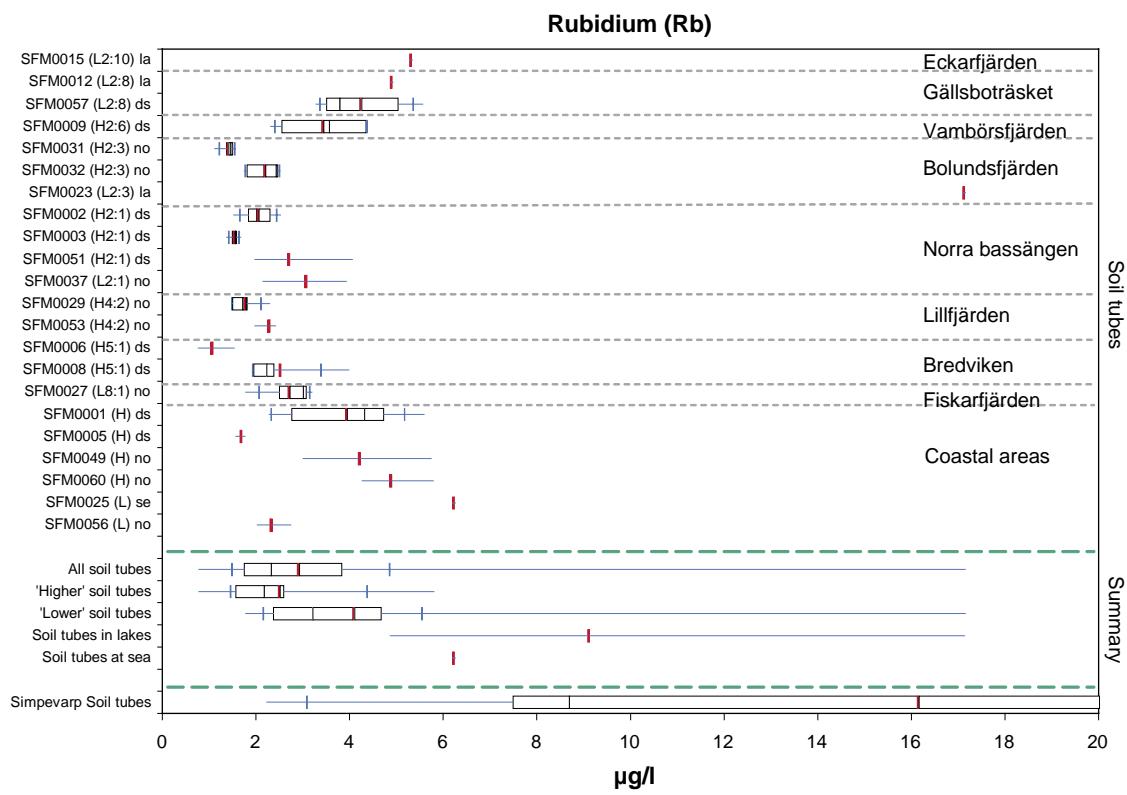
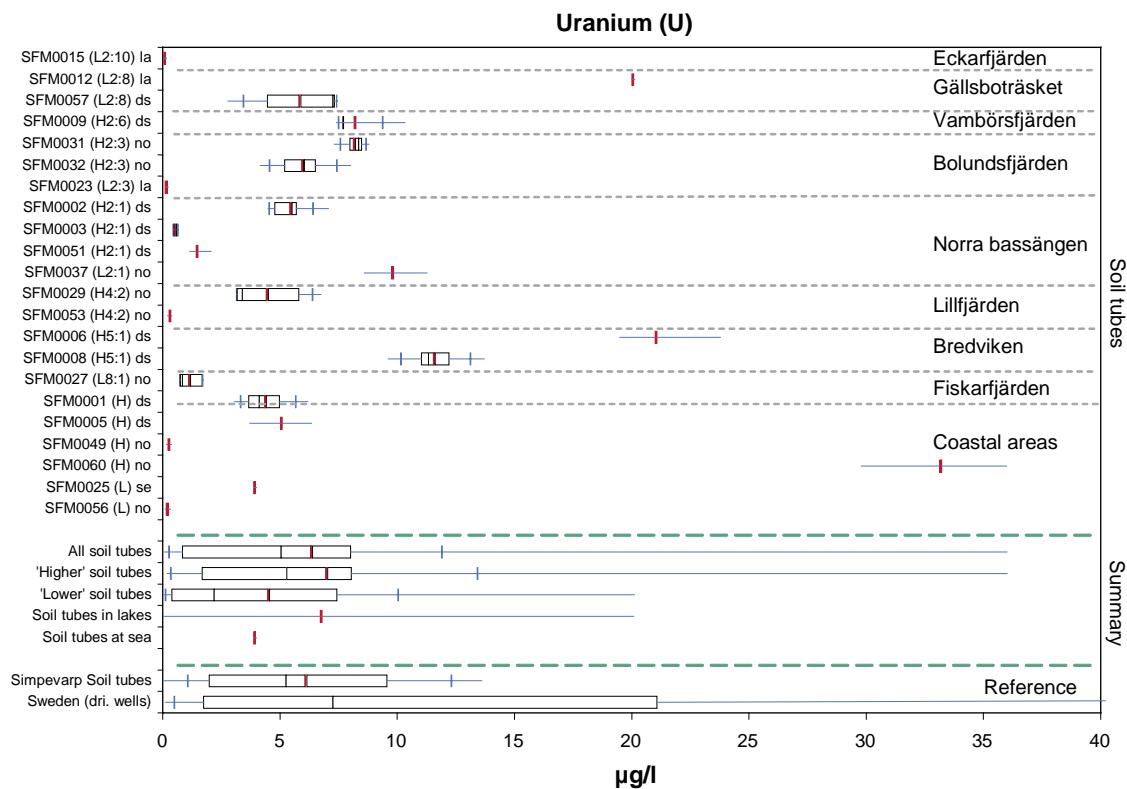


Figure 5-45. Uranium (upper) and rubidium (lower) concentrations in shallow groundwater in Forsmark. Explanations are given in Section 4.3.

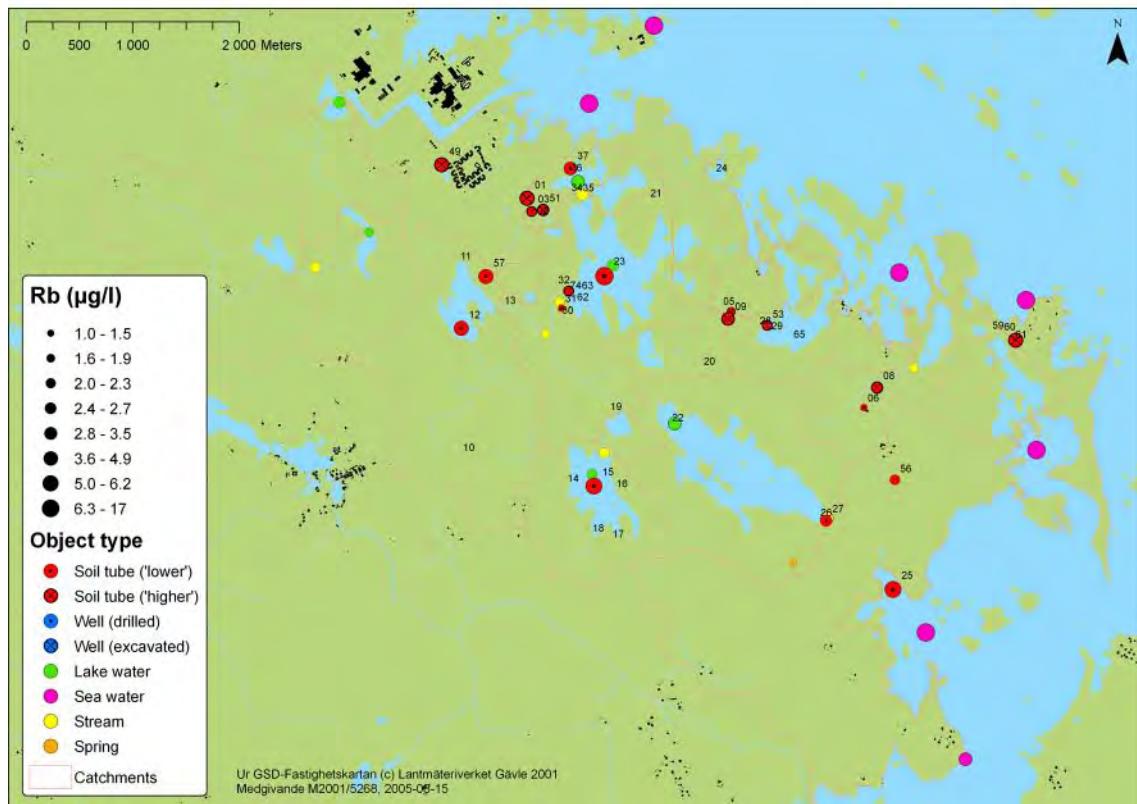
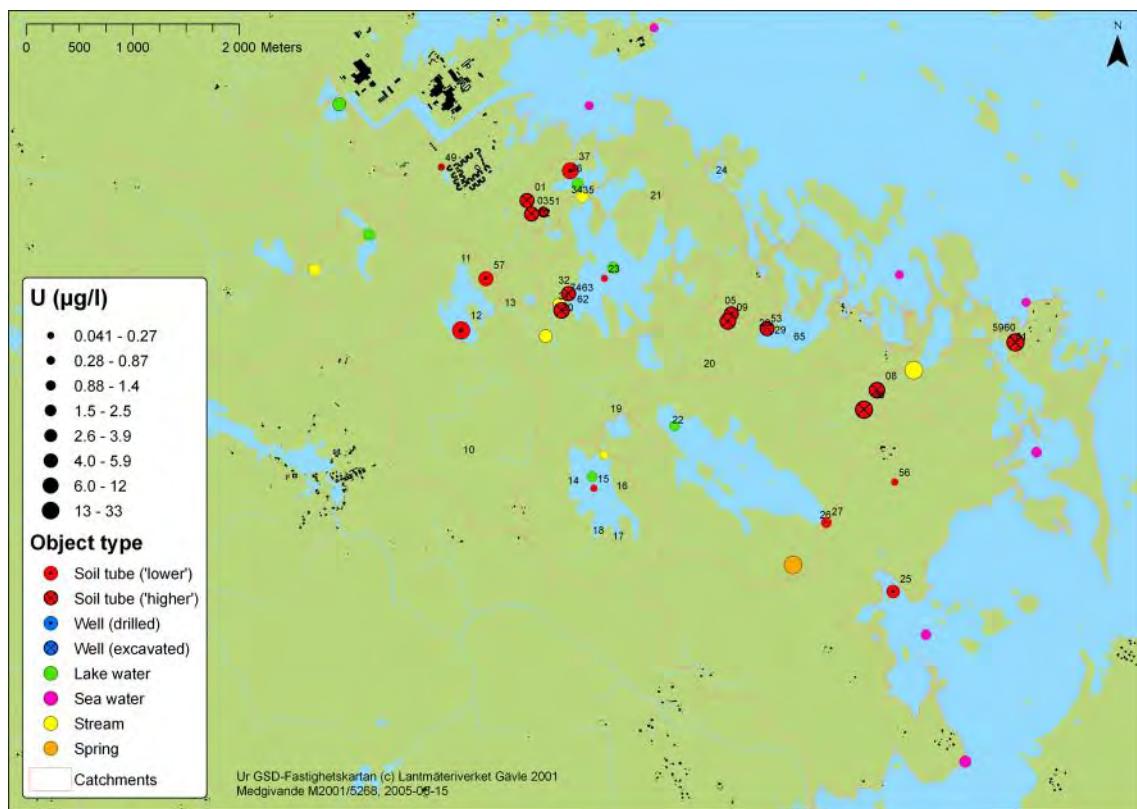


Figure 5-46. Concentrations of uranium (upper) and rubidium (lower) in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

Vanadium is an example of an element that is essential for micro organisms but not higher plants. The mobility of vanadium is dependent on factors as organic matter, potassium, calcium and carbonate. /Eriksson 2001/.

The lowest vanadium concentrations are found in the calcium rich soil tubes located in till below the lake sediments (SFM0012, SFM0023 and SFM0015). The concentrations measured in the surface waters are usually slightly higher.

In some of the soil tubes, especially at ‘higher’ locations, the vanadium concentrations are markedly elevated, approximately 30 times compared to the lowest concentrations observed. The concentrations measured in precipitation are of the same level as the concentrations observed in shallow groundwaters, implicating that deposition could be an important source for vanadium (Figure 5-47).

Zinc is another example of an essential trace element. In most soil tubes and surface waters the zinc concentrations are approximately in the same level (1–2 µg/l). In private wells the levels are significantly elevated due to contamination, as zinc is used in alloys and as protection against corrosion. Two soil tubes (SFM0051 and SFM0056) show slightly elevated zinc levels (Figure 5-48).

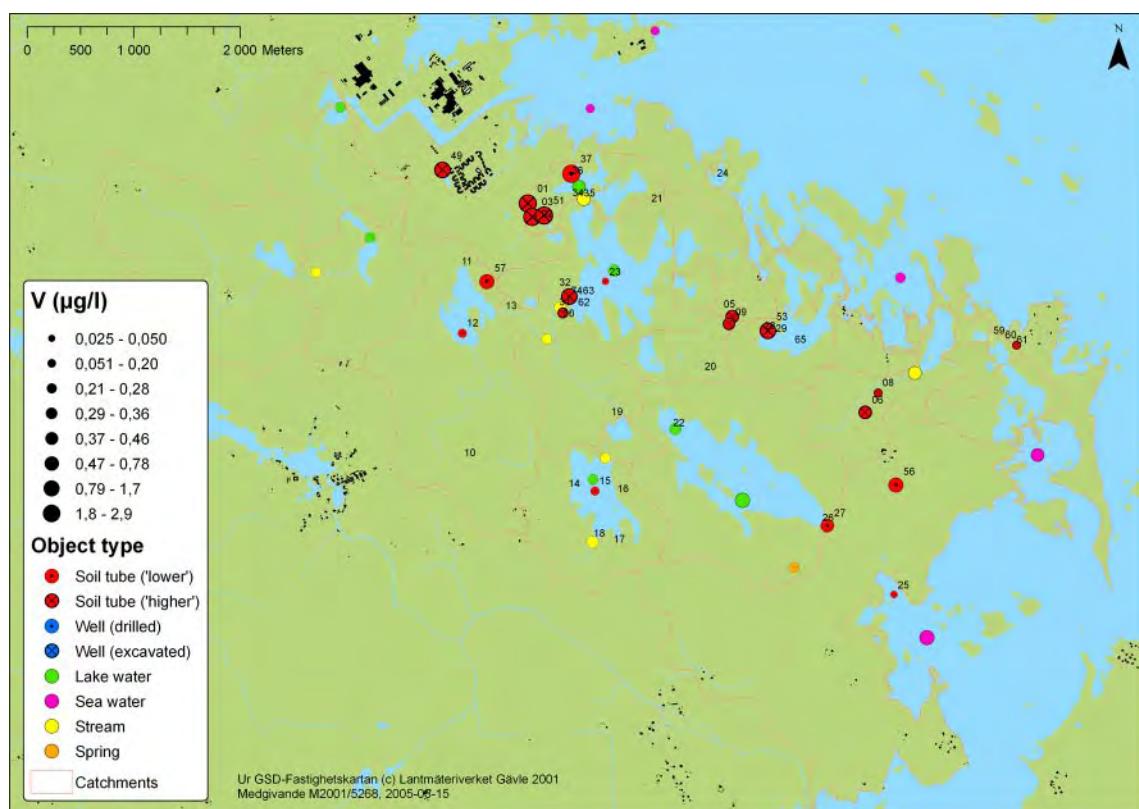


Figure 5-47. Concentrations of vanadium in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

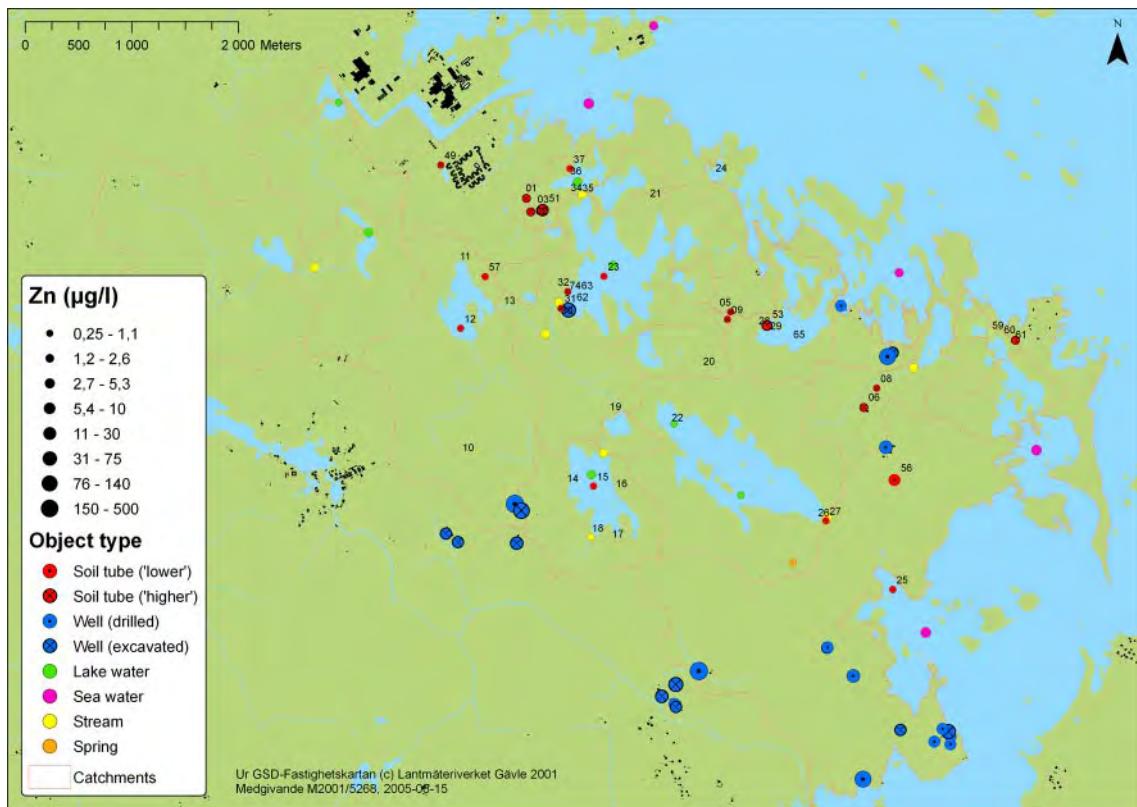


Figure 5-48. Concentrations of zinc in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes. Note that the private wells, marked by blue dots, are highly contaminated by installations in the wells.

5.8 Isotopes

In this section all isotopic information from shallow groundwater is compiled. In the first part the environmental isotopes of hydrogen, oxygen and carbon are presented, followed by the stable isotopes of boron, chlorine, sulphur and strontium. The last part deals with the radioisotopes of uranium, thorium, radium and radon.

5.8.1 Overview – isotopes of hydrogen, oxygen and carbon

In Table 5-8 the median values are shown for isotopes of hydrogen, oxygen and carbon.

The relationships between the isotopes of hydrogen, oxygen and carbon are outlined in the correlation matrix shown in Table 5-9. Deuterium and oxygen-18, which of course are closely correlated, are also correlated to the D/O-18 ratio and carbon-13. Furthermore, tritium is negatively correlated to carbon-13. Carbon-14, expressed as percent modern carbon, is negatively correlated to chloride and calcium.

Table 5-8. Overview of isotope data for hydrogen, oxygen and carbon from soil tubes in the Forsmark area. Median values.

Idcode	Catchment		Tr TU	D ‰SMOC	O-18 ‰SMOC	D/O-18 ratio	C-13 ‰PDB	C-14 pmC	
SFM0001	Coastal area	H	12.2	-82.6	-11.0	7.18	-14.4	90.6	
SFM0002	Norra bassängen	2:1	H	11.6	-87.1	-12.1	7.12	-15.0	86.7
SFM0003	Norra bassängen	2:1	H	14.6	-75.9	-9.75	7.77	-13.1	90.7
SFM0005	Coastal area		H	11.3	-89.4	-12.3	7.06	-14.5	95.0
SFM0006	Bredviken	5:1	H	10.5	-92.0	-12.7	7.17	-15.2	104
SFM0008	Bredviken	5:1	H	10.4	-87.7	-12.3	7.16	-14.6	97.9
SFM0009	Vambörsfjärden	2:6	H	11.7	-86.6	-11.9	7.09	-13.3	93.1
SFM0010	Gällsboträsket	2:8	H	0.40	-86.9	-12.3	7.07		
SFM0011	Gällsboträsket	2:8	L	2.00	-73.5	-9.50	7.74		
SFM0012	Gällsboträsket	2:8	L	1.05	-75.7	-9.60	7.89	-6.53	49.8
SFM0013	Bolundsfjärden	2:3	L	7.00	-81.0	-10.8	7.50		
SFM0014	Eckarfjärden	2:10	H	13.5	-87.5	-12.1	7.23		
SFM0015	Eckarfjärden	2:10	L	4.20	-67.4	-7.60	8.83	7.64	83.3
SFM0016	Eckarfjärden	2:10	H	13.8	-78.5	-10.1	7.77		
SFM0017	Eckarfjärden	2:10	L	7.80	-84.9	-11.5	7.38		
SFM0018	Eckarfjärden	2:10	L	7.10	-86.3	-11.9	7.25		
SFM0019	Bolundsfjärden	2:3	H	12.7	-86.0	-11.9	7.23		
SFM0020	Vambörsfjärden	2:6	H	10.1	-86.0	-11.9	7.23		
SFM0021	Bolundsfjärden	2:3	H	12.0	-86.8	-11.8	7.36		
SFM0022	Fiskarfjärden	8:1	L	1.25	-75.0	-10.0	7.50	-8.40	66.8
SFM0023	Bolundsfjärden	2:3	L	2.70	-69.0	-8.90	7.75	-6.48	44.4
SFM0024	Coastal area		L	12.2	-75.5	-9.80	7.78	-12.4	88.9
SFM0025	Coastal area		L	7.90	-87.5	-11.7	7.45	-11.2	47.7
SFM0026	Fiskarfjärden	8:1	L	15.7	-87.0	-12.0	7.25		
SFM0027	Fiskarfjärden	8:1	L	10.2	-86.5	-11.9	7.27	-14.1	79.8
SFM0028	Lillfjärden	4:2	H	15.5	-86.1	-11.9	7.24		
SFM0029	Lillfjärden	4:2	H	11.8	-85.1	-12.0	7.15	-13.1	93.4
SFM0030	Bolundsfjärden	2:3	H	11.8	-80.8	-10.2	7.93		
SFM0031	Bolundsfjärden	2:3	H	12.3	-72.4	-10.2	7.13	-15.2	95.5
SFM0032	Bolundsfjärden	2:3	H	12.3	-85.1	-11.8	7.23	-13.7	94.7
SFM0034	Norra bassängen	2:1	L	12.9	-81.1	-10.8	7.51		
SFM0036	Norra bassängen	2:1	L	11.5	-80.7	-11.0	7.34		
SFM0037	Norra bassängen	2:1	L	12.8	-77.6	-10.7	6.99	-15.5	103
SFM0049	Coastal area		H	13.1	-75.8	-9.80	7.47	-10.2	114
SFM0051	Norra bassängen	2:1	H	10.4	-86.1	-12.3	7.04	-13.6	87.5
SFM0053	Lillfjärden	4:2	H	10.2	-86.5	-12.1	7.17	-12.5	93.9
SFM0056	Coastal area		L	0.40	-83.7	-11.5	7.16		
SFM0057	Gällsboträsket	2:8	L	9.80	-89.7	-12.5	7.09	-13.0	94.4
SFM0059	Märrbadet	7:2	H	9.00	-82.0	-11.1	7.39		
SFM0060	Coastal area		H	10.0	-88.7	-12.5	7.10	-12.1	88.9
SFM0061	Märrbadet	7:2	H	10.9	-89.2	-12.4	7.22		
SFM0062	Bolundsfjärden	2:3	L	9.90	-83.8	-11.8	7.10		
SFM0063	Bolundsfjärden	2:3	L	9.00	-80.9	-11.3	7.16		
SFM0065	Lillfjärden	4:2	L		-77.4	-11.2	6.91		
SFM0074	Bolundsfjärden	2:3	H	10.6	-82.7	-11.7	7.17		
'Higher' soil tubes			H	11.6	-85.1	-11.9	7.23	-13.9	91.0
'Lower' soil tubes			L	7.80	-80.7	-11.0	7.44	-8.74	81.3
All soil tubes				10.9	-83.7	-11.8	7.25	-13.2	89.8

Table 5-9. Pearson correlation matrix based on isotope data for hydrogen, oxygen and carbon from soil tubes in the Forsmark area. Calcium, bicarbonate, chloride and sulphate are included as reference. Figures in bold are significant ($p < 0.05$, two-tailed test). The correlation analysis is based on individual observations with complete records, thus excluding about half of soil tubes.

	Ca	HCO ₃	Cl	SO ₄	D	O-18	D/O-18	C-14	C-13	Tritium
Ca	1	-0.56	0.87	0.73	0.11	0.04	-0.11	-0.76	0.08	-0.17
HCO ₃	-0.56	1	-0.37	-0.28	0.40	0.48	0.48	0.27	0.44	-0.18
Cl	0.87	-0.37	1	0.82	0.42	0.35	0.09	-0.82	0.31	-0.41
SO ₄	0.73	-0.28	0.82	1	0.32	0.24	-0.04	-0.56	0.00	-0.12
Deuterium	0.11	0.40	0.42	0.32	1	0.90	0.45	-0.28	0.65	-0.36
Oxygen-18	0.04	0.48	0.35	0.24	0.90	1	0.79	-0.32	0.67	-0.27
D/O18 ratio	-0.11	0.48	0.09	-0.04	0.45	0.79	1	-0.24	0.53	-0.08
Carbon-14	-0.76	0.27	-0.82	-0.56	-0.28	-0.32	-0.24	1	-0.34	0.36
Carbon-13	0.08	0.44	0.31	0.00	0.65	0.67	0.53	-0.34	1	-0.61
Tritium	-0.17	-0.18	-0.41	-0.12	-0.36	-0.27	-0.08	0.36	-0.61	1

5.8.2 Deuterium and oxygen-18

Deuterium and oxygen-18 are evaluated both separately and in combination as a ratio. In Figures 5-52 to 5-54 the distributions and spatial variation are shown for each isotope separately and in Figures 5-49 to 5-51 are both isotopes evaluated.

The soil tube in till below the sediments of Lake Eckarfjärden (SFM0015) shows a significantly higher ratio between deuterium and oxygen-18, compared to the rest of the soil tubes (Figure 5-49).

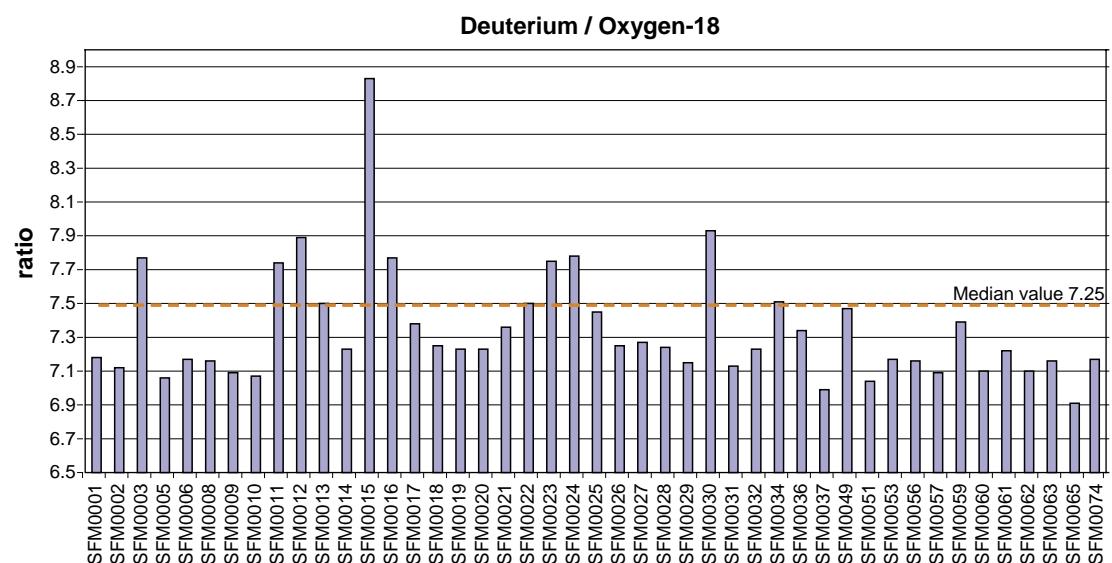


Figure 5-49. The median ratio between deuterium and oxygen-18 in shallow groundwater in the Forsmark area.

Precipitation data and most observations of soil tubes plot on or close to the Global Meteoric Water Line (GMWL), indicating a meteoric origin of the shallow groundwaters. Data from streams and lakes forms an ‘evaporation line’ indicating enrichments of the heavier isotopes due to evaporation in these waters (Figure 5-50). The deuterium and oxygen-18 deviations measured in soil tubes fall within the ranges observed in precipitation at the Forsmark site. The very low deuterium values measured at winter time (around -110 dev SMOW) are not observed in any shallow groundwaters.

The deviations from the Global Meteoric Water Line have been estimated for individual soil tubes in Figure 5-51, by calculating the deuterium excess. Most soil tubes show a symmetric variation around the GMWL indicating that these tubes are influenced by recharging meteoric water. Some of the soil tubes located in till below the sediments of the lakes and at sea (e.g. SFM0012, SFM0015, SFM0023) shows a systematic shift towards deuterium deficiency, perhaps indicating marine influences (the samples of the Baltic Sea show a similar deuterium deficiency).

In Figure 5-52, the spatial pattern in the area is shown for deuterium. The dots represent non-weighted mean values of all observations per object. The spatial pattern is identical for oxygen-18. The largest mean deviations are found for precipitation and recharging groundwaters. The deuterium deviations decrease along the flow path from discharge areas to streams, lakes and finally the Baltic Sea. Median values are -78 (precipitation), -85 ('higher' soil tubes), -81 ('lower' soil tubes), -74 (stream), -70 (lake) and -64 (sea).

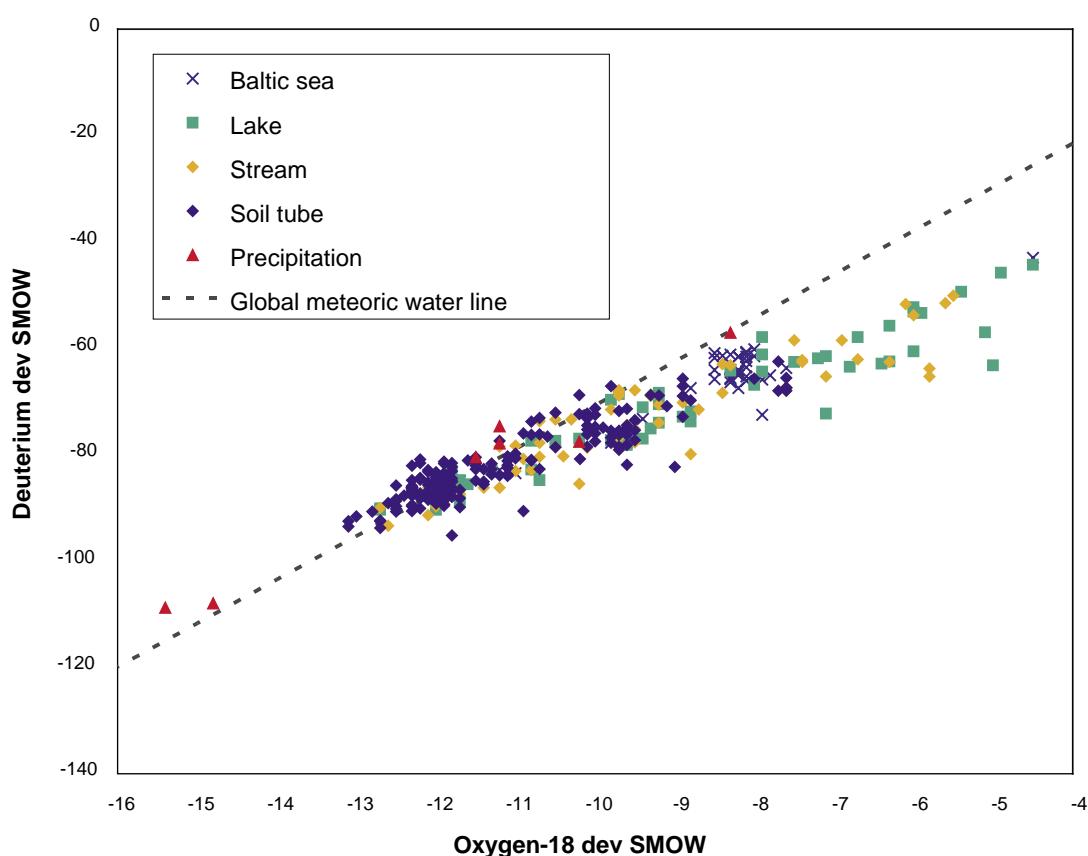


Figure 5-50. All soil tube and surface water data from the Forsmark area plotted at the GMWL.

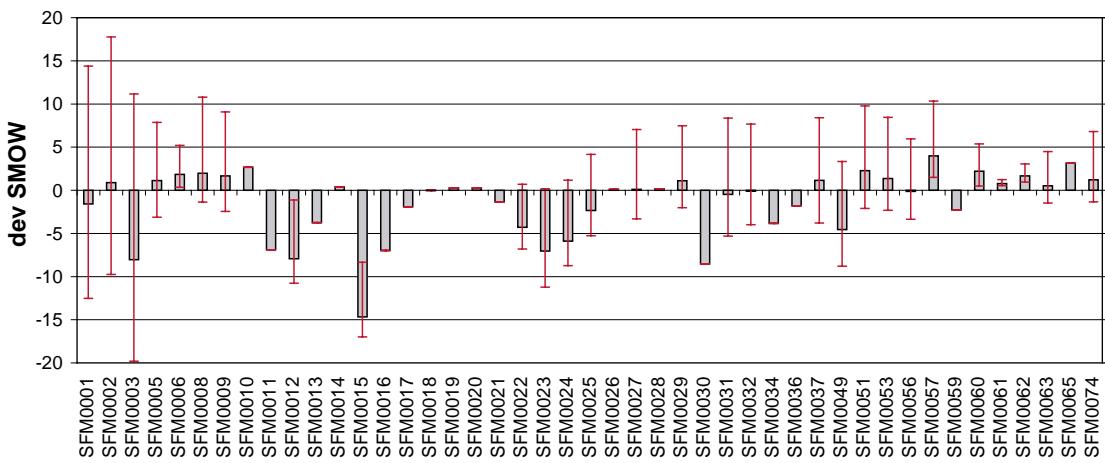


Figure 5-51. Deuterium excess – deviation from Global Meteoric Water Line D – ($8.2 \times O - 18 + 11.3$) in soil tubes in the Forsmark area. Averages (bars), minimum and maximum values (whiskers).

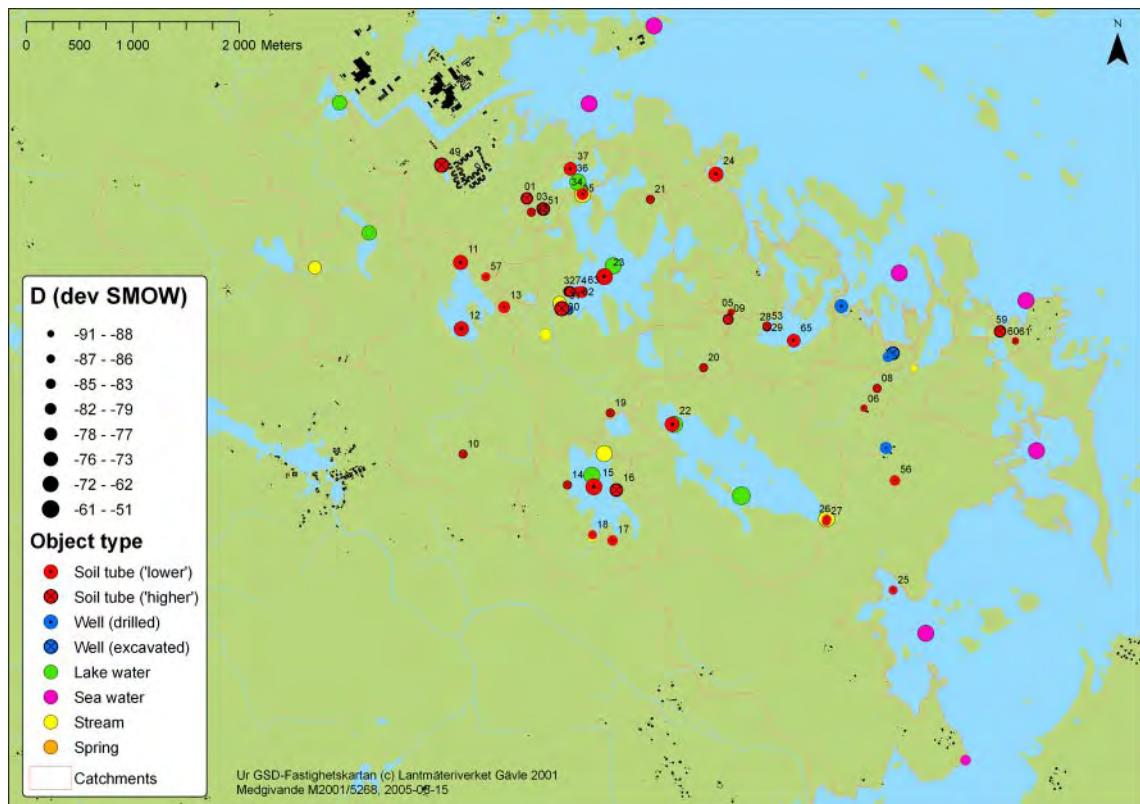


Figure 5-52. Deuterium deviations (‰ SMOW) in the Forsmark area. Almost exactly the same spatial pattern applies to Oxygen-18 as well. The dots represent mean values of all data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The **deuterium** deviations in shallow groundwater from the Forsmark area range from approximately $-95\text{\textperthousand}$ to $-65\text{\textperthousand}$. Corresponding range for **oxygen-18** is $-13\text{\textperthousand}$ to $-8\text{\textperthousand}$ SMOW. The median deuterium deviation of the soil tubes is $-84\text{\textperthousand}$ SMOW, compared to $-78\text{\textperthousand}$ in the few observations from precipitation. Corresponding values for oxygen-18 are $-12\text{\textperthousand}$ and $-11\text{\textperthousand}$, respectively. As there is a substantial seasonal variation for deuterium, the value of precipitation is rather uncertain since it is based on only a few observations (Figures 5-53 and 5-54).

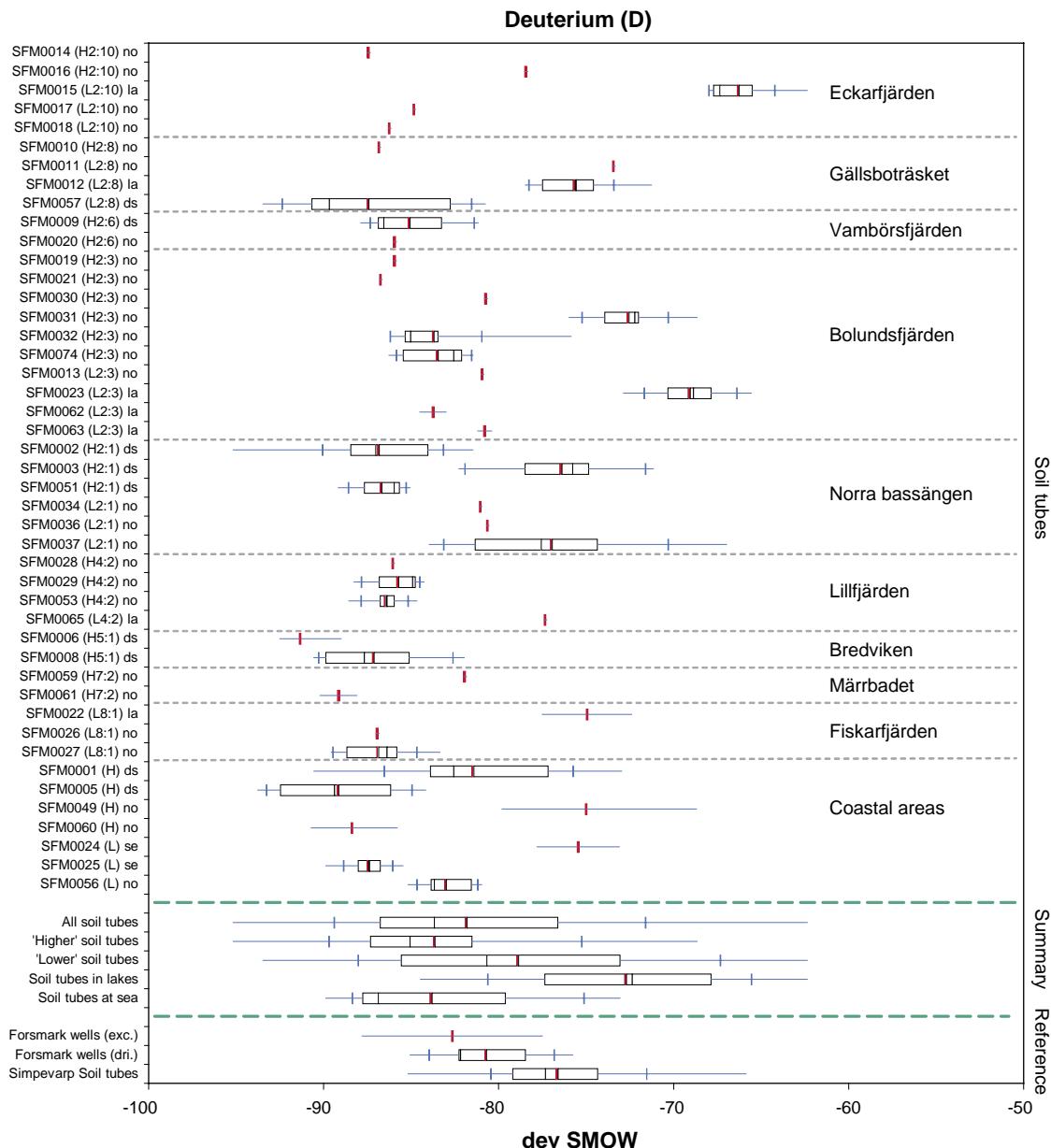


Figure 5-53. Deviation of deuterium in shallow groundwater in the Forsmark area (‰ SMOW). Explanations are given in Section 4.3.

Soil tubes at ‘lower’ levels usually show smaller variation compared to ‘higher’ located soil tubes, e.g. the soil tubes in till below the sediments of Lake Eckarfjärden and Lake Bolundsfjärden. This tendency applies to both deuterium and oxygen-18.

Deuterium shows larger variations compared to oxygen-18 when the distributions of individual soil tubes are compared in Figures 5-53 and 5-54. See also Section 5.9 for evaluation of seasonal variation and time-trends.

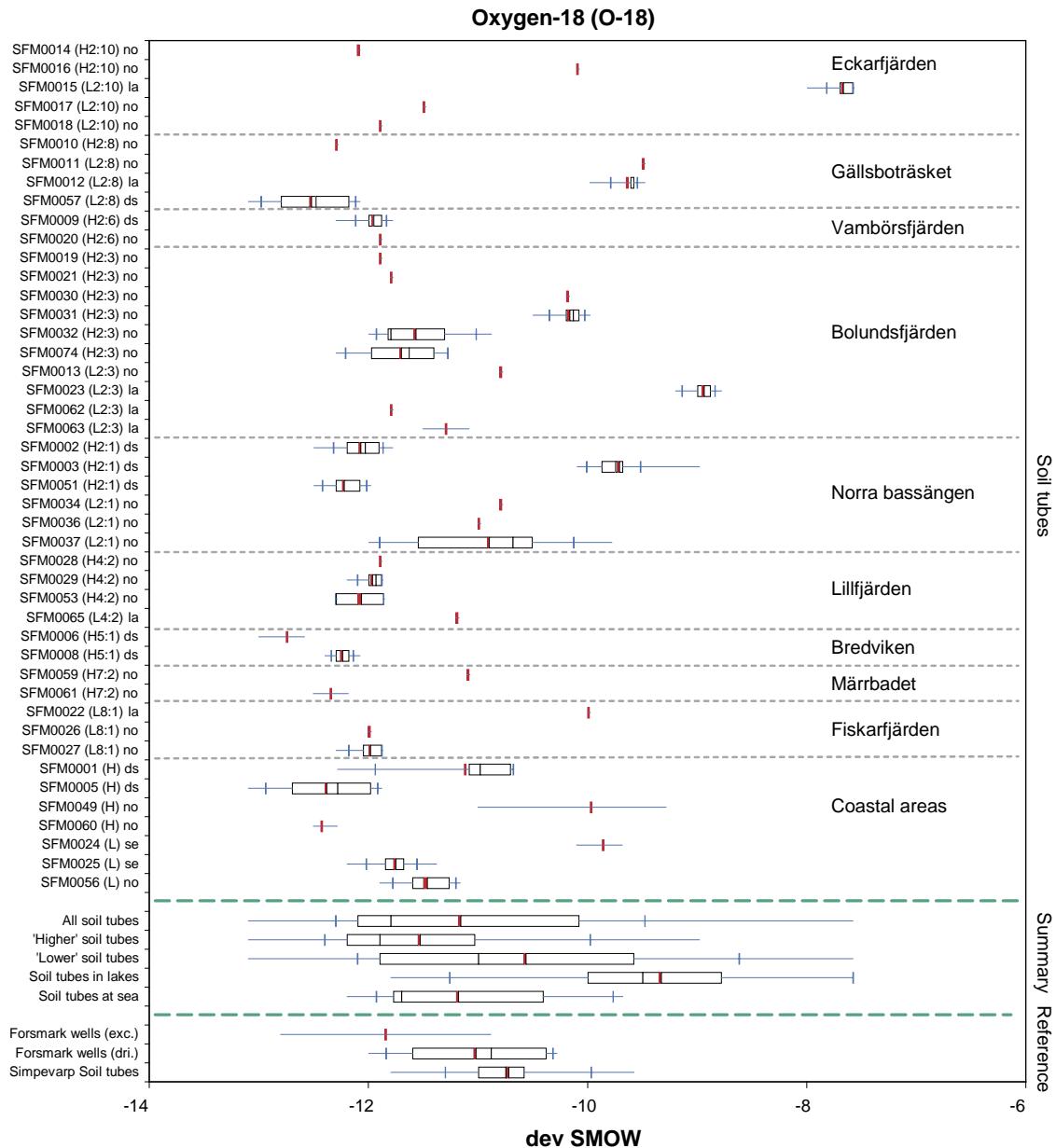


Figure 5-54. Deviation of oxygen-18 in shallow groundwater in the Forsmark area (‰ SMOW). Explanations are given in Section 4.3.

5.8.3 Tritium

Tritium is a radioactive isotope of hydrogen. Tritium is produced by cosmic radiation in the atmosphere in amounts corresponding to levels of 5–10 tritium units (TU). In the early sixties hydrogen bomb tests raised the levels to several thousands TU. Due to these two sources of tritium, and the half life of 12 years, it is possible to use tritium as a tracer for waters recharged within the past decades. High tritium levels indicate considerable components of recharge from 1960s or 1970s. Low levels on the other hand indicate sub modern waters recharged prior to 1952 when the bomb tests started /Kehew 2001/.

The tritium levels in most soil tubes range from 8–15 TU, an interval that overlap the range of surface waters and precipitation which are approximately 8–16 TU (Figure 5-55).

In a few soil tubes low tritium values corresponding to sub modern levels have been observed. Of these are SFM0011, SFM0012, SFM0015, SFM0022, SFM0023 located in till below lake sediments, SFM0010 and SFM0056 are located at higher topographical levels (Figure 5-56).

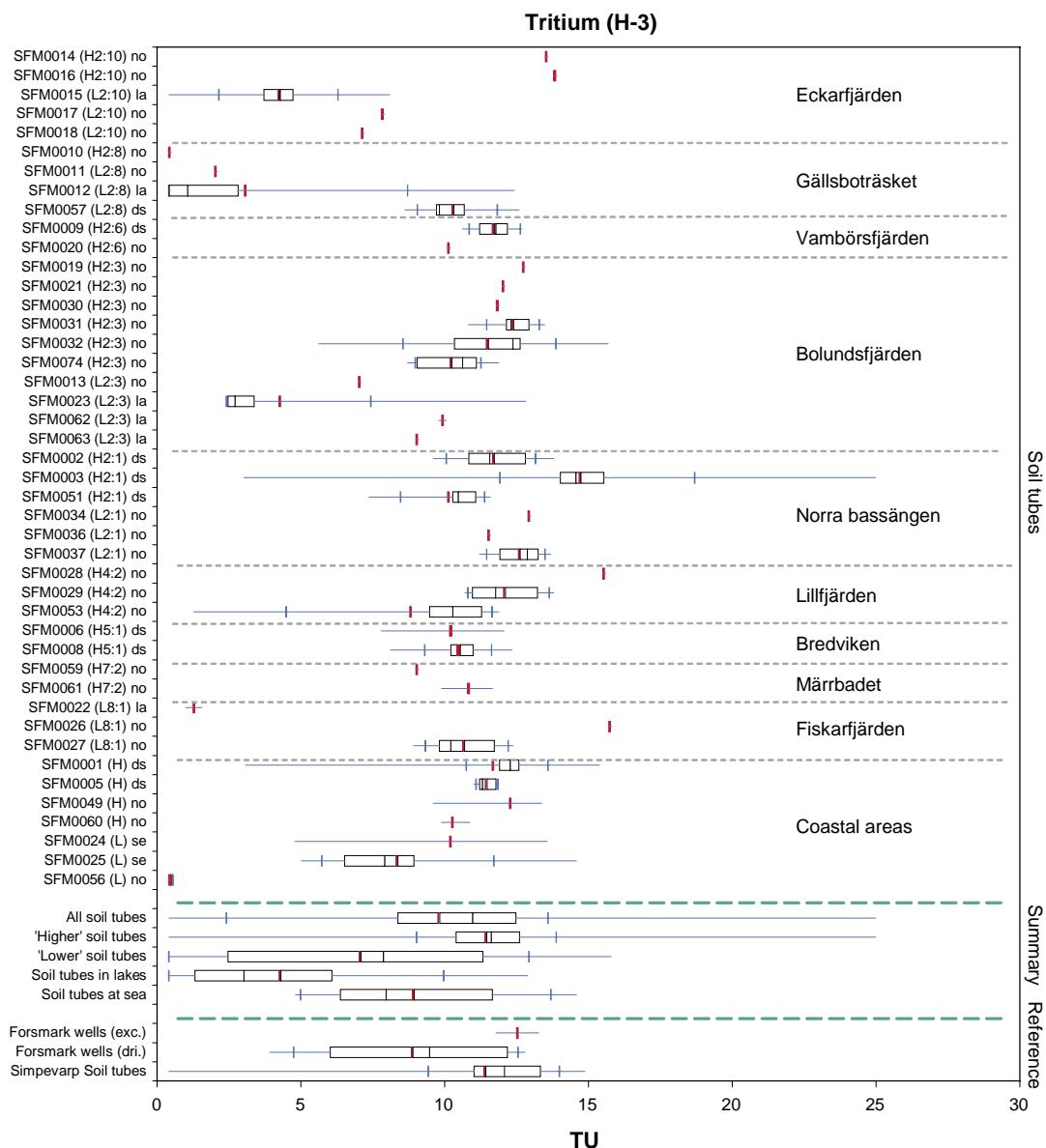


Figure 5-55. Tritium levels in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

In SFM0003 the variation is especially large just after mounting of the tube indicating that there could have been some bomb tritium present. This tube is located at drill site 1, northwest of Lake Bolundsfjärden (Figure 5-57).

5.8.4 Isotopes of carbon (C-13, C-14)

The isotope ratios of stable carbon-13 and carbon-12, and the content radioactive carbon-14, are here used to evaluate sources and evolution of carbon species in shallow groundwaters and surface waters. The amounts of dissolved inorganic and organic carbon species are summarised in Section 5.4.

When the radioactive carbon-14 content (expressed as percent modern carbon) is plotted versus the stable carbon isotope ratio (expressed as $\delta^{13}\text{C}$ ‰ PDB) four distinct groups are formed. Most soil tubes show carbon-14 values below 100 percent modern carbon, whereas most surface waters exceed 100 percent. The stable isotope carbon-13 discriminates these soil tubes in three different groups (Figure 5-58).

The uppermost group consists of the soil tube SFM0015 in Lake Eckarfjärden where positive values of carbon-13 and slightly more than 80 percent modern carbon are observed.

The leftmost group consists of the soil tubes SFM0012, SFM0023 and SFM0025 that shows low values of carbon-14 and about 50% modern carbon.

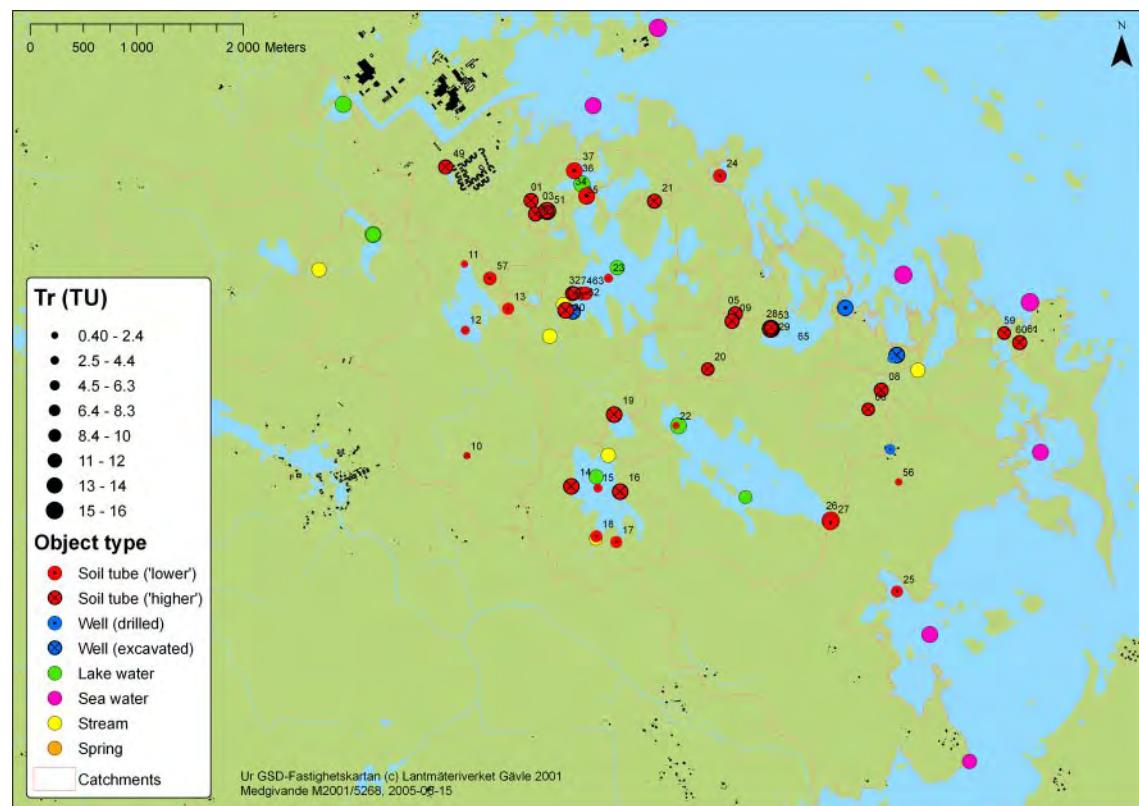


Figure 5-56. Tritium levels (TU) in the Forsmark area. The dots represent mean values of all data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

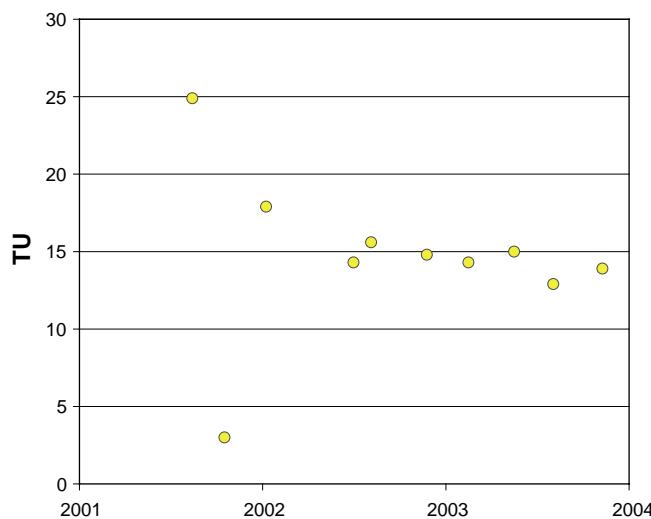


Figure 5-57. Tritium level in the soil tube SFM0003.

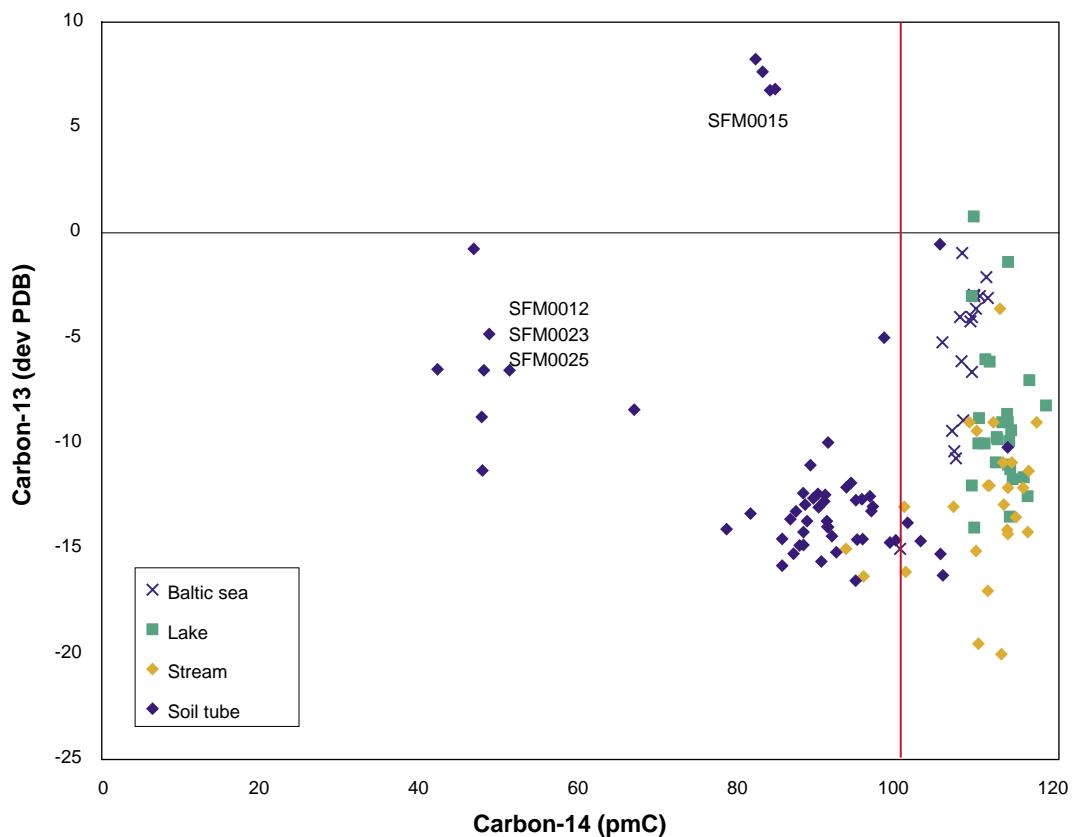
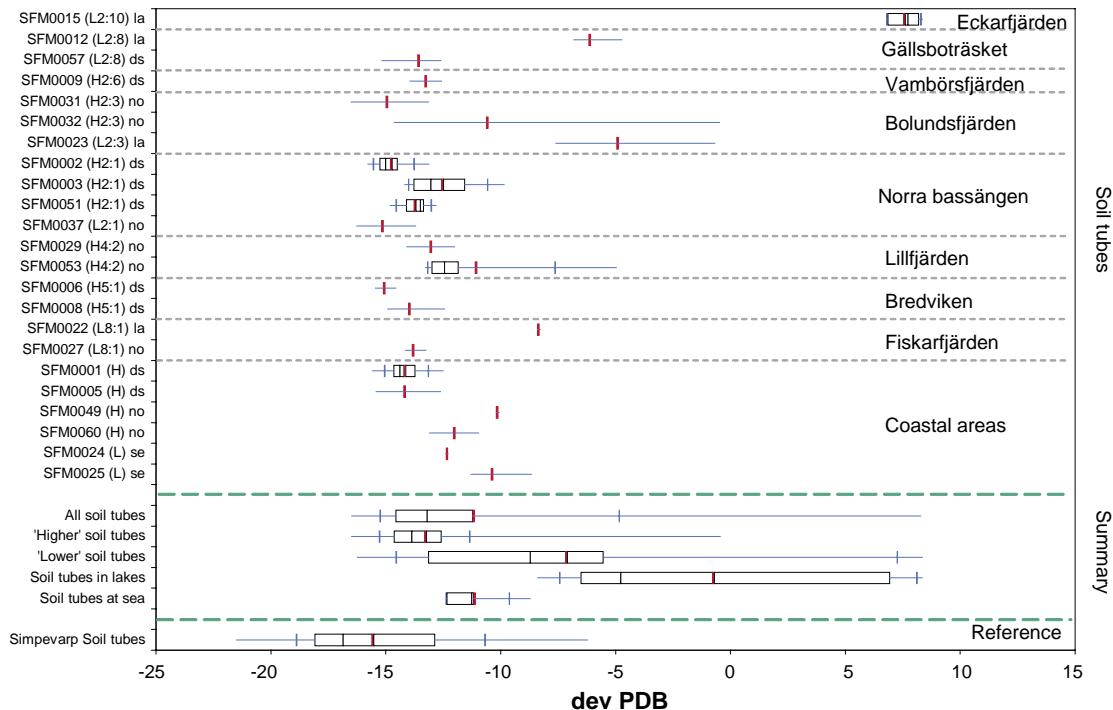


Figure 5-58. Content of carbon-14 (percent modern carbon) versus the carbon-13 ratio ($\delta^{13}\text{C } \text{\% PDB}$) in soil tubes in the Forsmark area.

In the third group the content modern carbon is ranging from 80–90 pmC, whereas the carbon-13 values are generally between -15\% and -10\% , indicating a dominantly biogenic carbon source.

Figures 5-59 and 5-60 show the distributions and spatial patterns of carbon-13 and carbon-14 for individual soil tubes.

Carbon-13 (C-13)



Carbon-14 (C-14)

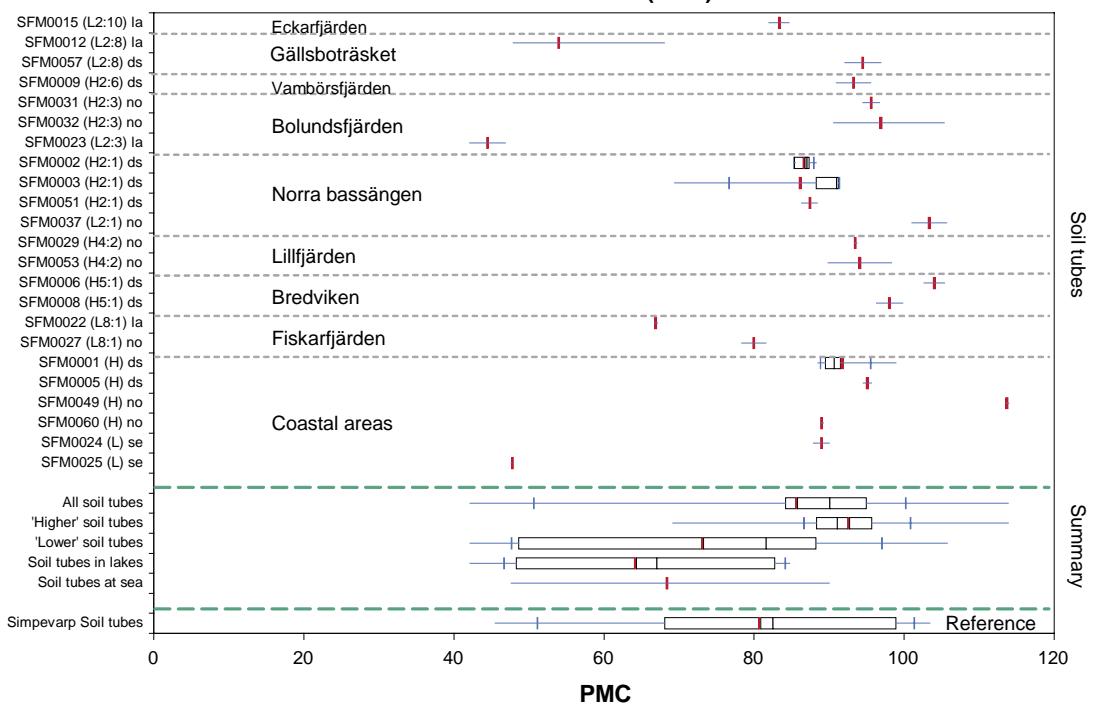


Figure 5-59. Stable carbon-13 (upper) expressed as C-13 deviations from the PDB-reference ($\delta^{13}\text{C} \text{‰ PDB}$), and radio carbon-14 content expressed as percent modern carbon (lower) in shallow groundwater in the Forsmark area. Explanations are given in Section 4.3.

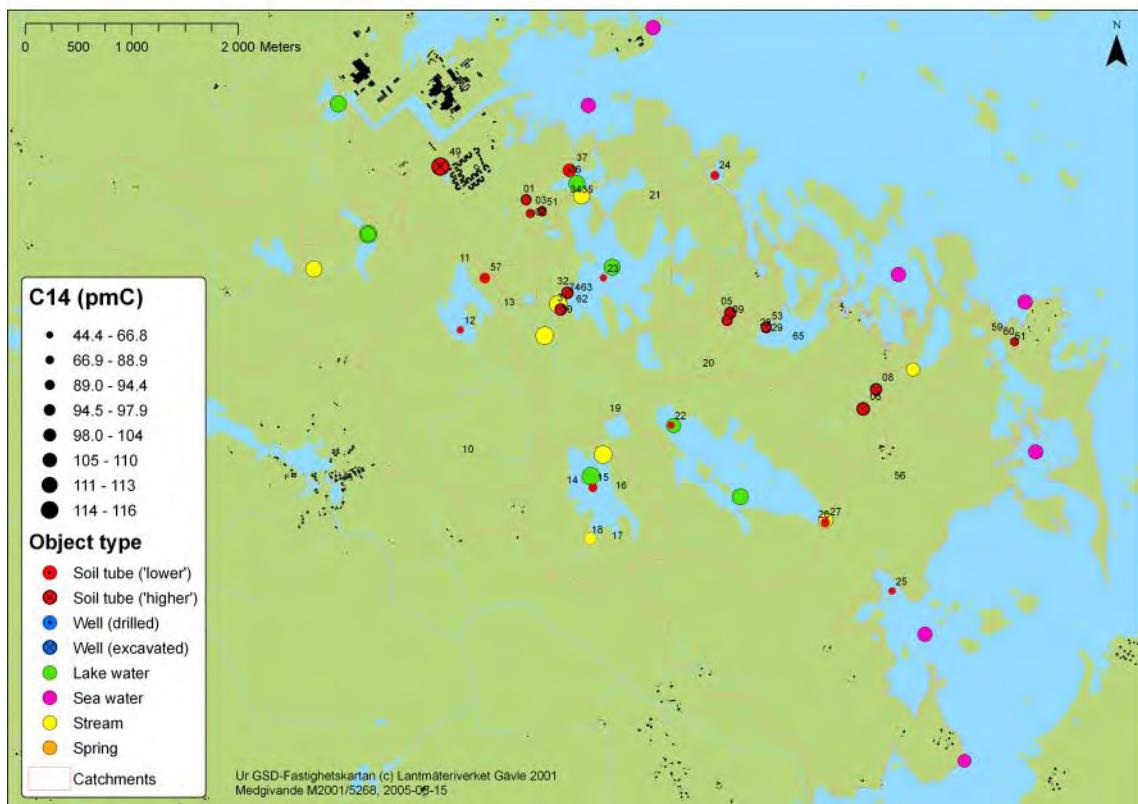
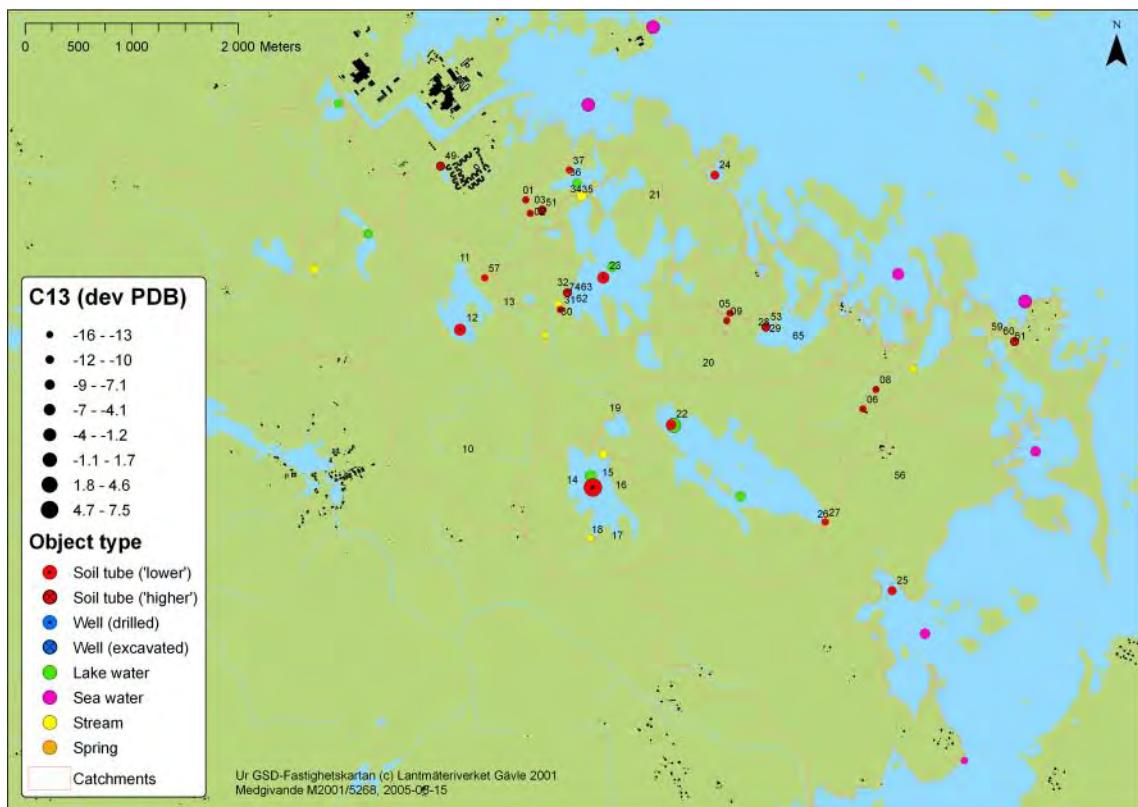


Figure 5-60. Deviations of carbon-13 (upper) and content of carbon-14 (lower) in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

5.8.5 Isotopes of boron, chlorine, sulphur and strontium

In this section stable isotopes of boron, chlorine, sulphur and strontium are compiled. These isotopes are useful in determining sources of mixing components, geochemical water-rock interactions and biochemical processes.

In Table 5-10 the median values are summarised per soil tube and category. In Figures 5-62 to 5-66 the statistical distributions and spatial variations are displayed per isotope.

Table 5-10. Median values for isotopes of boron, chlorine, sulphur and strontium in water samples from soil tubes in the Forsmark area. Boron and strontium are expressed both as absolute ratios, and as ‰ deviations from natural abundance ratios. The isotopes of chlorine and sulphur are expressed as ‰ deviations from international standards (SMOC and CDT, respectively).

Idcode	Catchment		B-10/B-11 ratio	%o 0.248	Cl-37 ‰ SMOC	S-34 ‰ CDT	Sr-87/Sr-86 ratio	%o 0.71	
SFM0001	Coastal area	H	0.2380	-40	0.25	4.45	0.7210	15.5	
SFM0002	Norra bassängen	2:1	H	0.2418	-25	-0.29	7.10	0.7222	17.2
SFM0003	Norra bassängen	2:1	H	0.2415	-26	0.23	0.650	0.7247	20.7
SFM0005	Coastal area		H	0.2436	-18	-0.11	0.500	0.7231	18.5
SFM0006	Bredviken	5:1	H	0.2454	-10	-0.18	-5.35	0.7224	17.5
SFM0008	Bredviken	5:1	H	0.2397	-34	0.080	-5.10	0.7271	24.1
SFM0009	Vambörsfjärden	2:6	H	0.2446	-14	-0.070	-3.20	0.7245	20.4
SFM0012	Gällsboträsket	2:8	L	0.2370	-45	0.17	29.3	0.7222	17.1
SFM0015	Eckarfjärden	2:10	L	0.2374	-43	1.2		0.7127	3.83
SFM0022	Fiskarfjärden	8:1	L	0.2408	-29	-0.67	18.5	0.7173	10.3
SFM0023	Bolundsfjärden	2:3	L	0.2376	-42	0.095	27.8	0.7250	21.2
SFM0024	Coastal area		L	0.2390	-36	0.040	16.4	0.7139	5.44
SFM0025	Coastal area		L	0.2385	-38	-0.32	16.7	0.7186	12.1
SFM0027	Fiskarfjärden	8:1	L	0.2403	-31	-0.54	2.05	0.7375	38.8
SFM0029	Lillfjärden	4:2	H	0.2407	-29	-0.14	-6.30	0.7249	21.0
SFM0031	Bolundsfjärden	2:3	H	0.2421	-24	-0.070	-10.1	0.7271	24.1
SFM0032	Bolundsfjärden	2:3	H	0.2401	-32	-0.22	0.750	0.7265	23.3
SFM0037	Norra bassängen	2:1	L	0.2407	-30	0.12	-2.15	0.7186	12.1
SFM0049	Coastal area		H	0.2416	-26	-0.48	22.3	0.7229	18.2
SFM0051	Norra bassängen	2:1	H	0.2450	-12	-0.025		0.7236	19.1
SFM0053	Lillfjärden	4:2	H	0.2448	-13	0.21		0.7247	20.8
SFM0056	Coastal area		L	0.2417	-25	0.33			
SFM0057	Gällsboträsket	2:8	L	0.2408	-29	-0.28	18.8	0.7194	13.3
SFM0059	Märrbadet	7:2	H	0.2395	-34				
SFM0060	Coastal area		H	0.2447	-13	-0.11	-4.90	0.7267	23.6
SFM0061	Märrbadet	7:2	H	0.2426	-22				
SFM0062	Bolundsfjärden	2:3	L	0.2500	8.1				
SFM0063	Bolundsfjärden	2:3	L	0.2446	-14				
SFM0074	Bolundsfjärden	2:3	H	0.2481	0.20				
'Higher' soil tubes			H	0.2423	-23	-0.070	-0.500	0.7247	21
'Lower' soil tubes			L	0.2392	-36		16.9	0.7192	13
All soil tubes				0.2408	-29	-0.050	1.10	0.7241	20

In Table 5-9 the correlations among the isotopes and calcium, bicarbonate, chloride, sulphate and strontium are shown as a Pearson correlation matrix. In Figure 5-60 the most orthogonal (isotopes with least correlation) are plotted pair wise in order to discriminate individual observations of soil tubes in respect to these parameters. There is not necessarily a process based connection between the pairs selected, as the only motive for the pairs selected was the correlations calculated in Table 5-11. The strongest correlations among the isotopes are found for sulphur-34 and strontium-87 (-0.39) and chlorine-37 and boron-10 (-0.29).

Table 5-11. Correlation (Pearson) matrix for isotopes of sulphur, chlorine, strontium, boron, and a selection of major elements in soil tubes in the Forsmark area. Values in bold are significant ($p < 0.05$). The correlation analysis is based on all complete observations from soil tubes in Forsmark ($n = 72$).

		Ca	HCO ₃	Cl	SO4	Sr	S-34	Cl-37	Sr-87	B-10
Calcium	Ca	1	-0.56	0.88	0.76	0.90	0.52	0.08	-0.31	0.00
Bicarbonate	HCO ₃		-0.56	1	-0.52	-0.18	-0.49	-0.41	0.28	0.12
Chloride	Cl		0.88	-0.52	1	0.85	0.87	0.70	0.13	-0.26
Sulphate	SO4			0.76	-0.18	0.85	1	0.44	0.33	-0.32
Strontium	Sr				0.90	-0.49	0.87	0.79	0.03	-0.28
Sulphur-34	S-34					0.52	-0.41	0.70	0.44	
Chlorine-37	Cl-37						0.28	0.13	0.33	
Strontium-87	Sr-87/Sr-86							-0.28	-0.39	
Boron-10	B-10/B-11								-0.27	1
		0.00	-0.17	-0.06	-0.10	-0.04	-0.14	-0.29	0.07	1

There is a strong positive correlation between strontium, chloride and sulphate. Sulphur-34 is positively correlated to this group and strontium-87 negatively correlated. Bicarbonate is negatively correlated to calcium, chloride and sulphate.

In the uppermost plot of Figure 5-61, that shows sulphur-34 versus boron-10, most soil tubes form a diffuse cluster to the left. In the right part of the figure the soil tubes located in till below lake and sea sediments (SFM0012, SFM0022, SFM0023, SFM0024, SFM0025) and SFM0057 near Lake Gällsboträsket are clustered. In these tubes are sulphur-34 enriched and boron-10 depleted in most observations.

In the lower plot of Figure 5-61, that shows strontium-87 versus chlorine-37, most soil tubes cluster in the middle of the plot, except for SFM0027 located near the outlet of Lake Fiskarfjärden. This soil tube, where strontium-87 is enriched and chlorine-37 is somewhat depleted, is drilled in a thick till layer, whereas the soil tubes found in the left part of Figure 5-61 are drilled through sediments near the coast (SFM0024, SFM0025 and SFM0037).

The **boron-10/boron-11** ratios found in the Forsmark area are slightly lower than the ratio of natural abundances. The median ratio of the soil tubes in Forsmark is 0.240 compared to 0.248 in natural abundance /Clark and Fritz 1997/. The median ratio measured in the soil tubes of the Simpevarp area are 0.243 (Figure 5-63).

The ratios found in lake, stream and especially sea water are generally lower (median values 0.237–0.239) than the ratios found shallow groundwaters (Figure 5-62).

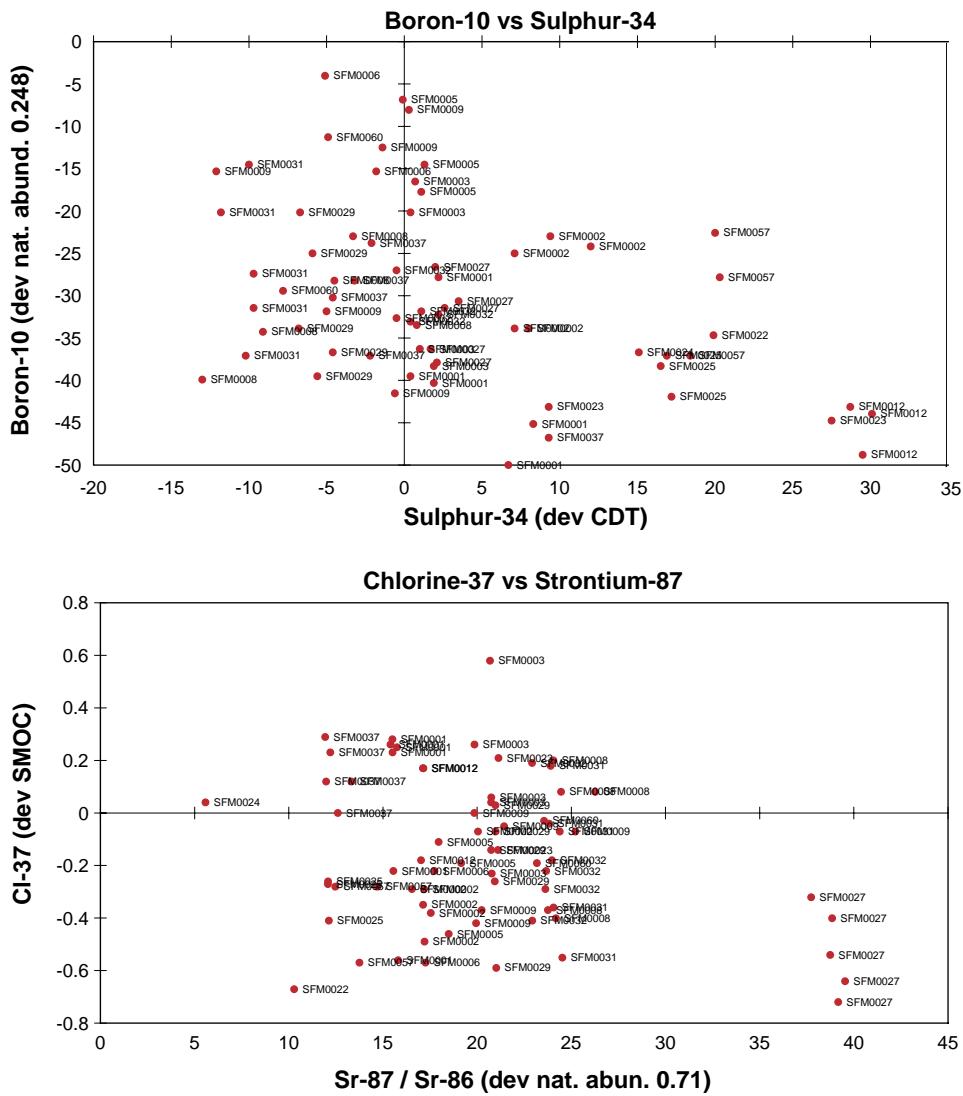


Figure 5-61. Sulphur-34 versus Boron-10 (upper) and Strontium-87 versus Chlorine-37 (lower) in soil tubes in the Forsmark area. Individual observations plotted as % deviations from international standards (S-34 and Cl-37) or natural abundance ratio (Sr-87 and B-10).

Boron-10 is most depleted in the soil tubes located in till below the sediments of lakes and sea, e.g. SFM0012, SFM0015, SFM0023, SFM0024 and SFM0025. In the soil tubes SFM0074, SFM0062 (SFM0032), all located in the catchment of Lake Bolundsfjärden, boron-10 are most enriched (Figure 5-63).

A few observations in SFM0001, SFM0002 and SFM0003, all located at drill site 1, show highly depleted boron-10 ratios, maybe indicating some sort of error. Similar highly deviating ratios are also reported for lakes, streams and sea water in the Forsmark area, but not from the Simpevarp area.

The **chlorine-37/chlorine-35** ratios found in the Forsmark area are centred on the international standard, indicating an average ratio of about 0.324 (SMOC). The ratio of natural abundances are 0.320 /Clark and Fritz 1997/.

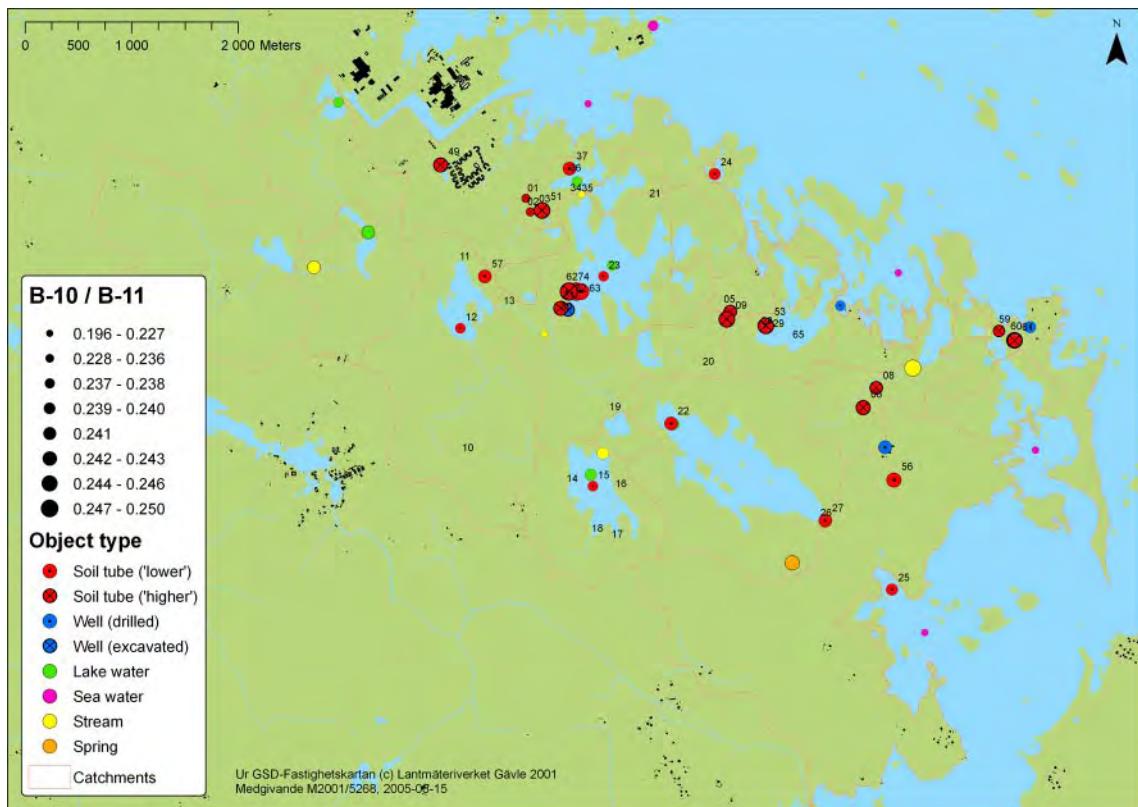


Figure 5-62. Ratio of Boron-10/Boron-11 in the Forsmark area. The dots represent mean values of available data from soil tubes, private wells and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes.

The soil tubes of catchment Fiskarfjärden are most depleted in chlorine-37 (SFM0022 and SFM0027). Soil tubes located in till below lake sediments of Lake Eckarfjärden, Lake Gällsboträske and Lake Bolundsfjärden (SFM0015, SFM0012, SFM0023) are most enriched on chlorine-37. Also SFM0056, that is not located in a lake, show some enrichment of chlorine-37 (Figure 5-64).

There is a tendency that streams draining topographic higher areas show some enrichments of chlorine-37. The conclusions on chlorine-37 are rather uncertain, as a substantial part of the variation in the Forsmark area are within the analytical error of $\pm 0.2\text{‰}$.

The recorded values of **sulphur-34** in shallow groundwater vary within a wide range between -17‰ to 41‰ CDT, indicating different sources of dissolved sulphate. Surface waters from lakes and streams range between -10‰ and 10‰ CDT, with most of the samples between 2‰ and 8‰ CDT. All measurements of sea water are very close to 20‰ CDT (Figure 5-65).

Sulphur-34 is enriched in the soil tubes located in till below lake sediments (SFM0012, SFM0022, SFM0023, SFM0024, SFM0025), showing values significantly exceeding 20‰ CDT (sea water). Also SFM0057 and SFM0049 show enriched sulphur-34 values.

A number of 'higher' located soil tubes are depleted in sulphur-34 (e.g. SFM0008, SFM009, SFM0031, SFM0060), showing values well below 0‰ CDT. Soil tubes at 'lower' locations range from -10‰ to 10‰ CDT, similar to values measured in the surface waters.

Boron-10 / boron-11 (B-10 / B-11)

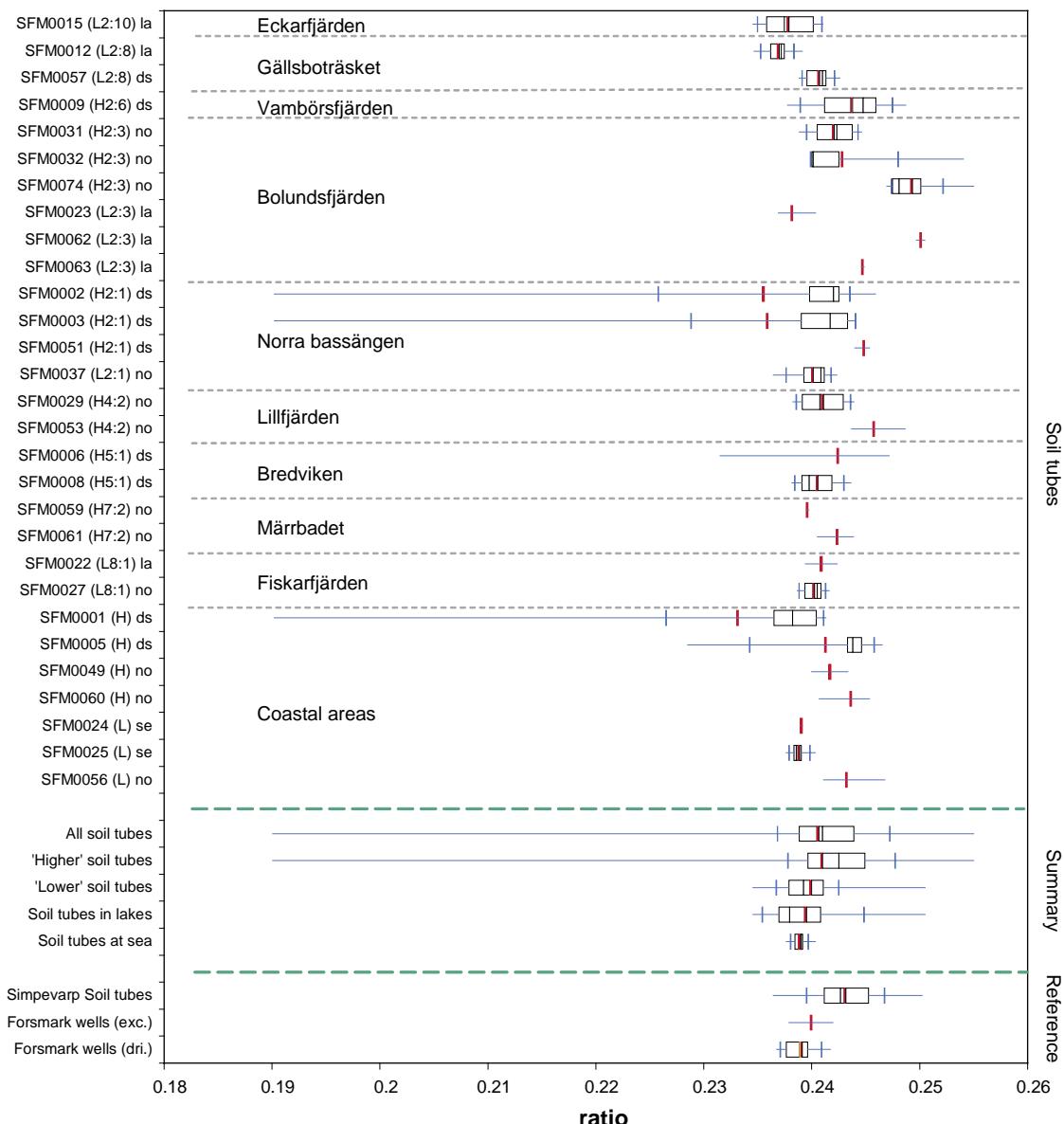


Figure 5-63. Boron-10/boron-11 ratio in shallow groundwater in the Forsmark area.
Explanations are given in Section 4.3.

Strontium-87 is generally enriched relative the natural abundance ratio by 5‰ to 40‰. The recorded ratio in Forsmark soil tubes ranges from 0.712 to 0.738, compared to the natural abundance ratio of 0.712 ($\text{Sr-87}/\text{Sr-86}$). The median ratio of Forsmark (0.724) is slightly higher than the median ratio of Simpevarp (0.719).

The spatial distribution patterns for strontium-87 differ to most patterns observed for other isotopes, as well as major and minor constituents. Strontium-87 is least enriched in SFM0015, SFM0024 and SFM0022. The highest enrichments are found for SFM0027, located near the outlet of Lake Fiskarfjärden. The thickness of the overburden and the depth of the soil tube are high for SFM0027 (Figure 5-66).

Chlorine-37 (Cl-37)

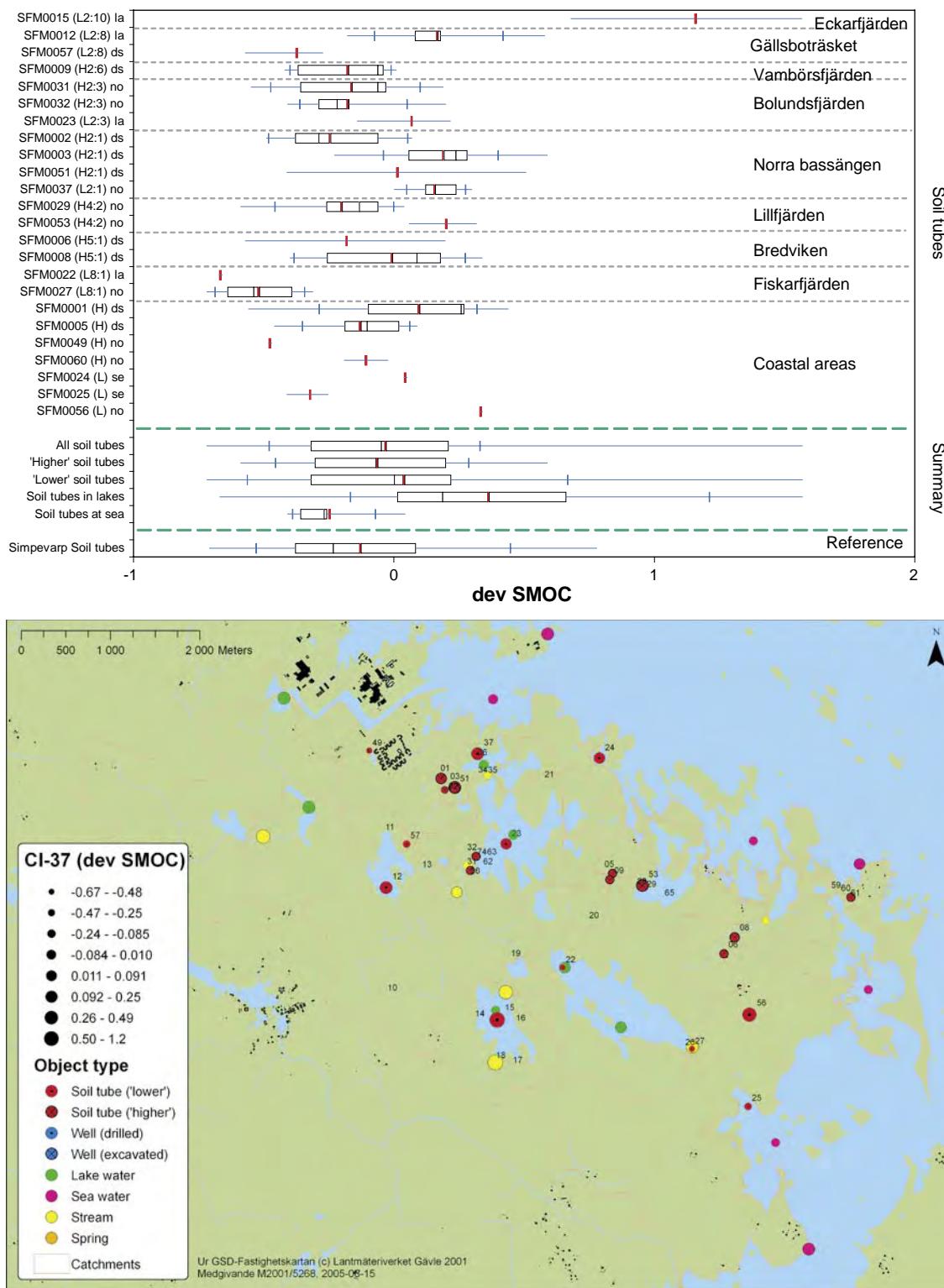


Figure 5-64. Chlorine-37 ratios in the Forsmark area. Distributions for individual soil tubes are shown as box-plots (upper) and spatial pattern (lower) for mean values of shallow groundwater and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes. Explanations are given in Section 4.3.

Sulphur-34 (S-34)

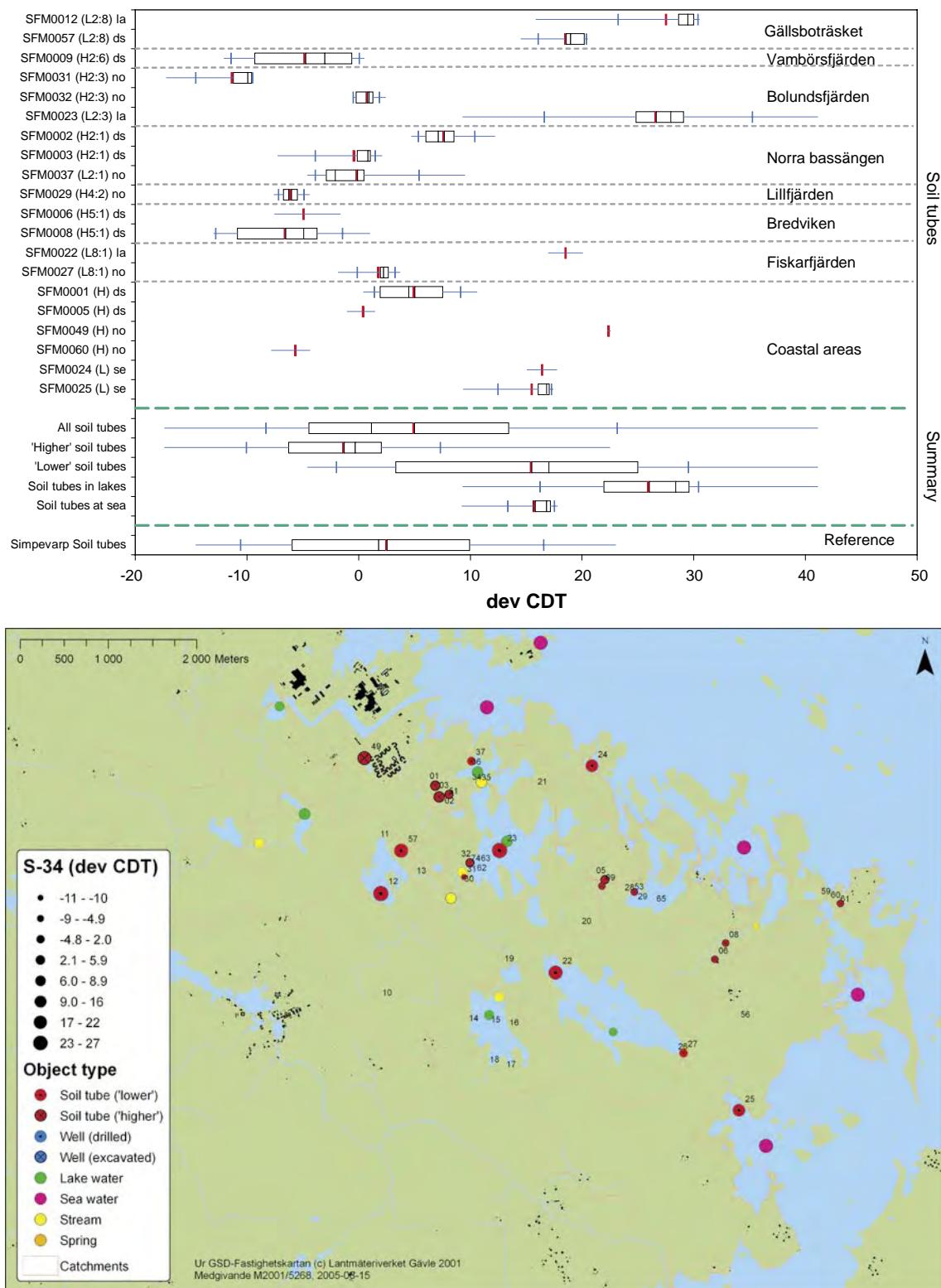


Figure 5-65. Sulphur-34 ratios in the Forsmark area. Distributions for individual soil tubes are shown as box-plots (upper) and spatial pattern (lower) for mean values of shallow groundwater and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes. Explanations are given in Section 4.3.

Strontium-87 (Sr-87)

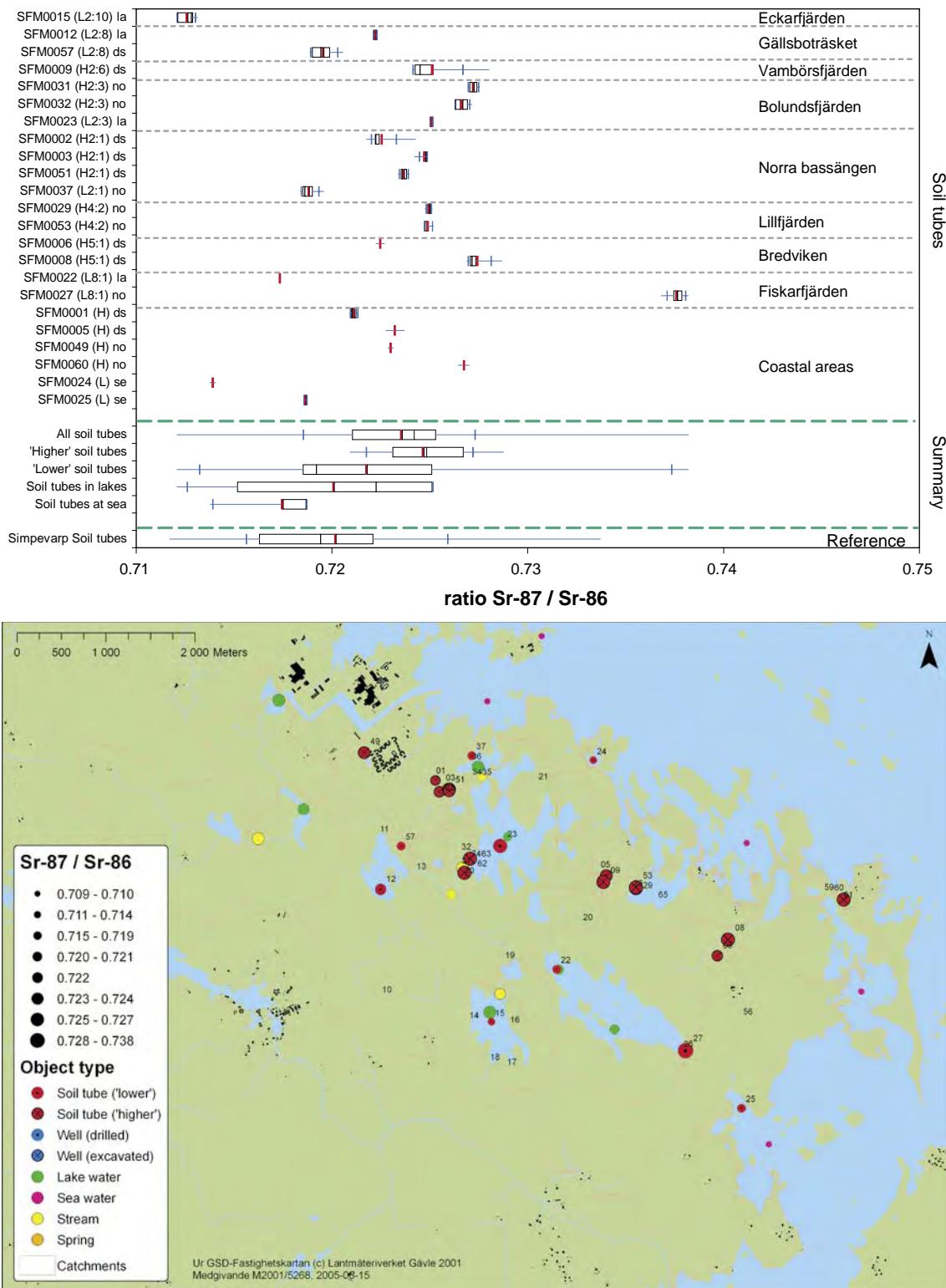


Figure 5-66. Strontium-87 ratios in the Forsmark area. Distributions for individual soil tubes are shown as box-plots (upper) and spatial pattern (lower) for mean values of shallow groundwater and surface waters. The figures in black corresponds to the last two digits of the id-codes of the soil tubes. Explanations are given in Section 4.3.

5.8.6 Isotopes of uranium, thorium, radium and radon

In this section the radioactive isotopes of uranium, thorium, radium and radon are compiled. Table 5-12 summarises data available from soil tubes in the Forsmark area. Data from private wells in Sweden are used as reference, as well as corresponding measurements from the Simpevarp area. Detailed statistical information on all isotopes is compiled in Appendix 2.

Table 5-12. Median activities of uranium, thorium, radium and radon isotopes in soil tubes in the Forsmark area.

Idcode	Catchment		Ra-226 Bq/l	Rn222 Bq/l	Th-230 mBq/kg	Th-232 mBq/kg	U-234 mBq/kg	U-235 mBq/kg	U-238 mBq/kg
SFM0001	Coastal area	H	0.30	27	< 50	< 50	76	< 50	66
SFM0002	Norra bassängen 2:1	H	0.55	53	< 50	< 50	78	< 50	71
SFM0003	Norra bassängen 2:1	H	< 0.1	19	< 50	< 50	< 50	< 50	< 50
SFM0005	Coastal area	H	0.10	75	< 50	< 50	60	< 50	60
SFM0006	Bredviken 5:1	H	< 0.1	7.7	< 50	< 50	150	< 50	150
SFM0008	Bredviken 5:1	H	0.10	30	< 50	< 50	120	< 50	110
SFM0009	Vambörsfjärden 2:6	H	0.40	40	7.3	—	130	—	110
SFM0012	Gällsboträsket 2:8	L	0.50	65	< 50	< 50	180	< 50	180
SFM0015	Eckarfjärden 2:10	L	0.60	75	< 50	< 50	< 50	< 50	< 50
SFM0027	Fiskarfjärden 8:1	L	0.20	160	0.15	—	26	—	12
SFM0029	Lillfjärden 4:2	H	0.15	12	0.2	—	90	—	75
SFM0031	Bolundsfjärden 2:3	H	0.30	89	1.6	—	130	—	100
SFM0032	Bolundsfjärden 2:3	H	0.20	34	1.4	—	82	—	60
SFM0037	Norra bassängen 2:1	L	0.13	31	1.2	—	140	—	120
SFM0049	Coastal area	H	0.30	19	0.9	—	2.8	—	2.4
SFM0057	Gällsboträsket 2:8	L	0.55	29	1.5	—	94	—	88
SFM0060	Coastal area	H	< 0.1	36	0.2	—	440	—	420
'Higher' soil tubes		H	0.10	28	4.4	< 50	84	< 50	71
'Lower' soil tubes		L	0.20	50	1.5	< 50	94	< 50	88
All soil tubes			0.20	30	1.6	< 50	85	< 50	72
Reference									
Simpevarp	Soil tubes		0.1	22	< 50	< 50	50	< 50	< 50
Sweden	Excavated wells (a)				20				
Sweden	Drilled wells (a)		0.01	85					
Sweden	Drilled wells (b)		0.022	143			66		32

a. 492 samples of radium and 2500 samples of radon /SSI 2005/.

b. 54 drilled wells /Östergren et al. 2003/.

The **radium-226** activity ranges from less than 0.1 to 0.9 Bq/l. The **radon-222** activity ranges from 8 to 180 Bq/l. There is a tendency for slightly higher activities in 'lower' soil tubes compared to 'higher' located soil tubes.

The radium activities are higher in the Forsmark area compared to the median of the reference data of drilled wells in Sweden, whereas the radon activities are in the same order of magnitude compared to the references. As the radium activity is close to the reporting limit, this discrepancy could be an effect of measurements in the vicinity of the reporting limit

There is a weak correlation when radium is plotted versus radon (Figure 5-67). SFM0027 and SFM0031 marks out by having elevated radon levels compared to the radium activity measured. SFM0002, SFM0015 and SFM0009 display the highest activity when both radium and radon are considered.

The **thorium-230** activity ranges from 0.2 to 7.3 mBq/l. All data of **thorium-232** fall below the reporting limit.

The **uranium-234** activity ranges from 3 to 440 mBq/l. All measurements of **uranium-235** fall below the reporting limit. The **uranium-238** activity ranges from 2 to 420 mBq/l. The median activities of uranium are in the same level as the activities measured in the 54 reference wells of Sweden.

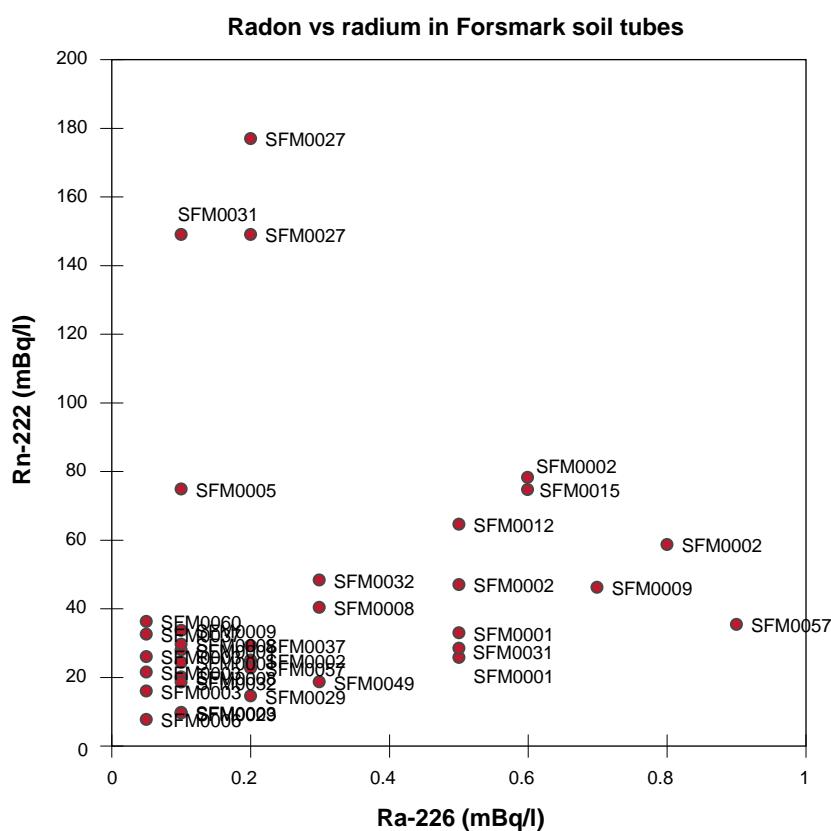


Figure 5-67. Radium versus radon in shallow groundwater in the Forsmark area. Individual observations of all available data are included in the plot.

The U234/U238 ratio is close to 1 in most observations from Forsmark area, including surface waters (lake, stream and sea water). SFM0027 in the catchment of Fiskarfjärden deviates by having a ratio exceeding 2. The highest radon activities are also measured in this soil tube.

In Table 5-13 the activities of radon and radium are related to the contents of organic and inorganic carbon. The activities that are expressed as Becquerel per mg carbon, were calculated per observation and the median values of these ratios are shown in the table below. For comparison the corresponding ratios were calculated for the trace elements iodine, strontium and uranium, elements identified as important for nuclide transport issues.

In Figure 5-68, the activities per carbon are shown for radium-226 and radon-222. The highest radium activities per organic carbon are displayed by SFM0012 and SFM0015. These soil tubes and SFM0027 also display the highest radon activities per organic carbon.

Table 5-13. Radioactive isotopes and a selection of trace elements related to inorganic (DIC) and organic (TOC) carbon in soil tubes in the Forsmark area. Median values of ratios calculated per observation.

Idcode	I/DIC µg/mgC	I/TOC µg/mgC	Sr/DIC µg/mgC	Sr/TOC µg/mgC	U/DIC µg/mgC	U/TOC µg/mgC	Ra226/DIC Bq/mgC	Ra-226/OC Bq/mgC	Rn-222/DIC Bq/mgC	Rn-222/TOC Bq/mgC
SFM0001	0.1	0.33	4.3	14	0.052	0.18	0.0052	0.011	0.32	1.2
SFM0002	0.13	0.51	2.9	12	0.089	0.36	0.011	0.035	1.1	3.7
SFM0003	0.07	0.48	6.3	44	0.0064	0.046	0.00087	0.0062	0.2	1.9
SFM0005	0.32	1.6	1.9		9.5 0.085	0.41	0.0018	0.012	1.3	8.7
SFM0006	0.05	0.22	2.7	15	0.28	1.5	0.00078	0.0039	0.12	0.6
SFM0008	0.018	0.17	4.2	44	0.2	1.7	0.0014	0.023	0.41	4.6
SFM0009	0.12	0.44	1.9		6.9 0.14	0.52	0.0072	0.025	0.68	2.4
SFM0012	1.3	17	46	600	—	—	0.0079	0.15	1	20
SFM0015	0.65	10	3.7	62	—	—	0.0045	0.064	0.56	7.9
SFM0022	1.3	14	36	460	—	—	—	—	—	—
SFM0023	4.4	16	240	1,200	—	—	—	—	—	—
SFM0024	0.2	1.7	23	140	—	—	—	—	—	—
SFM0025	0.95	13	140	2,100	—	—	—	—	—	—
SFM0027	0.087	1.1	4	51	0.011	0.14	0.0028	0.033	2.3	27
SFM0029	0.13	1.2	3.1	28	0.055	0.43	0.0022	0.019	0.18	1.5
SFM0031	0.06	0.53	5.8	55	0.1	1.1	0.0046	0.039	1.1	11
SFM0032	0.1	0.35	3.2	12	0.09	0.35	0.0032	0.012	0.54	2
SFM0037	0.062	0.27	4.2	16	0.14	0.54	0.0016	0.0063	0.36	1.7
SFM0049	0.07	0.16	2		4.5 0.0044	0.0099	0.0066	0.016	0.41	1
SFM0057	0.2	0.95	5.1	19	0.13	0.61	0.016	0.031	0.74	1.8
SFM0060	0.041	0.48	2.3	27	0.51	6	0.00083	0.011	0.6	7.7
'Higher'	0.096	0.47	3.5	15	0.095	0.42	0.0017	0.013	0.39	2.4
'Lower'	0.65	10	18	120	0.087	0.38	0.0032	0.033	0.79	5
All soil tubes	0.11	0.55	4.3	28	0.092	0.41	0.0029	0.016	0.41	2.4

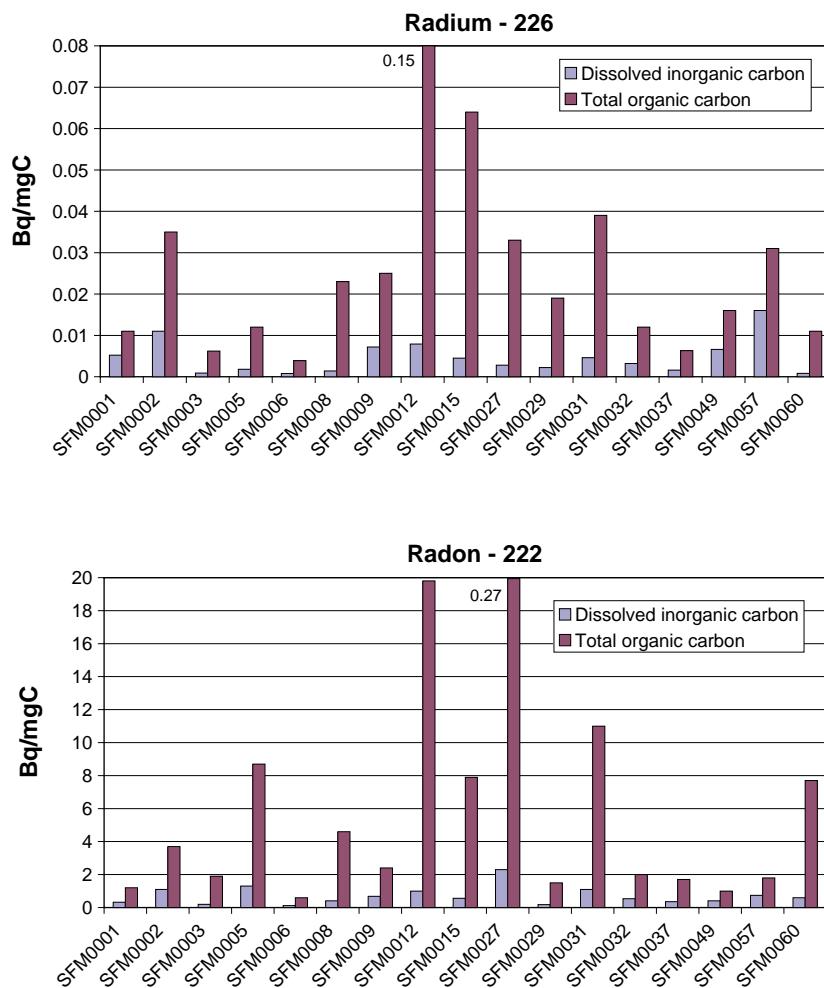


Figure 5-68. Radium-226 and radon-222 activities per organic and inorganic carbon (Bg/mg C) in shallow groundwater in the Forsmark area.

5.9 Time-trends and temporal variation

In this section the temporal variation of chemical composition is explored for soil tubes with time series exceeding six observations.

The coefficient of variation (CV) was calculated for all parameters and soil tubes that fulfilled the criterion above. This relative measure is useful for comparing different parameters and concentration levels in order to identify parameters/objects that show high and low variability over time (Table 5-14).

Table 5-14. Coefficient of variation (CV) on data from soil tubes in the Forsmark area, for all parameters and objects where the time series included more than six observations. The 'relative standard deviation' CV is expressed in percent and calculated by dividing the standard deviation by the mean.

Element	SFM0001	SFM0002	SFM0003	SFM0008	SFM0009	SFM0012	SFM0015	SFM0023	SFM0025	SFM0027	SFM0031	SFM0032	SFM0037	SFM0074
Aluminium	37	77	101											
Ammonium nitrogen	27	61	10	49										
Barium	32	14	23											
Bicarbonate	21	6	3	10	7	3	26	7	20	4	3	23		4
Bromide	39	49	36	87	40	15	29	15	30	51	82	64	32	14
Cadmium	125	41	38											
Calcium	12	9	3	17	13	40	25	4	21	13	7	4	15	1
Chloride	41	52	28	75	44	3	10	1	25	3	14	25	40	23
Chromium	44		52											
Cobalt	33	60	20											
Conductivity	33	13	4	22		3	6	2	4	2	3	5	20	11
Copper	55		68											
Dissolved Inorganic Carbon	25	14	10	18		21								
Dissolved Organic Carbon	23	9	9	22		8								
Fluoride	15	23	12	43	35	54	40	85	90	26	30	11	10	2
Iodide	28	42	100									57		9
Iron (total ICP)	24	36	77											
Lead	49	52	56											
Lithium	29	43	14	30	53	6	19	8	14	22	9	26	29	8
Magnesium	27	16	6	13	14	3	20	2	18	8	10	6	24	5

Element	SFM0001	SFM0002	SFM0003	SFM0008	SFM0009	SFM0012	SFM0015	SFM0023	SFM0025	SFM0027	SFM0031	SFM0032	SFM0037	SFM0074
Manganese	14	44	31										23	9
Mercury	63													
Molybdenum	37	23	10											
Nickel			62											
Nitrate nitrogen														
Phosphate phosphorus	185	184	148	114	240									
Potassium	32	42	57	34	144									
Silicate	24	17	6	9	18	3	25	3	11	4	6	9	24	4
Silicon	21	25	23	8	9									
Sodium	10	15	15	6	12	17	23	46	15	12	9	12	16	2
Sodium	36	41	14	60	14	3	24	1	20	6	15	27	43	17
Strontium	22	16	5	14	13	8	23	4	22	17	9	6	18	4
Sulphate	25	37	19	18	67	5	127	4	14	4	14	14	28	3
Sulphate sulphur	24	19	16	18	63	5	59	3	16	4	5	16	25	3
Sulphide	38		42											
Total nitrogen	13	5	9	14										
Total Organic Carbon	19	7	13	21	8									
Total phosphorus	17	126	275	44										
Tritium	28	11	36	12	6	146	54	90	38	12	26	11		
Vanadium	25	31	11											
Zinc		72		76										

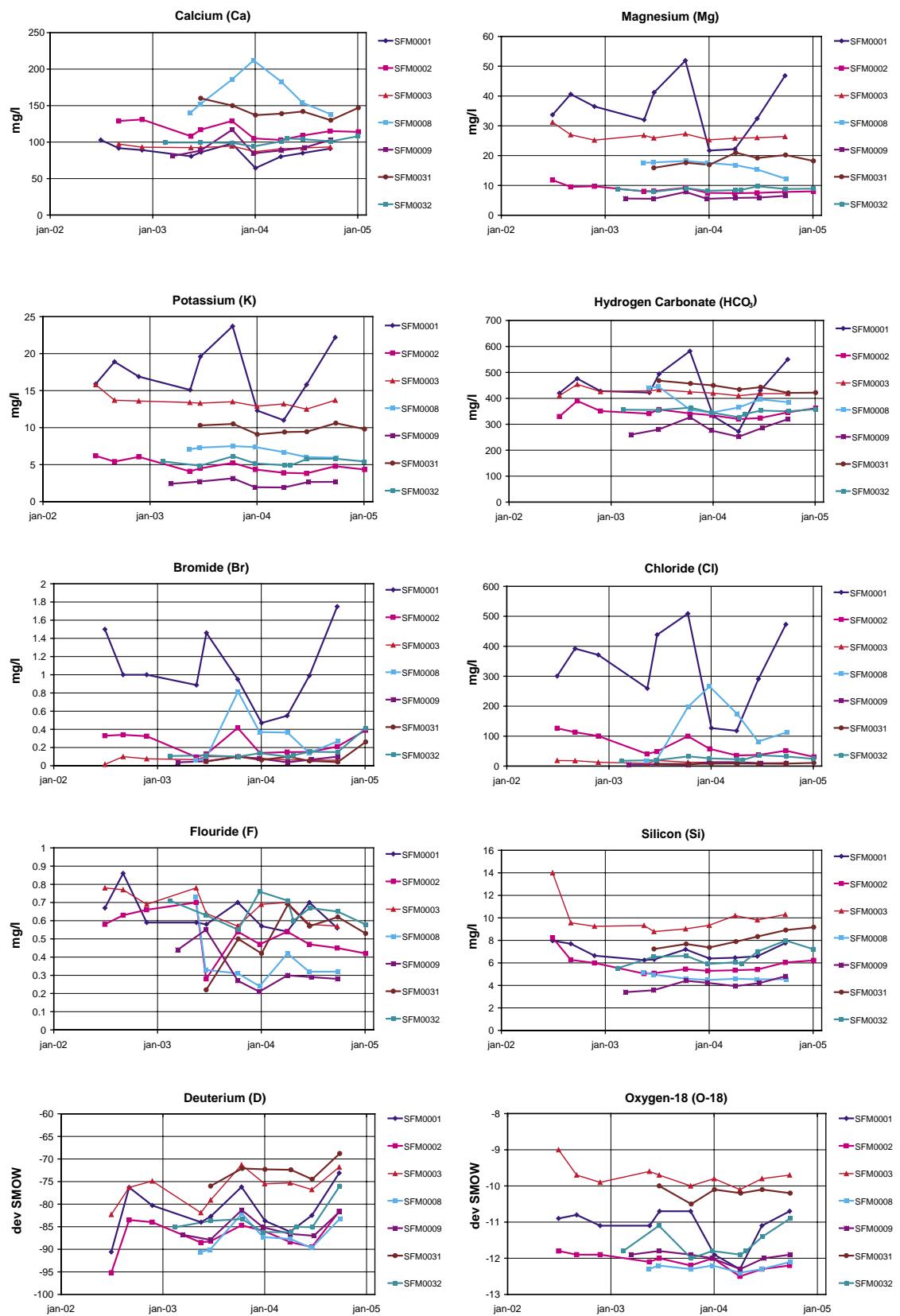


Figure 5-69. Time-series for some selected parameters in soil tubes located at 'higher' levels in the Forsmark area.

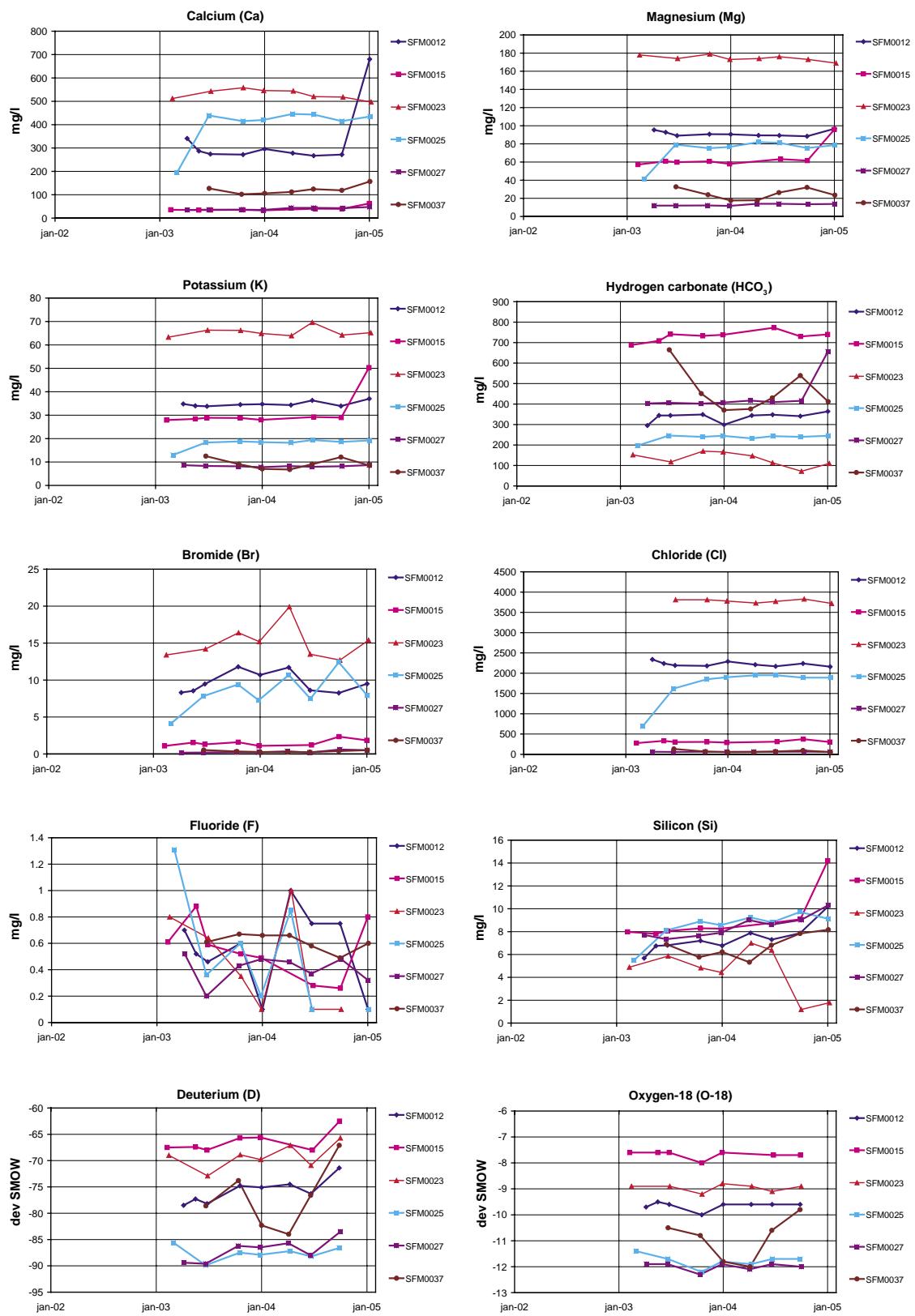


Figure 5-70. Time-series for some selected parameters in soil tubes located at 'lower' levels in the Forsmark area.

Among the elements in Table 5-14, bicarbonate shows least variation over time, indicated by overall low values of the coefficient of variation. Calcium and potassium concentrations are also stable over time compared to most other minor and major constituents. Bromide, fluoride and especially the nitrate nitrogen and phosphorus species show considerable large variation over time. Some of the deviations that are reflected by the coefficient of variation may be due to analytical issues as detection limits or due to non-representative conditions in observations made after mounting of the soil tubes.

The soil tubes, SFM0012 and SFM0023 that are located in till below the lake sediments of Gällsboträsket and Bolundsfjärden show least variation. These soil tubes are most probably located in discharge areas where the conditions usually are more stable compared to recharge areas. However, fluoride, silicon and to some degree bicarbonate, show higher variation in these two soil tubes compared to most other soil tubes.

In Figures 5-69 and 5-70 time series are shown for a selection of the major/minor constituents and the stable isotopes deuterium and oxygen-18. Soil tubes at ‘higher’ levels are shown in Figure 5-69, and in Figure 5-70 soil tubes from ‘lower’ levels are shown.

No general seasonal patterns or time-trends can be seen among the major elements in soil tubs at ‘higher’ levels, except for silicon that shows an increasing trend in almost all soil tubes. Soil tube SFM0001, that is located at drill site one, differs markedly from the rest of the soil tubes by showing a vigorous variation. The observed pattern is probably an effect of activities at the drill site.

Deuterium shows a clear seasonal pattern in the ‘higher’ located soil tubes with lowest values in late winter and spring. Oxygen-18 does not show a similar pattern. Both deuterium and oxygen-18 show initial values that differ from the following time-series. This could be an effect of disturbed conditions during mounting of the soil tubes.

Compared to the soil tubes located at ‘higher’ levels, the major elements at ‘lower’ levels usually show less variation (Figure 5-70). One exception is SFM0027 that shows a pattern similar to the ‘lower’ soil tubes. Silicon shows an increasing trend in most of the soil tubes.

The most pronounced difference between ‘higher’ and ‘lower’ located soil tubes is found for deuterium, where the seasonal pattern is considerably weaker in ‘lower’ areas compared to the distinct pattern seen in the ‘higher’ areas.

5.10 Relationships between elements in groundwater

In this section various evaluations that include several parameters are presented, in contrast to the element-wise compilations in previous sections. This division is not consistent throughout the report as some ratios and correlations are presented in connection to compilations of different parameter groups, for example stable and radioactive isotopes.

5.10.1 Principal component analysis

A principal component analysis was accomplished in order to elucidate relationships between variables and to identify groups and outliers among the soil tubes. The analysis was carried out on mean values per object in order to isolate the spatial variation, using scaled data with no transformations. As the matrix contains several missing data the results was interpreted cautiously and all relationships were checked.

The PCA was carried out on all available variables with enough spatial coverage. Most of the biochemical variables associated with the surface waters, for example nitrogen and phosphorus were excluded due to lack of data. As all rare earth elements are very closely correlated only lanthanum and thulium was included in the analysis as examples of this element group. Totally four components were significant with an eigenvalue greater than 2. These components, which are shown in the figures below, accounted for 66% of the total variation (38%, 11%, 10% and 7%, respectively).

According to the two first components the soil tubes in Forsmark area forms four groups:

1. SFM0023 (in Lake Bolundsfjärden).
2. SFM0011, SFM0012 (in Lake Gällsboträsket), SFM0013, SFM0022 (in Lake Fiskarfjärden), SFM0024 (in sea), SFM0025 (in sea).
3. SFM0015 (in Lake Eckarfjärden).
4. The remaining soil tubes.

The variables with the strongest correlation to the *first component* are the major elements sodium, potassium, magnesium, chloride, bromide, electrical conductivity, lithium, strontium etcetera. Inversely correlated to these variables are Carbon-14 (percent modern carbon) and the ratio $\text{HCO}_3/(\text{HCO}_3+\text{Cl})$ (Figure 5-71).

The *first component* discriminates groundwaters with high ionic strength from the rest. The highest concentrations of e.g. chloride, bromide and sodium are found in the soil tube situated in Lake Bolundsfjärden (SFM0023). SFM0011, SFM0012, SFM0013, that forms an intermediate group according to ionic strength, are situated in the small catchment of Gällsboträsket. SFM0024 and SFM0025 that also belong to this intermediate group are situated at two different locations in the sea just outside the coast. Characteristic for all these soil tubes are more or less low content of modern carbon (pmC) compared to the other soil tubes.

To the *second component* are bicarbonate, DIC, Chlorine-37 and the ratio D/O-18 strongest correlated. Inversely correlated to this group of variables are for example Strontium-87 and the ratio $\text{SO}_4/(\text{SO}_4+\text{HCO}_3+\text{Cl})$.

The *second component* is dominated by SFM0015 in Lake Eckarfjärden. The soil tubes that are situated near this lake (SFM0016, SFM0017, SFM0018) are also more similar to SFM0015 than the rest of the soil tubes. The second component could be interpreted as a gradient where bicarbonate, the D/O-18 ratio and Chlorine-37 show high values at Lake Eckarfjärden and low values in for example SFM0060, SFM0061 near the coast in the eastern part of the Forsmark area. Inversely, are the lowest concentrations of uranium and the lowest values of the Strontium-87 ratio is found in SFM0015.

The higher components (3–6) are more difficult to interpret as each represents rather small amounts of the total variation in the material (Figure 5-72).

The *third component* captures a topographical height gradient where SECUP (depth from soil surface to intake sieve on soil tube) is low when ELEVATION (absolute height of intake sieve of soil tube relative to sea level) shows high values. This component reflects the fact that the regolith is usually thinner at higher levels in the Forsmark area. The thickest deposits are also found at SFM0026 and SFM0027. These soil tubes, that are located close to each other, are also similar regarding the third and fourth components. At SFM0027 the Rn-222 concentration is high and the Sr-87 ratio low (these variables are not measured at SFM026).

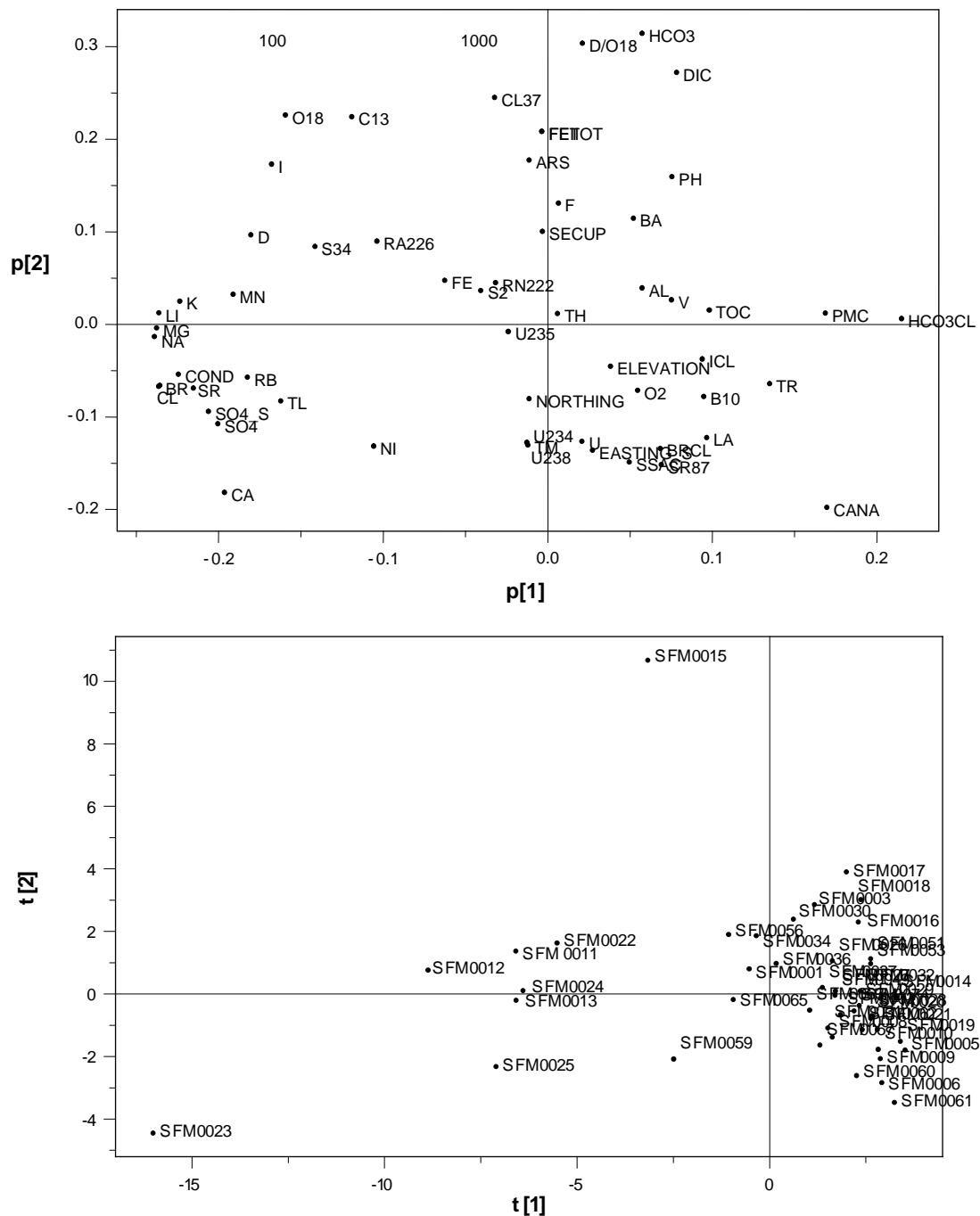


Figure 5-71. The first (horizontal) and second (vertical) components of the PCA on soil tube data from the Forsmark area. Upper – the loading plot that shows how the variables are related. Below – the score plot that shows how the objects (soil tubes) are related. See Table 5-15 for explanations of the abbreviations used.

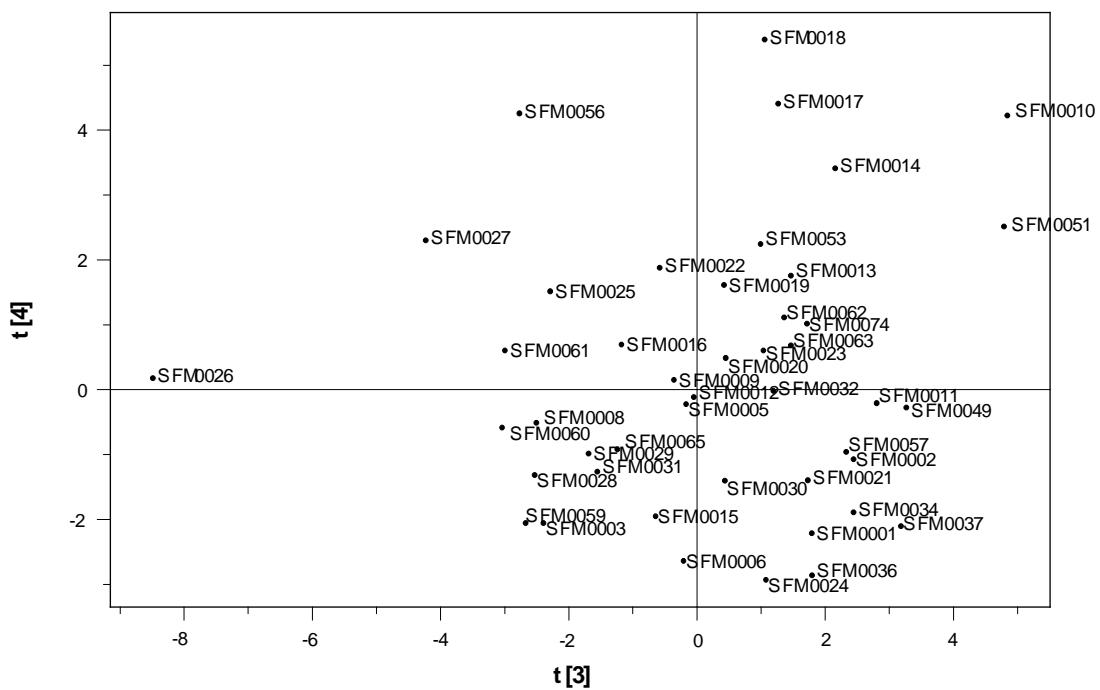
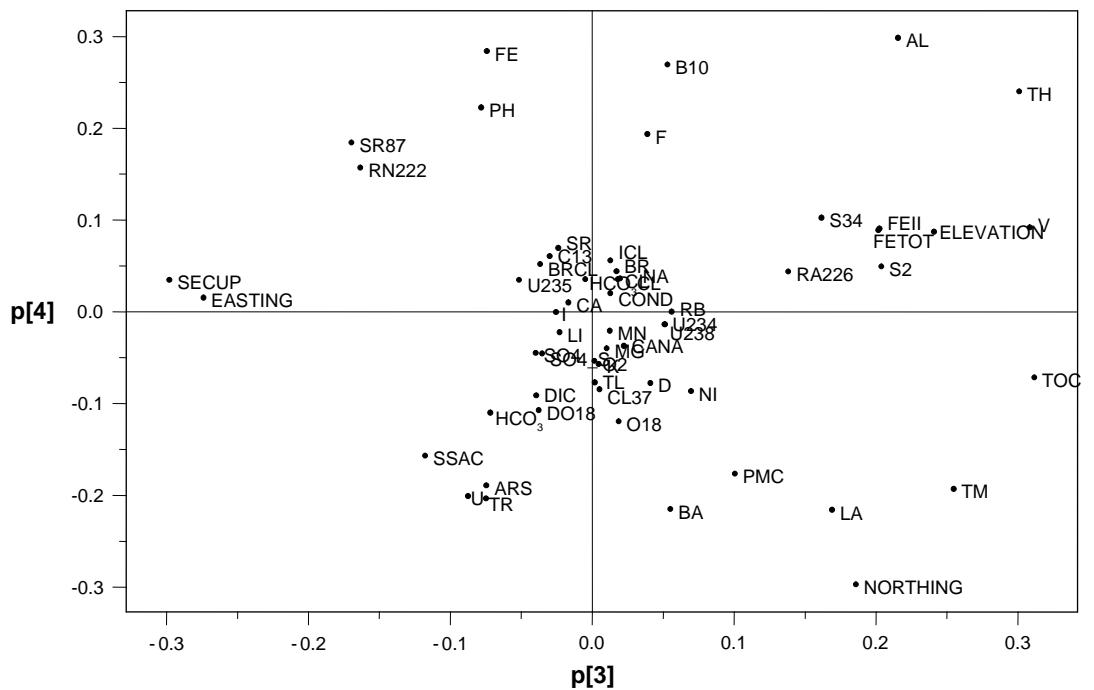


Figure 5-72. The third (horizontal) and fourth (vertical) components of the PCA on soil tube data from the Forsmark area. Upper – the loading plot that shows how the variables are related. Below – the score plot that shows how the objects (soil tubes) are related. See Table 5-15 for explanations of the abbreviations used.

The *third component* also reflects the fact that the thorium and vanadium concentrations are high at SFM0051 and low at SFM0026.

The *fourth component* discriminates a group of soil tubes that are located near Lake Eckarfjärden (SFM0014, SFM0017, SFM0018). These tubes show relatively high values of fluorine, and relatively low tritium values (around 7 TU).

Table 5-15. Abbreviations used in Figures 4-71 and 4-72.

AL	Aluminium	MN	Manganese
ARS	Arsenic	NA	Sodium
B10	Boron-10	NI	Nickel
BA	Barium	NORTHING	North coordinate
BR	Bromide	O18	Oxygen-18
BRCL	Br/Cl ratio	O2	Oxygen
C13	Carbon-13	PH	pH
CA	Calcium	PMC	Carbon-14
CANA	Ca/(Ca + Na) ratio	RA222	Radon-222
CL37	Chlorine-37	RA226	Radium-226
COND	Conductivity	RB	Rubidium
D	Deuterium	S2	Hydrogen sulphide
DIC	Dissolved inorganic carbon	S34	Sulphur-34
DO18	D/O-18 ratio	SECUP	Depth of soil tube intake sieve
EASTING	East coordinate	SO4	Sulphate
ELEVATION	Altitude above sea level	SO4_S	Sulphur as sulphate
F	Fluoride	SR	Strontium
FE	Iron	SR87	Strontium-87
HCO3	Bicarbonate	SSAC	$\text{SO}_4/(\text{SO}_4 + \text{Cl} + \text{HCO}_3)$
HCO3CL	$\text{HCO}_3/(\text{HCO}_3 + \text{Cl})$	TH	Thorium
I	Iodine	TL	Thallium
ICL	I/Cl ratio	TM	Thulium
K	Potassium	TOC	Total organic carbon
LA	Lanthanum	TR	Tritium
LI	Lithium	U	Uranium
MG	Magnesium	V	Vanadium

5.10.2 Element ratios of major constituents

In this section ratios of major and minor constituents are presented. These ratios, that were rather arbitrarily selected after proposals from a number of persons involved in the site modelling, are shown to facilitate the interpretations of the major and minor constituents. In Table 5-16 is the median value per soil tube shown for this selection of ratios, and in Figures 5-73 to 5-75 is the spatial variation shown in maps.

Table 5-16. Element ratios of major constituents in water samples from soil tubes in the Forsmark area. Median values of meq/l ratios calculated per observation. Note that the ratios including bromide and iodide are multiplied by a factor 1,000.

Idcode	Ca/ (Ca + Na)	HCO ₃ / (HCO ₃ + Cl)	1,000×Br/Cl	1,000×I/Cl	SO ₄ / (SO ₄ + Cl + HCO ₃)
SFM0001	0.27	0.43	1.5	0.0065	0.17
SFM0002	0.85	0.80	1.4	0.036	0.059
SFM0003	0.80	0.95	2.6	0.15	0.14
SFM0005	0.95	0.95	2.6	0.32	0.053
SFM0006	0.89	0.86	2.2	0.022	0.18
SFM0008	0.88	0.66	1.1	0.0076	0.14
SFM0009	0.95	0.96	3.5	0.16	0.086
SFM0010	0.97	—	—	—	—
SFM0011	0.14	0.096	1.8	0.0033	0.076
SFM0012	0.23	0.083	1.9	0.0072	0.062
SFM0013	0.27	0.073	2.2	0.0042	0.059
SFM0014	0.87	0.96	3.0	0.23	0.051
SFM0015	0.13	0.59	2.0	0.077	0.00049
SFM0016	0.82	0.88	1.4	0.064	0.047
SFM0017	0.25	0.95	1.8	0.13	0.016
SFM0018	0.21	0.95	2.0	0.14	0.053
SFM0019	0.94	0.98	8.4	0.38	0.096
SFM0020	0.94	0.95	2.3	0.077	0.12
SFM0021	0.93	—	—	—	—
SFM0022	0.28	0.15	1.7	0.015	0.053
SFM0023	0.28	0.018	1.8	0.0039	0.064
SFM0024	0.15	0.11	1.5	0.0019	0.094
SFM0025	0.40	0.070	2.2	0.0049	0.080
SFM0026	0.61	0.70	1.4	0.017	0.10
SFM0027	0.26	0.79	1.8	0.028	0.11
SFM0028	0.89	0.94	2.4	0.15	0.13
SFM0029	0.89	0.93	1.9	0.11	0.13
SFM0030	0.41	0.77	1.7	0.032	0.20
SFM0031	0.89	0.97	3.5	0.14	0.25
SFM0032	0.81	0.89	2.4	0.070	0.11
SFM0034	0.32	0.38	1.4	0.0052	0.049
SFM0036	0.49	0.68	1.7	0.013	0.15
SFM0037	0.60	0.79	2.2	0.020	0.20
SFM0049	0.85	0.87	2.3	0.063	0.013
SFM0051	0.89	0.82	1.3	0.039	0.050
SFM0053	0.94	0.95	3.9	0.18	0.12
SFM0056	0.11	0.34	1.5	0.0063	0.19
SFM0057	0.69	0.38	1.8	0.0100	0.037
SFM0059	0.47	0.25	1.3	0.0044	0.21
SFM0060	0.95	0.96	2.6	0.078	0.20
SFM0061	0.93	0.93	2.9	0.032	0.19
SFM0062	0.81	0.86	2.1	0.062	0.13
SFM0063	0.65	0.56	1.6	0.047	0.095
SFM0065	0.30	0.33	1.4	0.0060	0.10
SFM0074	0.74	0.79	1.8	0.029	0.11
'Higher' soil tubes	0.87	0.89	2.0	0.060	0.12
'Lower' soil tubes	0.28	0.34	1.8	0.011	0.075
All soil tubes	0.77	0.80	1.9	0.035	0.11

The first three ratios in Table 5-16 are rather stable and show a variation about an order of magnitude. The latter two show a variation about two orders of magnitude. Note that the ratios including bromide and iodide are multiplied by a factor 1,000, in order to make the table easier to read.

The spatial distributions of the ratios in Table 5-16 are displayed in Figures 5-74 to 5-76. In contrast to the median values in the table, the dots shown in the maps represent mean values. In addition data from soil tubes, private wells and surface waters are included.

In Figure 5-73 the sulphate concentrations are plotted versus the sulphate-chloride ratio. The observations from SFM0015 and SFM0049 reveals as outliers in this figure, indicating highly differing conditions in respect to sulphate.

Between the single observation of precipitation and the observations of sea water, a dilution line is drawn, indicating mixing with saline water. The soil tube SFM0023 in the till below the sediments of Lake Bolundsfjärden plots rather closely to this line.

The soil tube SFM0031, located at the shore of Lake Bolundsfjärden, represents another extreme value in the plot, where sulphur is enriched in relation to chloride.

In Figure 5-74 the molar ratio of sulphur to the sum of sulphur, chlorine and bicarbonate are displayed. The soil tubes around in Lake Eckarfjärden (SFM0014–18) marks out by showing especially low values of this ratio. The same applies to soil tubes in the catchment of Gällsboträsket (SFM0011–13 and SFM0057). The highest value of this ratio is found in soil tubes at ‘higher’ levels.

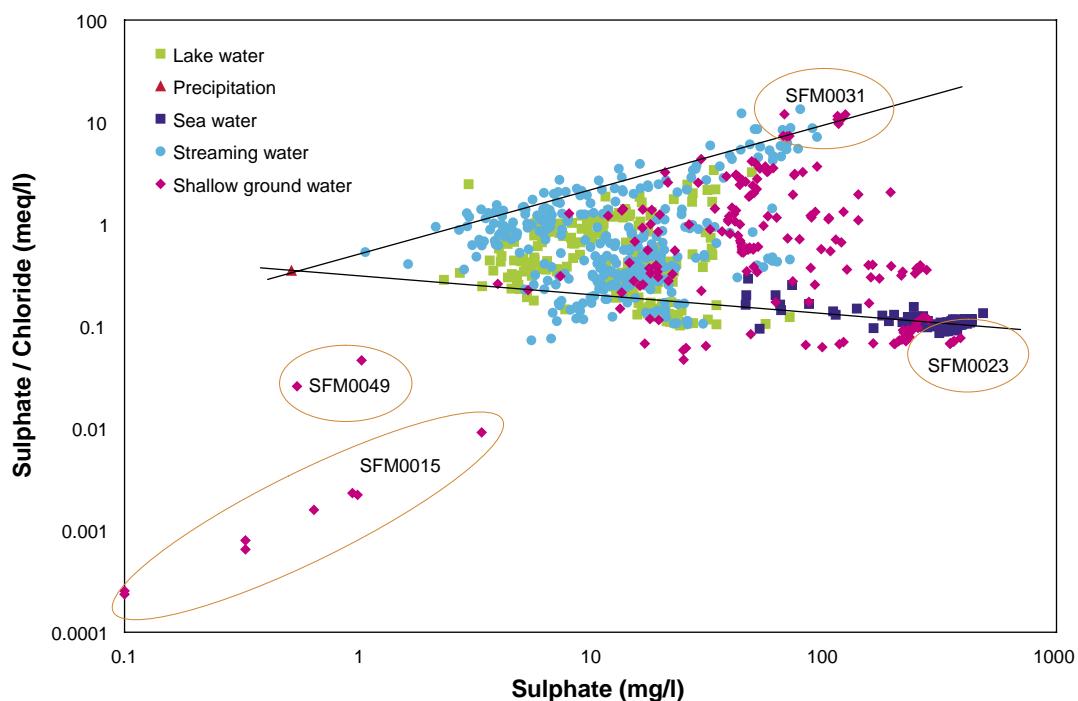


Figure 5-73. Sulphate concentration versus the sulphate-chlorine ratio calculated on meq/l in the Forsmark area.

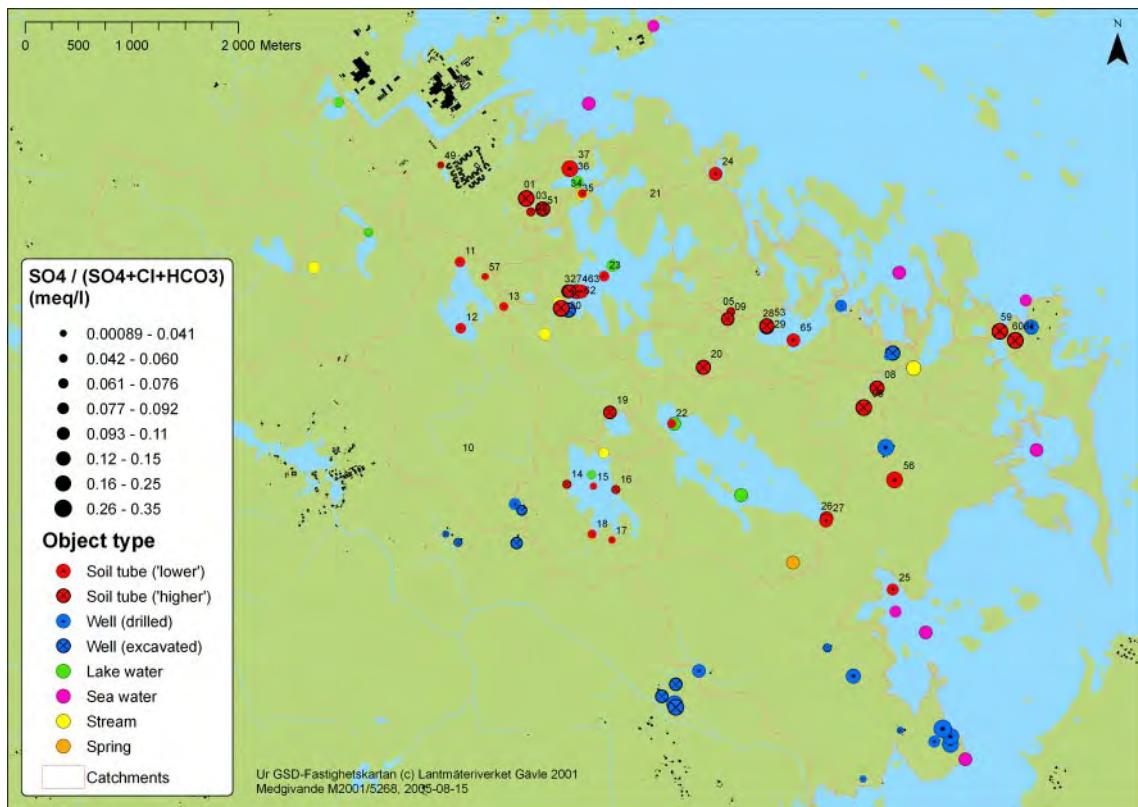


Figure 5-74. Ratio between sulphur and the sum of sulphur, chlorine and bicarbonate in samples from the Forsmark area.

The calcium-sodium ratio is low in ‘lower’ located soil tubes and high in the ‘higher’ located soil tubes (Figure 5-75). All observations of both shallow groundwaters and surface water exceed the ratio of sea water.

The bicarbonate-chloride ratio is low in the soil tubes located in the till below the sediments of the lakes. The highest values are found in the vicinity of Lake Eckarfjärden (Figure 5-75). As the bicarbonate concentration is rather constant throughout the area, this ratio mainly reflects the variation of chloride.

The ratios of bromide-chloride and iodide-chloride show a very similar spatial pattern in the Forsmark area. There are some uncertainties regarding bromide, as about 10% of the analyses fall below the reporting limit (Figure 5-76).

The iodide-chloride ratio is generally enriched in the catchment of Lake Eckarfjärden compared to the ratio of sea water. Similar ‘enrichments’ if iodine is also found in some ‘higher’ located soil tubes.

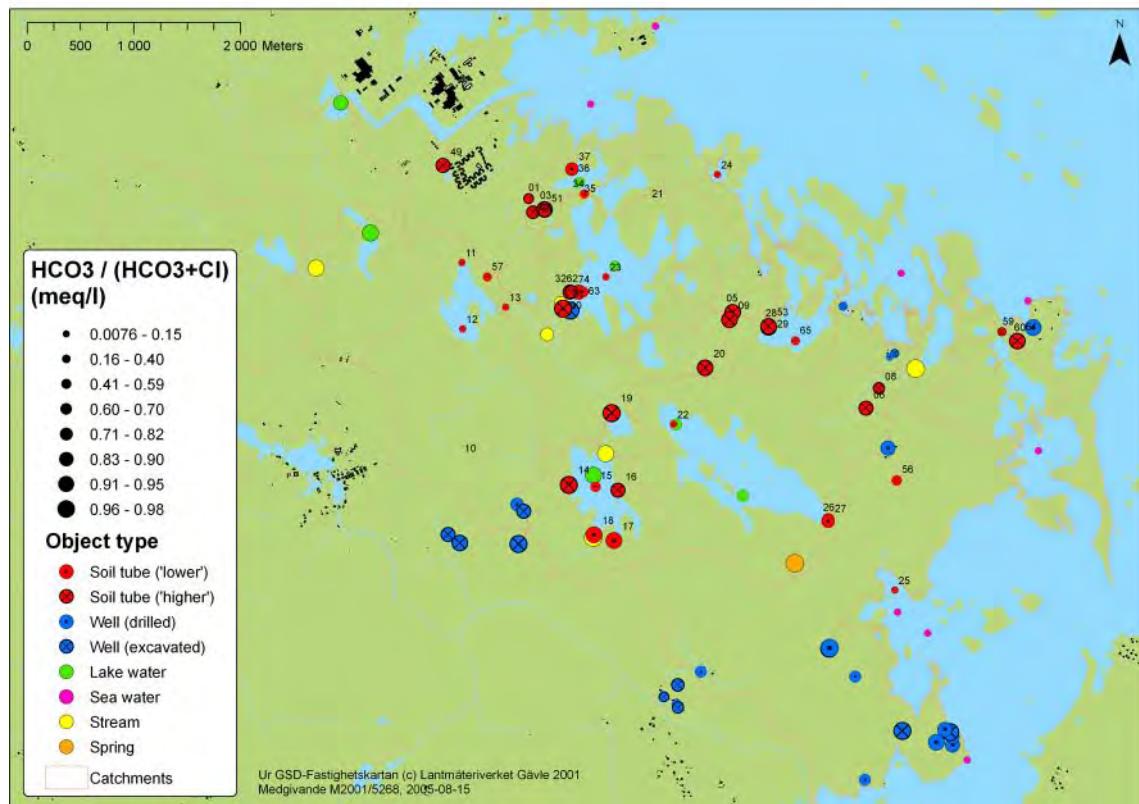
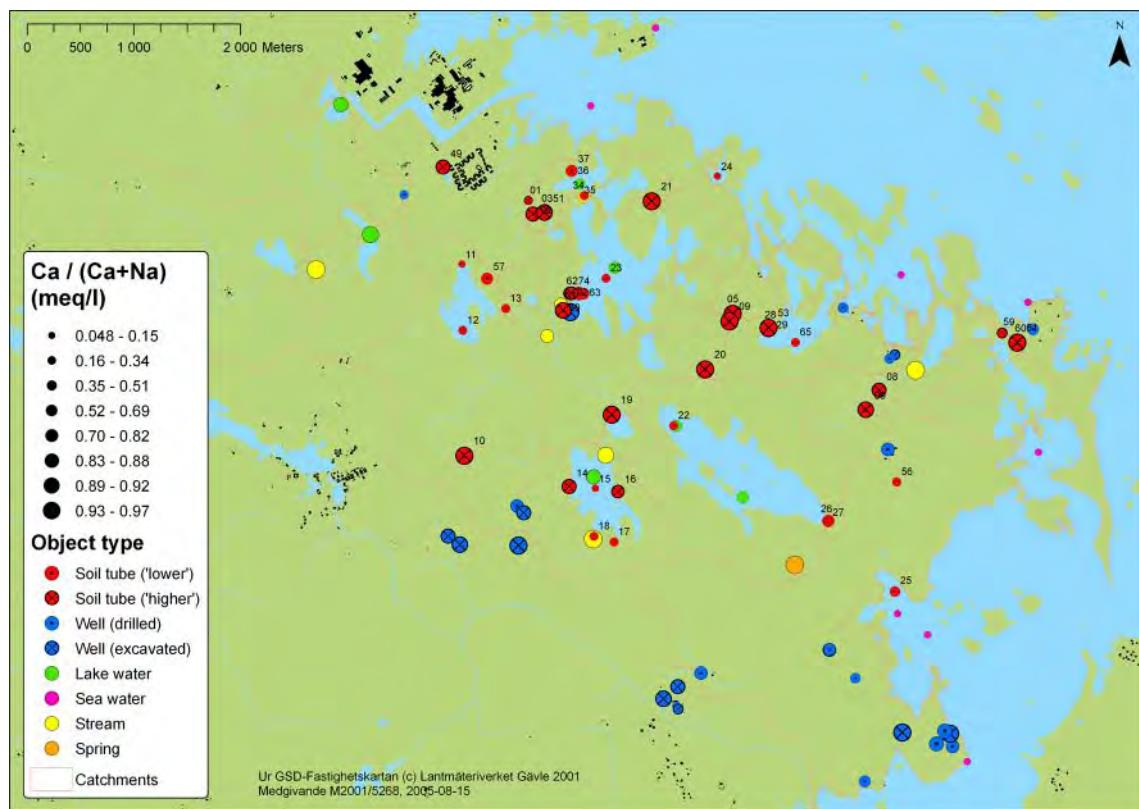


Figure 5-75. Calcium – sodium ratio (upper) and bicarbonate – chloride ratio (lower) in the Forsmark area.

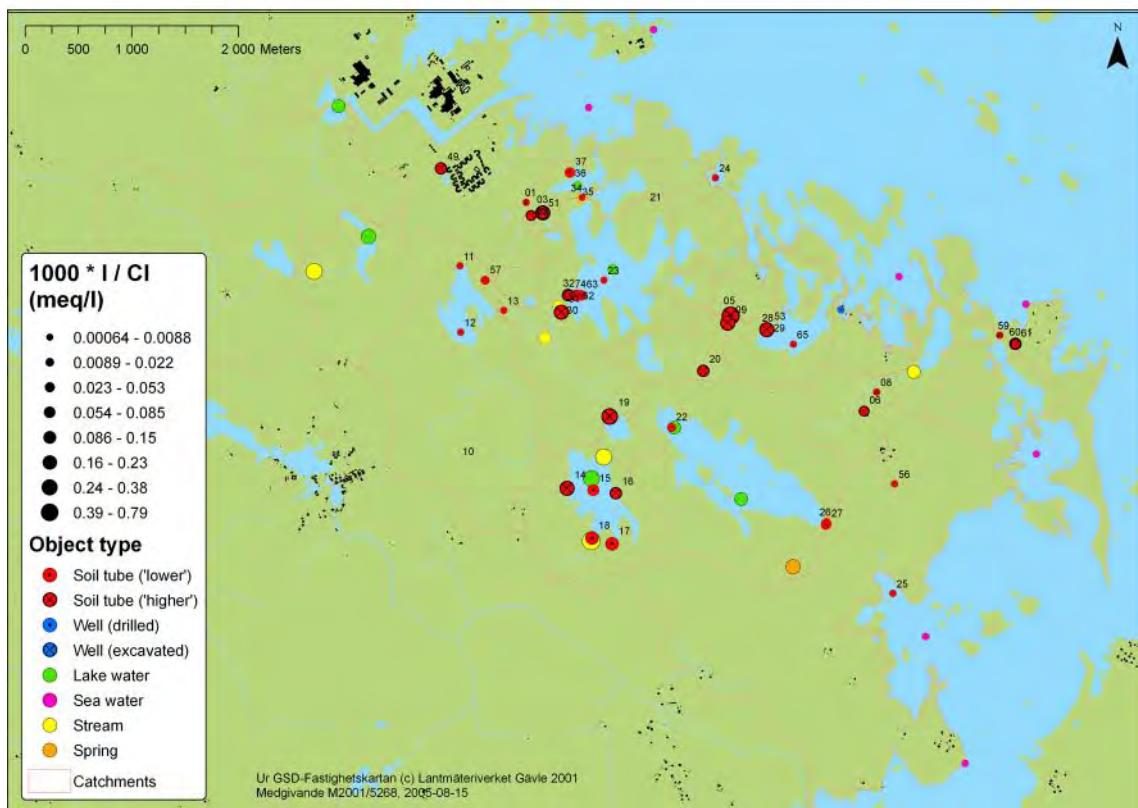
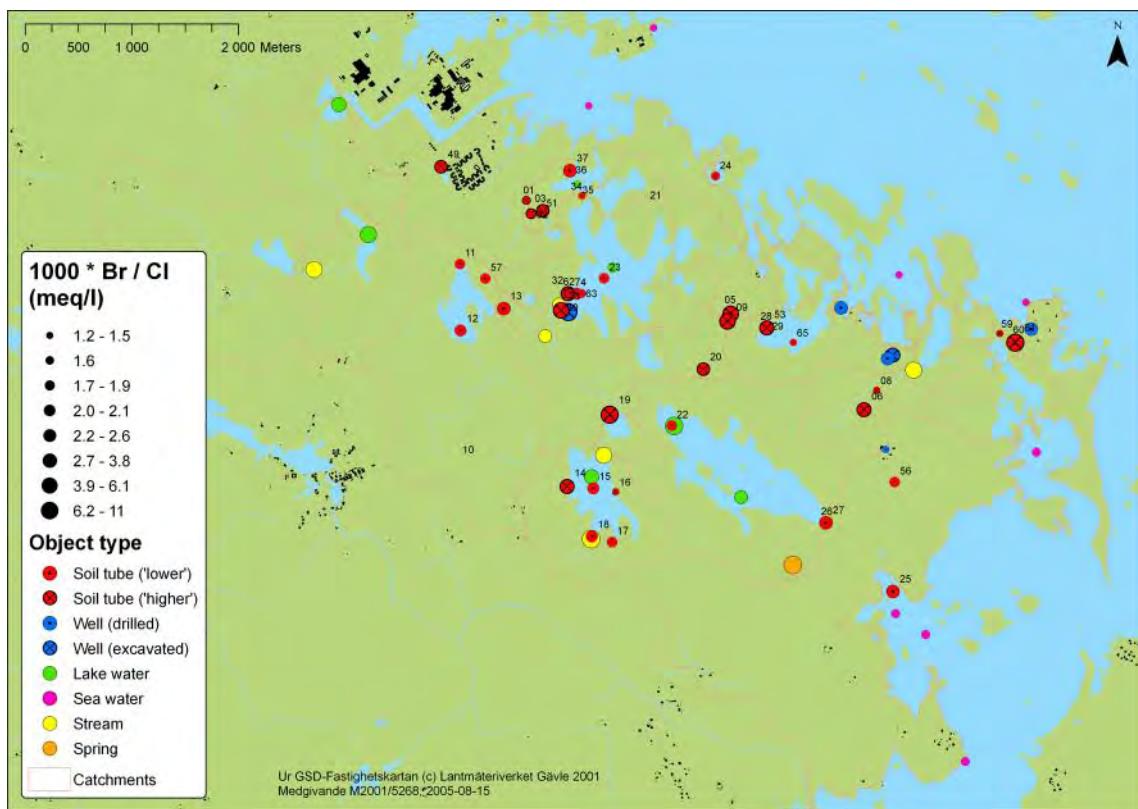


Figure 5-76. Bromide – chloride ratio (upper) and iodide – chloride ratio (lower) in the Forsmark area.

5.10.3 Saturation indices

Saturation indexes calculated for various minerals give indications whether the minerals are undersaturated, saturated or oversaturated under prevailing environmental conditions. When a mineral is undersaturated dissolution processes transfer substances from rock or overburden to water phase. During oversaturation the reverse take place and substances may leave the water phase by precipitation. At saturation are the minerals in equilibrium with the dissolved ions in the water phase.

Based on concentrations of a number of constituents and field measurements of pH and temperature, the thermodynamic database WATEQ4F from USGS was used to calculate saturation indexes for several minerals /USGS 2005/. All calculations were made on individual observations with complete records in respect to the input data. In order to facilitate the evaluation in Table 5-17 mean values of the saturation indices were calculated per soil tube. In Figure 5-77 are the ranges shown for the saturation index of calcite.

Table 5-17. Saturation indexes for a number of minerals calculated by the thermodynamic database WATEQ4F. Averages of 5–10 observations from soil tubes in the Forsmark area. To facilitate the interpretation of the table all values between –1 and –0.2 are marked blue, values exceeding 0.2 are marked yellow and values between –0.2 and 0.2 are marked green.

Idcode	Anhydrite	Aragonite	Calcite	Chalcedony	Cristobalite	Dolomite c	Dolomite d	Fluorite	Gypsum	Magnesite	Sepiolite c
SFM0001	-1.72	-0.14	0.02	0.12	0.20	-0.29	-0.92	-1.26	-1.46	-0.82	-4.17
SFM0002	-2.31	-0.21	-0.05	-0.01	0.06	-1.14	-1.76	-1.18	-2.05	-1.60	-6.39
SFM0003	-2.00	-0.10	0.06	0.30	0.37	-0.38	-1.01	-1.04	-1.74	-0.94	-4.08
SFM0005	-2.47	-0.46	-0.30	-0.02	0.06	-1.90	-2.54	-2.55	-2.21	-2.10	-7.96
SFM0006	-1.65	-0.06	0.10	0.09	0.17	-0.87	-1.50	-1.26	-1.39	-1.47	-5.93
SFM0008	-1.69	-0.25	-0.09	0.02	0.09	-1.12	-1.75	-1.35	-1.43	-1.54	-6.67
SFM0009	-2.28	-0.33	-0.17	-0.04	0.03	-1.47	-2.10	-1.66	-2.03	-1.81	-6.77
SFM0012	-1.40	-0.17	-0.01	0.19	0.26	-0.40	-1.02	-1.24	-1.14	-0.91	-4.43
SFM0015	-4.90	-0.28	-0.13	0.21	0.27	0.09	-0.52	-2.04	-4.65	-0.31	-3.52
SFM0022	-1.70	0.13	0.29	0.21	0.28	0.20	-0.41	-0.48	-1.44	-0.62	-3.30
SFM0023	-1.07	-0.08	0.07	-0.18	-0.12	-0.18	-0.79	-1.94	-0.82	-0.78	-3.75
SFM0024	-1.54	-0.15	0.00	0.06	0.12	0.10	-0.51	-2.43	-1.29	-0.44	-3.46
SFM0025	-1.16	-0.17	-0.01	0.28	0.35	-0.64	-1.26	-1.53	-0.90	-1.15	-4.50
SFM0027	-2.41	-0.02	0.13	0.23	0.30	-0.13	-0.76	-1.92	-2.16	-0.78	-3.03
SFM0029	-1.92	-0.28	-0.12	0.10	0.17	-1.20	-1.82	-1.48	-1.67	-1.58	-6.52
SFM0031	-1.55	-0.16		0.23	0.30	-0.83	-1.45	-1.26	-1.30	-1.34	-5.61
SFM0032	-2.12	-0.29	-0.13	0.16	0.23	-1.25	-1.87	-0.99	-1.86	-1.63	-6.05
SFM0037	-1.65	-0.28	-0.12	0.12	0.19	-0.84	-1.47	-1.09	-1.39	-1.23	-5.80
SFM0049	-3.43	-0.99	-0.83	-0.12	-0.05	-2.67	-3.27	-1.84	-3.17	-2.36	-8.58
SFM0057	-2.22		-0.39	-0.10	-0.03	-1.92	-2.54	-1.79	-1.96	-2.03	-8.07
SFM0060	-1.80	-0.32	-0.16	-0.13	-0.05	-1.39	-2.02	-0.85	-1.54	-1.75	-7.23

Calcite is near saturation in most of the soil tubes, aragonite is slightly undersaturated except for SFM0022 located in till below the sediments of Lake Fiskarfjärden. Dolomite is near saturation in SFM0015, SFM0022, SFM0024 and SFM0027.

Chalcedony and cristoballite is near saturation in all soil tubes.

The soil tube of Lake Fiskarfjärden marks out being near saturation for most minerals, including fluorite.

SFM0015 marks out being highly undersaturated in respect to gypsum, compared to the rest of the soil tubes.

Figure 5-77 shows that there is a substantial variation for the saturation index of calcite. In most soil tubes the deviations are relatively symmetrical around zero. The most evident exceptions are SFM0022 where all observations are oversaturated, and SFM0040 and SFM0057 where all observations are undersaturated.

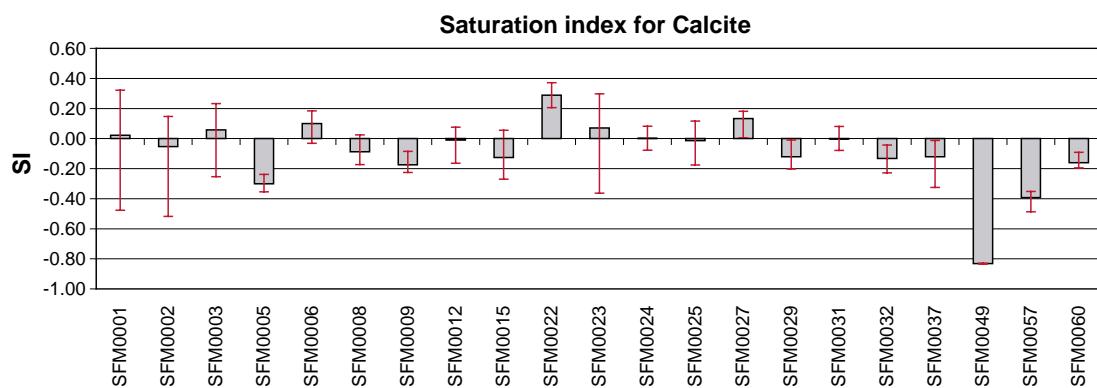


Figure 5-77. Saturation index for calcite in shallow groundwater in the Forsmark area. Averages of 5–10 observations (bars). Minimum and maximum values (whiskers).

6 Precipitation – presentation and evaluation of primary data

The chemical composition of precipitation has been measured for 24 parameters at the sampling stations PFM002457 and PFM002564 in the Forsmark area. The distributions of all available data are together with reference data from Enköping and Gotland, compiled in Table 6-1.

Temporal variations are shown for six elements in Figure 6-1, showing the time series from November 2002 to September 2004.

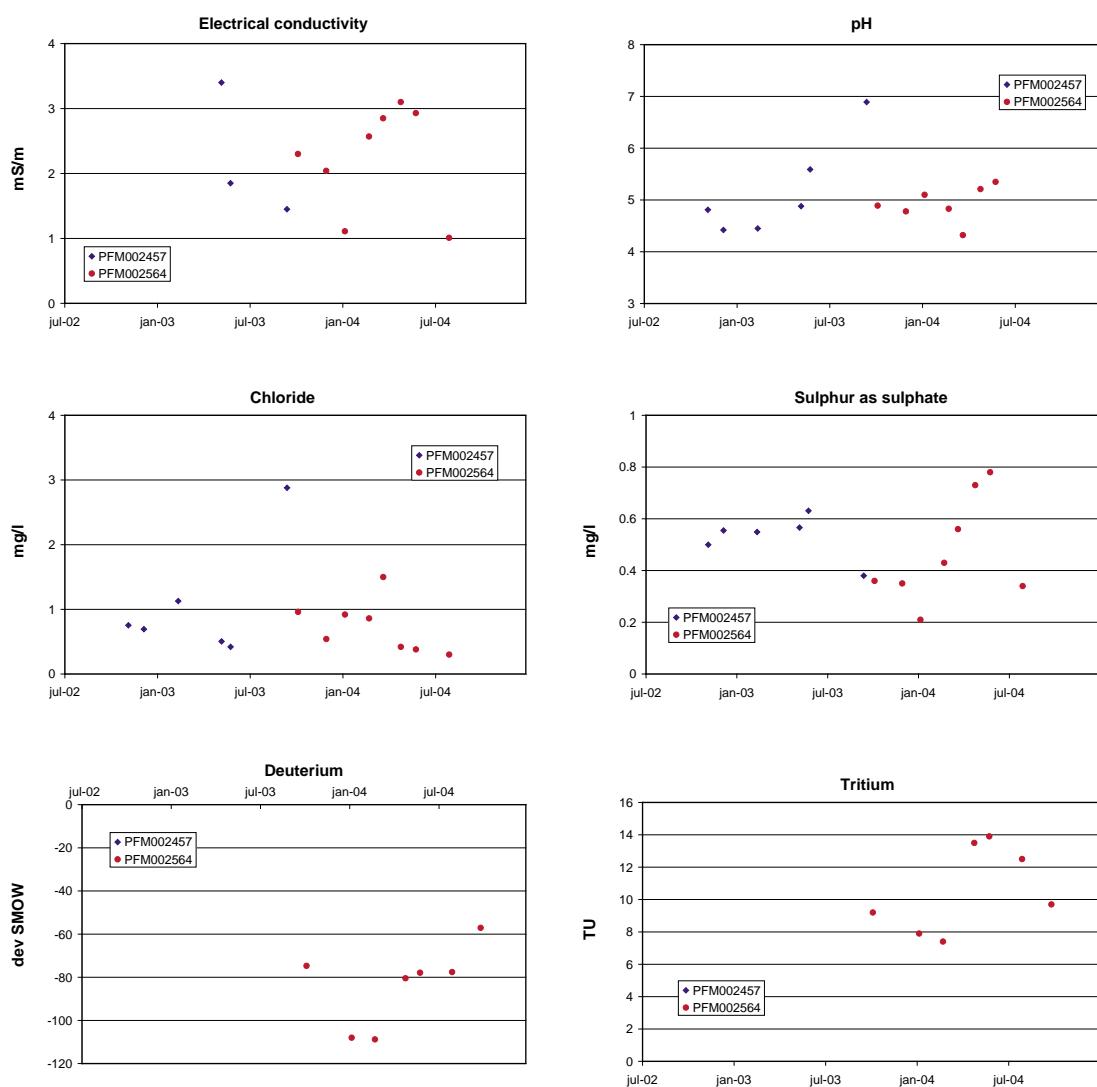


Figure 6-1. Time series showing the chemical composition in precipitation in the Forsmark area (PFM002457 and PFM002564).

Table 6-1. Compilation of chemical composition of precipitation from PFM002457 and PFM002564 in the Forsmark area. Reference data from national reference stations in Enköping (IVL:289) and at the Island of Gotland (IVL:1554).

Element	Enhet	Idcode2	Number	Min	25-p	Median	75-p	Max	Mean	Stddev	CV(%)
Aluminium	µg/l	PFM002457	6	< 0.015	< 0.015	0.019	0.041	0.15	0.041	0.06	130
		PFM002564	8	< 0.015	< 0.015	0.021	0.028	0.043	0.022	0.01	62
Bromide	mg/l	PFM002457	6	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	
			8	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	
Calcium	mg/l	PFM002457	6	0.090	0.19	0.37	0.50	0.83	0.39	0.3	70
		PFM002564	8	0.070	0.088	0.16	0.32	0.46	0.21	0.1	70
		IVL:289	*	0.12	0.13	0.16	0.19	0.20	0.16	0.04	22
		IVL:1554	*	0.24	0.31	0.38	0.38	0.38	0.33	0.08	24
Dissolved organic carbon	mg/l	PFM002457	6	1.3	2.0	2.5	2.7	3.3	2.4	0.7	29
		PFM002564	8	0.60	0.90	2.5	3.0	3.4	2.1	1	55
Bicarbonate	mg/l	PFM002457	6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
		PFM002564	8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
Chloride	mg/l	PFM002457	6	0.42	0.55	0.72	1.0	2.9	1.1	0.9	87
		PFM002564	8	0.30	0.41	0.70	0.93	1.5	0.74	0.4	55
		IVL:289	*	0.40	0.41	0.45	0.47	0.49	0.44	0.04	8.7
		IVL:1554	*	1.2	1.3	1.4	1.5	1.8	1.4	0.2	16
Deuterium	%SMOW	PFM002564	7	-109	-94.3	-77.9	-76.2	-57.1	-83.5	19	-22
Fluoride	mg/l	PFM002564	1	< 0.2				< 0.2	< 0.2		
Iodide	mg/l	PFM002564	1	< 0.001				< 0.001	< 0.001		
Iron (total)	mg/l	PFM002457	6	0.0030	0.0078	0.012	0.016	0.29	0.057	0.1	200
		PFM002564	8	0.0010	0.0010	0.0030	0.0088	0.025	0.0076	0.01	130
Magnesium	mg/l	PFM002457	6	0.046	0.065	0.078	0.082	0.17	0.086	0.04	50
		PFM002564	8	0.020	0.065	0.078	0.090	0.14	0.078	0.03	43
		IVL:289	*	0.040	0.040	0.040	0.050	0.060	0.046	0.009	19
		IVL:1554	*	0.090	0.11	0.15	0.17	0.21	0.15	0.05	33
Nitrogen – total	mg/l	PFM002564	1	0.25				0.25	0.25		
Nitrogen as nitrate	mg/l	PFM002457	6	0.044	0.36	0.43	0.57	0.72	0.43	0.2	54
		PFM002564	8	0.14	0.31	0.34	0.43	0.80	0.40	0.2	52
		IVL:289	*	0.25	0.31	0.31	0.40	0.40	0.33	0.07	19
		IVL:1554	*	0.51	0.54	0.57	0.60	0.63	0.57	0.05	8.3
Nitrogen – Kjeldahl	mg/l	PFM002457	6	< 0.15	0.20	0.31	0.33	0.77	0.33	0.2	73
		PFM002564	8	0.20	0.35	0.41	1.2	1.5	0.71	0.5	76
Nitrogen as ammonium	mg/l	IVL:289	*	0.25	0.28	0.31	0.34	0.42	0.32	0.07	20
		IVL:1554	*	0.39	0.44	0.50	0.58	0.70	0.52	0.1	26
Oxygen-18	%SMOW	PFM002564	7	-15.4	-13.2	-11.2	-10.7	-8.30	-11.8	2.5	-21
Phosphorus – total	mg/l	PFM002457	6	< 0.002	< 0.002	< 0.002	0.0028	0.019	0.0045	0.007	160
		PFM002564	8	0.0010	0.0018	0.0065	0.084	0.11	0.039	0.05	130
Potassium	mg/l	PFM002457	6	< 0.08	< 0.08	< 0.08	0.14	0.35	0.13	0.1	92
		PFM002564	8	0.070	0.098	0.14	0.22	0.67	0.22	0.2	94
		IVL:289	*	0.10	0.11	0.12	0.12	0.14	0.12	0.01	13
		IVL:1554	*	0.12	0.12	0.15	0.17	0.31	0.17	0.08	45
Silicon	mg/l	PFM002564	1	< 0.03				< 0.03	< 0.03		

Element	Enhett	Idcode2	Number	Min	25-p	Median	75-p	Max	Mean	Stddev	CV(%)
Sodium	mg/l	PFM002457	6	0.26	0.44	0.53	0.66	1.1	0.59	0.3	49
		PFM002564	8	0.22	0.31	0.44	0.58	1.0	0.49	0.3	51
		IVL:289	*	0.25	0.27	0.27	0.29	0.31	0.28	0.02	8.2
		IVL:1554	*	0.70	0.79	0.87	0.91	1.0	0.86	0.1	14
Sulphate	mg/l	PFM002564	1	0.52				0.52	0.52		
Sulphate as sulphur	mg/l	PFM002457	6	0.38	0.51	0.55	0.56	0.63	0.53	0.08	16
		PFM002564	8	0.21	0.35	0.40	0.60	0.78	0.47	0.2	43
		IVL:289	*	0.26	0.33	0.39	0.41	0.47	0.37	0.08	22
		IVL:1554	*	0.53	0.59	0.62	0.69	0.72	0.63	0.08	12
Tritium	TU	PFM002564	7	7.40	8.55	9.70	13.0	13.9	10.6	2.7	25
Electrical conductivity	mS/m	PFM002457	3	1.5	1.7	1.9	2.6	3.4	2.2	1	46
		PFM002564	8	1.0	1.8	2.4	2.9	3.1	2.2	0.8	36
		IVL:289	*	1.1	1.5	1.5	1.5	2.3	1.6	0.4	27
		IVL:1554	*	2.1	2.1	2.7	2.8	4.0	2.7	0.8	28
pH	pH unit	PFM002457	6	4.42	4.54	4.85	5.41	6.89	5.17	0.94	18
		PFM002564	8	4.32	4.82	5.00	5.25	6.81	5.16	0.74	14
		IVL:289	*	4.64	4.74	4.79	4.83	4.92	4.78	0.10	2.2
		IVL:1554	*	4.63	4.64	4.64	4.69	4.73	4.67	0.055	1.2

*Distribution of 5 yearly averages during the period 2000–2004.

Electrical conductivity and sulphate show a differing pattern compared to chloride, probably indicating to some extent different sources for these elements. The source for sulphate could be either marine spray or atmospheric sulphate deposition. Chloride in precipitation mainly originates from marine sources.

Deuterium shows a typical seasonal variation with the lowest values measured during winter.

Tritium scatters around 10 TU, which is in level with the natural production corresponding to levels of 5–10 TU. Emissions of tritium from the nuclear power plant nearby could probably contribute to the observed levels.

7 Regolith – presentation and evaluation of primary data

7.1 Geochemical composition of till

7.1.1 Comparisons between available site data and national reference data

When the median values of till in the Forsmark area are compared to the Swedish reference data, the majority of the elements occur in normal amounts. Normal in this context is deviations of the median values up to a factor 2, compared to the median values of the Swedish references (Table 7-1). Calcium and strontium are two exceptions where the content in till in the Forsmark area is clearly higher than the Swedish reference data.

The calcium level in till in the Forsmark area is about 30 times the Swedish reference. The calcium content of the Quaternary deposits originates from the seafloor of Gåvlebukten, a bay of Östersjön about 100 km north of the Forsmark site that is covered by Cambrian and Ordovician sedimentary bedrock. The calcium rich material was transported from Gåvlebukten and deposited in the Forsmark area during the latest glacial period /Ingemar and Moreborg 1976/. This explanation is supported by the fact that extraordinary high contents of calcite (calcium carbonate) is measured in the till, whereas the granite dominated bedrock lacks calcite (Figure 2-6). The shallow ground waters in the area also show highly elevated concentrations of calcium and bicarbonate, the products formed by the calcite dissolution process.

Strontium occurs in levels about seven times elevated to the Swedish reference. A similar elevation is seen when surface waters in the Forsmark area are compared to a sample of Swedish lakes. The median values of the surface waters in the Forsmark area exceeds the 90th percentile of the Swedish reference lakes, indicating markedly elevated strontium levels. The elevated concentrations in the surface waters are probably caused by the high content of strontium in the till the area. Both calcium and strontium probably originates from the sedimentary bedrock of Gåvlebukten.

Some elements show a large spread between minimum and maximum values, e.g. sulphur, iron and vanadium, with a max/min ratio of about 10, while other elements as arsenic, copper and bismuth are more evenly distributed with a max/min ratio of about 3.

7.1.2 Comparisons among samples from the Forsmark area

The variation among the till sample sites within the Forsmark area is shown in Tables 7-2 and 7-3, where arithmetical mean values have been calculated per object in order to get a compact compilation. All observations including individual sub-samples are compiled in Appendices A and B. Stratigraphical information about the individual sub-samples is found in the reports referred in Table 3-7.

Table 7-1. Compilation of ICP-MS analyses of till samples (fraction < 63 µm) from the Forsmark area. Two different solvents were used for extraction prior analysis Aqua Regia (AR) or 7M HNO₃ (HN). Data from a national geochemical survey are used as reference /SGU 2005b/. The reference data are analysed by either ICP-AES or ICP-MS techniques.

Element	Solv	Unit	Till – Forsmark (ICP-MS)					Till – Swedish reference							
			No	Min	25-p	50-p	75-p	Max	Method	No	Min	25-p	50-p	75-p	
Al	Aluminium	AR %	43	0.36	0.52	0.61	1.03	4.92	ICP-AES	15822	< 0.0003	0.74	1	1.3	6.7
Ca	Calcium	AR %	43	2.78	6.315	7.29	8.6	10.5	ICP-AES	15844	< 0.001	0.22	0.29	0.36	38
Fe	Iron	AR %	43	0.81	1.02	1.25	1.785	8.23	ICP-AES	15844	< 0.001	1.2	1.6	2.1	9.3
K	Potassium	AR %	43	0.07	0.12	0.14	0.225	0.47	ICP-AES	15844	< 0.001	0.067	0.11	0.18	1.3
Mg	Magnesium	AR %	43	0.22	0.33	0.39	0.465	4.85	ICP-AES	15844	0.001	0.21	0.31	0.44	4.1
Mn	Manganese	AR %	43	0.025	0.032	0.038	0.042	0.19	ICP-AES	15844	< 0.001	0.016	0.023	0.034	0.81
Na	Sodium	AR %	43	0.012	0.018	0.022	0.032	0.089							
Na	Sodium	HN %	8	0.013		0.018		0.023	ICP-MS						< 0.02
P	Phosphorus	AR %	43	0.044	0.054	0.058	0.061	0.168	ICP-AES	7341	< 0.001	0.069	0.09	0.11	0.7
S	Sulphur	AR %	43	0.005	0.01	0.05	0.09	0.16							
Ti	Titanium	AR %	43	0.04	0.052	0.060	0.082	0.233	ICP-MS						0.069
Ag	Silver	AR ppm	43	0.013	0.022	0.026	0.032	0.048							
Ag	Silver	HN ppm	8	0.06		0.08		0.31	ICP-MS						0.043
As	Arsenic	AR ppm	43	0.9	1.8	2.1	2.9	4.5							
As	Arsenic	HN ppm	8	1.7		2.6		3.3	ICP-MS						3.1
Au	Gold	AR ppm	43	< 0.2	< 0.2	0.3	0.85	2.6	AAS						< 1
B	Boron	AR ppm	43	1	2	3	5	8							
Ba	Barium	AR ppm	43	19	31	36	44	84.2	ICP-AES	15844	< 10	30	40	50	140
Be	Beryllium	HN ppm	8	< 0.2		0.26		0.51	ICP-MS						0.39
Bi	Bismuth	AR ppm	43	0.1	0.12	0.14	0.18	0.35							
Bi	Bismuth	HN ppm	8	0.07		0.11		0.17	ICP-MS						0.09
Cd	Cadmium	AR ppm	43	0.04	0.07	0.1	0.12	0.21							
Cd	Cadmium	HN ppm	8	0.06		0.09		0.12	ICP-MS						0.073
Cr	Chromium	AR ppm	43	7.6	12	15	22	77	ICP-AES	7341	< 1	9	13	20	230
Cu	Copper	AR ppm	43	5.6	8.26	11	14	16	ICP-AES	7341	< 1	8	12	18	229
Ga	Gallium	AR ppm	43	1.5	2.1	2.7	3.9	15.2							
Hg	Mercury	AR ppm	43	< 0.005	< 0.005	0.006	0.010	0.018							
La	Lanthanum	AR ppm	43	16	21	23	26	42	ICP-AES	15844	< 2	21	26	33	338
Li	Lithium	HN ppm	8	< 5		7.5		17	ICP-MS						9.1
Mo	Molybdenum	AR ppm	43	0.3	0.44	0.56	0.66	1.36							
Mo	Molybdenum	HN ppm	8	0.18		0.4		1.19	ICP-MS						0.33
Ni	Nickel	AR ppm	43	3	6	7.8	14	32	ICP-AES	15843	< 2	6	10	15	179
Pb	Lead	AR ppm	43	< 5	6.5	8.3	11	27	ICP-AES	15843	< 7	5	9	13	423
Rb	Rubidium	HN ppm	8	6.4		15		32	ICP-MS						12.4
Sb	Antimony	AR ppm	43	0.02	0.03	0.05	0.08	0.41							
Sc	Scandium	AR ppm	43	1.8	2.4	2.7	3.7	23							
Se	Selenium	AR ppm	43	< 0.1	0.2	0.2	0.3	0.5							
Se	Selenium	HN ppm	8	0.15		0.24		0.35	ICP-MS						0.2
Sn	Tin	HN ppm	8	0.25		0.48		3	ICP-MS						0.3
Sr	Strontium	AR ppm	43	27	59	72	81	175	ICP-AES	15844	< 2	8	11	16	462
Te	Tellur	AR ppm	43	< 0.02	< 0.02	< 0.02	< 0.02	0.03							
Th	Thorium	AR ppm	43	4.1	7.5	8.6	9.5	13							
Th	Thorium	HN ppm	8	5		6.5		8.4	ICP-MS						7

Element	Solv	Unit	Till – Forsmark (ICP-MS)						Till – Swedish reference							
			No	Min	25-p	50-p	75-p	Max	Method	No	Min	25-p	50-p	75-p	Max	
Tl	Thallium	AR	ppm	43	0.05	0.13	0.16	0.21	0.32							
Tl	Thallium	HN	ppm	8	0.1		0.18		0.25	ICP-MS					0.13	
U	Uranium	AR	ppm	43	1.1	1.6	1.8	2.8	9	ICP-MS					1.5	
V	Vanadium	AR	ppm	43	11	15	18	27	106	ICP-AES	7341	< 2	19	25	32	183
W	Tungsten	AR	ppm	43	< 0.1	0.3	0.4	0.95	5.1							
W	Tungsten	HN	ppm	8	< 0.1		0.11		32	ICP-MS					0.09	
Y	Ytterbium	HN	ppm	8	14.6		15.6		21.2	ICP-MS					11	
Zn	Zinc	AR	ppm	43	19	26	37	45	141	ICP-AES	15843	< 1	25	35	47	2,197
Zr	Zirconium	HN	ppm	8	7.4		8.2		17							

Table 7-2. Major constituents in the fine fraction of till (< 63µm) from the Forsmark area (mean values of 1–3 sub-samples per object). Samples were extracted by Aqua Regia, and analysed by ICP-MS. The content of major constituents is expressed as percent of dry weight. The three highest values per element are marked in bold. The number of sub samples per observation are listed in the column headed “Subs”.

Idcode	Depth (m)		Subs	Element (%)										
	From	To		N	Al	Ca	Fe	K	Mg	Mn	Na	P	S	Ti
HFM11	2.5	2.5	1		0.71	5.3	1.4	0.13	0.42	0.034	0.025	0.058	0.02	0.068
HFM13	3	3	1		0.55	5.7	1.2	0.16	0.3	0.031	0.026	0.044	0.05	0.061
PFM002461	2	2.4	1		0.81	9.1	1.5	0.21	0.44	0.041	0.023	0.059	0.10	0.069
PFM002572	5.1	5.7	1		0.73	8.1	1.3	0.19	0.39	0.036	0.022	0.061	0.08	0.070
PFM002573	4.5	5	1		0.52	9.0	1.0	0.13	0.33	0.035	0.016	0.054	0.06	0.052
PFM002576	5	5	1		0.36	6.3	0.81	0.08	0.22	0.025	0.015	0.061	0.10	0.040
PFM002577	0.6	0.6	1		0.52	9.2	1.2	0.13	0.32	0.038	0.015	0.059	0.02	0.049
PFM002581	2.4	2.4	1		0.91	7.5	1.6	0.25	0.41	0.047	0.043	0.062	0.13	0.079
PFM002582	1.7	1.7	1		0.6	8.2	1.2	0.14	0.33	0.037	0.021	0.062	0.01	0.051
PFM002586	1.4	1.4	1		0.76	6.4	1.3	0.16	0.46	0.038	0.019	0.054	0.01	0.069
PFM002587	3	3	1		0.55	6.9	1.0	0.11	0.38	0.031	0.020	0.061	0.09	0.050
PFM002588	2.1	2.1	1		1.0	7.6	1.7	0.27	0.51	0.038	0.024	0.060	0.08	0.089
PFM002592	2.8	2.8	1		1.0	7.3	1.7	0.27	0.58	0.040	0.047	0.059	0.10	0.087
PFM004514	2.8	2.8	1		0.52	9.0	1.0	0.12	0.33	0.035	0.018	0.057	0.09	0.056
SFM0002	1	5.5	3		0.40	6.4	0.94	0.10	0.26	0.028	0.042	0.053	0.08	0.048
SFM0004	1	5	3		0.53	9.3	1.1	0.14	0.34	0.038	0.019	0.057	0.06	0.056
SFM0005	1	2	3		0.91	7.4	1.6	0.21	0.40	0.040	0.023	0.057	0.01	0.078
SFM0007	1	5.5	3		0.89	8.6	1.6	0.21	0.44	0.042	0.025	0.063	0.01	0.079
SFM0008	1	5.5	3		0.92	8.4	1.6	0.23	0.46	0.041	0.022	0.060	0.04	0.075
SFM0010	0.8	1.3	2		0.65	7.5	1.2	0.15	0.44	0.040	0.018	0.054	0.01	0.063
SFM0011	3	3.5	2		0.45	6.5	0.98	0.10	0.32	0.030	0.048	0.060	0.09	0.050
SFM0016	6.6	7.2	2		4.5	3.7	5.3	0.08	4.7	0.118	0.012	0.050	0.02	0.056
SFM0017	3.7	4	1		4.9	4.8	8.2	0.12	3.8	0.192	0.045	0.168	0.02	0.219
SFM0019	4.5	4.8	1		0.5	6.4	1	0.12	0.27	0.030	0.021	0.056	0.07	0.057
SFM0020	2.3	2.8	1		0.49	8.4	0.93	0.12	0.31	0.032	0.018	0.058	0.08	0.051
SFM0021	1.2	1.7	1		0.5	9.2	1.0	0.13	0.34	0.037	0.018	0.060	0.09	0.052
SFM0049	1.5	2.5	2		0.70	4.8	1.4	0.16	0.44	0.028	0.034	0.046	0.16	0.069
SFM0057	1	1	2		1.3	2.9	2.6	0.47	0.90	0.053	0.087	0.098	0.01	0.228

Three sample sites show markedly deviating chemical composition of the till (Table 7-2). SFM0016 and SFM0017 in the vicinity of Lake Eckarfjärden, and to some extent SFM0057, show elevated contents of aluminium, iron, magnesium, manganese and somewhat lowered contents of calcium and sulphur. The differing composition of the till probably reflects a deviating geochemistry of the bedrock in this area as seen in Figure 2-6.

Among the remaining sample sites, sulphur shows a larger variation and a different spatial distribution compared to the other major constituents, which usually are rather evenly distributed.

SFM0016, SFM0017 and SFM0057 also show deviating contents of some of the trace elements. The silver and cadmium contents are especially low, whereas the content of bismuth, boron, gallium, scandium, strontium, uranium, vanadium, and zinc are more or less elevated at these sample sites.

The spatial distribution of calcium, sulphur, strontium and uranium are shown in maps. Many other elements show spatial patterns similar to any of these elements (Figures 7-1 and 7-2). The spatial distribution of some of the heavy metals (e.g. copper, zinc and gold) are presented in /Nilsson 2003, Lindroos et al. 2004/.

Table 7-3. Minor constituents and trace elements, expressed as parts per million, in the fine fraction of till (< 63 µm) from the Forsmark area (means of 1–3 sub-samples per object). Samples were extracted by Aqua regia, and analysed by ICP-MS. The three highest values per element are marked in bold. The number of sub-samples per observation plot, as well as the sampling depth interval, is listed in Table 7-2.

Idcode	Element (ppm)												
	Ag	As	Au	B	Ba	Bi	Cd	Cr	Cu	Ga	Hg	Mo	Ni
HFM11	0.034	1.5	1.0	2	32	0.12	0.15	15	13	3.0	0.005	1.03	6.6
HFM13	0.022	1.3	2.5	2	37	0.24	0.07	11	8	2.6	< 0.005	0.91	5.7
PFM002461	0.032	2.8	0.4	5	43	0.15	0.10	19	11	3.1	0.018	0.44	10
PFM002572	0.028	2.5	< 0.2	3	37	0.12	0.09	16	9.9	2.8	< 0.005	0.40	8.5
PFM002573	0.024	2.0	0.5	3	32	0.12	0.06	13	8.0	2.1	0.005	0.41	6.7
PFM002576	0.020	1.9	< 0.2	2	19	0.10	0.07	7.6	5.6	1.5	< 0.005	0.39	3.0
PFM002577	0.029	4.2	1.0	1	37	0.15	0.14	12	13	2.3	0.005	0.33	7.8
PFM002581	0.037	3.8	2.1	4	45	0.14	0.11	16	12	3.5	< 0.005	0.65	10
PFM002582	0.032	4.0	< 0.2	2	34	0.24	0.13	11	15	2.4	< 0.005	0.67	5.1
PFM002586	0.025	1.7	< 0.2	1	39	0.14	0.14	15	16	2.8	0.010	0.31	7.2
PFM002587	0.023	1.3	0.2	3	25	0.10	0.07	17	12	2.1	< 0.005	0.53	6.2
PFM002588	0.036	3.0	0.6	5	44	0.16	0.12	21	12	3.7	< 0.005	0.55	12
PFM002592	0.038	3.3	1.3	5	33	0.18	0.10	21	14	3.9	0.010	0.62	16
PFM004514	0.026	2.1	< 0.2	3	33	0.12	0.09	11	7.2	2.1	0.007	0.31	5.3
SFM0002	0.020	1.9	0.4	2	28	0.11	0.07	8.7	6.1	1.8	0.004	0.54	5.0
SFM0004	0.030	2.5	0.5	3	35	0.14	0.11	13	8.8	2.2	0.006	0.45	8.5
SFM0005	0.030	3.2	0.4	5	44	0.17	0.13	19	13	3.4	0.008	0.53	13
SFM0007	0.030	3.3	1.0	5	49	0.16	0.12	23	13	3.5	0.011	0.72	15

Idcode	Element (ppm)												
	Ag	As	Au	B	Ba	Bi	Cd	Cr	Cu	Ga	Hg	Mo	Ni
SFM0008	0.040	3.7	1.3	3	52	0.17	0.10	20	13	3.6	0.010	0.47	14
SFM0010	0.028	1.9	0.8	2	38	0.14	0.20	15	14	2.7	0.008	0.61	6.8
SFM0011	0.020	1.8	0.2	2	30	0.12	0.07	15	8.7	2.0	< 0.005	0.63	5.4
SFM0016	0.019	0.9	0.6	8	24	0.30	0.04	76	12	14	< 0.005	0.84	32
SFM0017	0.013	1.3	< 0.2	8	52	0.35	0.06	12	14	15	< 0.005	0.60	8.5
SFM0019	0.024	2.3	< 0.2	2	30	0.12	0.07	12	8.2	2.2	0.006	0.53	4.8
SFM0020	0.020	1.9	< 0.2	2	32	0.11	0.08	10	7.1	2.0	0.009	0.30	5.2
SFM0021	0.023	2.1	0.6	2	47	0.13	0.08	12	9.1	2.3	0.007	0.43	6.4
SFM0049	0.031	1.9	< 0.2	3	33	0.17	0.15	18	13	3.2	0.012	1.23	14
SFM0057	0.030	1.6	0.4	5	84	0.20	0.08	33	11	5.3	0.008	1.35	13

	Pb	Sb	Sc	Se	Sr	Te	Th	Tl	U	V	W	Zn	La
HFM11	8.3	0.04	2.7	0.2	49	< 0.02	9.8	0.13	2.1	21	1.6	37	24
HFM13	7.7	0.41	2.5	0.2	52	< 0.02	12	0.14	3.5	14	3.5	26	30
PFM002461	7.9	0.07	3.2	0.2	85	< 0.02	7.5	0.18	1.8	21	0.2	34	22
PFM002572	7.4	0.20	2.8	0.1	76	< 0.02	7.3	0.17	1.6	21	0.2	36	20
PFM002573	6.7	0.04	2.2	0.2	81	< 0.02	6.9	0.17	1.6	17	0.2	27	19
PFM002576	5.2	0.03	1.8	0.2	54	< 0.02	8.4	0.11	2.2	11	0.3	19	22
PFM002577	17	0.07	2.5	0.5	80	0.03	9.1	0.28	1.7	16	0.3	42	23
PFM002581	10	0.09	3.2	0.2	62	< 0.02	7.5	0.21	1.8	23	0.1	41	20
PFM002582	12	0.07	2.9	0.2	72	< 0.02	8.2	0.16	1.6	16	0.3	32	23
PFM002586	11	0.02	3.0	0.1	60	< 0.02	9.3	0.20	1.3	20	0.3	41	22
PFM002587	6.2	0.03	2.2	0.2	64	< 0.02	8.0	0.12	5.9	18	0.3	24	18
PFM002588	8.6	0.07	3.7	0.2	76	< 0.02	8.1	0.23	2.3	27	0.1	40	23
PFM002592	8.1	0.09	3.4	0.4	83	< 0.02	8.6	0.23	2.3	26	0.2	45	24
PFM004514	6.4	0.03	2.5	0.1	82	< 0.02	7.1	0.16	1.5	15	0.3	25	20
SFM0002	6.4	0.06	2.1	0.2	59	< 0.02	9.2	0.12	2.9	13	1.0	21	24
SFM0004	9.4	0.04	2.4	0.2	83	0.02	7.4	0.18	1.7	16	0.5	31	20
SFM0005	10.6	0.07	3.2	0.2	74	< 0.02	8.6	0.25	1.2	24	0.7	41	24
SFM0007	10.1	0.07	3.4	0.3	82	0.02	8.8	0.26	1.6	24	1.7	43	25
SFM0008	10.4	0.07	3.4	0.3	79	0.02	8.6	0.24	1.4	24	0.6	47	25
SFM0010	9.6	0.04	2.6	0.2	68	0.02	9.0	0.18	1.8	18	0.6	47	23
SFM0011	5.1	0.04	2.2	0.2	59	< 0.02	9.1	0.11	2.2	14	0.5	22	22
SFM0016	26	0.02	22	< 0.1	102	< 0.02	4.2	0.05	7.6	78	< 0.1	103	16
SFM0017	14	0.03	8.2	0.2	175	< 0.02	7.7	0.06	9.0	106	0.3	141	42
SFM0019	7.3	0.05	2.5	0.2	56	< 0.02	9.5	0.14	2.9	15	0.3	23	26
SFM0020	6.3	0.02	2.2	0.2	76	< 0.02	6.9	0.16	1.5	15	0.2	24	20
SFM0021	6.3	0.05	2.5	0.2	82	0.02	8.1	0.15	2.6	15	0.2	28	24
SFM0049	13	0.08	3.5	0.3	48	< 0.02	13	0.12	3.7	18	3.1	37	39
SFM0057	5.9	0.06	7.2	0.2	27	< 0.02	9.6	0.22	5.2	61	4.8	42	27



Figure 7-1. Contents of calcium (upper) and strontium (lower) in till, expressed as ppm of dry weight (DW). It should be noted that the sample plots in the maps represent different stratigraphical positions, thus leading to uncertain comparisons between sites.



Figure 7-2. Contents of sulphur (upper) and uranium (lower) in till, expressed as ppm of dry weight (DW). It should be noted that the sample plots in the maps represent different stratigraphical positions, thus leading to uncertain comparisons between sites.

7.1.3 The distribution of calcium carbonate

Almost all till samples in the Forsmark area contain between 10 to 30 percent calcium carbonate (calcite) per dry weight. The only exception is the test pit PFM002783, located west of Vambörsfjärden, which contains about 0.4% calcite. The median calcite content in the Forsmark area is 21% (Table 7-4).

The spatial pattern for the calcium carbonate content is outlined in Figure 7-3. The coloured dots represent the calcium carbonate content in the uppermost till layer. All observations sampled below 2 m have been excluded in order to make the map more consistent.

The map shows a rather scattered spatial distribution of calcium carbonate. There is a north to south oriented band in the middle of the area, from the nuclear power plant to Lake Eckarfjärden, where slightly lower values predominate. A cluster of especially high values is seen in the eastern part of the Forsmark area, near drill site 3.

There is no clear correlation between the content of calcium carbonate and depth, as seen in Figure 7-4. In the categories HFM, PFM or SFM, the distributions indicate that there is no general correlation between calcium carbonate and sampling depth.

Table 7-4. Content of calcium carbonate in 173 till samples from the Forsmark area. All available till samples are included in the statistics.

Minimum	10-percentile	25-percentile	Median	75-percentile	90-percentile	Maximum	Mean
0.4	11	16	21	27	30	34	21

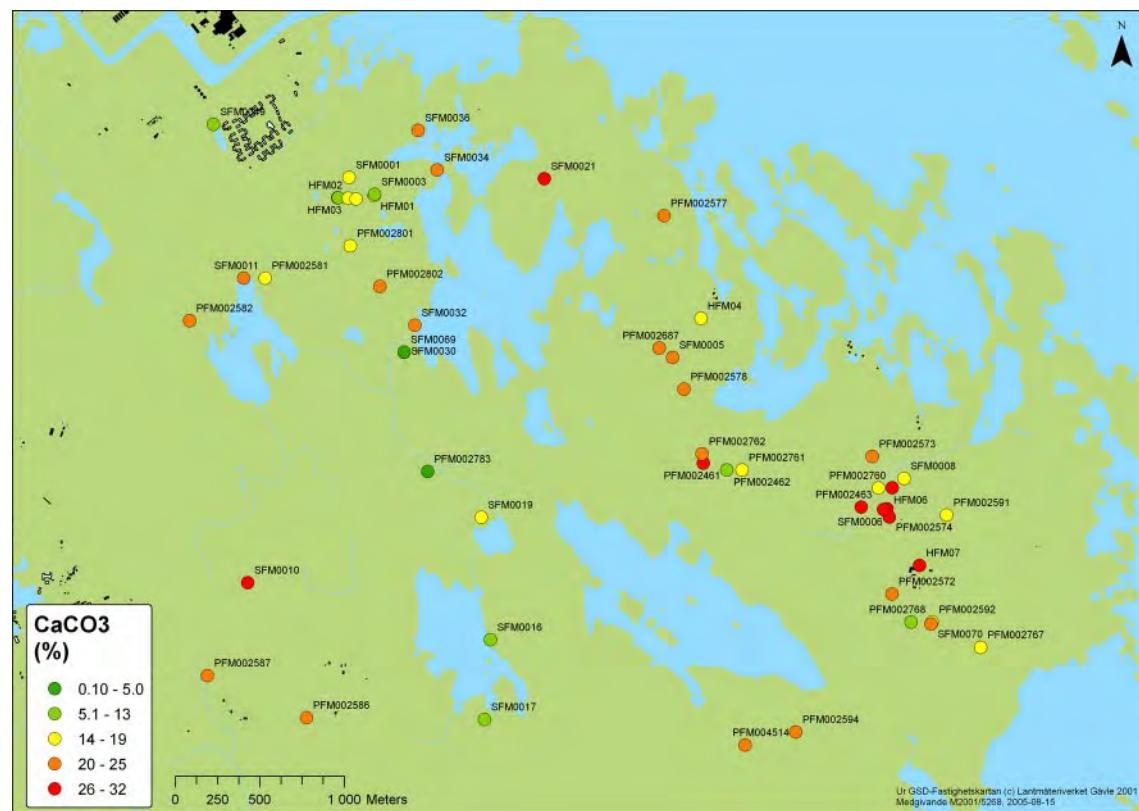


Figure 7-3. Calcium carbonate content in the uppermost layer of the till. All samples below a depth of 2 m have been excluded in order to make the map more consistent. The calcite contents at different stratigraphical depths are compiled in Table 7-5.

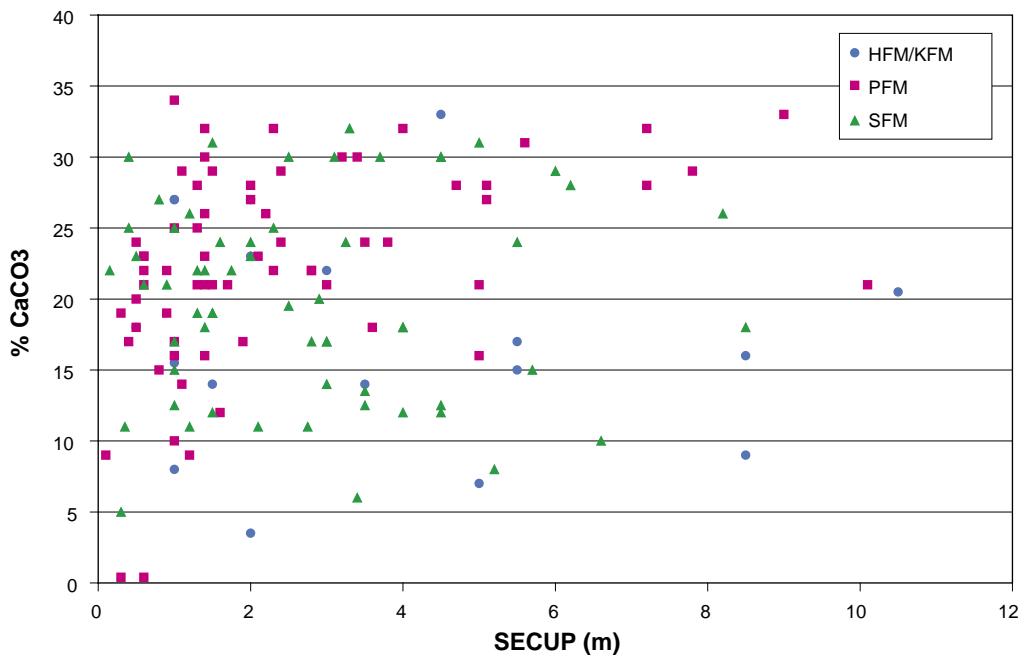


Figure 7-4. Content of calcium carbonate correlated to sample depth. All individual sub-samples of soil tubes (SFM), pits and trenches (PFM), percussion boreholes (HFM) and core bore holes (KFM) are plotted in the figure.

The content of calcium carbonate per sampling site is compiled in Table 7-5. The variation among the sub-samples at each sample site is shown by minimum and maximum values. In Appendix 5, there is a complete compilation of the calcium carbonate content in all samples.

7.1.4 Relationships among the elements in till

To reveal relationships among elements in till and among the observations, a coarse Principal Component Analysis was conducted. In Figure 7-5, the two first principal components, which together describe 55% of the variation in the material, are displayed in both variable and observation space.

Three major groupings among the variables can be distinguished:

1. The uppermost group containing e.g. potassium, barium, thallium and silver.
2. The rightmost group containing e.g. magnesium, aluminium and iron.
3. The group to the lower left containing calcium and sulphur.

The antagonism between calcium and the other major elements is partly a consequence of the fact that the parameters represent fractions. When the calcium fraction increases due to high content of calcium carbonate, the fractions of the other major elements are consequently lowered.

The rightmost group is dominated by the deviating observations of SFM0016, SFM0017 and to some extent SFM0057. In these observations, the content of aluminium, magnesium and iron, as well as zinc, vanadium and uranium are elevated. The contents of calcium and sulphur are low. The horizontal principal component (F1) probably reflects variation of the bedrock geochemistry in the area, where the south-western part, in the vicinity of Lake Eckarfjärden, shows a deviating rock composition, cf Figure 2-6 (bedrock map).

Table 7-5. Content of calcium carbonate in till in the Forsmark area. Minimum, maximum and mean values of sub-samples at each sample site (IDCODE). The sample depth interval corresponds to the minimum upper section (SECUP) and the maximum lower section (SECLOW) of the geochemical sample levels.

Idcode	Depth		Subs no	CaCO3 (%)			Depth		Subs no	CaCO3 (%)			
	From	To		min	mean	max	From	To		min	mean	max	
HFM01	1.0	9.5	3	9	14	17	PFM002802	1.3	1.3	1	21	21	21
HFM02	1.5	11.5	3	14	16	21	PFM003742			1	19	19	19
HFM03	1.0	9.5	3	8	13	16	PFM004514	0.9	2.8	5	12	20	22
HFM04	0.5	0.9	1	18	18	18	SFM0001	1.5	4.0	3	13	17	20
HFM05	2.0	3.5	2	22	23	23	SFM0002	1.0	5.5	3	13	15	17
HFM06	1.0	1.5	1	27	27	27	SFM0003	1.0	9.0	3	13	15	18
HFM07	1.0	1.5	1	27	27	27	SFM0004	2.5	3.0	1	30	30	30
HFM08	2.0	4.5	2	27	30	33	SFM0005	1.0	1.5	1	25	25	25
KFM01A	2.0	5.5	2	4	5	7	SFM0006	1.5	1.5	1	31	31	31
PFM002461	1.1	2.4	2	28	29	29	SFM0007	2.0	4.5	2	23	27	30
PFM002462	0.1	2.4	3	9	18	26	SFM0008	1.5	5.0	3	19	27	31
PFM002463	1.4	10.8	4	21	28	32	SFM0010	0.8	1.3	1	27	27	27
PFM002464	3.5	9.4	6	21	28	33	SFM0011	0.5	3.5	3	17	21	24
PFM002572	1.4	5.7	3	23	27	32	SFM0016	0.4	7.2	5	10	14	22
PFM002573	1.4	3.7	2	21	26	30	SFM0017	1.2	3.7	3	11	16	19
PFM002574	1.4	1.8	1	26	26	26	SFM0018	2.9	4.6	2	18	19	20
PFM002576	1.9	5.0	2	16	17	17	SFM0019	1.0	5.5	3	8	14	18
PFM002577	0.6	0.6	1	23	23	23	SFM0020	2.3	2.8	1	25	25	25
PFM002578	1.3	3.8	2	24	25	25	SFM0021	0.4	1.7	2	26	28	30
PFM002581	1.0	3.8	3	16	19	24	SFM0022	4.0	4.6	1	12	12	12
PFM002582	0.6	1.7	2	21	22	22	SFM0026	3.4	6.8	2	6	17	28
PFM002586	0.6	1.4	2	16	19	21	SFM0027	3.3	3.7	1	32	32	32
PFM002587	1.0	3.0	2	21	23	25	SFM0028	3.1	7.0	3	24	28	30
PFM002588	2.1	2.1	1	23	23	23	SFM0030	0.6	3.4	3	17	19	21
PFM002589	1.3	4.7	3	28	28	29	SFM0032	0.9	1.2	1	21	21	21
PFM002590	2.3	2.3	1	32	32	32	SFM0034	0.2	1.6	2	22	22	22
PFM002591	0.9	3.2	3	19	25	30	SFM0036	0.4	1.2	1	25	25	25
PFM002592	1.1	2.8	3	9	15	22	SFM0049	1.5	2.5	1	12	12	12
PFM002594	0.6	1.4	2	23	27	30	SFM0062	2.8	3.2	1	11	11	11
PFM002687	0.5	1.5	3	24	29	34	SFM0063	2.1	2.9	1	11	11	11
PFM002760	1.0	1.0	1	17	17	17	SFM0064	2.0	4.4	1	24	24	24
PFM002761	0.5	0.5	1	18	18	18	SFM0065	3.7	4.0	1	30	30	30
PFM002762	0.5	0.5	1	20	20	20	SFM0069	0.3	0.7	1	5	5	5
PFM002767	0.8	0.8	1	15	15	15	SFM0070	1.4	1.7	1	22	22	22
PFM002768	1.0	1.0	1	10	10	10	SFM0071	3.3	3.5	1	24	24	24
PFM002783	0.3	0.6	2	0.4	0.4	0.4	SFM0072	8.2	8.7	1	26	26	26
PFM002801	0.4	0.4	1	17	17	17							

The second principal component probably reflects the composition of the calcium rich till transported from the Bay of Gavlebukten. This till, which of course shows high content of calcium, is also enriched in sulphur, strontium and magnesium. The low content of e.g. potassium, barium and thallium, is probably an effect of dilution when the 'local' till is diluted by the calcium rich till.

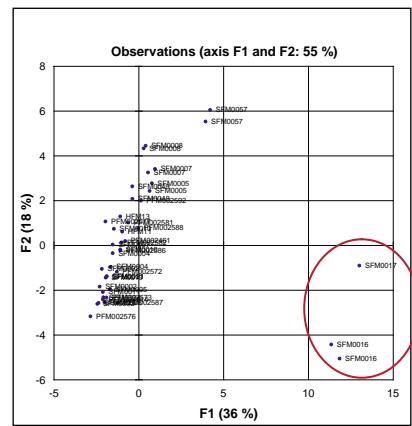
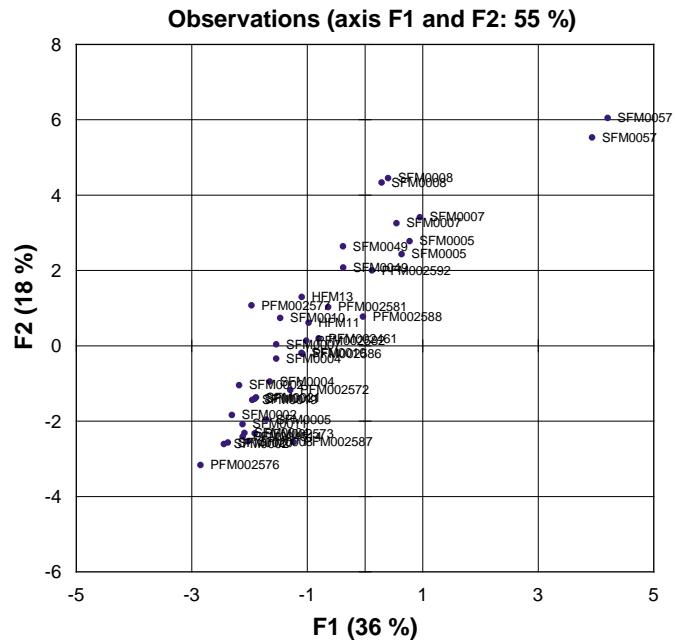
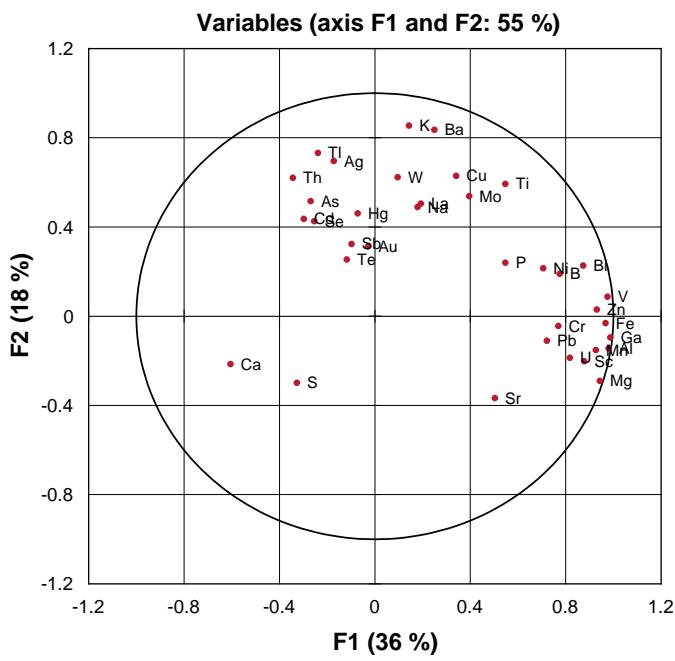


Figure 7-5. Principal component analysis (PCA) of all till samples from the Forsmark area. Only samples of fine till fraction ($< 63\mu\text{m}$) extracted by Aqua Regia are included in the PCA analysis. The loading plot (upper) reveals relationships among variables, and the score plot (middle and lower) relationships among observations on the two first principal components, which together explain 54% of the total variation.

To summarise, the principal component analysis reveals that the variations in bedrock geochemistry are reflected in the chemical composition of till in the area. The till in the south-western part of the Forsmark area show elevated levels of aluminium, magnesium, iron and some trace elements, probably due to the differing rock composition in this area. The calcium rich till, which was transported into the area by the inland ice, also probably contains elevated contents of strontium, sulphur and magnesium.

7.2 Chemical composition of sediments

Analyses of the total content of organic carbon, nitrogen, sulphur and content of calcium carbonate have been conducted on sediment from five lakes in the Forsmark area.

Additionally, sediment samples from Lake Stocksjön have been analysed regarding chemical composition. The analysed sediments range from algal gyttja to glacial clay.

The sediment analyses are summarised in Table 7-6. In /Hedenström 2004/, raw data and details regarding sampling locations and stratigraphy are compiled and evaluated. Stratigraphy and contents of organic pollutants in the surface sediments have been characterised by /Borgiel 2004/.

Table 7-6. Available analyses of marine and lacustrine sediments in the Forsmark area. The sampling includes different sub samples of the sediment column below the surface sediments.

Lake	Idcode	Analysis
Lake Fiskarfjärden	PFM004193	Grain size
Lake Fiskarfjärden	FPM004204	CNS, CaCO ₃ ; XRD, Grain size
Lake # 5	FPM004205	CNS, CaCO ₃ , XRD Grain size
Lake Bredviken	PFM004216	Grain size; CaCO ₃
Lake Graven	PFM004222	Grain size
Lake Puttan	FPM004280	CNS, CaCO ₃
Lake Stocksjön	PFM004284	CaCO ₃ , Chemical composition
Lake Eckarfjärden	PFM004294	Grain size

7.2.1 Organic carbon, nitrogen and sulphur and calcium carbonate

The content of calcium carbonate in the sediment samples are shown in Figure 7-6, where the depth is plotted versus the calcium carbonate content expressed as percent of dry weight. There is a large spread between the five samples. Lake Puttan and Lake Fiskarfjärden show low calcium carbonate content in the upper meters of the sediments. In Lake Fiskarfjärden, the calcium carbonate content rises at a depth of four meters to the same level found in till.

The other three sampled lake sediments show high levels of calcium carbonate in the deeper sediment. The samples from Lake Stocksjön deviates by showing extremely high calcium carbonate content in calcareous gyttja at about one meters depth from the surface of the lake ice (about 60% calcium carbonate). This high level has not been observed in any till samples.

The total content of carbon, nitrogen and sulphur was analysed in the upper part of the sediment column from three coring sites. The stratigraphical distribution of the elements in the sediment columns is shown in Figure 7-6. In the three sites investigated, all elements increase upwards. At Lake Fiskarfjärden and Lake Puttan the carbon and nitrogen content increase in two steps. At around 2 m depth, i.e. at the transition from postglacial clay to gyttja clay and at c 1.6 m, the carbon and nitrogen content increases further as the sediment change to algal gyttja. Sulphur is slightly more evenly distributed through the sediment profile, but there are tendencies for steeper transitions at levels similar to nitrogen and carbon.

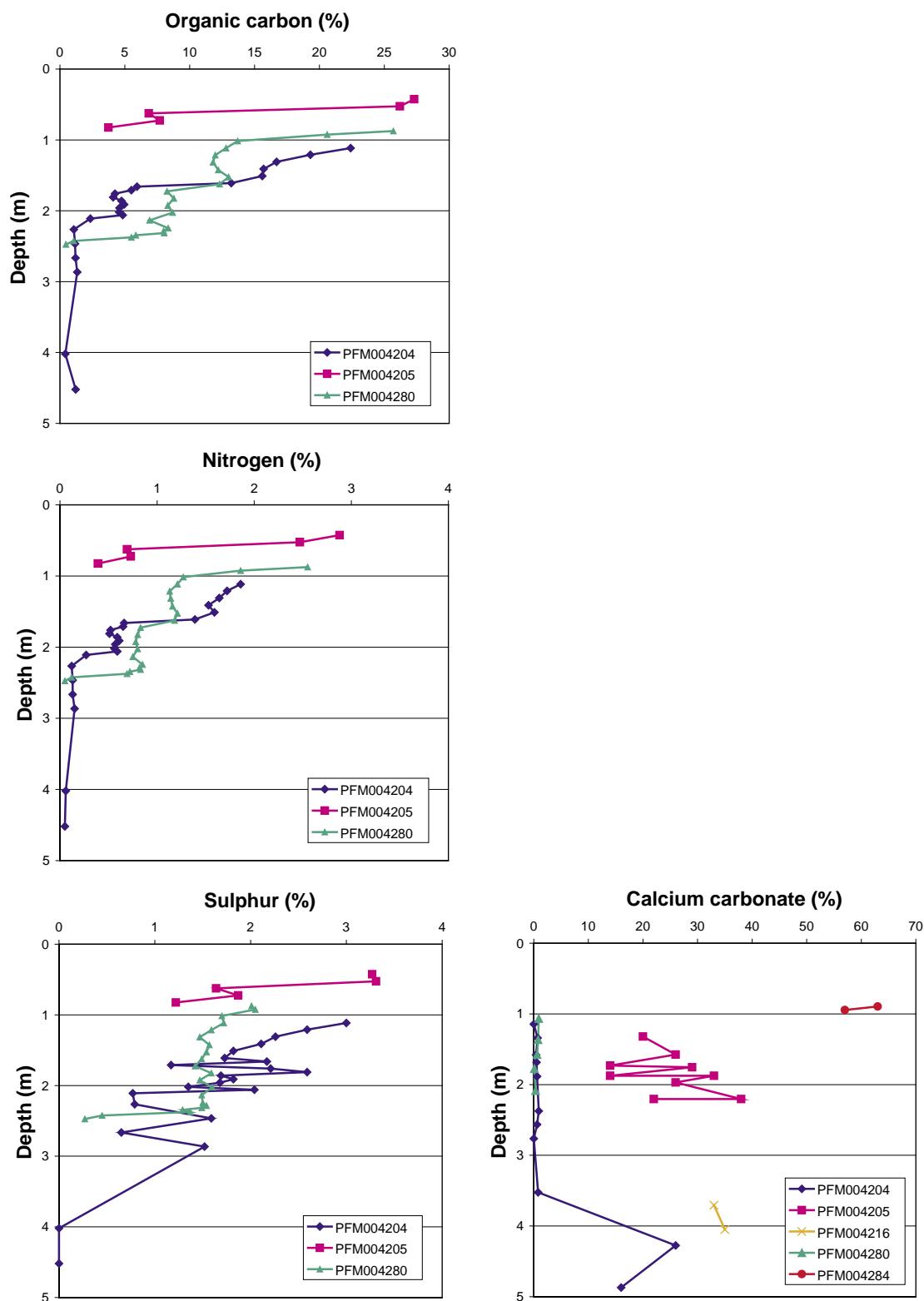


Figure 7-6. The contents of organic carbon, nitrogen, sulphur and calcium carbonate of marine sediments in the Forsmark area. The water depth at the coring sites were 0.6 m at PFM004204, 0.3 m at PFM004205, 0.9 m at PFM004280 and 0.6 m at PFM004284. Depth measured from surface of the lake ice.

7.2.2 Distribution of elements in a sediment core from Lake Stocksjön

A core sample taken in the sediments of Lake Stocksjön (PFM004284) was analysed for contents of major constituents and trace elements at twelve levels, ranging from 0 to 55 cm. The contents of major constituents are compiled in Table 7-7 and trace elements in Table 7-8. Sediment data representing rather shallow lake sediments from northern and southern Sweden are used as reference /Litner and Holm 2003/, in combination with data from deeper sediments consisting mainly of glacial and post glacial clay /SGU 2005b/.

Table 7-7. Contents of major constituents in a core sample of sediment from Lake Stocksjön in the Forsmark area (unpubl. data from A. Brunberg, Uppsala University). Abbreviations used in the PCA below are listed in the column denoted 'Abb'.

Depth	Abb	TS %	Ash %	SiO ₂ % TS	Al ₂ O ₃ % TS	CaO % TS	Fe ₂ O ₃ % TS	K ₂ O % TS	MgO % TS	MnO % TS	Na ₂ O % TS	P ₂ O ₅ % TS	TiO ₂ % TS	Sum % TS
0–5cm	D0	96	45	13	0.36	17	0.33	0.17	0.19	0.053	0.13	0.12	0.023	31
5–10cm	D5	95	46	14	0.40	16	0.34	0.14	0.18	0.055	0.10	0.08	0.035	31
10–15cm	D10	95	53	15	0.60	19	0.51	0.15	0.21	0.052	0.12	0.09	0.032	36
15–20cm	D15	95	56	18	0.75	18	0.70	0.16	0.19	0.028	0.15	0.08	0.033	38
20–25cm	D20	96	58	18	0.49	21	0.59	0.12	0.17	0.023	0.11	0.07	0.020	40
25–30cm	D25	96	70	14	0.53	30	0.67	0.18	0.25	0.034	0.13	0.05	0.024	46
30–35cm	D30	95	56	30	4.6	8.1	2.7	1.2	0.82	0.036	0.65	0.08	0.22	48
35–40cm	D35	95	49	23	3.2	8.9	2.2	0.83	0.61	0.029	0.53	0.08	0.16	40
40–45cm	D40	94	34	16	2.8	3.2	2.2	0.72	0.57	0.027	0.49	0.08	0.14	26
45–50cm	D45	95	49	28	5.6	3.0	3.2	1.4	1.0	0.040	0.87	0.09	0.28	43
50–54cm	D50	96	53	32	6.2	3.0	3.5	1.5	1.1	0.041	0.91	0.09	0.30	48
54–55cm	D54	97	73	46	8.4	2.9	3.7	2.3	1.3	0.044	1.2	0.10	0.37	67

There is a clear alteration of the chemical composition between 25 and 35 cm depth in the sediment profile. This distinct change in chemical composition is probably due to the transition from a bay of the Baltic Sea to an isolated lake, leading to decreased input of minerogenic material and accumulation of algal gyttja in the freshwater lake.

The content of aluminium, iron, potassium, magnesium, sodium, and titanium is markedly lower after the transition from sea to lake, whereas the content of calcium is higher. The content of manganese and phosphorus show no level shift in connection to the transition.

Many trace metals occur in markedly lower levels in superficial sediments from Forsmark, compared to lake sediments from southern and northern parts of Sweden. This is especially evident for cobalt, chromium, mercury, lead, thorium and vanadium. Copper and zinc occur in rather normal levels in the Forsmark sediments, whereas tungsten occurs at elevated levels.

In the deeper sediments from Lake Stocksjön, the content of rubidium and zirconium seems to be elevated compared to the available references.

The variation among the elements in the different levels of the sediment core was explored by principal component analysis. In Figure 7-7 and 7-8 the relationships among elements and observations (the different sediment layers) are revealed. The four principal components explain in all 93% of the variation in the material (65%, 15%, 7% and 6%, respectively).

Table 7-8. Contents of trace elements in two different layers of a sediment core sample from Lake Stocksjön in the Forsmark area (ppm DW). Reference data from lake sediments and deeper samples of glacial and post glacial clay.

Element	Forsmark ^a		Lake sediments of South Sweden ^b		Lake sediments of north Sweden ^b		Glacial and post glacial clay in Sweden ^c
	0–5cm	54–55cm	0–1cm	c 20cm	0–1cm	c 20cm	c 1 m
As	Arsenic	1.0	4.5	21	11	86	3.4
B	Boron	36	37				
Ba	Barium	100	380	170	160	380	80
Be	Beryllium	< 0.3	1.6	3.1	2.1	1.1	1.4
Cd	Cadmium	0.24	0.76	3.6	1.7	1.0	0.6
Ce	Cerium	13	83	190	190	66	83
Co	Cobalt	0.45	7.2	15	13	16	11
Cr	Chromium	1.7	34	20	17	23	24
Cs	Cesium	0.10	3.4	1.2	0.9	1.5	1.6
Cu	Copper	19	44	32	23	14	16
Dy	Dysprosium	1.2	6.1	12	12	5	7
Er	Erbium	< 0.1	2.1	8	8	3	4
Eu	Europium	< 0.05	0.86	2.9	2.9	1.0	1.3
Ga	Gallium	< 1	< 1	6.9	5.9	5.0	4.6
Gd	Gadolinium	< 0.3	1.8	18	17	8	10
Hf	Hafnium	< 0.1	4.4	0.55	0.49	0.73	0.37
Hg	Mercury	0.069	0.058	0.23	0.15	0.18	0.12
Ho	Holmium	0.83	1.2	2.5	2.4	1.1	1.3
La	Lanthanum	8.0	43	103	105	33	46
Li	Lithium	0.65	20	6	5.7	9.7	12
Lu	Lutetium	0.15	0.55	1.2	1	0.4	0.5
Mn	Manganese	390	260	2,500	1,100	9,500	1,200
Mo	Molybdenum	< 2	20	2.1	1.8	9.8	7.1
Nb	Niobium	< 0.2	11	0.9	0.89	1.1	1.5
Nd	Neodymium	7.0	39	101	101	37	51
Ni	Nickel	< 5	19	14	10.8	19	20
Pb	Lead	12	13	214	110	33	19
Pr	Praseodymium	< 1	15	26	27	9	13
Rb	Rubidium	< 2	132	11	10	16	16
S	Sulphur	8,600	470				
Sb	Antimony	0.089	< 0.02	0.84	0.34	0.14	0.07
Sc	Scandium	< 0.5	8.1				
Sm	Samarium	< 0.3	5.6	18	17	7	10
Sn	Tin	< 1	2.9	3.2	0.83	0.8	0.2
Sr	Strontium	51	87	57	53	32	34
Ta	Tantalum	< 0.06	0.87	0.04	0.034	0.02	0.02
Tb	Terbium	0.36	0.58	2.6	2.5	0.12	0.06
Th	Thorium	1.2	12	11	11	6	6
Tm	Thulium	0.32	0.68	1.1	1	0.4	0.5
U	Uranium	2.9	24	4.8	4.9	6.4	9
V	Vanadium	1.6	35	52	37	31	30
W	Tungsten	0.64	2.6	0.18	0.08	0.7	0.4
Y	Yttrium	4.3	24	68	63	27	36
Yb	Ytterbium	< 0.2	3.4	7.5	6.7	2.9	3.6
Zn	Zinc	53	85	310	180	180	180
Zr	Zirconium	6.6	120	10	8.4	15	8.9

a. Unpublished data from A. Brunberg, Uppsala University

b. Content of acid soluble (7M HNO₃) metals and half-metals from Litner et al. 2003. ICP-MS analysis technique.

c. Post glacial and glacial clays at a depth of approximately 1 meter. Median values from the geochemical database of /SGU 2005b/. Solvent 7M HNO₃ and ICP-MS analysis technique.

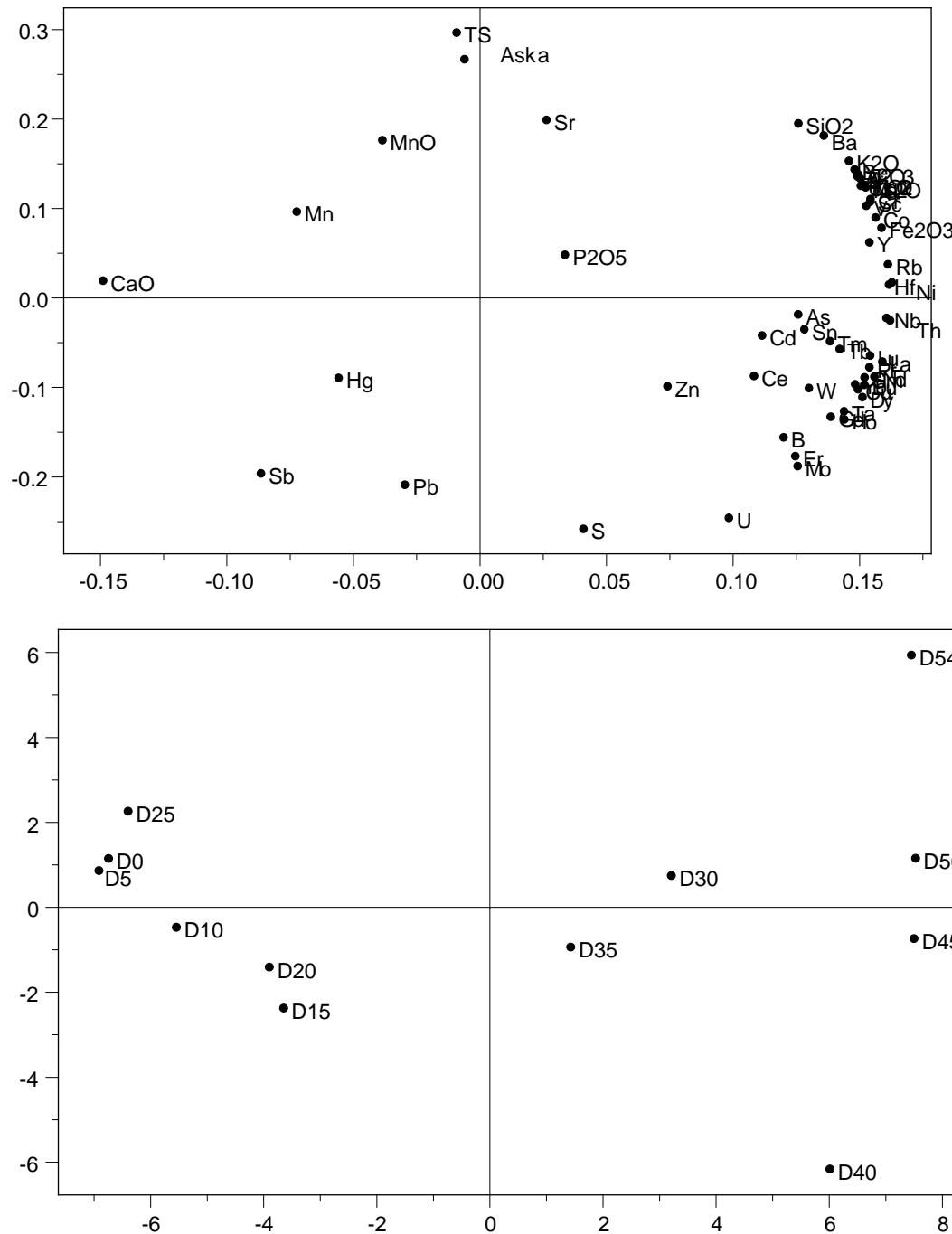


Figure 7-7. Principal component analysis on data from a sediment core from Lake Stocksjön in the Forsmark area (unpubl. data from A. Brunberg, Uppsala University). The loading plot (upper) reveals relationships among variables, and the score plot (lower) relationships among observations on the two first (horizontal) and second (vertical) principal components, which together explain 80% of the total variation. The abbreviations used for the observations correspond to the subsample depth expressed in centimetres.

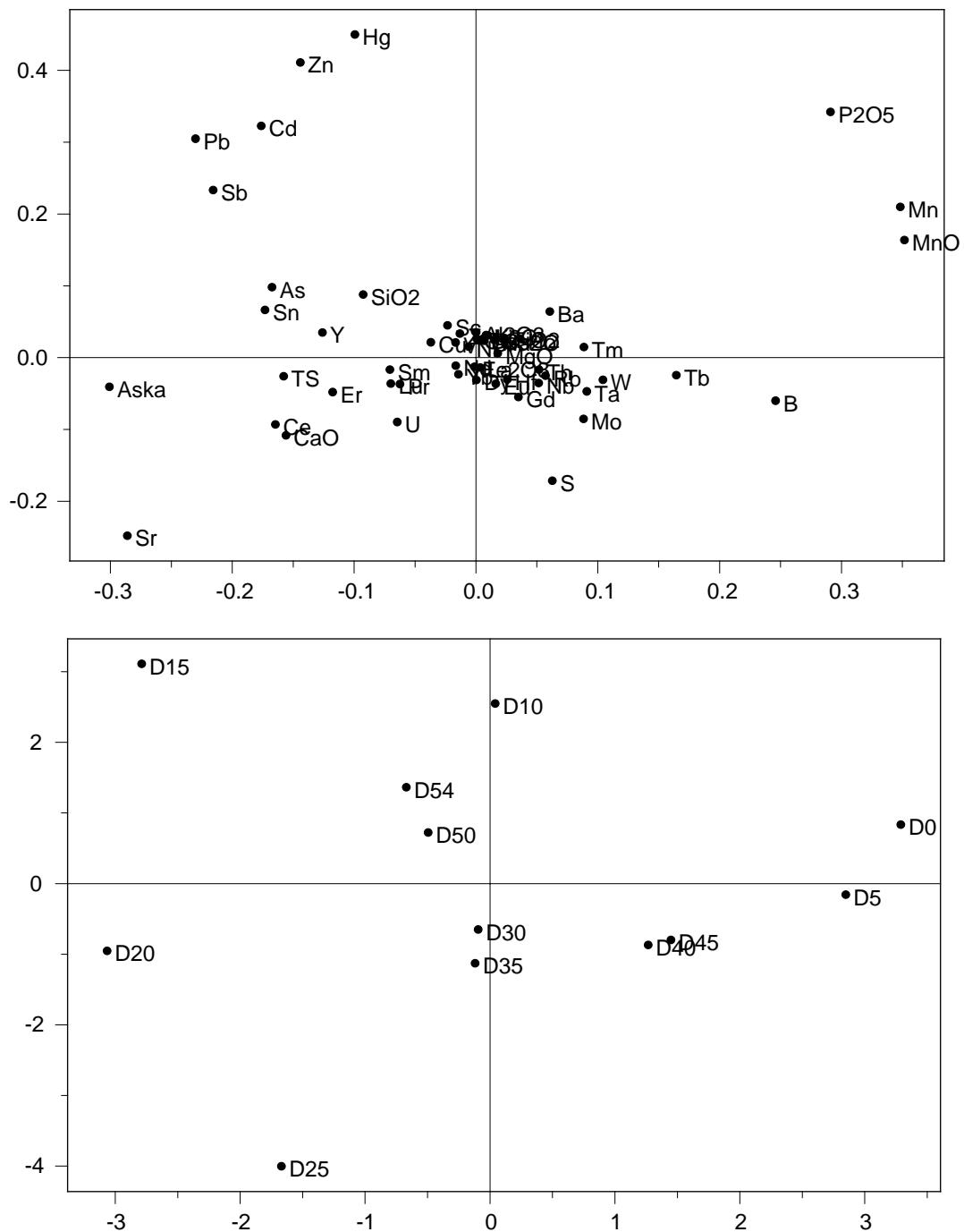


Figure 7-8. Principal component analysis of a sediment core from Lake Stocksjön in the Forsmark area (unpubl. data from A. Brunberg, Uppsala University). The loading plot (upper) reveals relationships among variables, and the score plot (lower) relationships among observations on the two third (horizontal) and fourth (vertical) principal components, which together explain 13% of the total variation. The abbreviations used for the observations correspond to the subsample depth expressed in centimetres.

The *first principal component* describes the transition from marine to lacustrine sediments. The layers D0 to D25 (corresponding to the depth interval 0–30 cm) at the left side of Figure 7-7 are lacustrine sediments, and D40 to D54 at the right side are marine sediments. D30 to D35 that show intermediate characteristics represent the transition period. Most elements occur at higher levels in the marine sediments, except for e.g. calcium, manganese, mercury, antimony and lead. Strontium, phosphorus and sulphur show minor correlations to the transition from marine to fresh water.

The *second principal component* mainly reflects the variation correlated to the content of ash and dry substance. The sediment layers D40 and D54, in the marine section, show opposite characteristics in the content of ash and dry substance, with the highest contents in the deepest layer, D54. The elements strontium and manganese are positively correlated to ash content, whereas antimony, lead, sulphur, vanadium, and molybdenum are negatively correlated. There may be a connection between processes controlling the content of ash as well as dry substance and the occurrence of these elements.

The *third and fourth principal components* mainly describe the variation within the lacustrine sediments. The most superficial sediments (D0–D5) and the slightly deeper (D15–D25) show opposite patterns in the content of manganese, phosphorus and some heavy metals. Mercury, zinc, cadmium, lead and antimony occur in elevated content in the D15 layer (15–20 cm), compared to both more superficial and deeper layers. These metals are all air transported pollutants. The highest content of manganese and phosphorus are found in the most superficial lacustrine sediment layers.

7.2.3 Organic compounds in sediments

Parallel to the characterisation of marine and lacustrine sediments previously described, sampling was performed in seven lakes and shallow bays in order to characterise the surface sediments in the Forsmark area with respect to organic compounds. Two different sampling programmes were performed a main program for chemical analyses, description of sediment cores as well as field measurements of physical parameters, and a second program for collecting archive samples. Parameters analysed in the main program are listed below (Table 7-9). The sampling as well as results of chemical laboratory analyses are described by /Borgiel 2004/.

Except for five analyses of a total of nearly 800, the content of organic compounds fall below the reporting limits. In Kallrigafjärden, a bay of the Baltic Sea, low contents of monobutyl-tin and dibutyl-tin have been detected. In the sediments of the lakes Gunnarsbo-Lillfjärden and Bolundsfjärden a total of three analyses show detectable contents of aromatic (C10–C35) carbon compounds.

Table 7-9. Organic compounds analysed in the sampling programme of surface sediments in the Forsmark area.

Parameters, laboratory analyses		Parameters, field measurements	
TS_105°C	Aliphatics > C5–C8	Ppyrene	Water depth
pcb 28	Aliphatics > C8–C10	Benzo(a)anthracene	GPS-position
pcb 52	Aliphatics > C10–C12	Chrysene	Length
pcb 101	Aliphatics > C12–C16	Benzo(b)flouranthene	Colour
pcb 118	Aliphatics > C5–C16	Benzo(k)flouranthene	Smell and genes of sediment core
pcb 138	Aliphatics > C16–C35	Benzo(a)pyrene	
pcb 153	Aromates > C8–C10	Dibenzo(ah)anthracene	
pcb 180	Aromates > C10–C35	Benzo(ghi)perylene	
Sum of 7 pcb	Benzene	Indeno(123-cd)pyrene	
Hexachlorobenzene	Toluene	Sum 16 EPA-PAH	
Monobutyltin	Ethylbenzene	Sum Cancerogenic PAH	
Dibutyltin	Sum xylenes	Sum of other PAH	
Tributyltin	Sum TEX		
Tetrabutyltin	Naphtalene		
Monoocetyltin	Acenaphthylene		
Dioctyltin	Acenaphthene		
Tricyclohexyltin	Flourene		
Monophenyltin	Phenanthrene		
Diphenyltin	Anthracene		
Triphenyltin	Flouranthene		

7.3 Chemical composition of peat

The chemical composition of peat have been analysed in three samples from two peatlands in the Forsmark area; Stenrösmossen (TM1) in the middle of the Forsmark study area, and Lersätersmyran (TM2) south west of the Forsmark municipality. The sampling, as well as stratigraphy and chemical analyses is thoroughly described by /Fredriksson 2004/.

In Table 7-10, the contents of both main and trace elements are compiled. The sample at Stenrösmossen represents the first metre of the peat layer, whereas the sample at Lersätersmyran is divided in two sub-samples, representing the first and the second metre of the peat layer, respectively.

Table 7-10. Concentrations of main and trace elements, sulphur and ash in samples from Stenrösmossen (TM 1) and Lersättermyran (TM 2) in the Forsmark area, compared with mean and median values for Swedish peat lands /Fredriksson 1984/. The samples from Forsmark are analysed with ICP technique, whereas the Swedish reference samples are analysed with XRF technique.

		TM1 0–1 m	TM2 0–1 m	TM2 1–2 m	Mean Sweden	Median Sweden	Std dev Sweden
CaO	% (in ash)	47.1	20.8	8.2	24.7	21.6	12.9
Al ₂ O ₃	"	2.19	7.9	10.2	10.5	9.7	5.6
Fe ₂ O ₃	"	2.69	6.7	7.0	17.8	16.6	10.0
K ₂ O	"	0.56	1.85	2.64	0.48	0.35	0.41
MgO	"	1.6	1.7	1.7	2.8	2.0	2.8
Na ₂ O	"	0.40	1.15	1.33	0.38	0.26	0.46
MnO	"	0.07	0.06	0.08	0.27	0.22	0.16
P ₂ O ₅	"	1.00	1.03	0.54	1.82	1.8	0.97
SiO ₂	"	7.6	41.3	60.5	22.0	17.7	16.6
TiO ₂	"	0.05	0.34	0.51	0.29	0.26	0.17
Co	mg/kg (in ash)	5.7	10.6	11.4	33.8	33.0	21.1
Cr	"	25	63	86	120	100	83
Cu	"	104	90	79	228	200	128
Mo	"	19.8	15.3	11.6	55.1	36.0	49.6
Ni	"	35.3	47.5	56.1	101.5	85.0	73.9
Pb	"	116.5	1,600	79.5	64	35	93
Sr	"	513.4	370.7	172.6	567.5	515.0	224.3
Th	"	—	—	—	40	35	26
U	"	77.8	< 20	< 20	70	34	110
V	"	24	64	76	134	98	124
Zn	"	620	951	1,526	227	170	311
As	mg/kg DS	1.4	1.4	1.0	4.3	1.0	12.0
Cd	"	0.20	0.17	0.14	0.23	0.10	0.23
Hg	"	0.086	0.094	0.030	0.055	0.010	0.114
Ra-226	Bq/kg (wf)	—	—	—	9	—	—
Ash	% DS	9.7	7.7	9.5	5.1	4.3	3.4
Sulphur	"	0.72	0.30	0.37	0.27	0.24	0.14

The concentration of calcium oxide in TM 1 (47.1% in ash) shows that this fen is strongly influenced by the calcareous mineral soils in its vicinity. In areas where the soils are dominated by acid Precambrian bedrock material, the calcium oxide content is normally around 15%, but in regions with calcareous soils a calcium oxide content of around 45% is more common. The concentration of trace elements in the two mires shows normal values except for lead and zinc /Fredriksson 2004/.

The sulphur content in Stenrösmossen (0.72%) is elevated compared to normal values in this type of mires. Increased sulphur content is also common in mires close to sulphide clay deposits near the low coasts of Bothnia /Fredriksson 2004/.

7.4 Chemical composition of soil

As a step in the development of a detailed soil map for the Forsmark area, the chemical composition was analysed at sixteen locations. The analyses included pH, total carbon and total nitrogen in the humus layer, the O- and B-horizons and the mineral soil (C-horizon). In /Lundin et al. 2004/ the sampling methodology, as well as chemical analyses are thoroughly described. In that report, the chemical characteristics of the 16 samples of soil are extrapolated in a series of maps covering pH, carbon and nitrogen the Forsmark area. In Figure 7-9 an example is shown for pH in the mineral soil.

The pH in the O-horizon in the Forsmark area is in general high with values around six while Sweden on average show values between four and five. The humus layer is influenced by the underlying mineral soil and the pH value is 6.5 on average, to be compared with values around 5 for most of Sweden.

Carbon concentrations in the humus layer are in accordance with ordinary Swedish conditions, but in the mineral soil the influence of CaCO_3 makes the concentration of carbon higher as compared to the general values for Sweden. There is also an increasing trend with depth, which mainly would be attributed to the CaCO_3 content, and deviating from ordinary forest soil conditions.

Nitrogen concentrations in the soil agree fairly well with most parts of Sweden. However, the values are lower than usually observed in the Uppsala County.

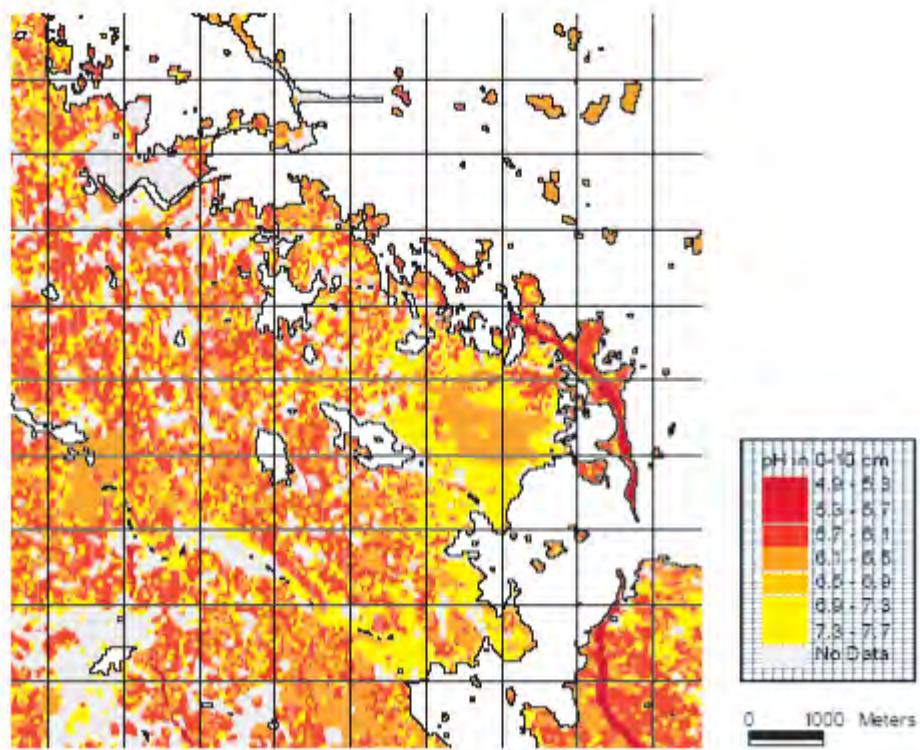


Figure 7-9. pH in mineral soil (0–10 cm) in the Forsmark area. The class “No Data” include non-sampled areas and areas with organic soils. From /Lundin et al. 2004/.

7.5 Content of elements in roots of amphibious plants

The chemical content in roots of amphibious plants are monitored by Swedish Geological Survey, SGU, in a nationwide campaign /SGU 2005b/. The element content in roots gives an integrated measure of the availability different elements in the environment. This biogeochemical database is suitable for relative comparisons in order to reveal local anomalies, and to place the Forsmark area in a regional and national context. Approximately 20 sample points are located in, or in the vicinity of the Forsmark area. In Table 7-11 the element distributions in amphibious plants may be compared between the Forsmark area, Uppsala County and Sweden.

Table 7-11. The element distribution in amphibious plants in the Forsmark area, compared to Uppsala County and Sweden. There are 18 observations in the Forsmark area, 1,019 in Uppsala County and 36,481 in Sweden.

		Forsmark area			Uppsala County			Sweden		
		min	median	max	10-perc	median	90-perc	10-perc	median	90-perc
Ash	%	6.5	13	21	7	12	21	9.2	20	42
AL ₂ O ₃	%	0.12	0.54	1.2	0.20	0.68	1.8	0.45	1.6	4.4
BAO	%	0.004	0.012	0.081	0.004	0.01	0.027	0.007	0.019	0.054
CAO	%	0.5	1.2	5.1	0.59	1.2	2.3	0.39	1	2.2
FE ₂ O ₃	%	0.38	1.8	5.1	0.49	1.4	3.3	1.02	3.0	8.4
K2O	%	0.5	1.1	1.9	0.74	1.2	2.2	0.35	0.9	1.8
MGO	%	0.16	0.28	0.84	0.23	0.44	0.88	0.14	0.35	0.78
MNO	%	0.041	0.22	4.4	0.026	0.13	1.4	0.019	0.15	1.7
P ₂ O ₅	%	0.222	0.56	1.2	0.20	0.44	0.89	0.14	0.29	0.70
SiO ₂	%	0.57	3.4	6.7	0.83	2.8	6.7	1.7	6.8	21
TiO ₂	%	0.0065	0.028	0.053	0.0092	0.033	0.084	0.015	0.064	0.20
As	ppm	3.3	9.0	22	2.8	7.8	17	1.5	6.4	30
Cl	ppm	520	1,300	2,600	680	1,800	5,000	160	820	2,900
Co	ppm	0.3	7.5	19	3.5	8.4	39	5.4	15	49
Cr	ppm	0.78	5.3	8.8	1.7	5.3	12	3	8.4	22
Cu	ppm	6.6	13	23	9	17	31	5.4	11	24
Mo	ppm	1.1	1.9	5.3	1	2.1	4.6	0.8	2	7.2
Ni	ppm	1.9	4.4	12	2	6.1	33	2.1	6.9	23
Pb	ppm	3.4	8.2	13	4.2	7.9	15	7.4	19	53
Rb	ppm	12	22	38	15	27	45	11	27	54
S	ppm	1,200	3,000	4,600	1,900	2,900	5,100	1,800	2,900	5,200
Sr	ppm	7.8	26	61	12	29	56	18	48	94
U	ppm	1.5	3.5	12	1.8	5.1	16	0.47	2.3	10
V	ppm	2.8	13	20	6.3	14	30	9.5	27	57
W	ppm	0.2	0.55	2.1	0.3	1	2.9	0.5	1.4	3.6
Y	ppm	1.3	5.4	8.9	2.9	8.7	32	5.2	15	39
Zn	ppm	25	48	85	30	58	180	32	72	240
Zr	ppm	3.8	12	47	3.8	12	27	7.8	33	110

The content of calcium is markedly elevated compared to both Uppsala County and Sweden. The remaining major constituents occur in approximately normal concentrations. In Figure 7-10 the relative contents of the major constituents are shown for the sample sites in the Forsmark area.

Most trace metals occur in normal or slightly lower concentrations compared to the normal levels in Uppsala county and Sweden. Arsenic shows tendencies for slightly increased concentrations in plant roots in the Forsmark area. In Figure 7-10 the relative contents of a selection of trace metals are shown for the sample sites in the Forsmark area.

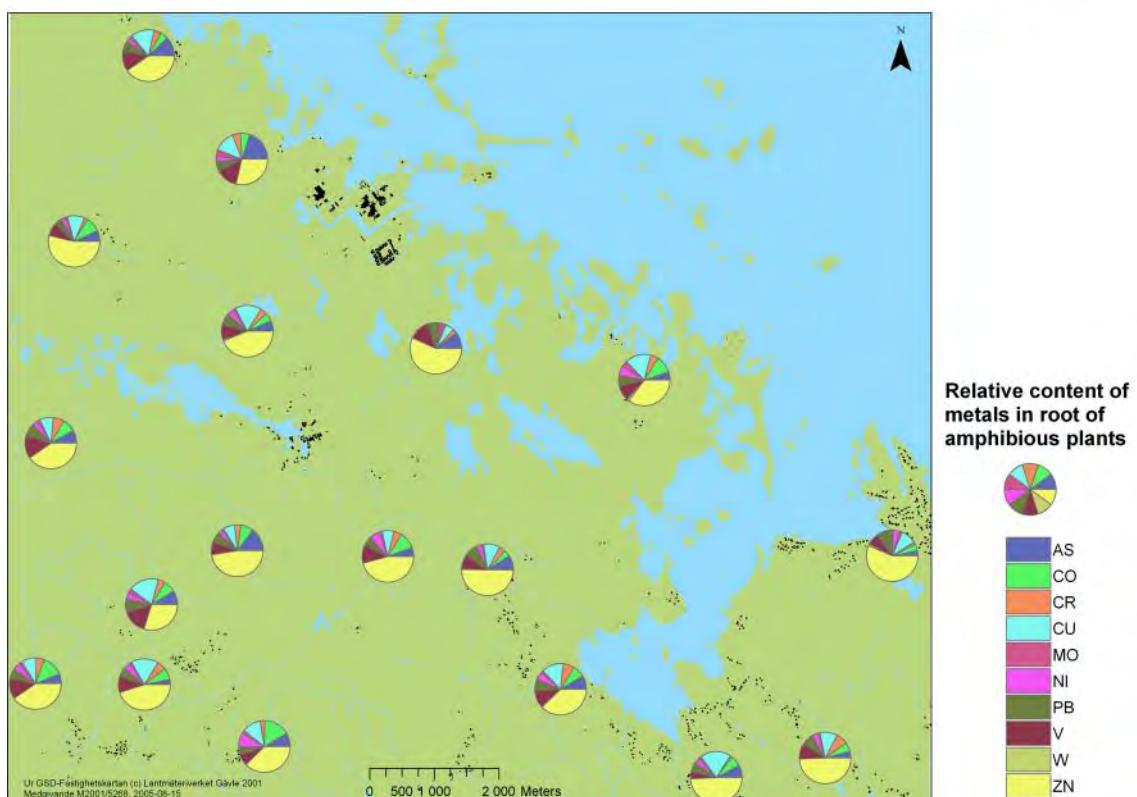
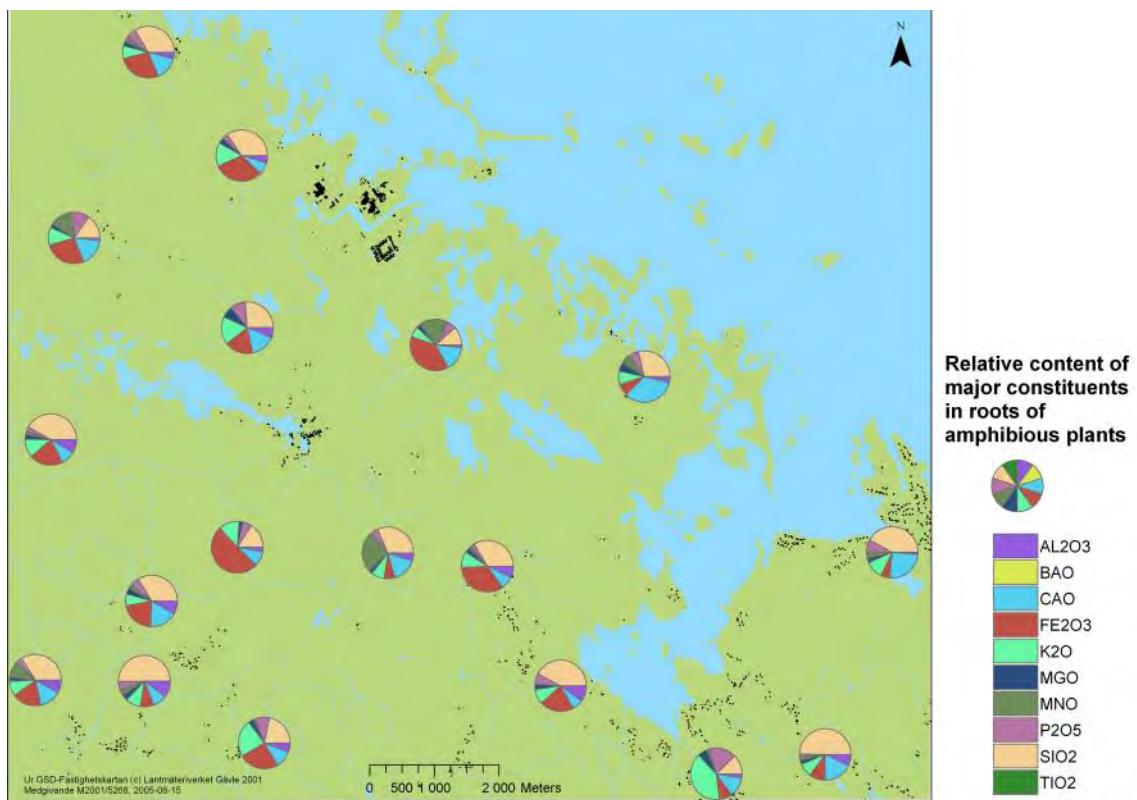


Figure 7-10. Relative contents of major constituents (upper) and trace metals (lower) in roots of amphibious plants in the Forsmark area. The pie charts show the relative amounts of the selected metals (per weight). (Ur regionala biogeokemiska databasen. Copyright Sveriges geologiska undersökning (SGU). Medgivande:30-1125 /2005.)

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Appendix 1 – Forsmark surface water

Element	Description	Abbreviation	Page
Aluminium	Aluminium	Al	1
Antimony	Antimony	Sb	2
Arsenic	Arsenic	As	3
Barium	Barium	Ba	4
Boron	Boron-10 (B10/B11)	B-10	5
Bromide	Bromide	Br	6
Cadmium	Cadmium	Cd	7
Calcium	Calcium	Ca	8
Carbon	Bicarbonate	HCO ₃	9
	Carbon-13	C-13	10
	Carbon-14	C-14	11
	Dissolved inorganic carbon	DIC	12
	Dissolved organic carbon	DOC	13
	Particulate organic carbon	POC	14
	Total organic carbon	TOC	15
Cerium	Cerium	Ce	16
Cesium	Cesium	Cs	17
Chlorine	Chloride	Cl	18
	Chlorine-37	Cl-37	19
Chromium	Chromium	Cr	20
Cobalt	Cobalt	Co	21
Copper	Copper	Cu	22
Deuterium	Deuterium	D	23
Dysprosium	Dysprosium	Dy	24
Erbium	Erbium	Er	25
Europium	Europium	Eu	26
Fluoride	Fluoride	F	27
Gadolinium	Gadolinium	Gd	28
Hafnium	Hafnium	Hf	29
Holmium	Holmium	Ho	30
Hydrogen	pH (field)	pH (field)	31
	pH (lab)	pH (lab)	32
	Tritium	Tr	33
Indium	Indium	In	34
Iodide	Iodide	I	35
Iron	Ferrous iron	Fe(II)	35
	Iron (total ICP)	Fe	36
	Iron (total spectrometric)	Fe	36
Lanthanum	Lanthanum	La	37
Lead	Lead	Pb	38
Lithium	Lithium	Li	39
Lutetium	Lutetium	Lu	40
Magnesium	Magnesium	Mg	41
Manganese	Manganese	Mn	42
Mercury	Mercury	Hg	43

Element	Description	Abbreviation	Page
Molybdenum	Molybdenum	Mo	44
Neodymium	Neodymium	Nd	45
Nickel	Nickel	Ni	46
Nitrogen	Total nitrogen	Tot-N	47
	Nitrogen as ammonium	NH4-N	48
	Nitrogen as nitrate	NO3-N	49
	Nitrogen as nitrate and nitrite	NO23-N	50
	Particulate organic nitrogen	PON	51
Oxygen	Dissolved oxygen (lab+field)	O2	52
	Oxygen-18	O-18	53
Phosphorus	Particulate organic phosphorus	POP	54
	Phosphorus as phosphate	PO4-P	55
	Total phosphorus	Tot-P	56
Potassium	Potassium	K	57
Praseodymium	Praseodymium	Pr	58
Radium	Radium-226	Ra-226	59
Radon	Radon-222	Rn-222	59
Rubidium	Rubidium	Rb	60
Samarium	Samarium	Sm	61
Scandium	Scandium	Sc	62
Silicon	Silicon	Si	63
	Silica	SiO2-si	64
Sodium	Sodium	Na	65
Strontium	Strontium	Sr	66
	Strontium-87 (Sr87/Sr86)	Sr-87	67
Sulphur	Hydrogen sulphide as total sulphide	S2 (HS)	67
	Sulphate	SO4	68
	Sulphate as sulphur	SO4-S	69
	Sulphur-34	S-34	70
Terbium	Terbium	Tb	71
Thallium	Thallium	Tl	72
Thorium	Thorium	Th	73
	Thorium-230	Th-230	74
	Thorium-232	Th-232	74
Thullium	Thullium	Tm	75
Uranium	Uranium	U	76
	Uranium-234	U-234	77
	Uranium-235	U-235	77
	Uranium-238	U-238	78
Vanadium	Vanadium	V	79
Ytterbium	Ytterbium	Yb	80
Yttrium	Yttrium	Y	81
Zinc	Zinc	Zn	82
Zirconium	Zirconium	Zr	83

Element	Description	Abbreviation	Page
Absorbance	Spectr.abs.coeff 436nm		84
	Absorbance 436nm		84
Chlorophyll	Chlorophyll a		85
	Chlorophyll b		86
	Pheopigment		87
	Chlorophyll (field)		88
Conductivity	Electrical conductivity (lab)		89
	Electrical conductivity (field)		90
Light	Light penetration		91
	Light $\mu\text{molE}/\text{m}^2,\text{s}$		92
Salinity	Salinity (field)		93
Turbidity	Turbidity		94

Surface Water

AI		Aluminium (µg/l)							AI		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	10	4.9	8.1	16	68	120	39	40	110
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	2.3	6.2	9.0	13	120	24	40	170
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	2.0	5.0	7.5	13	26	11	10	99
Eckarfjärden	PFM000117	Surface	9	5.0	6.3	16	25	190	36	60	170
Eckarfjärden	PFM000117	Bottom	4	2.2	4.2	9.3	24	56	19	20	130
Bolundsfjärden	PFM000107	Surface	10	10.0	15	18	39	240	45	70	160
Bolundsfjärden	PFM000107	Bottom	4	12	12	20	34	54	26	20	75
Norra bassängen	PFM000097	Surface	7	9.7	12	16	26	37	20	10	54
Fiskarfjärden	PFM000127	Surface	1	13		13		13	13		
Fiskarfjärden	PFM000127	Bottom	3	6.3	9.4	12	13	13	10	4	34
Fiskarfjärden	PFM000135	Surface	5	5.9	6.0	6.7	57	72	29	30	110
Forsmark area		Surface	49	2.3	7.8	15	36	240	33	50	140
Forsmark area		Bottom	15	2.0	6.2	12	20	56	17	20	100
Simpevarp area		Surface	1	140		140		140	140		
Simpevarp area		Bottom	1	130		130		130	130		
Sweden	N.S.2000	Surface	1206	1.6	23	62	140	37000	130	1000	800
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	11	2.5	6.1	13	57	170	46	60	130
SV Forslingens grund	PFM000062	Bottom	3	1.9	2.3	2.7	4.1	5.6	3.4	2	58
Alt. SV Forslingen	PFM000082	Surface	1	18		18		18	18		
Alt. SV Forslingen	PFM000082	Bottom	1	12		12		12	12		
Tixelfjärden	PFM000063	Surface	9	1.5	3.6	8.0	14	80	19	30	140
Tixelfjärden	PFM000063	Bottom	5	1.8	2.8	4.8	9.4	21	7.9	8	98
Kallriga, norra	PFM000064	Surface	8	3.6	11	16	78	620	120	200	190
Kallriga, norra	PFM000064	Bottom	4	3.3	9.3	14	24	44	19	20	92
Kallriga, södra	PFM000065	Surface	9	2.7	8.3	16	31	720	100	200	230
Forsmark area		Surface	38	1.5	6.9	13	32	720	67	200	230
Forsmark area		Bottom	13	1.8	2.8	5.6	12	44	11	10	110
Simpevarp area		Surface	4	<2	<2	8.4	17	19	9.3	10	100
Simpevarp area		Bottom	4	<2	<2	2.7	7.3	16	5.6	7	130
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	8	6.1	8.2	10.0	17	33	14	10	71
Söder Eckarfjärden	PFM000071	Surface	2	9.2	15	20	26	31	20	20	77
Norr Eckarfjärden	PFM000070	Surface	8	3.7	9.3	11	14	23	12	6	51
Bolundskogen	PFM000069	Surface	4	19	21	22	24	28	23	4	17
Kungstråsket	PFM000068	Surface	9	12	15	22	28	70	26	20	69
Lillputtsundet	PFM000067	Surface	8	5.5	12	12	15	28	15	7	50
Flottbron	PFM000072	Surface	6	3.5	5.2	7.2	16	26	11	9	81
Söder Bredviken	PFM000073	Surface	3	0.65	2.6	4.5	20	35	13	20	140
Forsmark area		Surface	48	0.65	9.0	13	22	70	17	10	72
Simpevarp area		Surface	10	130	170	350	420	600	330	200	52

Surface Water

Sb		Antimony (µg/l)								Sb	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	7	0.037	0.047	0.062	0.069	0.073	0.058	0.01	25
Gunnarsbo-Lillfjärden	PFM000087	Surface	6	0.040	0.054	0.066	0.071	0.092	0.064	0.02	28
Gunnarsbo-Lillfjärden	PFM000087	Bottom	2	0.080	0.083	0.086	0.089	0.092	0.086	0.009	10
Eckarfjärden	PFM000117	Surface	6	0.069	0.076	0.081	0.088	0.11	0.085	0.02	19
Eckarfjärden	PFM000117	Bottom	2	0.072	0.073	0.074	0.075	0.076	0.074	0.003	3.5
Bolundsfjärden	PFM000107	Surface	7	0.065	0.076	0.078	0.096	0.14	0.089	0.02	28
Bolundsfjärden	PFM000107	Bottom	2	0.082	0.085	0.088	0.091	0.094	0.088	0.008	9.4
Norra bassängen	PFM000097	Surface	6	0.065	0.080	0.089	0.100	0.10	0.087	0.01	17
Fiskarfjärden	PFM000127	Bottom	1	0.13		0.13		0.13	0.13		
Fiskarfjärden	PFM000135	Surface	4	0.093	0.094	0.096	0.11	0.14	0.11	0.02	20
Forsmark area		Surface	36	0.037	0.067	0.077	0.093	0.14	0.080	0.02	29
Forsmark area		Bottom	7	0.072	0.078	0.082	0.093	0.13	0.089	0.02	22
Simpevarp area		Surface	1	0.13		0.13		0.13	0.13		
Simpevarp area		Bottom	1	0.13		0.13		0.13	0.13		
Sea Water											
SV Forslingens grund	PFM000062	Surface	8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	31
SV Forslingens grund	PFM000062	Bottom	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	21
Alt. SV Forslingen	PFM000082	Surface	1	0.084		0.084		0.084	0.084		
Alt. SV Forslingen	PFM000082	Bottom	1	0.074		0.074		0.074	0.074		
Tixelfjärden	PFM000063	Surface	8	<0.1	<0.1	<0.1	0.11	0.14	<0.1	0.03	39
Tixelfjärden	PFM000063	Bottom	4	<0.1	<0.1	<0.1	0.10	0.14	<0.1	0.04	39
Kallriga, norra	PFM000064	Surface	7	<0.1	<0.1	<0.1	0.11	0.15	<0.1	0.04	39
Kallriga, norra	PFM000064	Bottom	3	<0.1	<0.1	<0.1	0.12	0.15	<0.1	0.05	52
Kallriga, södra	PFM000065	Surface	8	<0.1	<0.1	0.10	0.12	0.13	<0.1	0.03	27
Forsmark area		Surface	32	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	32
Forsmark area		Bottom	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.04	37
Simpevarp area		Surface	4	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	0.03	48
Simpevarp area		Bottom	4	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	0.03	47
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	6	0.044	0.060	0.062	0.065	0.066	0.060	0.008	13
Norr Eckarfjärden	PFM000070	Surface	6	0.042	0.070	0.075	0.081	0.084	0.071	0.02	22
Bolundskogen	PFM000069	Surface	1	0.066		0.066		0.066	0.066		
Kungstråsket	PFM000068	Surface	6	0.042	0.071	0.074	0.080	0.082	0.071	0.01	21
Liliputtsundet	PFM000067	Surface	5	0.075	0.083	0.090	0.10	0.13	0.096	0.02	22
Flottbron	PFM000072	Surface	5	0.047	0.067	0.077	0.079	0.086	0.071	0.02	21
Söder Bredviken	PFM000073	Surface	3	0.075	0.089	0.10	0.13	0.15	0.11	0.04	34
Forsmark area		Surface	32	0.042	0.066	0.075	0.083	0.15	0.076	0.02	29
Simpevarp area		Surface	10	0.043	0.054	0.075	0.093	0.14	0.078	0.03	39

Surface Water

As		Arsenic ($\mu\text{g/l}$)							As		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	5	0.13	0.26	0.40	0.40	0.64	0.37	0.2	51
Gunnarsbo-Lillfjärden	PFM000087	Surface	3	0.46	0.50	0.53	0.81	1.1	0.69	0.3	49
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	0.48		0.48		0.48	0.48		
Eckarfjärden	PFM000117	Surface	5	<0.1	0.30	0.31	0.40	0.41	0.29	0.1	49
Eckarfjärden	PFM000117	Bottom	2	0.29	0.30	0.31	0.32	0.33	0.31	0.03	8.2
Bolundsfjärden	PFM000107	Surface	4	0.16	0.31	0.46	0.60	0.77	0.46	0.3	57
Bolundsfjärden	PFM000107	Bottom	1	0.37		0.37		0.37	0.37		
Norra bassängen	PFM000097	Surface	2	0.55	0.78	1.0	1.2	1.5	1.0	0.6	64
Fiskarfjärden	PFM000127	Surface	1	0.40		0.40		0.40	0.40		
Fiskarfjärden	PFM000127	Bottom	1	0.48		0.48		0.48	0.48		
Fiskarfjärden	PFM000135	Surface	1	0.47		0.47		0.47	0.47		
Forsmark area		Surface	21	<0.1	0.31	0.40	0.55	1.5	0.48	0.3	66
Forsmark area		Bottom	5	0.29	0.33	0.37	0.48	0.48	0.39	0.08	22
Simpevarp area		Surface	1	0.63		0.63		0.63	0.63		
Simpevarp area		Bottom	1	0.57		0.57		0.57	0.57		
Sweden	N.S.2000	Surface	1206	0.010	0.15	0.31	0.47	520	0.85	20	1800
Sea Water											
SV Forslingens grund	PFM000062	Surface	6	<100	<100	<100	<100	<100	<100	20	220
SV Forslingens grund	PFM000062	Bottom	2	<100	<100	<100	<100	<100	<100	30	130
Tixelfjärden	PFM000063	Surface	4	<100	<100	<100	<100	<100	<100	20	190
Tixelfjärden	PFM000063	Bottom	2	<100	<100	<100	<100	<100	<100	30	130
Kallriga, norra	PFM000064	Surface	4	<100	<100	<100	<100	<100	<100	20	190
Kallriga, norra	PFM000064	Bottom	2	<100	<100	<100	<100	<100	<100	30	130
Kallriga, södra	PFM000065	Surface	4	<100	<100	<100	<100	<100	<100	20	180
Forsmark area		Surface	18	<100	<100	<100	<100	<100	<100	20	180
Forsmark area		Bottom	6	<100	<100	<100	<100	<100	<100	30	100
Simpevarp area		Surface	4	<1	<1	<1	<1	<1	<1		
Simpevarp area		Bottom	4	<1	<1	<1	<1	1.0	<1	0.3	40
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	2	0.46	0.53	0.60	0.67	0.73	0.60	0.2	32
Norr Eckarfjärden	PFM000070	Surface	2	0.36	0.38	0.41	0.43	0.46	0.41	0.07	17
Bolundskogen	PFM000069	Surface	1	0.27		0.27		0.27	0.27		
Kungstråsket	PFM000068	Surface	3	0.13	0.21	0.30	0.33	0.36	0.26	0.1	46
Liliputtsundet	PFM000067	Surface	3	<0.05	0.15	0.27	0.42	0.57	0.29	0.3	95
Flottbron	PFM000072	Surface	2	<0.1	0.16	0.27	0.38	0.49	0.27	0.3	120
Söder Bredviken	PFM000073	Surface	1	0.80		0.80		0.80	0.80		
Forsmark area		Surface	14	<0.1	0.27	0.36	0.48	0.80	0.38	0.2	61
Simpevarp area		Surface	10	0.37	0.50	0.63	0.93	1.7	0.79	0.4	54

Surface Water

Ba		Barium ($\mu\text{g/l}$)							Ba		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	10	22	23	25	29	35	27	5	18
Gunnarsbo-Lillfjärden	PFM000087	Surface	8	21	26	27	30	59	31	10	39
Gunnarsbo-Lillfjärden	PFM000087	Bottom	5	24	26	36	57	64	41	20	43
Eckarfjärden	PFM000117	Surface	10	10	13	15	17	19	15	3	19
Eckarfjärden	PFM000117	Bottom	5	11	16	20	21	22	18	5	27
Bolundsfjärden	PFM000107	Surface	10	15	16	17	20	24	18	3	16
Bolundsfjärden	PFM000107	Bottom	5	16	17	23	24	29	22	5	25
Norra bassängen	PFM000097	Surface	7	12	14	17	25	38	21	9	45
Fiskarfjärden	PFM000127	Surface	1	16		16		16	16		
Fiskarfjärden	PFM000127	Bottom	3	17	18	19	19	19	18	1	6.2
Fiskarfjärden	PFM000135	Surface	5	14	14	16	22	38	21	10	50
Forsmark area		Surface	52	10	15	20	27	59	22	9	41
Forsmark area		Bottom	18	11	17	22	26	64	26	10	54
Simpevarp area		Surface	1	12		12		12	12		
Simpevarp area		Bottom	1	11		11		11	11		
Sea Water											
SV Forslingens grund	PFM000062	Surface	11	13	16	17	18	20	17	2	11
SV Forslingens grund	PFM000062	Bottom	3	14	16	18	18	19	17	2	14
Alt. SV Forslingen	PFM000082	Surface	2	16	17	17	18	19	17	2	13
Alt. SV Forslingen	PFM000082	Bottom	2	15	16	17	18	19	17	3	18
Tixelfjärden	PFM000063	Surface	9	15	17	17	19	20	18	2	9.5
Tixelfjärden	PFM000063	Bottom	5	17	18	20	21	24	20	3	14
Alt. Tixelfjärden	PFM000083	Surface	1	16		16		16	16		
Alt. Tixelfjärden	PFM000083	Bottom	1	15		15		15	15		
Kallriga, norra	PFM000064	Surface	8	17	19	20	21	22	20	2	8.0
Kallriga, norra	PFM000064	Bottom	4	18	18	20	22	22	20	2	11
Kallriga, södra	PFM000065	Surface	9	16	18	20	21	22	19	2	11
Alt. Kallriga	PFM000084	Surface	1	15		15		15	15		
Alt. Kallriga	PFM000084	Bottom	1	15		15		15	15		
Forsmark area		Surface	41	13	17	18	20	22	18	2	12
Forsmark area		Bottom	16	14	16	18	21	24	18	3	16
Simpevarp area		Surface	4	18	18	18	18	19	18	0.2	1.2
Simpevarp area		Bottom	4	18	18	18	19	19	18	0.2	1.3
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	9	19	21	22	26	32	24	4	18
Söder Eckarfjärden	PFM000071	Surface	2	28	29	29	30	31	29	2	7.4
Norr Eckarfjärden	PFM000070	Surface	8	14	15	17	19	25	18	4	20
Bolundskogen	PFM000069	Surface	4	24	26	27	29	35	28	5	17
Kungstråsket	PFM000068	Surface	9	18	20	24	25	28	23	4	15
Lillputtsundet	PFM000067	Surface	8	15	16	20	22	36	21	7	32
Flottbron	PFM000072	Surface	6	16	24	29	35	51	31	10	39
Söder Bredviken	PFM000073	Surface	3	41	43	44	45	46	44	2	5.5
Forsmark area		Surface	49	14	19	23	27	51	25	8	34
Simpevarp area		Surface	10	13	15	16	17	26	17	4	21

Surface Water

B-10		Boron-10 (B10/B11) (ratio)							B-10		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	3	0.2390	0.2391	0.2391	0.2409	0.2426	0.2402	0.00205	0.85
Gunnarsbo-Lillfjärden	PFM000087	Surface	2	0.2358	0.2369	0.2380	0.2390	0.2401	0.2380	0.00304	1.3
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	0.2363		0.2363		0.2363	0.2363		
Eckarfjärden	PFM000117	Surface	3	0.2372	0.2388	0.2403	0.2408	0.2413	0.2396	0.00214	0.89
Eckarfjärden	PFM000117	Bottom	1	0.2365		0.2365		0.2365	0.2365		
Bolundsfjärden	PFM000107	Surface	3	0.2370	0.2373	0.2376	0.2384	0.2391	0.2379	0.00108	0.45
Bolundsfjärden	PFM000107	Bottom	1	0.2800		0.2800		0.2800	0.2800		
Norra bassängen	PFM000097	Surface	3	0.2345	0.2359	0.2373	0.2390	0.2407	0.2375	0.00310	1.3
Fiskarfjärden	PFM000135	Surface	1	0.2385		0.2385		0.2385	0.2385		
Forsmark area		Surface	15	0.2345	0.2373	0.2390	0.2402	0.2426	0.2387	0.00216	0.90
Forsmark area		Bottom	3	0.2363	0.2364	0.2365	0.2583	0.2800	0.2509	0.0252	10
Simpevarp area		Surface	34	0.2278	0.2399	0.2418	0.2438	0.2670	0.2419	0.00603	2.5
Simpevarp area		Bottom	35	0.2327	0.2400	0.2422	0.2437	0.2651	0.2421	0.00520	2.1
Sea Water											
SV Forslingens grund	PFM000062	Surface	3	0.1918	0.2144	0.2369	0.2377	0.2385	0.2224	0.0265	12
SV Forslingens grund	PFM000062	Bottom	1	0.1912		0.1912		0.1912	0.1912		
Alt. SV Forslingen	PFM000082	Surface	1	0.2382		0.2382		0.2382	0.2382		
Alt. SV Forslingen	PFM000082	Bottom	1	0.2399		0.2399		0.2399	0.2399		
Tixelfjärden	PFM000063	Surface	4	0.1918	0.2256	0.2376	0.2386	0.2396	0.2266	0.0232	10
Tixelfjärden	PFM000063	Bottom	2	0.1918	0.2037	0.2156	0.2275	0.2394	0.2156	0.0337	16
Kallriga, norra	PFM000064	Surface	3	0.1900	0.2135	0.2370	0.2377	0.2383	0.2218	0.0275	12
Kallriga, norra	PFM000064	Bottom	1	0.1916		0.1916		0.1916	0.1916		
Kallriga, södra	PFM000065	Surface	4	0.1906	0.2256	0.2378	0.2386	0.2396	0.2264	0.0239	11
Forsmark area		Surface	15	0.1900	0.2144	0.2373	0.2383	0.2396	0.2255	0.0215	9.6
Forsmark area		Bottom	5	0.1912	0.1916	0.1918	0.2394	0.2399	0.2108	0.0264	13
Simpevarp area		Surface	52	0.2269	0.2365	0.2381	0.2395	0.2438	0.2378	0.00311	1.3
Simpevarp area		Bottom	51	0.2281	0.2365	0.2377	0.2391	0.2417	0.2372	0.00300	1.3
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	2	0.2366	0.2382	0.2398	0.2413	0.2429	0.2398	0.00445	1.9
Norr Eckarfjärden	PFM000070	Surface	2	0.2361	0.2376	0.2390	0.2405	0.2419	0.2390	0.00410	1.7
Bolundskogen	PFM000069	Surface	1	0.1959		0.1959		0.1959	0.1959		
Kungstråsket	PFM000068	Surface	3	0.1947	0.2167	0.2387	0.2403	0.2418	0.2251	0.0263	12
Lillputtsundet	PFM000067	Surface	3	0.1932	0.2152	0.2372	0.2386	0.2400	0.2235	0.0262	12
Flottbron	PFM000072	Surface	2	0.2362	0.2371	0.2380	0.2389	0.2398	0.2380	0.00255	1.1
Söder Bredviken	PFM000073	Surface	1	0.2436		0.2436		0.2436	0.2436		
Forsmark area		Surface	14	0.1932	0.2361	0.2380	0.2414	0.2436	0.2299	0.0193	8.4
Simpevarp area		Surface	206	0.2304	0.2410	0.2431	0.2452	0.2764	0.2442	0.00709	2.9

Surface Water

Br		Bromide (mg/l)							Br		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	42	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	43
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.2	<0.2	<0.2	<0.2	0.23	<0.2	0.04	53
Gunnarsbo-Lillfjärden	PFM000087	Bottom	21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	32
Eckarfjärden	PFM000117	Surface	43	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	57
Eckarfjärden	PFM000117	Bottom	20	<0.2	<0.2	<0.2	<0.2	0.20	<0.2	0.05	62
Bolundsfjärden	PFM000107	Surface	47	<0.2	<0.2	<0.2	0.34	0.54	0.22	0.1	67
Bolundsfjärden	PFM000107	Bottom	21	<0.2	<0.2	0.37	0.45	3.2	0.45	0.6	140
Norra bassängen	PFM000097	Surface	37	<0.2	<0.2	0.26	0.54	1.3	0.36	0.3	82
Fiskarfjärden	PFM000127	Surface	14	<0.2	<0.2	0.20	0.22	0.26	<0.2	0.05	27
Fiskarfjärden	PFM000127	Bottom	9	<0.2	<0.2	<0.2	0.20	0.24	<0.2	0.06	35
Fiskarfjärden	PFM000135	Surface	17	<0.2	<0.2	<0.2	0.21	12	0.84	3	330
Fiskarfjärden	PFM000135	Bottom	1	0.20		0.20		0.20	0.20		
Forsmark area		Surface	245	<0.2	<0.2	<0.2	<0.2	12	<0.2	0.8	380
Forsmark area		Bottom	72	<0.2	<0.2	<0.2	0.20	3.2	0.20	0.4	190
Simpevarp area		Surface	112	<0.2	<0.2	<0.2	<0.2	0.50	<0.2	0.05	47
Simpevarp area		Bottom	112	<0.2	<0.2	<0.2	<0.2	1.6	<0.2	0.2	140
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	0.21	8.5	8.9	9.2	16	8.9	2	22
SV Forslingens grund	PFM000062	Bottom	15	7.3	8.4	9.1	9.4	12	9.2	1	13
Alt. SV Forslingen	PFM000082	Surface	8	6.3	7.6	7.9	8.1	8.9	7.8	0.8	10.0
Alt. SV Forslingen	PFM000082	Bottom	8	6.8	8.1	8.5	9.0	10.0	8.5	1.0	11
Tixelfjärden	PFM000063	Surface	41	4.8	8.3	8.7	9.0	10	8.5	1	14
Tixelfjärden	PFM000063	Bottom	21	7.2	8.4	9.1	9.5	10	8.9	0.9	9.8
Alt. Tixelfjärden	PFM000083	Surface	3	6.7	7.4	8.0	9.3	11	8.5	2	24
Alt. Tixelfjärden	PFM000083	Bottom	3	7.0	7.7	8.3	9.9	11	8.9	2	26
Kallriga, norra	PFM000064	Surface	37	1.1	6.2	7.9	8.6	11	7.1	2	33
Kallriga, norra	PFM000064	Bottom	19	3.5	7.3	8.3	8.8	9.5	7.9	1	18
Kallriga, södra	PFM000065	Surface	36	0.63	5.7	7.6	8.2	10	6.7	3	39
Alt. Kallriga	PFM000084	Surface	5	0.50	1.0	1.4	2.5	5.9	2.2	2	95
Alt. Kallriga	PFM000084	Bottom	5	<0.2	5.4	6.7	9.1	9.9	6.2	4	62
Forsmark area		Surface	175	0.21	7.3	8.4	8.9	16	7.7	2	31
Forsmark area		Bottom	72	<0.2	8.1	8.7	9.4	12	8.5	2	19
Simpevarp area		Surface	160	1.0	11	13	15	28	13	5	37
Simpevarp area		Bottom	157	3.2	12	13	16	27	14	4	28
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	57
Söder Eckarfjärden	PFM000071	Surface	33	<0.2	<0.2	<0.2	<0.2	0.24	<0.2	0.05	90
Norr Eckarfjärden	PFM000070	Surface	41	<0.2	<0.2	<0.2	<0.2	0.37	<0.2	0.06	110
Bolundskogen	PFM000069	Surface	48	<0.2	<0.2	<0.2	<0.2	0.42	<0.2	0.07	54
Kungstråsket	PFM000068	Surface	47	<0.2	<0.2	<0.2	<0.2	0.21	<0.2	0.05	45
Lillputtsundet	PFM000067	Surface	44	<0.2	<0.2	<0.2	0.41	0.66	0.25	0.2	72
Flottbron	PFM000072	Surface	40	<0.2	<0.2	<0.2	<0.2	0.24	0.87	0.20	79
Söder Bredviken	PFM000073	Surface	23	<0.2	<0.2	<0.2	<0.2	0.23	<0.2	0.04	48
Forsmark area		Surface	316	<0.2	<0.2	<0.2	<0.2	0.87	<0.2	0.1	97
Simpevarp area		Surface	573	<0.2	<0.2	<0.2	<0.2	1.3	<0.2	0.2	100

Surface Water

Cd		Cadmium ($\mu\text{g/l}$)								Cd	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	10	<0.002	<0.002	0.0029	0.0039	0.0090	0.0031	0.003	81
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.002	<0.002	0.0025	0.0050	0.0062	0.0031	0.002	73
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.002	<0.002	<0.002	0.0085	0.016	0.0060	0.009	140
Eckarfjärden	PFM000117	Surface	9	<0.002	0.0030	0.0030	0.0040	0.0055	0.0031	0.001	46
Eckarfjärden	PFM000117	Bottom	4	<0.002	<0.002	0.0021	0.0043	0.0080	0.0033	0.003	100
Bolundsfjärden	PFM000107	Surface	8	<0.002	0.0032	0.0047	0.0050	0.010	0.0046	0.003	57
Bolundsfjärden	PFM000107	Bottom	3	0.0053	0.0057	0.0060	0.0076	0.0091	0.0068	0.002	30
Norra bassängen	PFM000097	Surface	5	<0.002	0.0026	0.0030	0.0047	0.0060	0.0035	0.002	56
Fiskarfjärden	PFM000127	Surface	1	0.0026		0.0026		0.0026	0.0026		
Fiskarfjärden	PFM000127	Bottom	2	0.0031	0.0036	0.0041	0.0045	0.0050	0.0041	0.001	33
Fiskarfjärden	PFM000135	Surface	5	<0.002	<0.002	0.0030	0.0040	0.0060	0.0030	0.002	71
Forsmark area		Surface	45	<0.002	<0.002	0.0030	0.0050	0.010	0.0034	0.002	63
Forsmark area		Bottom	12	<0.002	<0.002	0.0041	0.0065	0.016	0.0050	0.004	90
Simpevarp area		Surface	1	<0.002		<0.002		<0.002	<0.002		
Simpevarp area		Bottom	1	<0.002		<0.002		<0.002	<0.002		
Sweden	N.S.2000	Surface	1206		0.0050	0.0090	0.017	120	0.15	4	2500
Sea Water											
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	11	<0.05	<0.05	<0.05	<0.05	0.12	<0.05	0.03	120
SV Forslingens grund	PFM000062	Bottom	3	<0.05	<0.05	<0.05	0.20	0.39	0.14	0.2	160
Alt. SV Forslingen	PFM000082	Surface	1	<0.02		<0.02		<0.02	<0.02		
Alt. SV Forslingen	PFM000082	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Tixelfjärden	PFM000063	Surface	9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	44
Tixelfjärden	PFM000063	Bottom	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	46
Kallriga, norra	PFM000064	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	60
Kallriga, norra	PFM000064	Bottom	4	<0.05	<0.05	<0.05	<0.05	0.060	<0.05	0.02	82
Kallriga, södra	PFM000065	Surface	9	<0.05	<0.05	<0.05	<0.05	0.18	<0.05	0.06	170
Forsmark area		Surface	38	<0.05	<0.05	<0.05	<0.05	0.18	<0.05	0.03	150
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	0.39	0.051	0.1	200
Simpevarp area		Surface	4	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Simpevarp area		Bottom	4	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Streaming Water											
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.002	0.0020	0.0035	0.0039	0.0060	0.0032	0.002	55
Söder Eckarfjärden	PFM000071	Surface	1	0.0048		0.0048		0.0048	0.0048		
Norr Eckarfjärden	PFM000070	Surface	7	0.0021	0.0030	0.0038	0.0085	0.017	0.0066	0.005	81
Bolundskogen	PFM000069	Surface	3	<0.002	<0.002	0.0025	0.0033	0.0040	0.0025	0.002	60
Kungstråsket	PFM000068	Surface	8	<0.002	0.0030	0.0040	0.0061	0.0070	0.0043	0.002	47
Lillputtsundet	PFM000067	Surface	7	<0.002	0.0027	0.0040	0.0045	0.0090	0.0040	0.003	63
Flottbron	PFM000072	Surface	6	<0.002	<0.002	0.0036	0.0063	0.013	0.0048	0.004	93
Söder Bredviken	PFM000073	Surface	3	0.0070	0.0076	0.0082	0.013	0.018	0.011	0.006	53
Forsmark area		Surface	42	<0.002	0.0028	0.0040	0.0063	0.018	0.0049	0.004	79
Simpevarp area		Surface	10	<0.002	0.012	0.020	0.034	0.21	0.038	0.06	160

Surface Water

Ca		Calcium (mg/l)							Ca		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	40	57	63	66	84	62	10	16
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	36	51	62	68	120	63	20	30
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	49	56	66	79	120	73	20	28
Eckarfjärden	PFM000117	Surface	45	13	36	42	47	61	41	10	24
Eckarfjärden	PFM000117	Bottom	21	33	41	50	53	59	48	8	16
Bolundsfjärden	PFM000107	Surface	47	23	38	44	49	69	44	10	26
Bolundsfjärden	PFM000107	Bottom	21	41	45	48	55	68	51	9	17
Norra bassängen	PFM000097	Surface	37	20	33	43	46	130	45	20	52
Fiskarfjärden	PFM000127	Surface	14	22	29	30	34	36	30	4	15
Fiskarfjärden	PFM000127	Bottom	9	29	30	31	35	36	32	3	8.9
Fiskarfjärden	PFM000135	Surface	17	19	25	44	62	92	46	20	50
Fiskarfjärden	PFM000135	Bottom	1	74		74		74	74		
Forsmark area		Surface	247	13	37	46	61	130	49	20	37
Forsmark area		Bottom	74	29	43	52	62	120	54	20	34
Simpevarp area		Surface	112	6.3	7.4	8.6	10	13	8.8	2	17
Simpevarp area		Bottom	112	6.2	7.5	8.9	11	13	9.1	2	18
Sweden	N.S.2000	Surface	3464	0.060	2.2	3.8	6.6	130	7.2	10	170
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	64	70	73	76	82	73	4	5.5
SV Forslingens grund	PFM000062	Bottom	15	64	68	70	72	76	70	4	5.0
Alt. SV Forslingen	PFM000082	Surface	8	69	70	72	74	81	73	4	5.3
Alt. SV Forslingen	PFM000082	Bottom	8	69	71	72	77	81	74	5	6.1
Tixelfjärden	PFM000063	Surface	41	62	70	72	76	83	73	5	6.4
Tixelfjärden	PFM000063	Bottom	21	63	69	70	75	79	71	4	5.4
Alt. Tixelfjärden	PFM000083	Surface	3	67	68	68	70	73	69	3	4.3
Alt. Tixelfjärden	PFM000083	Bottom	3	68	68	68	71	73	70	3	3.8
Kallriga, norra	PFM000064	Surface	37	38	67	71	72	81	69	8	11
Kallriga, norra	PFM000064	Bottom	19	63	69	71	72	76	70	3	4.8
Kallriga, södra	PFM000065	Surface	36	43	64	69	72	79	67	8	12
Alt. Kallriga	PFM000084	Surface	5	47	49	55	63	73	57	10	19
Alt. Kallriga	PFM000084	Bottom	5	49	63	67	67	77	64	10	15
Forsmark area		Surface	175	38	69	71	75	83	70	7	10
Forsmark area		Bottom	72	49	68	70	73	81	71	5	6.7
Simpevarp area		Surface	160	20	73	89	94	110	83	20	22
Simpevarp area		Bottom	157	34	85	92	97	110	89	10	13
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	48	57	62	67	85	62	8	13
Söder Eckarfjärden	PFM000071	Surface	33	52	69	76	82	90	75	9	11
Norr Eckarfjärden	PFM000070	Surface	41	10	37	44	48	57	43	9	20
Bolundskogen	PFM000069	Surface	48	30	55	59	64	86	60	9	16
Kungstråsket	PFM000068	Surface	48	35	50	54	60	73	55	9	15
Lillputtsundet	PFM000067	Surface	44	29	41	44	47	65	44	8	19
Flottbron	PFM000072	Surface	40	22	38	42	47	73	43	10	23
Söder Bredviken	PFM000073	Surface	23	81	110	120	130	150	120	20	14
Forsmark area		Surface	317	10	45	55	66	150	59	20	38
Simpevarp area		Surface	556	3.5	8.6	11	15	38	13	6	47
Sweden	N.S.2000	Surface	725	0.26	3.0	5.4	11	160	15	20	170

Surface Water

HCO3		Bicarbonate (mg/l)							HCO3		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	140	180	200	210	260	200	30	15
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	120	170	190	210	370	200	50	27
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	160	190	200	240	370	230	60	27
Eckarfjärden	PFM000117	Surface	45	46	110	130	150	190	130	30	22
Eckarfjärden	PFM000117	Bottom	20	110	130	150	170	190	150	30	17
Bolundsfjärden	PFM000107	Surface	46	76	110	130	140	210	130	30	26
Bolundsfjärden	PFM000107	Bottom	21	110	130	140	170	220	150	30	20
Norra bassängen	PFM000097	Surface	37	69	96	120	140	280	130	50	37
Fiskarfjärden	PFM000127	Surface	14	82	97	110	130	140	110	20	16
Fiskarfjärden	PFM000127	Bottom	9	93	100	110	130	140	110	20	14
Fiskarfjärden	PFM000135	Surface	16	83	100	150	210	300	160	80	46
Fiskarfjärden	PFM000135	Bottom	1	240		240		240	240		
Forsmark area		Surface	244	46	120	140	190	370	160	50	34
Forsmark area		Bottom	73	93	130	160	190	370	170	60	33
Simpevarp area		Surface	112	11	12	14	17	48	18	9	52
Simpevarp area		Bottom	112	11	13	15	24	60	20	10	52
Sweden	N.S.2000	Surface	3464	-580	3.8	7.7	15	340	16	30	200
Sea Water											
SV Forslingens grund	PFM000062	Surface	41	63	74	76	79	85	76	4	5.2
SV Forslingens grund	PFM000062	Bottom	14	69	73	74	76	84	75	4	5.2
Alt. SV Forslingen	PFM000082	Surface	8	73	75	77	85	100	82	10	14
Alt. SV Forslingen	PFM000082	Bottom	8	75	76	78	80	88	79	4	5.5
Tixelfjärden	PFM000063	Surface	41	70	76	78	81	210	85	30	33
Tixelfjärden	PFM000063	Bottom	20	71	74	77	83	210	84	30	35
Alt. Tixelfjärden	PFM000083	Surface	3	74	74	74	75	75	74	0.6	0.78
Alt. Tixelfjärden	PFM000083	Bottom	3	74	74	74	74	75	74	0.4	0.54
Kallriga, norra	PFM000064	Surface	37	70	79	86	92	160	90	20	21
Kallriga, norra	PFM000064	Bottom	18	75	78	83	93	220	94	30	36
Kallriga, södra	PFM000065	Surface	36	73	81	85	94	120	89	10	15
Alt. Kallriga	PFM000084	Surface	5	78	97	98	100	110	97	10	12
Alt. Kallriga	PFM000084	Bottom	5	77	78	78	80	110	84	10	17
Forsmark area		Surface	174	63	76	80	88	210	85	20	22
Forsmark area		Bottom	69	69	75	77	83	220	84	20	29
Simpevarp area		Surface	160	19	72	89	93	97	81	20	22
Simpevarp area		Bottom	157	35	87	92	94	110	88	10	12
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	39	140	170	190	200	250	190	30	14
Söder Eckarfjärden	PFM000071	Surface	32	170	220	240	260	280	240	30	12
Norr Eckarfjärden	PFM000070	Surface	41	30	110	140	150	190	130	30	23
Bolundskogen	PFM000069	Surface	48	110	160	180	190	260	180	30	17
Kungstråsket	PFM000068	Surface	48	93	140	160	180	230	160	30	19
Lillputtsundet	PFM000067	Surface	44	90	120	130	140	200	130	20	18
Flottbron	PFM000072	Surface	40	64	130	140	160	230	140	40	25
Söder Bredviken	PFM000073	Surface	23	280	380	390	420	540	390	60	15
Forsmark area		Surface	315	30	140	170	200	540	180	70	41
Simpevarp area		Surface	572	<0.2	12	18	29	120	23	20	81
Sweden	N.S.2000	Surface	725	-5.2	6.8	12	27	380	36	60	180

Surface Water

C-13		Carbon-13 (dev. PDB)							C-13		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	4	-13.5	-12.7	-12.1	-10.8	-8.20	-11.4	2.3	-20
Gunnarsbo-Lillfjärden	PFM000087	Surface	5	-12.0	-11.7	-11.2	-11.0	-9.00	-11.0	1.2	-11
Gunnarsbo-Lillfjärden	PFM000087	Bottom	5	-13.5	-12.5	-12.0	-11.4	-8.10	-11.5	2.0	-18
Eckarfjärden	PFM000117	Surface	4	-9.00	-8.70	-7.80	-5.60	-1.39	-6.50	3.5	-54
Eckarfjärden	PFM000117	Bottom	4	-8.80	-8.43	-8.15	-6.75	-3.01	-7.03	2.7	-38
Bolundsfjärden	PFM000107	Surface	5	-10.0	-9.90	-9.80	-6.12	-3.00	-7.76	3.1	-40
Bolundsfjärden	PFM000107	Bottom	4	-10.0	-9.25	-8.55	-7.56	-5.93	-8.26	1.7	-21
Norra bassängen	PFM000097	Surface	4	-10.9	-10.2	-9.85	-9.62	-9.38	-10.00	0.65	-6.5
Fiskarfjärden	PFM000127	Surface	2	-8.80	-8.10	-7.40	-6.70	-6.00	-7.40	2.0	-27
Fiskarfjärden	PFM000127	Bottom	2	-8.30	-7.95	-7.60	-7.25	-6.90	-7.60	0.99	-13
Fiskarfjärden	PFM000135	Surface	1	0.770		0.770		0.770	0.770		
Forsmark area		Surface	26	-14.0	-11.2	-9.75	-8.30	0.770	-8.98	3.5	-39
Forsmark area		Bottom	15	-13.5	-10.7	-8.30	-8.05	-3.01	-8.92	2.7	-30
Simpevarp area		Surface	4	-19.1	-18.9	-18.6	-17.1	-12.9	-17.3	2.9	-17
Simpevarp area		Bottom	4	-21.1	-20.4	-19.8	-18.6	-15.7	-19.1	2.4	-13
Sea Water											
SV Forslingens grund	PFM000062	Surface	3	-4.00	-3.80	-3.60	-2.85	-2.10	-3.23	1.0	-31
SV Forslingens grund	PFM000062	Bottom	2	-3.60	-3.43	-3.25	-3.08	-2.90	-3.25	0.49	-15
Alt. SV Forslingen	PFM000082	Surface	2	-3.00	-2.49	-1.98	-1.47	-0.960	-1.98	1.4	-73
Alt. SV Forslingen	PFM000082	Bottom	2	-2.00	-1.83	-1.67	-1.50	-1.33	-1.67	0.47	-28
Tixelfjärden	PFM000063	Surface	4	-6.10	-5.43	-4.15	-3.06	-2.94	-4.34	1.6	-36
Tixelfjärden	PFM000063	Bottom	4	-5.00	-4.93	-4.45	-3.63	-2.51	-4.10	1.2	-28
Alt. Tixelfjärden	PFM000083	Surface	1	-3.00		-3.00		-3.00	-3.00		
Alt. Tixelfjärden	PFM000083	Bottom	1	-3.00		-3.00		-3.00	-3.00		
Kallriga, norra	PFM000064	Surface	3	-10.7	-9.80	-8.90	-6.45	-4.00	-7.87	3.5	-44
Kallriga, norra	PFM000064	Bottom	3	-10.9	-9.60	-8.30	-6.55	-4.80	-8.00	3.1	-38
Kallriga, södra	PFM000065	Surface	4	-10.4	-9.64	-8.00	-6.00	-4.20	-7.64	2.8	-37
Alt. Kallriga	PFM000084	Surface	1	-15.0		-15.0		-15.0	-15.0		
Alt. Kallriga	PFM000084	Bottom	1	-14.0		-14.0		-14.0	-14.0		
Forsmark area		Surface	18	-15.0	-8.33	-4.10	-3.03	-0.960	-5.73	3.7	-65
Forsmark area		Bottom	13	-14.0	-5.00	-4.00	-2.90	-1.33	-5.17	3.7	-72
Simpevarp area		Surface	24	-6.99	-4.51	-1.54	-0.738	-0.220	-2.54	2.2	-88
Simpevarp area		Bottom	24	-7.22	-4.68	-2.49	-1.09	-0.530	-2.94	2.2	-76
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	3	-13.0	-13.0	-12.9	-12.5	-12.1	-12.7	0.49	-3.9
Söder Eckarfjärden	PFM000071	Surface	3	-16.3	-16.2	-16.1	-15.6	-15.0	-15.8	0.70	-4.4
Norr Eckarfjärden	PFM000070	Surface	3	-10.9	-10.9	-10.9	-9.95	-9.00	-10.3	1.1	-11
Bolundskogen	PFM000069	Surface	4	-20.0	-15.7	-13.9	-13.0	-11.3	-14.8	3.7	-25
Kungstråsket	PFM000068	Surface	4	-14.3	-14.2	-13.1	-12.1	-12.0	-13.1	1.2	-9.5
Lillputtsundet	PFM000067	Surface	4	-12.0	-10.1	-9.20	-7.65	-3.60	-8.50	3.5	-41
Flottbron	PFM000072	Surface	4	-19.5	-17.6	-16.1	-13.6	-9.00	-15.2	4.5	-30
Söder Bredviken	PFM000073	Surface	1	-13.0		-13.0		-13.0	-13.0		
Forsmark area		Surface	26	-20.0	-14.8	-13.0	-11.0	-3.60	-12.9	3.5	-27
Simpevarp area		Surface	31	-23.8	-20.3	-18.4	-16.7	-12.5	-18.2	2.9	-16

Surface Water

C-14		Carbon-14 (PMC)							C-14		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	4	114	115	116	117	118	116	1.9	1.6
Gunnarsbo-Lillfjärden	PFM000087	Surface	5	109	114	114	114	114	113	2.1	1.9
Gunnarsbo-Lillfjärden	PFM000087	Bottom	5	109	113	114	114	115	113	2.4	2.1
Eckarfjärden	PFM000117	Surface	4	113	113	114	114	116	114	1.5	1.3
Eckarfjärden	PFM000117	Bottom	4	113	113	115	116	116	115	1.7	1.5
Bolundsfjärden	PFM000107	Surface	5	109	111	111	112	114	111	1.8	1.6
Bolundsfjärden	PFM000107	Bottom	4	111	112	113	113	113	112	0.98	0.87
Norra bassängen	PFM000097	Surface	4	110	112	112	113	114	112	1.7	1.5
Fiskarfjärden	PFM000127	Surface	2	110	110	110	111	111	110	0.57	0.51
Fiskarfjärden	PFM000127	Bottom	2	109	109	109	109	110	109	0.64	0.58
Fiskarfjärden	PFM000135	Surface	1	109		109		109	109		
Forsmark area		Surface	26	109	111	113	114	118	113	2.5	2.2
Forsmark area		Bottom	15	109	112	113	114	116	113	2.3	2.1
Simpevarp area		Surface	4	65.9	73.7	90.7	105	106	88.3	20	23
Simpevarp area		Bottom	4	66.0	75.3	91.1	104	106	88.5	20	22
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	3	108	109	110	110	111	109	1.7	1.5
SV Forslingens grund	PFM000062	Bottom	2	109	109	109	109	109	109	0.35	0.33
Alt. SV Forslingen	PFM000082	Surface	2	108	108	109	109	109	109	1.1	1.00
Alt. SV Forslingen	PFM000082	Bottom	2	109	109	109	109	109	109	0.52	0.47
Tixelfjärden	PFM000063	Surface	4	105	107	109	110	111	108	2.4	2.2
Tixelfjärden	PFM000063	Bottom	4	106	108	110	110	110	109	2.1	2.0
Alt. Tixelfjärden	PFM000083	Surface	1	110		110		110	110		
Alt. Tixelfjärden	PFM000083	Bottom	1	110		110		110	110		
Kallriga, norra	PFM000064	Surface	3	107	108	108	109	109	108	1.0	0.93
Kallriga, norra	PFM000064	Bottom	3	106	107	108	109	109	108	1.4	1.3
Kallriga, södra	PFM000065	Surface	4	107	107	108	109	109	108	1.3	1.2
Alt. Kallriga	PFM000084	Surface	1	100		100		100	100		
Alt. Kallriga	PFM000084	Bottom	1	95.6		95.6		95.6	95.6		
Forsmark area		Surface	18	100	107	108	109	111	108	2.5	2.3
Forsmark area		Bottom	13	95.6	108	109	109	110	108	3.9	3.6
Simpevarp area		Surface	24	107	108	108	109	111	109	1.2	1.1
Simpevarp area		Bottom	24	106	108	109	109	111	108	1.4	1.3
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	3	107	110	113	113	114	111	3.8	3.4
Söder Eckarfjärden	PFM000071	Surface	3	93.3	94.4	95.5	98.2	101	96.5	3.9	4.0
Norr Eckarfjärden	PFM000070	Surface	3	113	114	114	116	117	115	2.2	1.9
Bolundskogen	PFM000069	Surface	4	113	114	115	116	116	115	1.6	1.4
Kungstråsket	PFM000068	Surface	4	111	113	114	114	116	113	1.8	1.6
Lillputtsundet	PFM000067	Surface	4	110	111	112	112	113	111	1.2	1.1
Flottbron	PFM000072	Surface	4	109	109	110	110	111	110	0.95	0.87
Söder Bredviken	PFM000073	Surface	1	101		101		101	101		
Forsmark area		Surface	26	93.3	110	112	114	117	110	6.2	5.6
Simpevarp area		Surface	31	66.0	93.9	98.4	101	106	96.4	8.0	8.3

Surface Water

DIC		Dissolved inorganic carbon (mg/l)								DIC	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	44	4.0	24	29	33	56	29	10	34
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	1.9	21	26	30	65	28	10	45
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	1.9	23	26	32	55	28	10	53
Eckarfjärden	PFM000117	Surface	47	1.2	14	19	23	34	19	7	39
Eckarfjärden	PFM000117	Bottom	20	0.89	16	19	27	34	18	10	56
Bolundsfjärden	PFM000107	Surface	49	2.1	14	17	22	40	19	9	48
Bolundsfjärden	PFM000107	Bottom	22	0.80	14	18	27	38	20	10	53
Norra bassängen	PFM000097	Surface	37	0.60	11	16	21	47	18	10	58
Fiskarfjärden	PFM000127	Surface	14	0.94	11	14	17	19	14	5	35
Fiskarfjärden	PFM000127	Bottom	9	1.2	9.0	15	17	18	12	6	55
Fiskarfjärden	PFM000135	Surface	19	9.0	15	23	34	51	26	10	51
Fiskarfjärden	PFM000135	Bottom	1	47		47		47	47		
Forsmark area		Surface	255	0.60	15	21	29	65	22	10	49
Forsmark area		Bottom	74	0.80	15	20	28	55	21	10	61
Simpevarp area		Surface	112	1.5	2.0	2.3	2.9	8.0	3.0	2	55
Simpevarp area		Bottom	112	0.30	2.1	2.7	4.6	21	3.6	2	68
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	0.38	8.3	12	14	15	11	4	39
SV Forslingens grund	PFM000062	Bottom	14	0.33	5.5	8.0	12	13	8.0	4	55
Alt. SV Forslingen	PFM000082	Surface	7	7.1	8.3	10	12	14	10	3	27
Alt. SV Forslingen	PFM000082	Bottom	7	4.2	5.7	6.2	13	16	8.9	5	51
Tixelfjärden	PFM000063	Surface	40	0.60	7.5	12	14	19	10	5	45
Tixelfjärden	PFM000063	Bottom	21	0.80	4.0	10	14	16	9.1	5	59
Alt. Tixelfjärden	PFM000083	Surface	3	5.1	5.6	6.1	7.2	8.3	6.5	2	25
Alt. Tixelfjärden	PFM000083	Bottom	3	4.9	6.7	8.6	9.2	9.9	7.8	3	33
Kallriga, norra	PFM000064	Surface	36	1.4	8.0	13	15	27	12	6	47
Kallriga, norra	PFM000064	Bottom	19	0.65	6.9	11	13	21	10	6	54
Kallriga, södra	PFM000065	Surface	36	0.79	10	14	16	24	13	5	41
Alt. Kallriga	PFM000084	Surface	5	6.3	13	15	15	17	13	4	31
Alt. Kallriga	PFM000084	Bottom	5	7.3	7.5	8.1	12	13	9.5	3	28
Forsmark area		Surface	172	0.38	7.9	13	14	27	11	5	44
Forsmark area		Bottom	69	0.33	5.6	10.0	12	21	9.2	5	53
Simpevarp area		Surface	163	4.2	13	15	16	18	14	3	23
Simpevarp area		Bottom	159	7.6	14	16	17	21	15	2	15
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	41	1.7	27	29	32	46	29	9	32
Söder Eckarfjärden	PFM000071	Surface	33	4.0	30	33	37	48	32	9	29
Norr Eckarfjärden	PFM000070	Surface	43	1.0	18	21	24	33	21	7	32
Bolundskogen	PFM000069	Surface	49	1.9	24	29	31	50	28	9	33
Kungstråsket	PFM000068	Surface	47	1.7	22	26	30	40	26	8	30
Lillputtsundet	PFM000067	Surface	44	0.90	14	19	22	38	18	9	48
Flottbron	PFM000072	Surface	39	1.8	15	23	26	44	21	9	44
Söder Bredviken	PFM000073	Surface	23	2.7	39	45	51	59	42	10	33
Forsmark area		Surface	319	0.90	20	26	32	59	26	10	42
Simpevarp area		Surface	564	0.20	2.0	3.0	4.7	20	3.9	3	80

Surface Water

DOC		Dissolved organic carbon (mg/l)								DOC	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	44	9.8	15	17	18	22	16	3	15
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	7.4	14	16	17	27	16	4	23
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	9.0	13	16	19	27	17	5	27
Eckarfjärden	PFM000117	Surface	47	5.9	17	18	19	26	18	3	15
Eckarfjärden	PFM000117	Bottom	20	8.3	17	18	20	22	18	3	19
Bolundsfjärden	PFM000107	Surface	49	6.3	15	16	18	25	17	4	25
Bolundsfjärden	PFM000107	Bottom	22	8.6	15	17	20	24	17	4	21
Norra bassängen	PFM000097	Surface	37	4.2	16	18	20	33	18	5	28
Fiskarfjärden	PFM000127	Surface	14	12	16	18	19	22	17	3	16
Fiskarfjärden	PFM000127	Bottom	9	7.5	16	17	19	23	17	4	25
Fiskarfjärden	PFM000135	Surface	19	15	17	17	23	29	19	4	22
Fiskarfjärden	PFM000135	Bottom	1	28		28		28	28		
Forsmark area		Surface	255	4.2	15	17	19	33	17	4	23
Forsmark area		Bottom	74	7.5	15	18	20	28	17	4	23
Simpevarp area		Surface	111	8.6	12	15	17	24	15	4	24
Simpevarp area		Bottom	112	8.2	12	15	17	23	14	3	23
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	1.4	3.3	3.6	3.8	4.9	3.4	0.7	22
SV Forslingens grund	PFM000062	Bottom	14	1.1	2.0	2.5	3.8	4.1	2.7	1.0	36
Alt. SV Forslingen	PFM000082	Surface	7	1.3	1.9	2.1	4.3	4.7	2.9	1	49
Alt. SV Forslingen	PFM000082	Bottom	7	1.2	1.7	1.9	3.5	3.9	2.5	1	46
Tixelfjärden	PFM000063	Surface	40	1.1	2.8	4.0	4.2	11	3.9	2	48
Tixelfjärden	PFM000063	Bottom	21	1.6	2.4	3.9	4.2	13	3.9	2	59
Alt. Tixelfjärden	PFM000083	Surface	3	2.7	2.7	2.7	3.4	4.1	3.2	0.8	26
Alt. Tixelfjärden	PFM000083	Bottom	3	2.1	2.9	3.7	4.2	4.7	3.5	1	37
Kallriga, norra	PFM000064	Surface	37	2.1	5.0	5.7	7.1	21	6.7	4	61
Kallriga, norra	PFM000064	Bottom	19	2.2	3.7	5.1	6.8	16	5.8	3	58
Kallriga, södra	PFM000065	Surface	36	1.6	4.4	5.2	9.4	20	7.6	5	69
Alt. Kallriga	PFM000084	Surface	5	2.9	12	13	13	14	11	5	42
Alt. Kallriga	PFM000084	Bottom	5	2.0	3.2	3.7	3.7	14	5.3	5	92
Forsmark area		Surface	173	1.1	3.4	4.0	5.6	21	5.3	4	73
Forsmark area		Bottom	69	1.1	2.3	3.8	4.4	16	4.1	3	68
Simpevarp area		Surface	163	1.9	4.0	4.6	7.5	26	6.2	3	56
Simpevarp area		Bottom	160	3.4	3.9	4.4	6.0	12	5.1	2	32
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	41	7.3	14	16	18	21	16	3	17
Söder Eckarfjärden	PFM000071	Surface	33	6.8	11	12	13	18	12	2	19
Norr Eckarfjärden	PFM000070	Surface	43	5.4	16	17	20	25	17	4	22
Bolundskogen	PFM000069	Surface	49	11	16	18	20	28	18	4	20
Kungstråsket	PFM000068	Surface	47	8.7	18	20	22	24	19	4	20
Lillputtsundet	PFM000067	Surface	44	2.9	15	17	19	25	17	4	24
Flottbron	PFM000072	Surface	39	4.1	15	17	19	23	17	4	24
Söder Bredviken	PFM000073	Surface	23	3.0	6.5	7.1	8.6	14	7.6	2	30
Forsmark area		Surface	319	2.9	13	17	19	28	16	5	29
Simpevarp area		Surface	564	7.6	17	20	24	70	22	8	36

Surface Water

POC	Particulate organic carbon (mg/l)								POC		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	0.046	0.14	0.22	0.32	0.66	0.24	0.1	53
Gunnarsbo-Lillfjärden	PFM000087	Surface	40	0.065	0.17	0.27	0.36	0.63	0.28	0.1	48
Gunnarsbo-Lillfjärden	PFM000087	Bottom	20	0.16	0.22	0.27	0.34	0.50	0.29	0.1	34
Eckarfjärden	PFM000117	Surface	47	0.22	0.37	0.48	0.58	0.82	0.49	0.2	33
Eckarfjärden	PFM000117	Bottom	19	0.24	0.37	0.41	0.51	0.70	0.44	0.1	30
Bolundsfjärden	PFM000107	Surface	47	0.090	0.27	0.37	0.45	2.6	0.49	0.4	89
Bolundsfjärden	PFM000107	Bottom	21	0.17	0.25	0.31	0.43	1.2	0.38	0.2	58
Norra bassängen	PFM000097	Surface	35	0.19	0.29	0.35	0.46	0.84	0.40	0.2	39
Fiskarfjärden	PFM000127	Surface	13	0.33	0.89	1.3	2.5	5.0	1.8	1	74
Fiskarfjärden	PFM000127	Bottom	8	0.34	1.1	1.2	1.3	2.6	1.2	0.6	50
Fiskarfjärden	PFM000135	Surface	19	0.37	0.50	0.63	0.76	6.3	0.99	1	130
Fiskarfjärden	PFM000135	Bottom	1	0.71		0.71		0.71	0.71		
Forsmark area		Surface	248	0.046	0.25	0.37	0.53	6.3	0.50	0.6	120
Forsmark area		Bottom	69	0.16	0.27	0.35	0.50	2.6	0.48	0.4	80
Simpevarp area		Surface	112	0.077	0.43	0.70	0.89	5.5	0.78	0.6	81
Simpevarp area		Bottom	111	0.15	0.50	0.80	1.1	5.1	0.96	0.8	80
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	41	0.13	0.20	0.26	0.33	0.55	0.27	0.10	35
SV Forslingens grund	PFM000062	Bottom	13	0.14	0.19	0.29	0.32	0.50	0.28	0.1	38
Alt. SV Forslingen	PFM000082	Surface	8	0.13	0.18	0.21	0.43	0.93	0.34	0.3	79
Alt. SV Forslingen	PFM000082	Bottom	8	0.10	0.15	0.22	0.31	0.45	0.25	0.1	52
Tixelfjärden	PFM000063	Surface	40	0.13	0.26	0.34	0.43	1.0	0.37	0.2	52
Tixelfjärden	PFM000063	Bottom	19	0.080	0.20	0.30	0.38	0.53	0.31	0.1	42
Alt. Tixelfjärden	PFM000083	Surface	3	0.23	0.33	0.42	0.48	0.55	0.40	0.2	39
Alt. Tixelfjärden	PFM000083	Bottom	3	0.22	0.32	0.41	0.45	0.50	0.38	0.1	38
Kallriga, norra	PFM000064	Surface	36	0.18	0.47	0.63	0.89	2.2	0.75	0.5	62
Kallriga, norra	PFM000064	Bottom	18	0.21	0.32	0.50	0.66	1.0	0.54	0.3	49
Kallriga, södra	PFM000065	Surface	35	0.22	0.36	0.48	0.73	1.1	0.57	0.3	45
Alt. Kallriga	PFM000084	Surface	5	0.45	0.57	0.61	0.76	0.76	0.63	0.1	21
Alt. Kallriga	PFM000084	Bottom	5	0.22	0.27	0.28	0.65	0.80	0.44	0.3	59
Forsmark area		Surface	170	0.13	0.26	0.38	0.60	2.2	0.48	0.3	68
Forsmark area		Bottom	66	0.080	0.22	0.31	0.45	1.0	0.37	0.2	57
Simpevarp area		Surface	156	0.029	0.13	0.27	0.51	1.6	0.36	0.3	83
Simpevarp area		Bottom	157	0.021	0.12	0.24	0.43	1.6	0.33	0.3	89
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	41	0.068	0.14	0.18	0.23	0.66	0.20	0.1	53
Söder Eckarfjärden	PFM000071	Surface	32	0.064	0.12	0.20	0.32	1.5	0.29	0.3	97
Norr Eckarfjärden	PFM000070	Surface	42	0.12	0.21	0.32	0.42	1.1	0.34	0.2	53
Bolundskogen	PFM000069	Surface	47	0.058	0.16	0.20	0.27	1.1	0.24	0.2	66
Kungstråsket	PFM000068	Surface	47	0.083	0.19	0.26	0.38	1.2	0.31	0.2	60
Lillputtsundet	PFM000067	Surface	41	0.18	0.27	0.40	0.64	1.9	0.53	0.4	70
Flottbron	PFM000072	Surface	39	0.11	0.30	0.45	0.78	2.2	0.60	0.4	73
Söder Bredviken	PFM000073	Surface	22	0.088	0.17	0.30	0.41	1.9	0.41	0.4	99
Forsmark area		Surface	311	0.058	0.18	0.26	0.41	2.2	0.36	0.3	84
Simpevarp area		Surface	560	0.080	0.75	1.3	2.2	15	1.8	2	97

Surface Water

TOC		Total organic carbon (mg/l)							TOC		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	44	11	15	17	19	21	17	2	15
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	11	14	16	18	27	16	3	21
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	8.3	14	17	18	28	17	4	26
Eckarfjärden	PFM000117	Surface	47	6.5	17	18	19	26	18	3	18
Eckarfjärden	PFM000117	Bottom	20	15	18	19	20	23	19	2	9.9
Bolundsfjärden	PFM000107	Surface	49	8.5	15	16	19	26	17	4	24
Bolundsfjärden	PFM000107	Bottom	22	13	15	17	19	24	17	3	17
Norra bassängen	PFM000097	Surface	36	5.5	16	18	21	35	19	5	27
Fiskarfjärden	PFM000127	Surface	14	13	16	18	20	23	18	3	17
Fiskarfjärden	PFM000127	Bottom	9	11	16	18	21	23	18	4	19
Fiskarfjärden	PFM000135	Surface	19	15	16	18	23	28	19	4	21
Fiskarfjärden	PFM000135	Bottom	1	28		28		28	28		
Forsmark area		Surface	254	5.5	16	17	19	35	17	4	22
Forsmark area		Bottom	74	8.3	16	18	19	28	18	3	20
Simpevarp area		Surface	112	8.6	12	16	17	25	15	4	25
Simpevarp area		Bottom	112	4.9	12	16	17	23	15	4	24
Sweden	N.S.2000	Surface	3464	0.20	6.0	9.8	15	51	11	7	65
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	1.5	3.4	3.7	3.9	4.6	3.5	0.7	22
SV Forslingens grund	PFM000062	Bottom	15	1.3	2.9	3.7	4.0	4.4	3.3	1	32
Alt. SV Forslingen	PFM000082	Surface	7	2.0	2.4	2.6	4.1	4.9	3.2	1	35
Alt. SV Forslingen	PFM000082	Bottom	7	1.6	1.8	3.2	3.9	5.2	3.1	1	45
Tixelfjärden	PFM000063	Surface	40	1.0	3.6	4.1	4.3	18	4.3	3	61
Tixelfjärden	PFM000063	Bottom	21	1.4	3.4	3.9	4.3	16	4.2	3	70
Alt. Tixelfjärden	PFM000083	Surface	3	3.0	3.4	3.7	4.1	4.5	3.7	0.8	20
Alt. Tixelfjärden	PFM000083	Bottom	3	2.7	3.6	4.6	4.6	4.7	4.0	1	28
Kallriga, norra	PFM000064	Surface	37	1.9	4.1	5.4	8.3	19	7.0	4	61
Kallriga, norra	PFM000064	Bottom	19	2.5	4.2	5.0	6.5	16	6.1	3	56
Kallriga, södra	PFM000065	Surface	36	2.3	4.0	5.4	9.2	20	7.4	5	72
Alt. Kallriga	PFM000084	Surface	5	2.5	13	13	13	15	11	5	44
Alt. Kallriga	PFM000084	Bottom	5	2.5	3.3	3.8	4.1	14	5.5	5	85
Forsmark area		Surface	172	1.0	3.6	4.1	5.5	20	5.5	4	73
Forsmark area		Bottom	70	1.3	3.4	3.9	4.7	16	4.5	3	65
Simpevarp area		Surface	163	3.5	4.0	4.5	7.8	26	6.3	4	56
Simpevarp area		Bottom	160	3.4	3.9	4.4	5.9	15	5.1	2	34
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	41	11	15	16	18	21	16	2	13
Söder Eckarfjärden	PFM000071	Surface	33	8.6	11	12	13	18	12	2	17
Norr Eckarfjärden	PFM000070	Surface	43	5.6	17	18	20	25	18	4	22
Bolundskogen	PFM000069	Surface	49	13	17	19	21	27	19	3	17
Kungstråsket	PFM000068	Surface	48	14	18	20	22	25	20	3	14
Lillputtsundet	PFM000067	Surface	44	2.5	16	17	20	25	17	4	23
Flottbron	PFM000072	Surface	39	10	16	17	20	22	17	3	17
Söder Bredviken	PFM000073	Surface	23	5.0	6.2	6.9	8.9	12	7.7	2	25
Forsmark area		Surface	320	2.5	14	17	20	27	17	4	27
Simpevarp area		Surface	562	7.9	17	20	25	70	23	9	38
Sweden	N.S.2000	Surface	725	0.20	7.1	11	17	53	12	7	60

Surface Water

Ce		Cerium ($\mu\text{g/l}$)							Ce		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	7	0.029	0.057	0.065	0.084	0.090	0.066	0.02	32
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.010	0.043	0.065	0.072	0.11	0.059	0.03	52
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.069	0.078	0.086	0.12	0.16	0.10	0.05	46
Eckarfjärden	PFM000117	Surface	7	0.0088	0.013	0.034	0.082	0.11	0.049	0.04	85
Eckarfjärden	PFM000117	Bottom	3	0.022	0.066	0.11	0.13	0.15	0.094	0.07	70
Bolundsfjärden	PFM000107	Surface	7	0.065	0.11	0.15	0.20	0.35	0.17	0.09	56
Bolundsfjärden	PFM000107	Bottom	3	0.17	0.20	0.22	0.25	0.29	0.23	0.06	25
Norra bassängen	PFM000097	Surface	6	0.067	0.089	0.15	0.21	0.35	0.17	0.1	63
Fiskarfjärden	PFM000127	Bottom	1	0.021		0.021		0.021	0.021		
Fiskarfjärden	PFM000135	Surface	4	0.041	0.049	0.059	0.073	0.091	0.063	0.02	35
Forsmark area		Surface	39	0.0088	0.052	0.076	0.11	0.35	0.096	0.08	82
Forsmark area		Bottom	10	0.021	0.074	0.13	0.17	0.29	0.13	0.08	66
Simpevarp area		Surface	1	0.19		0.19		0.19	0.19		
Simpevarp area		Bottom	1	0.20		0.20		0.20	0.20		
Sea Water											
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	0.084	<0.05	0.02	80
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.0005	3.9
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	0.030	0.050	0.070	0.090	0.050	0.06	110
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	0.034	0.057	0.081	0.10	0.057	0.07	120
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	0.25	0.060	0.08	140
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	39
Alt. Tixelfjärden	PFM000083	Surface	1	0.14		0.14		0.14	0.14		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.069		0.069		0.069	0.069		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	0.062	0.57	1.1	0.34	0.5	140
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	0.14	0.24	0.10	0.1	110
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	0.095	0.48	3.5	0.64	1	190
Alt. Kallriga	PFM000084	Surface	1	1.3		1.3		1.3	1.3		
Alt. Kallriga	PFM000084	Bottom	1	1.4		1.4		1.4	1.4		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	0.16	3.5	0.28	0.7	230
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	0.069	1.4	0.15	0.4	250
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	7	0.048	0.060	0.092	0.10	0.11	0.082	0.03	31
Norr Eckarfjärden	PFM000070	Surface	6	0.035	0.066	0.085	0.12	0.16	0.092	0.04	48
Bolundskogen	PFM000069	Surface	1	0.12		0.12		0.12	0.12		
Kungstråsket	PFM000068	Surface	6	0.15	0.19	0.28	0.33	0.37	0.27	0.09	34
Lillputtsundet	PFM000067	Surface	5	0.054	0.079	0.090	0.14	0.34	0.14	0.1	82
Flottbron	PFM000072	Surface	5	0.026	0.041	0.043	0.10	0.24	0.091	0.09	99
Söder Bredviken	PFM000073	Surface	3	0.015	0.031	0.047	0.070	0.094	0.052	0.04	77
Forsmark area		Surface	33	0.015	0.054	0.10	0.15	0.37	0.13	0.10	78
Simpevarp area		Surface	10	0.22	0.40	0.57	0.88	1.2	0.65	0.3	49

Surface Water

Cs		Cesium ($\mu\text{g/l}$)						Cs		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	24
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	35
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	46
Eckarfjärden	PFM000117	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	27
Eckarfjärden	PFM000117	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	43
Bolundsfjärden	PFM000107	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	29
Bolundsfjärden	PFM000107	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	31
Norra bassängen	PFM000097	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	36
Fiskarfjärden	PFM000127	Bottom	1	<0.03		<0.03		<0.03	<0.03	
Fiskarfjärden	PFM000135	Surface	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Forsmark area		Surface	39	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	29
Forsmark area		Bottom	10	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	33
Simpevarp area		Surface	1	<0.03		<0.03		<0.03	<0.03	
Simpevarp area		Bottom	1	<0.03		<0.03		<0.03	<0.03	
Sea Water										
SV Forslingens grund	PFM000062	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	71
SV Forslingens grund	PFM000062	Bottom	2	<0.3	<0.3	<0.3	<0.3	<0.3	0.004	16
Alt. SV Forslingen	PFM000082	Surface	2	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	24
Alt. SV Forslingen	PFM000082	Bottom	2	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	25
Tixelfjärden	PFM000063	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	85
Tixelfjärden	PFM000063	Bottom	4	<0.3	<0.3	<0.3	<0.3	<0.3	0.06	93
Alt. Tixelfjärden	PFM000083	Surface	1	0.039		0.039		0.039	0.039	
Alt. Tixelfjärden	PFM000083	Bottom	1	0.032		0.032		0.032	0.032	
Kallriga, norra	PFM000064	Surface	7	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	100
Kallriga, norra	PFM000064	Bottom	3	<0.3	<0.3	<0.3	<0.3	<0.3	0.08	130
Kallriga, södra	PFM000065	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.07	120
Alt. Kallriga	PFM000084	Surface	1	0.033		0.033		0.033	0.033	
Alt. Kallriga	PFM000084	Bottom	1	0.041		0.041		0.041	0.041	
Forsmark area		Surface	35	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	88
Forsmark area		Bottom	13	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	94
Simpevarp area		Surface	4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Simpevarp area		Bottom	4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Streaming Water										
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	27
Norr Eckarfjärden	PFM000070	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	21
Bolundskogen	PFM000069	Surface	1	<0.03		<0.03		<0.03	<0.03	
Kungstråsket	PFM000068	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.002	13
Lillputtsundet	PFM000067	Surface	5	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	35
Flottbron	PFM000072	Surface	5	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	27
Söder Bredviken	PFM000073	Surface	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	37
Forsmark area		Surface	33	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	24
Simpevarp area		Surface	10	<0.03	<0.03	<0.03	<0.03	0.039	<0.03	0.008

Surface Water

Cl		Chloride (mg/l)							Cl		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	4.6	7.4	9.5	12	39	11	7	61
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	7.4	9.5	11	13	38	12	5	45
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	8.0	10	13	15	18	13	3	22
Eckarfjärden	PFM000117	Surface	45	0.90	4.7	5.3	6.0	8.3	5.5	1	24
Eckarfjärden	PFM000117	Bottom	21	3.9	4.3	4.9	6.2	9.3	5.4	1	26
Bolundsfjärden	PFM000107	Surface	46	13	33	42	86	180	61	50	75
Bolundsfjärden	PFM000107	Bottom	21	22	83	99	150	490	130	100	84
Norra bassängen	PFM000097	Surface	37	34	54	86	140	430	110	90	81
Fiskarfjärden	PFM000127	Surface	14	26	31	38	45	47	37	8	21
Fiskarfjärden	PFM000127	Bottom	9	22	28	30	36	47	32	7	24
Fiskarfjärden	PFM000135	Surface	17	7.5	33	39	42	50	37	10	28
Fiskarfjärden	PFM000135	Bottom	1	41		41		41	41		
Forsmark area		Surface	246	0.90	7.6	15	43	430	38	60	140
Forsmark area		Bottom	74	3.9	6.9	15	40	490	46	80	170
Simpevarp area		Surface	112	7.6	11	13	15	24	14	4	27
Simpevarp area		Bottom	112	7.4	11	13	17	30	14	5	31
Sweden	N.S.2000	Surface	3464	0.11	0.64	1.5	5.9	3400	6.2	70	1100
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	2300	2700	2700	2800	3000	2700	100	4.1
SV Forslingens grund	PFM000062	Bottom	15	2400	2600	2600	2700	2900	2600	100	4.4
Alt. SV Forslingen	PFM000082	Surface	8	1800	2600	2700	2700	2800	2600	300	12
Alt. SV Forslingen	PFM000082	Bottom	8	2700	2700	2800	2800	2800	2700	40	1.5
Tixelfjärden	PFM000063	Surface	41	1500	2600	2700	2700	3000	2600	300	12
Tixelfjärden	PFM000063	Bottom	21	2400	2600	2600	2700	2800	2600	90	3.6
Alt. Tixelfjärden	PFM000083	Surface	3	2500	2600	2600	2700	2800	2600	100	5.1
Alt. Tixelfjärden	PFM000083	Bottom	3	2600	2600	2600	2700	2800	2700	100	4.5
Kallriga, norra	PFM000064	Surface	37	340	1800	2500	2600	2800	2100	700	32
Kallriga, norra	PFM000064	Bottom	19	1100	2200	2500	2600	2700	2300	400	15
Kallriga, södra	PFM000065	Surface	36	120	1800	2400	2600	2700	2000	800	41
Alt. Kallriga	PFM000084	Surface	5	170	210	420	690	2200	740	800	110
Alt. Kallriga	PFM000084	Bottom	5	290	2100	2200	2700	2700	2000	1000	50
Forsmark area		Surface	175	120	2300	2600	2700	3000	2300	700	28
Forsmark area		Bottom	72	290	2500	2600	2700	2900	2500	400	15
Simpevarp area		Surface	160	260	2600	3400	3700	3900	3100	800	25
Simpevarp area		Bottom	157	1100	3200	3500	3700	4100	3400	500	14
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	2.8	3.8	4.4	5.7	17	5.0	2	47
Söder Eckarfjärden	PFM000071	Surface	33	1.5	2.2	2.6	3.2	17	3.1	3	83
Norr Eckarfjärden	PFM000070	Surface	40	2.3	3.8	4.7	5.4	16	4.9	2	42
Bolundskogen	PFM000069	Surface	48	4.2	20	27	37	59	29	10	44
Kungstråsket	PFM000068	Surface	48	4.8	13	17	31	50	22	10	56
Lillputtsundet	PFM000067	Surface	42	18	36	51	100	210	74	50	71
Flottbron	PFM000072	Surface	39	17	29	42	65	120	51	30	59
Söder Bredviken	PFM000073	Surface	23	4.4	6.9	8.3	9.6	11	8.1	2	21
Forsmark area		Surface	313	1.5	4.7	15	36	210	26	30	130
Simpevarp area		Surface	573	2.0	6.0	10	14	51	11	6	58
Sweden	N.S.2000	Surface	725	0.25	0.85	2.9	8.9	220	7.1	20	210

Surface Water

CI-37		Chlorine-37 (dev. SMOC)								CI-37	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	4	-0.610	-0.0325	0.255	0.428	0.660	0.140	0.54	390
Gunnarsbo-Lillfjärden	PFM000087	Surface	5	0.0800	0.0800	0.110	0.330	0.380	0.196	0.15	75
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	0.140	0.200	0.230	0.295	0.460	0.265	0.14	52
Eckarfjärden	PFM000117	Surface	3	-0.280	-0.215	-0.150	0.0100	0.170	-0.0867	0.23	-270
Eckarfjärden	PFM000117	Bottom	1	-0.0100		-0.0100		-0.0100	-0.0100		
Bolundsfjärden	PFM000107	Surface	6	-0.380	-0.0525	0.0850	0.125	0.180	0.00167	0.21	13000
Bolundsfjärden	PFM000107	Bottom	4	0.0100	0.0100	0.0450	0.100	0.160	0.0650	0.071	110
Norra bassängen	PFM000097	Surface	4	-0.330	-0.135	0.0400	0.150	0.150	-0.0250	0.23	-910
Fiskarfjärden	PFM000127	Surface	2	-0.0100	0.0375	0.0850	0.133	0.180	0.0850	0.13	160
Fiskarfjärden	PFM000127	Bottom	2	-0.100	-0.0825	-0.0650	-0.0475	-0.0300	-0.0650	0.049	-76
Fiskarfjärden	PFM000135	Surface	1	0.0300		0.0300		0.0300	0.0300		
Forsmark area		Surface	25	-0.610	-0.0700	0.110	0.170	0.660	0.0556	0.27	480
Forsmark area		Bottom	11	-0.100		0.0800	0.190	0.460	0.107	0.16	150
Simpevarp area		Surface	2	-0.720	-0.608	-0.495	-0.383	-0.270	-0.495	0.32	-64
Simpevarp area		Bottom	3	-0.120	-0.0950	-0.0700	0.0100	0.0900	-0.0333	0.11	-330
Sea Water											
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	5	-0.350	-0.210	0.0100	0.0300	0.180	-0.0680	0.21	-310
SV Forslingens grund	PFM000062	Bottom	3	-0.390	-0.145	0.100	0.100	0.100	-0.0633	0.28	-450
Alt. SV Forslingen	PFM000082	Surface	2	0.0500	0.0925	0.135	0.178	0.220	0.135	0.12	89
Alt. SV Forslingen	PFM000082	Bottom	2	-0.0900	-0.0450		0.0450	0.0900		0.13	
Tixelfjärden	PFM000063	Surface	4	-0.610	-0.190	-0.0200	0.0250	0.0700	-0.145	0.31	-220
Tixelfjärden	PFM000063	Bottom	3	-0.240	-0.0500	0.140	0.175	0.210	0.0367	0.24	660
Alt. Tixelfjärden	PFM000083	Surface	1	0.0600		0.0600		0.0600	0.0600		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0500		0.0500		0.0500	0.0500		
Kallriga, norra	PFM000064	Surface	4	-0.520	-0.183	-0.0350	0.0300	0.120	-0.118	0.28	-240
Kallriga, norra	PFM000064	Bottom	3	0.0100	0.0250	0.0400	0.0750	0.110	0.0533	0.051	96
Kallriga, södra	PFM000065	Surface	5	-0.390	-0.170	-0.0800	-0.0100	0.0700	-0.116	0.18	-150
Alt. Kallriga	PFM000084	Surface	1	0.150		0.150		0.150	0.150		
Alt. Kallriga	PFM000084	Bottom	1	0.230		0.230		0.230	0.230		
Forsmark area		Surface	22	-0.610	-0.148	0.00500	0.0675	0.220	-0.0677	0.22	-330
Forsmark area		Bottom	13	-0.390	0.0100	0.0900	0.110	0.230	0.0277	0.18	630
Simpevarp area		Surface	10	-0.0900	-0.00750	0.105	0.205	0.360	0.104	0.15	140
Simpevarp area		Bottom	10	-0.0400	-0.0200	0.0800	0.183	0.290	0.0990	0.13	130
Streaming Water											
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	3	0.160	0.315	0.470	0.660	0.850	0.493	0.35	70
Söder Eckarfjärden	PFM000071	Surface	2	0.290	0.703	1.12	1.53	1.94	1.12	1.2	100
Norr Eckarfjärden	PFM000070	Surface	2	0.350	0.390	0.430	0.470	0.510	0.430	0.11	26
Bolundskogen	PFM000069	Surface	4	-0.0300	0.0600	0.0900	0.100	0.130	0.0700	0.069	99
Kungstråsket	PFM000068	Surface	5	-0.530	-0.0500	0.0800	0.120	0.160	-0.0440	0.28	-640
Lillputtsundet	PFM000067	Surface	4	-0.450	-0.143	-0.00500	0.0525	0.120	-0.0850	0.25	-300
Flottbron	PFM000072	Surface	4	-0.0900	0.180	0.290	0.355	0.490	0.245	0.24	99
Söder Bredviken	PFM000073	Surface	2	-0.560	-0.405	-0.250	-0.0950	0.0600	-0.250	0.44	-180
Forsmark area		Surface	26	-0.560	-0.0150	0.120	0.305	1.94	0.183	0.48	260
Simpevarp area		Surface	30	-1.01	-0.138	-0.0200	0.140	0.770	-0.0520	0.38	-730

Surface Water

Cr		Chromium ($\mu\text{g/l}$)								Cr	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	0.076	0.12	0.13	0.15	0.18	0.13	0.03	22
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.061	0.11	0.11	0.15	0.17	0.12	0.04	31
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	0.11	0.15	0.19	0.76	2.4	0.72	1	150
Eckarfjärden	PFM000117	Surface	9	0.060	0.079	0.088	0.14	0.15	0.099	0.03	34
Eckarfjärden	PFM000117	Bottom	4	0.071	0.075	0.10	0.14	0.18	0.11	0.05	45
Bolundsfjärden	PFM000107	Surface	10	0.087	0.12	0.14	0.17	0.24	0.15	0.04	29
Bolundsfjärden	PFM000107	Bottom	4	0.11	0.13	0.15	0.18	0.21	0.16	0.04	28
Norra bassängen	PFM000097	Surface	7	0.11	0.12	0.16	0.22	34	5.0	10	260
Fiskarfjärden	PFM000127	Surface	1	0.085		0.085		0.085	0.085		
Fiskarfjärden	PFM000127	Bottom	3	0.093	0.095	0.096	1.1	2.1	0.75	1	150
Fiskarfjärden	PFM000135	Surface	5	0.090	0.097	0.11	0.14	0.22	0.13	0.05	39
Forsmark area		Surface	49	0.060	0.10	0.13	0.16	34	0.83	5	590
Forsmark area		Bottom	15	0.071	0.10	0.13	0.20	2.4	0.41	0.7	180
Simpevarp area		Surface	1	0.61		0.61		0.61	0.61		
Simpevarp area		Bottom	1	0.62		0.62		0.62	0.62		
Sweden	N.S.2000	Surface	1206	0.030	0.19	0.29	0.48	620	0.97	20	1900
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	11	<0.1	<0.1	0.12	0.17	0.58	0.17	0.2	93
SV Forslingens grund	PFM000062	Bottom	3	0.11	0.14	0.17	0.37	0.58	0.29	0.3	88
Alt. SV Forslingen	PFM000082	Surface	1	0.14		0.14		0.14	0.14		
Alt. SV Forslingen	PFM000082	Bottom	1	0.16		0.16		0.16	0.16		
Tixelfjärden	PFM000063	Surface	9	<0.1	0.10	0.14	0.16	0.28	0.13	0.07	50
Tixelfjärden	PFM000063	Bottom	5	<0.1	<0.1	0.10	0.16	0.17	0.12	0.04	32
Kallriga, norra	PFM000064	Surface	8	<0.1	<0.1	0.14	0.33	0.53	0.21	0.2	85
Kallriga, norra	PFM000064	Bottom	4	0.11	0.15	0.18	0.27	0.48	0.24	0.2	70
Kallriga, södra	PFM000065	Surface	9	0.069	0.16	0.29	0.56	1.8	0.49	0.6	120
Forsmark area		Surface	38	<0.1	<0.1	0.14	0.29	1.8	0.24	0.3	130
Forsmark area		Bottom	13	<0.1	0.11	0.16	0.17	0.58	0.20	0.2	76
Simpevarp area		Surface	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Simpevarp area		Bottom	4	<0.1	<0.1	<0.1	0.50	1.7	0.47	0.8	170
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	8	0.098	0.11	0.13	0.14	0.18	0.13	0.03	22
Söder Eckarfjärden	PFM000071	Surface	2	0.11	0.13	0.15	0.17	0.20	0.15	0.06	42
Norr Eckarfjärden	PFM000070	Surface	8	0.076	0.080	0.10	0.13	0.15	0.11	0.03	27
Bolundskogen	PFM000069	Surface	4	0.14	0.16	0.16	0.18	0.21	0.17	0.03	17
Kungstråsket	PFM000068	Surface	9	0.13	0.15	0.18	0.20	0.23	0.18	0.03	18
Lillputtsundet	PFM000067	Surface	8	0.092	0.099	0.11	0.21	0.23	0.15	0.06	41
Flottbron	PFM000072	Surface	6	0.12	0.13	0.17	0.21	0.26	0.18	0.06	32
Söder Bredviken	PFM000073	Surface	3	0.059	0.073	0.087	0.11	0.14	0.096	0.04	44
Forsmark area		Surface	48	0.059	0.11	0.14	0.19	0.26	0.15	0.05	33
Simpevarp area		Surface	10	0.33	0.81	1.2	1.4	3.6	1.3	0.9	71

Surface Water

Co			Cobalt ($\mu\text{g/l}$)							Co	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	0.019	0.034	0.042	0.050	0.077	0.044	0.02	37
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.023	0.032	0.043	0.061	0.16	0.059	0.05	81
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	0.051	0.11	0.14	0.17	0.17	0.13	0.06	43
Eckarfjärden	PFM000117	Surface	9	0.026	0.034	0.035	0.039	0.045	0.036	0.005	15
Eckarfjärden	PFM000117	Bottom	4	0.040	0.044	0.046	0.048	0.051	0.046	0.004	9.7
Bolundsfjärden	PFM000107	Surface	10	0.049	0.054	0.072	0.080	0.096	0.070	0.02	24
Bolundsfjärden	PFM000107	Bottom	4	0.069	0.080	0.084	0.085	0.087	0.081	0.008	10.0
Norra bassängen	PFM000097	Surface	7	0.044	0.054	0.075	0.088	0.13	0.075	0.03	38
Fiskarfjärden	PFM000127	Surface	1	0.081		0.081		0.081	0.081		
Fiskarfjärden	PFM000127	Bottom	3	0.076	0.085	0.094	0.12	0.15	0.11	0.04	34
Fiskarfjärden	PFM000135	Surface	5	0.055	0.057	0.067	0.11	0.16	0.090	0.05	51
Forsmark area		Surface	49	0.019	0.039	0.051	0.075	0.16	0.060	0.03	53
Forsmark area		Bottom	15	0.040	0.051	0.084	0.11	0.17	0.089	0.04	49
Simpevarp area		Surface	1	0.046		0.046		0.046	0.046		
Simpevarp area		Bottom	1	0.048		0.048		0.048	0.048		
Sweden	N.S.2000	Surface	1206	0.0050	0.032	0.068	0.15	250	0.45	8	1800
Sea Water											
SV Forslingens grund	PFM000062	Surface	11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.006	30
SV Forslingens grund	PFM000062	Bottom	3	<0.05	<0.05	<0.05	<0.05	0.050	<0.05	0.01	41
Alt. SV Forslingen	PFM000082	Surface	1	<0.02		<0.02		<0.02	<0.02		
Alt. SV Forslingen	PFM000082	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Tixelfjärden	PFM000063	Surface	9	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	0.03	79
Tixelfjärden	PFM000063	Bottom	5	<0.05	<0.05	<0.05	<0.05	0.075	<0.05	0.03	92
Kallriga, norra	PFM000064	Surface	8	<0.05	0.093	0.14	0.28	0.30	0.17	0.1	66
Kallriga, norra	PFM000064	Bottom	4	<0.05	0.071	0.10	0.15	0.22	0.12	0.08	64
Kallriga, södra	PFM000065	Surface	9	<0.05	0.054	0.11	0.31	0.76	0.21	0.2	120
Forsmark area		Surface	38	<0.05	<0.05	<0.05	0.11	0.76	0.100	0.1	150
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	0.075	0.22	0.057	0.06	110
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	0.074	<0.05	0.02	66
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	8	0.041	0.051	0.063	0.074	0.21	0.079	0.06	70
Söder Eckarfjärden	PFM000071	Surface	2	0.066	0.084	0.10	0.12	0.14	0.10	0.05	50
Norr Eckarfjärden	PFM000070	Surface	8	0.038	0.047	0.050	0.096	0.28	0.088	0.08	91
Bolundskogen	PFM000069	Surface	4	0.073	0.078	0.082	0.091	0.11	0.087	0.02	19
Kungstråsket	PFM000068	Surface	9	0.049	0.070	0.078	0.086	0.13	0.081	0.02	29
Lillputtsundet	PFM000067	Surface	8	0.047	0.056	0.073	0.091	0.14	0.077	0.03	39
Flottbron	PFM000072	Surface	6	0.057	0.076	0.14	0.22	0.29	0.15	0.10	62
Söder Bredviken	PFM000073	Surface	3	0.065	0.087	0.11	0.22	0.33	0.17	0.1	84
Forsmark area		Surface	48	0.038	0.058	0.076	0.10	0.33	0.097	0.07	68
Simpevarp area		Surface	10	0.14	0.34	0.61	1.0	2.1	0.84	0.7	85

Surface Water

Cu		Copper ($\mu\text{g/l}$)							Cu	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	10	0.21	0.31	0.62	1.2	1.5	0.74	0.5
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.13	0.21	0.46	0.87	1.4	0.58	0.5
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.33	0.42	0.51	0.97	1.4	0.75	0.6
Eckarfjärden	PFM000117	Surface	9	0.42	0.45	0.56	0.67	0.87	0.60	0.2
Eckarfjärden	PFM000117	Bottom	4	0.43	0.52	0.55	0.65	0.92	0.61	0.2
Bolundsfjärden	PFM000107	Surface	8	0.48	0.68	0.77	0.91	1.2	0.81	0.2
Bolundsfjärden	PFM000107	Bottom	3	0.63	0.66	0.68	0.94	1.2	0.84	0.3
Norra bassängen	PFM000097	Surface	5	0.58	0.63	0.64	0.74	1.0	0.72	0.2
Fiskarfjärden	PFM000127	Surface	1	0.50		0.50		0.50	0.50	
Fiskarfjärden	PFM000127	Bottom	2	0.52	0.54	0.56	0.57	0.59	0.56	0.05
Fiskarfjärden	PFM000135	Surface	5	0.23	0.37	0.48	0.54	0.71	0.47	0.2
Forsmark area		Surface	45	0.13	0.45	0.58	0.86	1.5	0.66	0.3
Forsmark area		Bottom	12	0.33	0.52	0.58	0.74	1.4	0.70	0.3
Simpevarp area		Surface	1	2.0		2.0		2.0	2.0	
Simpevarp area		Bottom	1	2.0		2.0		2.0	2.0	
Sweden	N.S.2000	Surface	1206	0.10	0.30	0.50	0.80	2900	3.6	90
Sea Water										
SV Forslingens grund	PFM000062	Surface	11	<1	<1	<1	<1	25	2.9	7
SV Forslingens grund	PFM000062	Bottom	3	<1	<1	<1	1.2	1.4	1.1	0.3
Alt. SV Forslingen	PFM000082	Surface	1	1.4		1.4		1.4	1.4	
Alt. SV Forslingen	PFM000082	Bottom	1	1.4		1.4		1.4	1.4	
Tixelfjärden	PFM000063	Surface	9	<1	<1	<1	<1	1.4	<1	0.3
Tixelfjärden	PFM000063	Bottom	5	<1	<1	<1	1.4	2.9	1.2	1.0
Kallriga, norra	PFM000064	Surface	8	<1	<1	1.1	1.3	3.0	1.3	0.8
Kallriga, norra	PFM000064	Bottom	4	<1	<1	<1	<1	1.3	<1	0.3
Kallriga, södra	PFM000065	Surface	9	<1	<1	1.3	1.8	3.5	1.5	1
Forsmark area		Surface	38	<1	<1	<1	1.3	25	1.6	4
Forsmark area		Bottom	13	<1	<1	<1	1.4	2.9	1.1	0.6
Simpevarp area		Surface	4	<1	<1	<1	<1	<1	<1	
Simpevarp area		Bottom	4	<1	<1	<1	<1	1.2	<1	0.4
Streaming Water										
Öster Gunnarsboträsket	PFM000066	Surface	7	0.45	0.74	0.94	1.2	1.3	0.94	0.3
Söder Eckarfjärden	PFM000071	Surface	1	2.9		2.9		2.9	2.9	
Norr Eckarfjärden	PFM000070	Surface	7	0.36	0.47	0.55	0.77	1.1	0.65	0.3
Bolundskogen	PFM000069	Surface	3	0.33	0.42	0.51	0.98	1.4	0.76	0.6
Kungstråsket	PFM000068	Surface	8	0.48	0.49	0.86	1.1	1.5	0.86	0.4
Lillputtsundet	PFM000067	Surface	7	0.59	0.62	0.69	0.80	1.3	0.77	0.2
Flottbron	PFM000072	Surface	6	0.29	0.34	0.39	0.42	0.69	0.42	0.1
Söder Bredviken	PFM000073	Surface	3	1.6	1.7	1.7	2.5	3.3	2.2	0.9
Forsmark area		Surface	42	0.29	0.49	0.71	1.1	3.3	0.90	0.6
Simpevarp area		Surface	10	0.72	1.5	2.8	4.1	6.4	3.0	2

Surface Water

D		Deuterium (dev. SMOW)							D		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	-90.1	-81.9	-75.9	-69.9	-61.2	-75.9	8.8	-12
Gunnarsbo-Lillfjärden	PFM000087	Surface	8	-90.4	-80.3	-75.4	-67.5	-62.6	-75.4	10	-14
Gunnarsbo-Lillfjärden	PFM000087	Bottom	7	-90.0	-81.6	-78.2	-66.0	-63.5	-75.3	10	-14
Eckarfjärden	PFM000117	Surface	8	-77.3	-72.0	-64.9	-60.6	-53.1	-65.5	8.1	-12
Eckarfjärden	PFM000117	Bottom	4	-77.5	-73.7	-67.1	-60.8	-57.8	-67.4	9.1	-14
Bolundsfjärden	PFM000107	Surface	9	-82.9	-77.4	-63.5	-55.8	-49.4	-66.4	13	-19
Bolundsfjärden	PFM000107	Bottom	5	-82.8	-76.7	-66.9	-64.3	-54.8	-69.1	11	-16
Norra bassängen	PFM000097	Surface	8	-84.8	-77.5	-68.7	-59.7	-53.4	-69.1	12	-18
Fiskarfjärden	PFM000127	Surface	3	-63.2	-54.5	-45.8	-45.1	-44.3	-51.1	11	-21
Fiskarfjärden	PFM000127	Bottom	3	-62.4	-54.4	-46.3	-46.3	-46.2	-51.6	9.3	-18
Fiskarfjärden	PFM000135	Surface	3	-77.0	-69.5	-61.9	-59.9	-57.9	-65.6	10	-15
Forsmark area		Surface	50	-90.4	-77.4	-70.1	-61.6	-44.3	-69.5	12	-17
Forsmark area		Bottom	19	-90.0	-77.9	-66.9	-62.1	-46.2	-68.2	12	-18
Simpevarp area		Surface	10	-72.7	-69.0	-65.0	-63.0	-54.4	-65.4	5.4	-8.2
Simpevarp area		Bottom	10	-72.3	-68.7	-65.1	-63.5	-55.7	-65.3	4.7	-7.2
Sea Water											
SV Forslingens grund	PFM000062	Surface	8	-66.4	-65.7	-63.9	-62.2	-43.0	-61.6	7.7	-13
SV Forslingens grund	PFM000062	Bottom	3	-67.8	-65.1	-62.4	-61.9	-61.3	-63.8	3.5	-5.5
Alt. SV Forslingen	PFM000082	Surface	2	-64.5	-64.4	-64.3	-64.2	-64.1	-64.3	0.28	-0.44
Alt. SV Forslingen	PFM000082	Bottom	2	-65.1	-64.9	-64.6	-64.4	-64.1	-64.6	0.71	-1.1
Tixelfjärden	PFM000063	Surface	8	-65.8	-65.4	-63.5	-61.6	-60.9	-63.5	2.2	-3.4
Tixelfjärden	PFM000063	Bottom	5	-65.8	-65.7	-65.1	-62.6	-61.8	-64.2	1.9	-2.9
Alt. Tixelfjärden	PFM000083	Surface	1	-65.1		-65.1		-65.1	-65.1		
Alt. Tixelfjärden	PFM000083	Bottom	1	-64.8		-64.8		-64.8	-64.8		
Kallriga, norra	PFM000064	Surface	7	-85.0	-69.6	-63.7	-61.4	-60.2	-67.3	9.0	-13
Kallriga, norra	PFM000064	Bottom	4	-67.5	-65.0	-62.3	-60.3	-60.1	-63.0	3.5	-5.5
Kallriga, södra	PFM000065	Surface	9	-82.9	-76.1	-67.5	-61.4	-60.7	-69.7	8.1	-12
Alt. Kallriga	PFM000084	Surface	1	-83.5		-83.5		-83.5	-83.5		
Alt. Kallriga	PFM000084	Bottom	1	-82.4		-82.4		-82.4	-82.4		
Forsmark area		Surface	37	-85.0	-66.4	-64.5	-61.6	-43.0	-65.9	7.7	-12
Forsmark area		Bottom	17	-82.4	-65.7	-64.4	-62.4	-60.1	-65.0	5.0	-7.7
Simpevarp area		Surface	28	-71.3	-62.6	-57.1	-56.1	-53.9	-59.6	4.9	-8.2
Simpevarp area		Bottom	28	-68.2	-59.2	-56.9	-55.5	-53.9	-57.5	3.1	-5.4
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	9	-90.0	-86.7	-77.8	-75.2	-63.2	-78.5	9.2	-12
Söder Eckarfjärden	PFM000071	Surface	4	-93.4	-88.0	-86.2	-84.3	-78.5	-86.1	6.1	-7.1
Norr Eckarfjärden	PFM000070	Surface	9	-76.8	-71.5	-67.4	-62.6	-58.5	-67.1	6.5	-9.7
Bolundskogen	PFM000069	Surface	7	-91.4	-86.5	-78.6	-72.5	-68.3	-79.4	8.8	-11
Kungstråsket	PFM000068	Surface	10	-86.2	-80.7	-77.4	-73.5	-67.9	-76.9	6.1	-7.9
Lillputtsundet	PFM000067	Surface	10	-82.9	-72.5	-63.2	-55.9	-50.1	-65.0	11	-18
Flottbron	PFM000072	Surface	9	-78.7	-70.2	-68.4	-63.0	-51.5	-66.5	7.5	-11
Söder Bredviken	PFM000073	Surface	3	-89.2	-88.8	-88.3	-87.8	-87.3	-88.3	0.95	-1.1
Forsmark area		Surface	61	-93.4	-80.8	-73.7	-67.4	-50.1	-73.7	11	-15
Simpevarp area		Surface	82	-85.0	-79.3	-76.7	-74.3	-67.7	-76.8	3.7	-4.8

Surface Water

Dy		Dysprosium ($\mu\text{g/l}$)								Dy	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.0090	0.013	0.018	0.018	0.033	0.017	0.008	44
Gunnarsbo-Lillfjärden	PFM000087	Surface	6	0.0050	0.011	0.016	0.019	0.033	0.016	0.010	59
Gunnarsbo-Lillfjärden	PFM000087	Bottom	2	0.022	0.028	0.034	0.040	0.045	0.034	0.02	49
Eckarfjärden	PFM000117	Surface	6	<0.005	<0.005	0.0084	0.018	0.025	0.011	0.009	85
Eckarfjärden	PFM000117	Bottom	2	0.0095	0.015	0.021	0.027	0.033	0.021	0.02	78
Bolundsfjärden	PFM000107	Surface	6	0.010	0.014	0.016	0.022	0.052	0.022	0.02	70
Bolundsfjärden	PFM000107	Bottom	2	0.025	0.030	0.036	0.041	0.047	0.036	0.02	44
Norra bassängen	PFM000097	Surface	5	0.0076	0.013	0.023	0.026	0.054	0.025	0.02	73
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	0.0070	0.0093	0.010	0.013	0.023	0.012	0.007	55
Forsmark area		Surface	34	<0.005	0.010	0.015	0.022	0.054	0.017	0.01	68
Forsmark area		Bottom	7	<0.005	0.016	0.025	0.039	0.047	0.026	0.02	64
Simpevarp area		Surface	1	0.014		0.014		0.014	0.014		
Simpevarp area		Bottom	1	0.014		0.014		0.014	0.014		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	58
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	1	<0.02		<0.02		<0.02	<0.02		
Alt. SV Forslingen	PFM000082	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	77
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	0.050	0.13	<0.05	0.05	120
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	0.056	0.26	0.057	0.09	160
Forsmark area		Surface	31	<0.05	<0.05	<0.05	<0.05	0.26	<0.05	0.05	170
Forsmark area		Bottom	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	100
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	6	0.014	0.015	0.020	0.025	0.029	0.021	0.006	31
Norr Eckarfjärden	PFM000070	Surface	6	0.012	0.013	0.018	0.025	0.035	0.020	0.009	45
Bolundskogen	PFM000069	Surface	1	0.026		0.026		0.026	0.026		
Kungstråsket	PFM000068	Surface	6	0.027	0.031	0.043	0.045	0.047	0.039	0.009	24
Liliputtsundet	PFM000067	Surface	5	0.0080	0.011	0.014	0.023	0.051	0.021	0.02	82
Flottbron	PFM000072	Surface	5	0.0060	0.0066	0.0080	0.013	0.026	0.012	0.008	70
Söder Bredviken	PFM000073	Surface	3	0.0056	0.0063	0.0070	0.0096	0.012	0.0083	0.003	42
Forsmark area		Surface	32	0.0056	0.012	0.020	0.027	0.051	0.022	0.01	61
Simpevarp area		Surface	10	0.027	0.034	0.041	0.059	0.085	0.048	0.02	38

Surface Water

Er		Erbium ($\mu\text{g/l}$)								Er	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	7	0.0070	0.0098	0.012	0.013	0.023	0.013	0.005	40
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	0.0096	0.014	0.019	0.024	0.014	0.007	53
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.019	0.019	0.020	0.028	0.037	0.025	0.01	40
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	0.0080	0.016	0.023	0.010	0.008	83
Eckarfjärden	PFM000117	Bottom	3	0.0073	0.015	0.022	0.022	0.023	0.017	0.009	50
Bolundsfjärden	PFM000107	Surface	7	0.0072	0.010	0.013	0.021	0.036	0.017	0.01	60
Bolundsfjärden	PFM000107	Bottom	3	0.017	0.021	0.025	0.029	0.033	0.025	0.008	32
Norra bassängen	PFM000097	Surface	6	<0.005	0.010	0.017	0.023	0.038	0.018	0.01	70
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	0.0066	0.0085	0.011	0.018	0.0094	0.006	69
Forsmark area		Surface	39	<0.005	0.0080	0.013	0.018	0.038	0.014	0.009	62
Forsmark area		Bottom	10	<0.005	0.018	0.021	0.025	0.037	0.021	0.01	51
Simpevarp area		Surface	1	0.0091		0.0091		0.0091	0.0091		
Simpevarp area		Bottom	1	0.0096		0.0096		0.0096	0.0096		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.002	23
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.001	17
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	79
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.010		0.010		0.010	0.010		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0073		0.0073		0.0073	0.0073		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	0.076	<0.05	0.03	120
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	0.05	140
Alt. Kallriga	PFM000084	Surface	1	0.070		0.070		0.070	0.070		
Alt. Kallriga	PFM000084	Bottom	1	0.074		0.074		0.074	0.074		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	0.03	130
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	0.074	<0.05	0.02	150
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	0.0097	0.013	0.014	0.019	0.021	0.016	0.004	27
Norr Eckarfjärden	PFM000070	Surface	6	0.0090	0.010	0.014	0.019	0.024	0.015	0.006	39
Bolundskogen	PFM000069	Surface	1	0.020		0.020		0.020	0.020		
Kungstråsket	PFM000068	Surface	6	0.018	0.022	0.027	0.032	0.033	0.026	0.006	23
Lillputtsundet	PFM000067	Surface	5	0.0050	0.0072	0.0094	0.016	0.034	0.014	0.01	81
Flottbron	PFM000072	Surface	5	<0.005	0.0052	0.0057	0.0091	0.016	0.0077	0.005	68
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	0.0051	0.0066	0.0080	0.0052	0.003	53
Forsmark area		Surface	33	<0.005	0.0090	0.014	0.020	0.034	0.015	0.009	58
Simpevarp area		Surface	10	0.018	0.022	0.027	0.039	0.056	0.031	0.01	38

Surface Water

Eu		Europium (µg/l)								Eu	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.005	<0.005	<0.005	<0.005	0.010	<0.005	0.003	74
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0004	17
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.005	<0.005	<0.005	<0.005	0.0055	<0.005	0.002	41
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0007	24
Eckarfjärden	PFM000117	Bottom	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.001	35
Bolundsfjärden	PFM000107	Surface	7	<0.005	<0.005	<0.005	0.0058	0.0077	<0.005	0.002	51
Bolundsfjärden	PFM000107	Bottom	3	<0.005	<0.005	<0.005	0.0054	0.0063	<0.005	0.002	43
Norra bassängen	PFM000097	Surface	6	<0.005	<0.005	<0.005	<0.005	0.0069	<0.005	0.002	49
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Forsmark area		Surface	39	<0.005	<0.005	<0.005	<0.005	0.010	<0.005	0.002	52
Forsmark area		Bottom	10	<0.005	<0.005	<0.005	<0.005	0.0063	<0.005	0.001	39
Simpevarp area		Surface	1	<0.005		<0.005		<0.005	<0.005		
Simpevarp area		Bottom	1	<0.005		<0.005		<0.005	<0.005		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006	110
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006	98
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	88
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.0022		0.0022		0.0022	0.0022		
Alt. Tixelfjärden	PFM000083	Bottom	1	<0.001		<0.001		<0.001	<0.001		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	79
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	0.059	<0.05	0.02	120
Alt. Kallriga	PFM000084	Surface	1	0.021		0.021		0.021	0.021		
Alt. Kallriga	PFM000084	Bottom	1	0.021		0.021		0.021	0.021		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.059	<0.05	0.01	94
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	110
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0080	<0.005	0.002	48
Norr Eckarfjärden	PFM000070	Surface	6	<0.005	<0.005	<0.005	<0.005	0.0080	<0.005	0.002	65
Bolundskogen	PFM000069	Surface	1	0.010		0.010		0.010	0.010		
Kungstråsket	PFM000068	Surface	6	<0.005	<0.005	0.0065	0.0075	0.012	0.0063	0.004	57
Lillputtsundet	PFM000067	Surface	5	<0.005	<0.005	<0.005	<0.005	0.0073	<0.005	0.002	59
Flottbron	PFM000072	Surface	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00009	3.6
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	<0.005	<0.005	0.0055	<0.005	0.002	49
Forsmark area		Surface	33	<0.005	<0.005	<0.005	0.0055	0.012	<0.005	0.003	62
Simpevarp area		Surface	10	0.0061	0.0075	0.011	0.014	0.021	0.011	0.005	41

Surface Water

F			Fluoride (mg/l)							F	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	41	<0.2	<0.2	0.23	0.27	0.72	0.25	0.1	56
Gunnarsbo-Lillfjärden	PFM000087	Surface	36	<0.2	0.26	0.30	0.34	0.64	0.31	0.1	38
Gunnarsbo-Lillfjärden	PFM000087	Bottom	18	<0.2	0.30	0.35	0.44	0.60	0.36	0.1	39
Eckarfjärden	PFM000117	Surface	41	<0.2	<0.2	0.20	0.26	0.58	<0.2	0.1	61
Eckarfjärden	PFM000117	Bottom	17	<0.2	<0.2	0.21	0.35	0.66	0.25	0.1	56
Bolundsfjärden	PFM000107	Surface	42	<0.2	0.20	0.25	0.29	0.40	0.24	0.08	33
Bolundsfjärden	PFM000107	Bottom	17	<0.2	0.23	0.28	0.36	0.43	0.28	0.1	38
Norra bassängen	PFM000097	Surface	33	<0.2	0.23	0.25	0.29	3.1	0.39	0.6	140
Fiskarfjärden	PFM000127	Surface	13	<0.2	<0.2	0.23	0.41	0.63	0.29	0.2	63
Fiskarfjärden	PFM000127	Bottom	8	<0.2	0.27	0.35	0.37	0.50	0.32	0.1	37
Fiskarfjärden	PFM000135	Surface	16	<0.2	<0.2	0.21	0.24	0.29	<0.2	0.07	35
Fiskarfjärden	PFM000135	Bottom	1	<0.2		<0.2		<0.2	<0.2		
Forsmark area		Surface	223	<0.2	<0.2	0.24	0.29	3.1	0.27	0.3	94
Forsmark area		Bottom	61	<0.2	0.21	0.30	0.36	0.66	0.30	0.1	45
Simpevarp area		Surface	110	<0.2	0.48	0.63	0.79	1.5	0.69	0.3	44
Simpevarp area		Bottom	110	<0.2	0.46	0.58	0.84	1.4	0.69	0.3	45
Sweden	N.S.2000	Surface	3464	0.020	0.040	0.090	0.15	1.2	0.11	0.1	93
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	36	<0.2	<0.2	<0.2	<0.2	0.58	<0.2	0.1	79
SV Forslingens grund	PFM000062	Bottom	10	<0.2	<0.2	0.29	0.35	0.52	0.28	0.1	49
Alt. SV Forslingen	PFM000082	Surface	7	<0.2	<0.2	<0.2	<0.2	0.45	<0.2	0.1	80
Alt. SV Forslingen	PFM000082	Bottom	7	<0.2	<0.2	<0.2	0.33	0.47	0.22	0.2	78
Tixelfjärden	PFM000063	Surface	36	<0.2	<0.2	<0.2	0.26	0.59	<0.2	0.1	75
Tixelfjärden	PFM000063	Bottom	17	<0.2	<0.2	0.21	0.46	1.0	0.31	0.3	84
Alt. Tixelfjärden	PFM000083	Surface	1	<0.2		<0.2		<0.2	<0.2		
Alt. Tixelfjärden	PFM000083	Bottom	1	<0.2		<0.2		<0.2	<0.2		
Kallriga, norra	PFM000064	Surface	31	<0.2	<0.2	<0.2	<0.2	0.91	<0.2	0.2	95
Kallriga, norra	PFM000064	Bottom	16	<0.2	<0.2	0.22	0.27	0.58	0.23	0.1	66
Kallriga, södra	PFM000065	Surface	33	<0.2	<0.2	<0.2	0.23	0.91	<0.2	0.2	88
Alt. Kallriga	PFM000084	Surface	3	<0.2	<0.2	<0.2	0.38	0.60	0.28	0.3	97
Alt. Kallriga	PFM000084	Bottom	3	<0.2	<0.2	<0.2	0.29	0.47	<0.2	0.2	130
Forsmark area		Surface	148	<0.2	<0.2	<0.2	0.21	0.91	<0.2	0.1	84
Forsmark area		Bottom	55	<0.2	<0.2	0.21	0.34	1.0	0.25	0.2	76
Simpevarp area		Surface	159	<0.2	<0.2	<0.2	<0.2	1.0	<0.2	0.2	100
Simpevarp area		Bottom	156	<0.2	<0.2	<0.2	<0.2	1.2	<0.2	0.1	99
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	34	<0.2	<0.2	0.21	0.24	0.60	0.20	0.1	55
Söder Eckarfjärden	PFM000071	Surface	28	<0.2	<0.2	0.24	0.27	0.39	0.22	0.08	36
Norr Eckarfjärden	PFM000070	Surface	35	<0.2	<0.2	<0.2	0.23	0.54	<0.2	0.1	62
Bolundskogen	PFM000069	Surface	42	<0.2	0.23	0.28	0.35	1.1	0.30	0.2	56
Kungstråsket	PFM000068	Surface	43	<0.2	0.23	0.26	0.33	0.70	0.28	0.1	50
Lillputtsundet	PFM000067	Surface	36	<0.2	<0.2	0.25	0.30	0.49	0.23	0.1	45
Flottbron	PFM000072	Surface	33	<0.2	<0.2	0.20	0.27	0.43	0.21	0.1	51
Söder Bredviken	PFM000073	Surface	19	0.21	0.38	0.44	0.49	0.66	0.44	0.1	27
Forsmark area		Surface	270	<0.2	<0.2	0.24	0.31	1.1	0.25	0.1	55
Simpevarp area		Surface	565	<0.2	0.37	0.53	0.77	2.7	0.66	0.5	70
Sweden	N.S.2000	Surface	725	0.020	0.070	0.12	0.21	0.99	0.16	0.1	83

Surface Water

Gd		Gadolinium ($\mu\text{g/l}$)								Gd	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.0080	0.013	0.016	0.018	0.032	0.017	0.008	45
Gunnarsbo-Lillfjärden	PFM000087	Surface	6	<0.005	0.0095	0.014	0.015	0.031	0.014	0.010	69
Gunnarsbo-Lillfjärden	PFM000087	Bottom	2	0.017	0.022	0.028	0.033	0.039	0.028	0.02	55
Eckarfjärden	PFM000117	Surface	6	<0.005	<0.005	0.0059	0.017	0.023	0.0099	0.009	94
Eckarfjärden	PFM000117	Bottom	2	0.0076	0.013	0.018	0.024	0.029	0.018	0.02	83
Bolundsfjärden	PFM000107	Surface	6	0.010	0.016	0.018	0.024	0.056	0.024	0.02	70
Bolundsfjärden	PFM000107	Bottom	2	0.022	0.028	0.034	0.040	0.047	0.034	0.02	50
Norra bassängen	PFM000097	Surface	5	0.0073	0.013	0.021	0.022	0.054	0.024	0.02	77
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	0.0070	0.0078	0.0085	0.012	0.020	0.011	0.006	55
Forsmark area		Surface	34	<0.005	0.0083	0.014	0.020	0.056	0.017	0.01	75
Forsmark area		Bottom	7	<0.005	0.012	0.022	0.034	0.047	0.023	0.02	68
Simpevarp area		Surface	1	0.018		0.018		0.018	0.018		
Simpevarp area		Bottom	1	0.018		0.018		0.018	0.018		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	57
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	1	<0.02		<0.02		<0.02	<0.02		
Alt. SV Forslingen	PFM000082	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	79
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	0.060	0.13	<0.05	0.05	120
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	0.064	0.33	0.069	0.1	170
Forsmark area		Surface	31	<0.05	<0.05	<0.05	<0.05	0.33	<0.05	0.06	190
Forsmark area		Bottom	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	100
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	6	0.014	0.016	0.019	0.022	0.028	0.020	0.005	27
Norr Eckarfjärden	PFM000070	Surface	6	0.010	0.014	0.018	0.025	0.033	0.020	0.009	44
Bolundskogen	PFM000069	Surface	1	0.028		0.028		0.028	0.028		
Kungstråsket	PFM000068	Surface	6	0.029	0.033	0.047	0.049	0.052	0.042	0.01	25
Liliputtsundet	PFM000067	Surface	5	0.0080	0.012	0.014	0.023	0.054	0.022	0.02	84
Flottbron	PFM000072	Surface	5	<0.005	0.0070	0.0075	0.014	0.026	0.011	0.009	80
Söder Bredviken	PFM000073	Surface	3	0.0054	0.0062	0.0070	0.010	0.013	0.0086	0.004	49
Forsmark area		Surface	32	<0.005	0.013	0.019	0.028	0.054	0.022	0.01	65
Simpevarp area		Surface	10	0.031	0.042	0.053	0.070	0.11	0.058	0.02	38

Surface Water

Hf	Hafnium ($\mu\text{g/l}$)								Hf		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.005	<0.005	0.0080	0.013	0.028	0.010	0.009	87
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	0.0070	0.0090	0.013	0.024	0.011	0.007	64
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.0067	0.0097	0.013	0.017	0.022	0.014	0.007	55
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	0.012	0.015	0.020	0.011	0.007	64
Eckarfjärden	PFM000117	Bottom	3	<0.005	0.0080	0.014	0.016	0.018	0.011	0.008	71
Bolundsfjärden	PFM000107	Surface	7	<0.005	0.0063	0.012	0.017	0.075	0.019	0.03	130
Bolundsfjärden	PFM000107	Bottom	3	0.0056	0.0095	0.013	0.015	0.017	0.012	0.006	48
Norra bassängen	PFM000097	Surface	6	<0.005	0.0070	0.013	0.015	0.019	0.011	0.006	56
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	0.0051	0.0060	0.0070	0.010	0.0061	0.003	50
Forsmark area		Surface	39	<0.005	0.0053	0.010	0.014	0.075	0.012	0.01	100
Forsmark area		Bottom	10	<0.005	0.0059	0.013	0.016	0.022	0.011	0.007	59
Simpevarp area		Surface	1	0.69		0.69		0.69	0.69		
Simpevarp area		Bottom	1	0.35		0.35		0.35	0.35		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	8	<0.05	<0.05	<0.05	0.22	1.1	0.24	0.4	180
SV Forslingens grund	PFM000062	Bottom	2	<0.05	0.24	0.47	0.71	0.94	0.47	0.7	140
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	74
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	74
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	1.3	0.18	0.5	260
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	0.33	1.2	0.32	0.6	190
Alt. Tixelfjärden	PFM000083	Surface	1	0.0050		0.0050		0.0050	0.0050		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0022		0.0022		0.0022	0.0022		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	2.0	0.31	0.8	250
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	0.98	1.9	0.66	1	170
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	0.32	1.3	0.32	0.6	180
Alt. Kallriga	PFM000084	Surface	1	0.031		0.031		0.031	0.031		
Alt. Kallriga	PFM000084	Bottom	1	0.033		0.033		0.033	0.033		
Forsmark area		Surface	35	<0.05	<0.05	<0.05	<0.05	2.0	0.23	0.5	220
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	1.9	0.33	0.6	190
Simpevarp area		Surface	4	<0.05	<0.05	0.35	0.74	0.95	0.42	0.5	110
Simpevarp area		Bottom	4	<0.05	0.40	0.65	0.83	1.0	0.58	0.4	72
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.005	0.0080	0.010	0.018	0.025	0.013	0.008	65
Norr Eckarfjärden	PFM000070	Surface	6	<0.005	0.0063	0.0085	0.015	0.021	0.010	0.007	66
Bolundskogen	PFM000069	Surface	1	0.010		0.010		0.010	0.010		
Kungstråsket	PFM000068	Surface	6	0.0086	0.013	0.015	0.019	0.058	0.021	0.02	86
Lillputtsundet	PFM000067	Surface	5	<0.005	<0.005	0.010	0.019	0.024	0.011	0.010	83
Flottbron	PFM000072	Surface	5	<0.005	<0.005	0.0059	0.0090	0.031	0.010	0.01	120
Söder Bredviken	PFM000073	Surface	3	0.0077	0.0079	0.0080	0.037	0.065	0.027	0.03	120
Forsmark area		Surface	33	<0.005	0.0070	0.010	0.019	0.065	0.014	0.01	98
Simpevarp area		Surface	10	0.062	0.10	0.13	0.19	0.24	0.14	0.06	40

Surface Water

Ho		Holmium (µg/l)							Ho		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0072	<0.005	0.002	55
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0079	<0.005	0.002	54
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.0052	0.0057	0.0062	0.0086	0.011	0.0074	0.003	41
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0077	<0.005	0.002	58
Eckarfjärden	PFM000117	Bottom	3	<0.005	<0.005	0.0071	0.0073	0.0074	0.0057	0.003	48
Bolundsfjärden	PFM000107	Surface	7	<0.005	<0.005	<0.005	0.0070	0.012	0.0053	0.003	66
Bolundsfjärden	PFM000107	Bottom	3	0.0052	0.0069	0.0085	0.0093	0.010	0.0079	0.002	31
Norra bassängen	PFM000097	Surface	6	<0.005	<0.005	<0.005	0.0071	0.012	0.0055	0.004	69
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	<0.005	<0.005	<0.005	0.0052	<0.005	0.001	43
Forsmark area		Surface	39	<0.005	<0.005	<0.005	0.0060	0.012	<0.005	0.003	61
Forsmark area		Bottom	10	<0.005	0.0052	0.0067	0.0082	0.011	0.0066	0.003	43
Simpevarp area		Surface	1	<0.005		<0.005		<0.005	<0.005		
Simpevarp area		Bottom	1	<0.005		<0.005		<0.005	<0.005		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.004	65
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	68
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	88
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.0040		0.0040		0.0040	0.0040		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0031		0.0031		0.0031	0.0031		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	81
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	0.061	<0.05	0.02	110
Alt. Kallriga	PFM000084	Surface	1	0.024		0.024		0.024	0.024		
Alt. Kallriga	PFM000084	Bottom	1	0.026		0.026		0.026	0.026		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.061	<0.05	0.01	93
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	110
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.005	<0.005	<0.005	0.0062	0.0066	<0.005	0.002	43
Norr Eckarfjärden	PFM000070	Surface	6	<0.005	<0.005	<0.005	0.0054	0.0075	<0.005	0.002	56
Bolundskogen	PFM000069	Surface	1	0.0060		0.0060		0.0060	0.0060		
Kungstråsket	PFM000068	Surface	6	0.0060	0.0070	0.0094	0.010	0.011	0.0088	0.002	24
Lillputtsundet	PFM000067	Surface	5	<0.005	<0.005	<0.005	<0.005	0.012	<0.005	0.004	90
Flottbron	PFM000072	Surface	5	<0.005	<0.005	<0.005	<0.005	0.0050	<0.005	0.001	44
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0001	4.5
Forsmark area		Surface	33	<0.005	<0.005	<0.005	0.0064	0.012	<0.005	0.003	61
Simpevarp area		Surface	10	0.0058	0.0074	0.0089	0.013	0.018	0.010	0.004	37

Surface Water

pH		pH (field) (pH unit)							pH		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	6.74	7.05	7.30	7.67	8.36	7.37	0.42	5.7
Gunnarsbo-Lillfjärden	PFM000087	Surface	39	6.31	7.27	7.80	8.06	8.78	7.69	0.58	7.5
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	6.92	7.17	7.72	7.83	8.42	7.57	0.42	5.5
Eckarfjärden	PFM000117	Surface	45	6.97	7.82	8.32	8.52	8.82	8.12	0.55	6.8
Eckarfjärden	PFM000117	Bottom	23	7.19	7.37	7.86	8.40	8.61	7.90	0.52	6.6
Bolundsfjärden	PFM000107	Surface	50	6.84	7.41	8.27	8.70	9.45	8.12	0.75	9.3
Bolundsfjärden	PFM000107	Bottom	23	6.70	7.16	8.02	8.56	8.71	7.85	0.73	9.3
Norra bassängen	PFM000097	Surface	34	6.92	7.25	8.15	8.97	9.51	8.13	0.87	11
Fiskarfjärden	PFM000127	Surface	13	7.74	8.49	8.65	8.83	9.26	8.61	0.42	4.9
Fiskarfjärden	PFM000127	Bottom	9	8.18	8.51	8.62	8.72	9.02	8.64	0.25	2.9
Fiskarfjärden	PFM000135	Surface	19	6.92	7.35	7.68	9.01	9.52	8.12	0.90	11
Fiskarfjärden	PFM000135	Bottom	1	6.96		6.96		6.96	6.96		
Forsmark area		Surface	246	6.31	7.30	7.92	8.52	9.52	7.94	0.73	9.2
Forsmark area		Bottom	78	6.70	7.28	7.83	8.47	9.02	7.87	0.62	7.9
Simpevarp area		Surface	97	6.22	6.79	7.04	7.26	8.01	7.01	0.34	4.9
Simpevarp area		Bottom	99	6.09	6.32	6.59	6.85	7.76	6.62	0.35	5.3
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	7.62	7.83	7.92	8.09	8.27	7.95	0.16	2.1
SV Forslingens grund	PFM000062	Bottom	15	7.81	7.91	7.98	8.14	8.25	8.02	0.15	1.9
Alt. SV Forslingen	PFM000082	Surface	9	7.59	7.83	7.99	8.06	8.24	7.95	0.20	2.5
Alt. SV Forslingen	PFM000082	Bottom	9	7.55	7.81	7.92	8.02	8.24	7.91	0.23	2.9
Tixelfjärden	PFM000063	Surface	40	7.21	7.73	7.95	8.08	8.24	7.89	0.26	3.3
Tixelfjärden	PFM000063	Bottom	21	7.17	7.46	7.84	8.08	8.20	7.76	0.35	4.5
Alt. Tixelfjärden	PFM000083	Surface	3	8.09	8.10	8.10	8.17	8.24	8.14	0.084	1.0
Alt. Tixelfjärden	PFM000083	Bottom	3	8.11	8.11	8.11	8.21	8.30	8.17	0.11	1.3
Kallriga, norra	PFM000064	Surface	35	6.94	7.63	8.08	8.17	8.86	7.95	0.44	5.6
Kallriga, norra	PFM000064	Bottom	19	6.89	7.46	8.07	8.16	8.42	7.85	0.51	6.5
Kallriga, södra	PFM000065	Surface	35	6.93	7.77	8.01	8.21	8.44	7.94	0.37	4.7
Alt. Kallriga	PFM000084	Surface	5	7.28	7.48	7.53	7.57	7.89	7.55	0.22	2.9
Alt. Kallriga	PFM000084	Bottom	5	7.62	7.66	7.69	7.71	7.86	7.71	0.091	1.2
Forsmark area		Surface	171	6.93	7.78	7.98	8.12	8.86	7.93	0.31	4.0
Forsmark area		Bottom	72	6.89	7.62	7.95	8.13	8.42	7.87	0.35	4.5
Simpevarp area		Surface	139	6.63	7.73	7.93	8.14	8.53	7.87	0.38	4.9
Simpevarp area		Bottom	137	6.82	7.30	7.71	7.96	8.36	7.63	0.41	5.4
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	41	6.82	7.10	7.25	7.38	7.96	7.24	0.21	3.0
Söder Eckarfjärden	PFM000071	Surface	32	6.81	7.27	7.35	7.47	7.69	7.36	0.18	2.5
Norr Eckarfjärden	PFM000070	Surface	42	6.64	7.14	7.26	7.55	7.85	7.31	0.28	3.8
Bolundskogen	PFM000069	Surface	48	6.76	6.90	7.10	7.30	7.59	7.11	0.23	3.3
Kungstråsket	PFM000068	Surface	47	6.84	7.02	7.19	7.34	7.53	7.18	0.19	2.7
Lillputtsundet	PFM000067	Surface	41	6.80	7.36	7.80	8.17	8.66	7.76	0.52	6.7
Flottbron	PFM000072	Surface	37	6.40	6.80	7.05	7.19	7.39	7.01	0.24	3.4
Söder Bredviken	PFM000073	Surface	21	7.42	7.65	7.74	7.92	8.06	7.76	0.17	2.2
Forsmark area		Surface	309	6.40	7.06	7.27	7.47	8.66	7.31	0.37	5.1

Surface Water

pH		pH (lab) (pH unit)							pH		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	40	7.00	7.24	7.53	7.82	8.26	7.55	0.35	4.6
Gunnarsbo-Lillfjärden	PFM000087	Surface	39	6.97	7.41	7.90	8.18	8.66	7.83	0.47	6.1
Gunnarsbo-Lillfjärden	PFM000087	Bottom	20	6.97	7.32	7.80	8.02	8.56	7.69	0.43	5.6
Eckarfjärden	PFM000117	Surface	42	7.00	7.88	8.33	8.48	8.77	8.12	0.51	6.3
Eckarfjärden	PFM000117	Bottom	18	7.34	7.54	8.20	8.40	8.60	8.00	0.45	5.6
Bolundsfjärden	PFM000107	Surface	45	6.93	7.43	8.33	8.70	9.28	8.13	0.70	8.6
Bolundsfjärden	PFM000107	Bottom	19	7.07	7.33	8.00	8.48	8.80	7.92	0.61	7.8
Norra bassängen	PFM000097	Surface	35	6.96	7.51	8.16	8.79	9.62	8.21	0.78	9.5
Fiskarfjärden	PFM000127	Surface	11	7.85	8.23	8.50	8.58	9.17	8.45	0.41	4.9
Fiskarfjärden	PFM000127	Bottom	7	8.33	8.50	8.58	8.60	8.80	8.56	0.14	1.7
Fiskarfjärden	PFM000135	Surface	16	7.00	7.38	7.91	8.79	9.40	8.05	0.82	10
Fiskarfjärden	PFM000135	Bottom	1	7.00		7.00		7.00	7.00		
Forsmark area		Surface	231	6.93	7.43	8.00	8.46	9.62	7.99	0.64	8.0
Forsmark area		Bottom	65	6.97	7.41	8.00	8.40	8.80	7.93	0.54	6.8
Simpevarp area		Surface	112	6.15	6.72	6.90	7.07	7.47	6.90	0.29	4.2
Simpevarp area		Bottom	112	6.14	6.40	6.70	6.89	7.77	6.69	0.33	4.9
Sweden	N.S.2000	Surface	3464	3.12	6.25	6.63	6.95	8.25	6.55	0.68	10
Sea Water											
SV Forslingens grund	PFM000062	Surface	40	7.36	7.86	7.94	8.00	8.14	7.92	0.14	1.8
SV Forslingens grund	PFM000062	Bottom	13	7.90	8.00	8.00	8.07	8.16	8.02	0.075	0.94
Alt. SV Forslingen	PFM000082	Surface	8	7.50	7.64	7.80	8.03	8.50	7.87	0.35	4.5
Alt. SV Forslingen	PFM000082	Bottom	8	7.48	7.68	7.87	7.95	8.03	7.81	0.20	2.6
Tixelfjärden	PFM000063	Surface	39	7.19	7.75	7.90	7.98	8.10	7.81	0.23	3.0
Tixelfjärden	PFM000063	Bottom	18	7.08	7.50	7.84	7.99	8.06	7.72	0.32	4.1
Alt. Tixelfjärden	PFM000083	Surface	3	7.80	7.85	7.90	7.92	7.94	7.88	0.072	0.92
Alt. Tixelfjärden	PFM000083	Bottom	3	7.80	7.88	7.96	7.98	8.00	7.92	0.11	1.3
Kallriga, norra	PFM000064	Surface	35	6.93	7.66	7.90	8.05	8.82	7.84	0.38	4.9
Kallriga, norra	PFM000064	Bottom	16	6.88	7.59	7.88	7.96	8.35	7.73	0.41	5.3
Kallriga, södra	PFM000065	Surface	34	6.87	7.75	7.94	8.04	8.30	7.83	0.37	4.7
Alt. Kallriga	PFM000084	Surface	5	7.29	7.47	7.60	7.82	7.90	7.62	0.25	3.3
Alt. Kallriga	PFM000084	Bottom	5	7.55	7.70	7.75	7.78	7.90	7.74	0.13	1.6
Forsmark area		Surface	166	6.87	7.75	7.90	8.00	8.82	7.85	0.29	3.7
Forsmark area		Bottom	63	6.88	7.68	7.90	8.00	8.35	7.80	0.30	3.8
Simpevarp area		Surface	159	6.61	7.70	7.85	8.02	8.45	7.78	0.36	4.6
Simpevarp area		Bottom	157	6.88	7.32	7.71	7.87	8.17	7.61	0.33	4.4
Bottenhavet	SMHI:MS4	Surface	9	7.39	7.61	7.76	7.87	8.15	7.74	0.23	3.0
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	6.98	7.26	7.43	7.59	8.05	7.44	0.25	3.3
Söder Eckarfjärden	PFM000071	Surface	33	6.94	7.43	7.51	7.79	8.00	7.57	0.25	3.3
Norr Eckarfjärden	PFM000070	Surface	41	6.85	7.24	7.48	7.60	8.10	7.45	0.25	3.4
Bolundskogen	PFM000069	Surface	47	6.84	7.09	7.33	7.54	8.10	7.34	0.30	4.1
Kungstråsket	PFM000068	Surface	47	6.68	7.20	7.40	7.58	8.10	7.39	0.29	3.9
Lillputtsundet	PFM000067	Surface	41	6.98	7.50	7.90	8.28	8.64	7.87	0.47	6.0
Flottbron	PFM000072	Surface	40	6.52	7.02	7.28	7.47	8.00	7.24	0.33	4.6
Söder Bredviken	PFM000073	Surface	23	7.47	7.76	7.95	8.08	8.30	7.91	0.24	3.0
Forsmark area		Surface	312	6.52	7.24	7.47	7.70	8.64	7.50	0.37	5.0
Simpevarp area		Surface	570	5.01	6.12	6.42	6.65	7.85	6.40	0.46	7.2
Sweden	N.S.2000	Surface	725	4.45	6.54	6.79	7.07	8.10	6.79	0.52	7.7

Surface Water

Tr			Tritium (TU)							Tr	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	9	11.7	12.5	12.8	13.0	14.7	12.9	0.85	6.6
Gunnarsbo-Lillfjärden	PFM000087	Surface	8	9.80	12.1	12.9	13.9	15.6	12.9	1.8	14
Gunnarsbo-Lillfjärden	PFM000087	Bottom	7	10.1	11.3	12.5	13.4	16.0	12.6	2.0	16
Eckarfjärden	PFM000117	Surface	8	6.90	11.0	12.2	13.2	15.5	11.8	2.8	23
Eckarfjärden	PFM000117	Bottom	4	8.90	11.8	13.0	13.3	13.5	12.1	2.1	18
Bolundsfjärden	PFM000107	Surface	9	8.40	10.4	11.5	13.0	13.5	11.5	1.8	16
Bolundsfjärden	PFM000107	Bottom	5	9.80	11.7	13.0	13.0	15.6	12.6	2.1	17
Norra bassängen	PFM000097	Surface	7	8.20	10.9	12.7	14.0	15.3	12.3	2.5	20
Fiskarfjärden	PFM000127	Surface	3	7.60	8.15	8.70	11.0	13.3	9.87	3.0	31
Fiskarfjärden	PFM000127	Bottom	3	6.10	9.05	12.0	12.6	13.1	10.4	3.8	36
Fiskarfjärden	PFM000135	Surface	3	11.3	11.5	11.6	13.2	14.7	12.5	1.9	15
Forsmark area		Surface	48	6.90	11.4	12.5	13.4	15.6	12.1	2.1	17
Forsmark area		Bottom	19	6.10	11.1	12.7	13.2	16.0	12.1	2.3	19
Simpevarp area		Surface	10	10.4	11.1	11.4	13.3	14.6	12.0	1.4	12
Simpevarp area		Bottom	10	10.0	11.0	12.4	12.9	14.2	12.0	1.4	12
Sea Water											
SV Forslingens grund	PFM000062	Surface	9	10.1	11.0	13.7	14.4	15.9	13.2	2.1	16
SV Forslingens grund	PFM000062	Bottom	3	11.7	13.7	15.6	16.5	17.3	14.9	2.9	19
Alt. SV Forslingen	PFM000082	Surface	2	12.6	13.4	14.3	15.1	15.9	14.3	2.3	16
Alt. SV Forslingen	PFM000082	Bottom	2	16.6	17.3	18.0	18.6	19.3	18.0	1.9	11
Tixelfjärden	PFM000063	Surface	8	13.1	15.5	16.8	17.3	18.6	16.2	1.9	11
Tixelfjärden	PFM000063	Bottom	5	16.0	16.0	17.4	17.5	18.1	17.0	0.95	5.6
Alt. Tixelfjärden	PFM000083	Surface	1	16.1		16.1			16.1		16.1
Alt. Tixelfjärden	PFM000083	Bottom	1	13.9		13.9			13.9		13.9
Kallriga, norra	PFM000064	Surface	7	11.5	12.6	13.7	14.2	17.0	13.7	1.9	14
Kallriga, norra	PFM000064	Bottom	4	12.2	12.6	13.9	15.7	17.8	14.4	2.6	18
Kallriga, södra	PFM000065	Surface	8	11.4	12.1	13.2	14.9	16.6	13.6	2.0	15
Alt. Kallriga	PFM000084	Surface	1	11.2		11.2			11.2		11.2
Alt. Kallriga	PFM000084	Bottom	1	11.7		11.7			11.7		11.7
Forsmark area		Surface	37	10.1	12.2	13.9	15.9	18.6	14.1	2.2	16
Forsmark area		Bottom	17	10.3	12.7	16.0	17.4	19.3	15.2	2.7	18
Simpevarp area		Surface	28	10.3	13.2	13.9	15.6	17.3	14.0	1.8	13
Simpevarp area		Bottom	28	10.1	13.1	14.0	15.0	16.7	13.9	1.7	12
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	9	10.0	10.5	11.8	13.2	14.2	12.1	1.6	13
Söder Eckarfjärden	PFM000071	Surface	3	5.30	8.60	11.9	12.6	13.3	10.2	4.3	42
Norr Eckarfjärden	PFM000070	Surface	8	6.60	10.1	12.1	14.1	15.4	11.8	2.9	24
Bolundskogen	PFM000069	Surface	6	10.1	10.9	11.0	11.2	13.9	11.3	1.3	12
Kungstråsket	PFM000068	Surface	10	8.50	10.1	11.4	12.6	13.6	11.3	1.8	16
Lillputtsundet	PFM000067	Surface	9	6.70	12.2	13.0	13.7	17.0	12.6	2.8	22
Flottbron	PFM000072	Surface	9	10.2	11.5	12.1	12.7	13.8	11.9	1.2	9.6
Söder Bredviken	PFM000073	Surface	3	10.3	10.7	11.0	11.2	11.3	10.9	0.51	4.7
Forsmark area		Surface	57	5.30	10.5	11.8	13.1	17.0	11.7	2.1	18
Simpevarp area		Surface	82	8.70	11.0	12.0	12.8	15.0	12.0	1.3	11

Surface Water

In			Indium (µg/l)						In		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	1	<0.05		<0.05		<0.05	<0.05		
Gunnarsbo-Lillfjärden	PFM000087	Surface	2	<0.05	2.0	4.1	6.1	8.1	4.1	6	140
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	7.5		7.5		7.5	7.5		
Eckarfjärden	PFM000117	Surface	2	<0.05	2.6	5.2	7.8	10	5.2	7	140
Eckarfjärden	PFM000117	Bottom	1	10		10		10	10		
Bolundsfjärden	PFM000107	Surface	2	<0.05	2.2	4.4	6.6	8.8	4.4	6	140
Bolundsfjärden	PFM000107	Bottom	1	13		13		13	13		
Norra bassängen	PFM000097	Surface	2	<0.05	2.2	4.4	6.5	8.7	4.4	6	140
Forsmark area		Surface	10	<0.05	<0.05	4.1	8.8	16	5.2	6	110
Forsmark area		Bottom	3	7.5	8.8	10	11	13	10	3	25
Simpevarp area		Surface	1	<0.05		<0.05		<0.05	<0.05		
Simpevarp area		Bottom	1	<0.05		<0.05		<0.05	<0.05		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	3	<0.1	9.7	19	22	26	15	10	89
SV Forslingens grund	PFM000062	Bottom	2	11	13	15	18	20	15	6	41
Alt. SV Forslingen	PFM000082	Surface	1	15		15		15	15		
Alt. SV Forslingen	PFM000082	Bottom	1	15		15		15	15		
Tixelfjärden	PFM000063	Surface	3	<0.1	6.0	12	15	18	10	9	92
Tixelfjärden	PFM000063	Bottom	2	12	14	15	17	19	15	5	32
Alt. Tixelfjärden	PFM000083	Surface	1	15		15		15	15		
Alt. Tixelfjärden	PFM000083	Bottom	1	15		15		15	15		
Kallriga, norra	PFM000064	Surface	3	<0.1	8.2	16	19	21	12	10	88
Kallriga, norra	PFM000064	Bottom	2	16	17	19	20	21	19	4	19
Kallriga, södra	PFM000065	Surface	3	<0.1	7.5	15	17	19	11	10	88
Alt. Kallriga	PFM000084	Surface	1	14		14		14	14		
Alt. Kallriga	PFM000084	Bottom	1	21		21		21	21		
Forsmark area		Surface	15	<0.1	6.0	15	19	26	13	9	67
Forsmark area		Bottom	9	11	15	16	20	21	17	4	23
Simpevarp area		Surface	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Simpevarp area		Bottom	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	2	<0.05	2.6	5.1	7.7	10	5.1	7	140
Norr Eckarfjärden	PFM000070	Surface	1	<0.05		<0.05		<0.05	<0.05		
Kungsträsket	PFM000068	Surface	1	<0.05		<0.05		<0.05	<0.05		
Lillputtsundet	PFM000067	Surface	1	<0.05		<0.05		<0.05	<0.05		
Flottbron	PFM000072	Surface	1	<0.05		<0.05		<0.05	<0.05		
Forsmark area		Surface	6	<0.05	<0.05	<0.05	<0.05	10	1.7	4	240
Simpevarp area		Surface	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		

Surface Water

I	Iodide (mg/l)								I		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	36	<0.001	0.0040	0.0050	0.0070	0.011	0.0055	0.002	40
Gunnarsbo-Lillfjärden	PFM000087	Surface	32	<0.001	0.0040	0.0050	0.0073	0.012	0.0059	0.003	50
Gunnarsbo-Lillfjärden	PFM000087	Bottom	14	0.0020	0.0063	0.0080	0.0090	0.012	0.0071	0.003	40
Eckarfjärden	PFM000117	Surface	37	0.0030	0.0050	0.0060	0.0080	0.011	0.0065	0.002	27
Eckarfjärden	PFM000117	Bottom	13	0.0050	0.0060	0.0070	0.0080	0.010	0.0072	0.002	21
Bolundsfjärden	PFM000107	Surface	39	<0.001	0.0050	0.0060	0.0090	0.016	0.0071	0.003	49
Bolundsfjärden	PFM000107	Bottom	13	0.0010	0.0070	0.0090	0.010	0.012	0.0081	0.003	38
Norra bassängen	PFM000097	Surface	29	0.0020	0.0040	0.0050	0.0060	0.013	0.0057	0.003	44
Fiskarfjärden	PFM000127	Surface	13	0.010	0.013	0.015	0.018	0.024	0.016	0.004	27
Fiskarfjärden	PFM000127	Bottom	8	0.0090	0.011	0.012	0.014	0.018	0.013	0.003	26
Fiskarfjärden	PFM000135	Surface	14	0.0050	0.0093	0.012	0.016	0.026	0.014	0.006	47
Fiskarfjärden	PFM000135	Bottom	1	0.020		0.020		0.020	0.020		
Forsmark area		Surface	200	<0.001	0.0050	0.0060	0.0090	0.026	0.0073	0.004	59
Forsmark area		Bottom	49	0.0010	0.0070	0.0080	0.010	0.020	0.0086	0.004	43
Simpevarp area		Surface	20	0.0040	0.0078	0.021	0.026	0.033	0.019	0.010	51
Simpevarp area		Bottom	18	0.0040	0.0090	0.021	0.026	0.039	0.019	0.01	54
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	37	0.0050	0.0080	0.0090	0.011	0.022	0.010	0.004	39
SV Forslingens grund	PFM000062	Bottom	8	0.0060	0.0078	0.0090	0.010	0.014	0.0091	0.002	26
Alt. SV Forslingen	PFM000082	Surface	4	0.0080	0.0088	0.010	0.011	0.012	0.0100	0.002	18
Alt. SV Forslingen	PFM000082	Bottom	4	0.0060	0.0083	0.0095	0.011	0.014	0.0098	0.003	34
Tixelfjärden	PFM000063	Surface	33	0.0060	0.0080	0.0090	0.010	0.015	0.0095	0.002	20
Tixelfjärden	PFM000063	Bottom	13	0.0070	0.0080	0.0090	0.011	0.018	0.0098	0.003	32
Alt. Tixelfjärden	PFM000083	Surface	1	0.0060		0.0060		0.0060	0.0060		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0060		0.0060		0.0060	0.0060		
Kallriga, norra	PFM000064	Surface	31	0.0050	0.0080	0.0090	0.011	0.015	0.0095	0.003	27
Kallriga, norra	PFM000064	Bottom	12	0.0080	0.0088	0.011	0.012	0.015	0.011	0.003	24
Kallriga, södra	PFM000065	Surface	30	0.0050	0.0090	0.0090	0.010	0.014	0.0095	0.002	18
Alt. Kallriga	PFM000084	Surface	3	0.0040	0.0050	0.0060	0.0065	0.0070	0.0057	0.002	27
Alt. Kallriga	PFM000084	Bottom	3	0.0050	0.0060	0.0070	0.0090	0.011	0.0077	0.003	40
Forsmark area		Surface	140	0.0040	0.0080	0.0090	0.010	0.022	0.0096	0.003	29
Forsmark area		Bottom	42	0.0050	0.0080	0.0090	0.011	0.018	0.0098	0.003	29
Simpevarp area		Surface	26	0.0070	0.0093	0.012	0.013	0.019	0.012	0.003	27
Simpevarp area		Bottom	26	0.0070	0.0093	0.013	0.015	0.034	0.013	0.006	46
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	28	0.0010	0.0030	0.0040	0.0060	0.019	0.0052	0.004	76
Söder Eckarfjärden	PFM000071	Surface	23	<0.001	0.0035	0.0050	0.0070	0.021	0.0060	0.004	74
Norr Eckarfjärden	PFM000070	Surface	30	0.0020	0.0040	0.0050	0.0060	0.0090	0.0052	0.002	34
Bolundskogen	PFM000069	Surface	35	0.0020	0.0040	0.0050	0.0080	0.023	0.0070	0.004	60
Kungstråsket	PFM000068	Surface	35	0.0010	0.0050	0.0050	0.0075	0.019	0.0062	0.003	50
Lillputtsundet	PFM000067	Surface	33	0.0020	0.0040	0.0070	0.0080	0.011	0.0063	0.002	37
Flottbron	PFM000072	Surface	29	0.0030	0.0050	0.0070	0.0090	0.019	0.0080	0.004	53
Söder Bredviken	PFM000073	Surface	16	<0.001	0.0010	0.0020	0.0040	0.012	0.0032	0.003	100
Forsmark area		Surface	229	<0.001	0.0040	0.0050	0.0080	0.023	0.0061	0.004	60
Simpevarp area		Surface	87	0.0020	0.0060	0.010	0.020	0.10	0.016	0.02	110

Fe(II)	Ferrous iron (mg/l)								Fe(II)		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	3	0.23	0.25	0.27	0.27	0.27	0.26	0.03	10
Simpevarp area		Bottom	1	0.17		0.17		0.17	0.17		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	7	<0.022	<0.022	<0.022	<0.022	0.097	<0.022	0.03	190
Simpevarp area		Bottom	8	<0.022	<0.022	<0.022	<0.022	0.41	0.063	0.1	230
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	17	0.28	0.39	0.47	0.82	1.3	0.62	0.3	52

Surface Water

Fe		Iron (total ICP) (mg/l)							Fe		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	13	0.027	0.035	0.039	0.050	0.30	0.062	0.07	120
Gunnarsbo-Lillfjärden	PFM000087	Surface	13	0.010	0.053	0.068	0.12	0.33	0.090	0.08	91
Gunnarsbo-Lillfjärden	PFM000087	Bottom	9	0.010	0.042	0.084	0.13	0.41	0.13	0.1	99
Eckarfjärden	PFM000117	Surface	12	0.0069	0.012	0.024	0.050	0.074	0.032	0.03	79
Eckarfjärden	PFM000117	Bottom	7	0.014	0.027	0.033	0.060	0.10	0.047	0.03	68
Bolundsfjärden	PFM000107	Surface	14	0.025	0.050	0.10	0.16	0.32	0.12	0.09	72
Bolundsfjärden	PFM000107	Bottom	7	0.061	0.090	0.15	0.18	0.27	0.15	0.08	51
Norra bassängen	PFM000097	Surface	9	0.048	0.082	0.099	0.18	0.67	0.18	0.2	110
Fiskarfjärden	PFM000127	Surface	3	0.010	0.035	0.060	0.061	0.062	0.044	0.03	67
Fiskarfjärden	PFM000127	Bottom	3	0.020	0.028	0.037	0.051	0.066	0.041	0.02	57
Fiskarfjärden	PFM000135	Surface	5	0.036	0.038	0.043	0.29	0.32	0.15	0.1	100
Forsmark area		Surface	70	0.0069	0.036	0.056	0.11	0.67	0.094	0.1	110
Forsmark area		Bottom	26	0.010	0.038	0.070	0.12	0.41	0.10	0.09	93
Simpevarp area		Surface	112	0.031	0.63	0.88	1.2	2.0	0.86	0.5	55
Simpevarp area		Bottom	110	0.054	0.72	0.94	1.5	12	1.3	2	120
Sweden	N.S.2000	Surface	1206	0.0040	0.059	0.20	0.54	1500	1.7	40	2500
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	13	<0.004	0.0054	0.012	0.022	0.045	0.016	0.01	85
SV Forslingens grund	PFM000062	Bottom	4	<0.004	0.0061	0.011	0.017	0.028	0.012	0.01	95
Alt. SV Forslingen	PFM000082	Surface	2	0.011	0.030	0.050	0.070	0.090	0.050	0.06	110
Alt. SV Forslingen	PFM000082	Bottom	2	0.010	0.025	0.041	0.056	0.072	0.041	0.04	110
Tixelfjärden	PFM000063	Surface	11	0.00040	0.011	0.020	0.041	0.12	0.035	0.04	110
Tixelfjärden	PFM000063	Bottom	6	<0.0004	0.012	0.024	0.042	0.063	0.028	0.02	84
Alt. Tixelfjärden	PFM000083	Surface	1	0.14		0.14		0.14	0.14		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.074		0.074		0.074	0.074		
Kallriga, norra	PFM000064	Surface	10	0.010	0.038	0.093	0.19	0.45	0.14	0.1	100
Kallriga, norra	PFM000064	Bottom	5	0.010	0.060	0.062	0.067	0.12	0.063	0.04	59
Kallriga, södra	PFM000065	Surface	9	0.0038	0.010	0.073	0.15	1.2	0.20	0.4	200
Alt. Kallriga	PFM000084	Surface	2	0.30	0.44	0.57	0.71	0.85	0.57	0.4	68
Alt. Kallriga	PFM000084	Bottom	2	<0.02	0.22	0.42	0.63	0.84	0.42	0.6	140
Forsmark area		Surface	48	<0.02	<0.02	0.029	0.10	1.2	0.11	0.2	200
Forsmark area		Bottom	20	<0.02	<0.02	0.032	0.064	0.84	0.077	0.2	240
Simpevarp area		Surface	160	<0.1	<0.1	<0.1	<0.1	0.85	<0.1	0.2	190
Simpevarp area		Bottom	156	<0.1	<0.1	<0.1	<0.1	1.7	<0.1	0.2	260
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	12	0.047	0.073	0.11	0.14	0.31	0.12	0.08	63
Söder Eckarfjärden	PFM000071	Surface	9	0.036	0.065	0.082	0.22	0.94	0.20	0.3	140
Norr Eckarfjärden	PFM000070	Surface	12	0.024	0.047	0.060	0.081	0.57	0.11	0.2	140
Bolundskogen	PFM000069	Surface	14	0.072	0.10	0.14	0.22	0.62	0.19	0.1	77
Kungstråsket	PFM000068	Surface	13	0.11	0.15	0.21	0.31	0.59	0.26	0.1	56
Lillputtsundet	PFM000067	Surface	12	0.030	0.053	0.084	0.16	0.25	0.11	0.07	67
Flottbron	PFM000072	Surface	12	0.039	0.081	0.26	0.35	1.5	0.32	0.4	120
Söder Bredviken	PFM000073	Surface	5	0.026	0.067	0.071	0.096	0.11	0.073	0.03	43
Forsmark area		Surface	89	0.024	0.068	0.11	0.22	1.5	0.18	0.2	110
Simpevarp area		Surface	555	0.23	0.91	1.2	1.8	11	1.6	1	84

Fe		Iron (total spectrometric) (mg/l)							Fe		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	3	0.55	0.71	0.87	0.88	0.89	0.77	0.2	25
Simpevarp area		Bottom	1	0.57		0.57		0.57	0.57		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	8	<0.009	<0.009	0.012	0.021	0.056	0.017	0.02	100
Simpevarp area		Bottom	8	<0.009	<0.009	0.019	0.046	0.50	0.084	0.2	200
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area		Surface	17	1.1	1.6	2.1	3.0	3.7	2.2	0.8	38

Surface Water

La		Lanthanum ($\mu\text{g/l}$)								La	
Lake Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Labboträsket	PFM000074	Surface	5	0.028	0.044	0.052	0.059	0.11	0.058	0.03	52
Gunnarsbo-Lillfjärden	PFM000087	Surface	5	0.010	0.034	0.040	0.057	0.094	0.047	0.03	66
Gunnarsbo-Lillfjärden	PFM000087	Bottom	2	0.058	0.074	0.090	0.11	0.12	0.090	0.04	50
Eckarfjärden	PFM000117	Surface	5	0.010	0.011	0.073	0.078	0.10	0.055	0.04	76
Eckarfjärden	PFM000117	Bottom	2	0.10	0.11	0.11	0.12	0.12	0.11	0.01	13
Bolundsfjärden	PFM000107	Surface	5	0.053	0.10	0.11	0.16	0.27	0.14	0.08	59
Bolundsfjärden	PFM000107	Bottom	2	0.16	0.18	0.20	0.21	0.23	0.20	0.05	25
Norra bassängen	PFM000097	Surface	4	0.042	0.081	0.13	0.18	0.25	0.13	0.09	65
Fiskarfjärden	PFM000127	Bottom	1	0.018		0.018		0.018	0.018		
Fiskarfjärden	PFM000135	Surface	3	0.031	0.035	0.039	0.047	0.054	0.041	0.01	28
Forsmark area		Surface	28	0.010	0.040	0.058	0.10	0.27	0.080	0.06	80
Forsmark area		Bottom	7	0.018	0.079	0.12	0.14	0.23	0.12	0.07	60
Simpevarp area		Surface	1	0.12		0.12		0.12	0.12		
Simpevarp area		Bottom	1	0.13		0.13		0.13	0.13		
Sea Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	28
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.0001	1.4
Alt. SV Forslingen	PFM000082	Surface	1	0.062		0.062		0.062	0.062		
Alt. SV Forslingen	PFM000082	Bottom	1	0.079		0.079		0.079	0.079		
Tixelfjärden	PFM000063	Surface	6	<0.05	<0.05	<0.05	<0.05	0.064	<0.05	0.02	79
Tixelfjärden	PFM000063	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	65
Alt. Tixelfjärden	PFM000083	Surface	1	0.091		0.091		0.091	0.091		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.048		0.048		0.048	0.048		
Kallriga, norra	PFM000064	Surface	6	<0.05	<0.05	<0.05	0.14	0.86	0.19	0.3	170
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	0.100	0.17	0.076	0.08	110
Kallriga, södra	PFM000065	Surface	6	<0.05	<0.05	<0.05	0.19	0.83	0.19	0.3	170
Alt. Kallriga	PFM000084	Surface	1	0.84		0.84		0.84	0.84		
Alt. Kallriga	PFM000084	Bottom	1	0.90		0.90		0.90	0.90		
Forsmark area		Surface	27	<0.05	<0.05	<0.05	0.063	0.86	0.13	0.3	200
Forsmark area		Bottom	11	<0.05	<0.05	<0.05	0.063	0.90	0.12	0.3	220
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	6	0.045	0.051	0.072	0.087	0.088	0.069	0.02	30
Norr Eckarfjärden	PFM000070	Surface	5	0.050	0.065	0.070	0.090	0.13	0.080	0.03	37
Bolundskogen	PFM000069	Surface	1	0.12		0.12		0.12	0.12		
Kungstråsket	PFM000068	Surface	5	0.12	0.13	0.22	0.22	0.23	0.18	0.05	29
Lillputtsundet	PFM000067	Surface	4	0.039	0.053	0.081	0.14	0.26	0.11	0.10	87
Flottbron	PFM000072	Surface	4	0.019	0.024	0.038	0.070	0.13	0.056	0.05	90
Söder Bredviken	PFM000073	Surface	2	0.017	0.020	0.023	0.027	0.030	0.023	0.010	41
Forsmark area		Surface	27	0.017	0.050	0.086	0.12	0.26	0.095	0.07	70
Simpevarp area		Surface	10	0.16	0.25	0.34	0.46	0.66	0.36	0.1	41

Surface Water

Pb		Lead ($\mu\text{g/l}$)								Pb	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	0.020	0.039	0.048	0.10	0.22	0.075	0.06	79
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.011	0.018	0.037	0.042	0.095	0.038	0.03	76
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.020	0.024	0.029	0.059	0.088	0.046	0.04	81
Eckarfjärden	PFM000117	Surface	9	0.015	0.029	0.046	0.075	0.24	0.069	0.07	98
Eckarfjärden	PFM000117	Bottom	4	0.015	0.018	0.034	0.062	0.10	0.046	0.04	88
Bolundsfjärden	PFM000107	Surface	8	0.069	0.11	0.14	0.23	0.64	0.22	0.2	89
Bolundsfjärden	PFM000107	Bottom	3	0.10	0.12	0.13	0.19	0.26	0.16	0.08	50
Norra bassängen	PFM000097	Surface	5	0.084	0.12	0.14	0.15	0.20	0.14	0.04	32
Fiskarfjärden	PFM000127	Surface	1	0.18		0.18		0.18	0.18		
Fiskarfjärden	PFM000127	Bottom	2	0.12	0.14	0.17	0.20	0.23	0.17	0.08	46
Fiskarfjärden	PFM000135	Surface	5	0.099	0.12	0.12	0.14	0.24	0.14	0.05	39
Forsmark area		Surface	45	0.011	0.042	0.092	0.14	0.64	0.11	0.1	99
Forsmark area		Bottom	12	0.015	0.027	0.096	0.12	0.26	0.096	0.08	83
Simpevarp area		Surface	1	0.48		0.48		0.48	0.48		
Simpevarp area		Bottom	1	0.44		0.44		0.44	0.44		
Sweden	N.S.2000	Surface	1206	0.010	0.070	0.18	0.39	500	0.77	10	1900
Sea Water											
SV Forslingens grund	PFM000062	Surface	11	<0.2	<0.2	<0.2	<0.2	2.8	0.44	0.9	200
SV Forslingens grund	PFM000062	Bottom	3	<0.2	<0.2	0.30	0.40	0.50	0.28	0.2	79
Alt. SV Forslingen	PFM000082	Surface	1	0.12		0.12		0.12	0.12		
Alt. SV Forslingen	PFM000082	Bottom	1	0.32		0.32		0.32	0.32		
Tixelfjärden	PFM000063	Surface	9	<0.3	<0.3	<0.3	<0.3	0.38	<0.3	0.1	100
Tixelfjärden	PFM000063	Bottom	5	<0.3	<0.3	<0.3	<0.3	0.86	<0.3	0.3	140
Kallriga, norra	PFM000064	Surface	8	<0.3	<0.3	<0.3	<0.3	0.41	<0.3	0.1	84
Kallriga, norra	PFM000064	Bottom	4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.09	82
Kallriga, södra	PFM000065	Surface	9	<0.3	<0.3	<0.3	<0.3	1.8	<0.3	0.6	200
Forsmark area		Surface	38	<0.3	<0.3	<0.3	<0.3	2.8	<0.3	0.6	220
Forsmark area		Bottom	13	<0.3	<0.3	<0.3	0.30	0.86	<0.3	0.2	110
Simpevarp area		Surface	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Simpevarp area		Bottom	4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	7	0.027	0.030	0.047	0.063	0.089	0.050	0.02	47
Söder Eckarfjärden	PFM000071	Surface	1	<0.01		<0.01		<0.01	<0.01		
Norr Eckarfjärden	PFM000070	Surface	7	0.025	0.046	0.063	0.087	0.14	0.070	0.04	53
Bolundskogen	PFM000069	Surface	3	0.068	0.071	0.073	0.089	0.10	0.082	0.02	24
Kungstråsket	PFM000068	Surface	8	0.043	0.052	0.062	0.069	0.074	0.060	0.01	20
Lillputtsundet	PFM000067	Surface	7	0.059	0.11	0.14	0.20	0.21	0.15	0.06	39
Flottbron	PFM000072	Surface	6	0.065	0.11	0.15	0.22	0.40	0.18	0.1	66
Söder Bredviken	PFM000073	Surface	3	0.013	0.039	0.065	0.19	0.31	0.13	0.2	120
Forsmark area		Surface	42	<0.01	0.049	0.070	0.11	0.40	0.097	0.08	82
Simpevarp area		Surface	10	0.086	0.10	0.24	0.38	0.55	0.26	0.2	65

Surface Water

Li		Lithium (mg/l)								Li	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	42	<0.004	<0.004	<0.004	<0.004	0.0070	<0.004	0.0008	41
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.004	<0.004	<0.004	<0.004	0.0080	<0.004	0.001	45
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	<0.004	<0.004	<0.004	<0.004	0.011	<0.004	0.002	66
Eckarfjärden	PFM000117	Surface	44	<0.004	<0.004	<0.004	<0.004	0.0040	<0.004	0.0006	35
Eckarfjärden	PFM000117	Bottom	21	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0005	36
Bolundsfjärden	PFM000107	Surface	47	<0.004	<0.004	<0.004	<0.004	0.0040	<0.004	0.0007	31
Bolundsfjärden	PFM000107	Bottom	20	<0.004	<0.004	<0.004	0.0040	0.0050	<0.004	0.0009	31
Norra bassängen	PFM000097	Surface	37	<0.004	<0.004	<0.004	0.0040	0.0080	<0.004	0.002	48
Fiskarfjärden	PFM000127	Surface	14	<0.004	0.0040	0.0040	0.0050	0.0060	0.0044	0.001	25
Fiskarfjärden	PFM000127	Bottom	9	0.0040	0.0040	0.0050	0.0060	0.0060	0.0049	0.0009	19
Fiskarfjärden	PFM000135	Surface	16	<0.004	<0.004	0.0040	0.0060	0.0090	0.0044	0.002	51
Fiskarfjärden	PFM000135	Bottom	1	0.0080		0.0080		0.0080	0.0080		
Forsmark area		Surface	244	<0.004	<0.004	<0.004	<0.004	0.0090	<0.004	0.001	53
Forsmark area		Bottom	73	<0.004	<0.004	<0.004	0.0040	0.011	<0.004	0.002	62
Simpevarp area		Surface	112	<0.004	<0.004	<0.004	<0.004	0.0040	<0.004	0.0003	14
Simpevarp area		Bottom	112	<0.004	<0.004	<0.004	<0.004	0.0060	<0.004	0.0009	38
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	0.0070	0.023	0.025	0.026	0.035	0.024	0.004	17
SV Forslingens grund	PFM000062	Bottom	15	<0.004	0.022	0.023	0.028	0.035	0.022	0.010	43
Alt. SV Forslingen	PFM000082	Surface	7	0.016	0.022	0.023	0.027	0.030	0.024	0.005	20
Alt. SV Forslingen	PFM000082	Bottom	7	0.021	0.023	0.024	0.028	0.030	0.025	0.004	14
Tixelfjärden	PFM000063	Surface	41	0.015	0.023	0.024	0.025	0.038	0.024	0.004	16
Tixelfjärden	PFM000063	Bottom	20	0.020	0.023	0.026	0.030	0.038	0.027	0.005	19
Alt. Tixelfjärden	PFM000083	Surface	3	0.023	0.024	0.024	0.026	0.028	0.025	0.003	11
Alt. Tixelfjärden	PFM000083	Bottom	2	0.025	0.026	0.027	0.027	0.028	0.027	0.002	8.0
Kallriga, norra	PFM000064	Surface	37	<0.004	0.016	0.022	0.024	0.035	0.020	0.007	33
Kallriga, norra	PFM000064	Bottom	19	0.013	0.020	0.024	0.027	0.036	0.024	0.006	24
Kallriga, södra	PFM000065	Surface	35	<0.004	0.016	0.022	0.024	0.035	0.020	0.008	39
Alt. Kallriga	PFM000084	Surface	4	0.0060	0.0090	0.015	0.020	0.024	0.015	0.008	56
Alt. Kallriga	PFM000084	Bottom	4	0.0060	0.016	0.020	0.021	0.024	0.017	0.008	45
Forsmark area		Surface	172	<0.004	0.021	0.023	0.025	0.038	0.022	0.006	27
Forsmark area		Bottom	68	<0.004	0.022	0.024	0.028	0.038	0.024	0.007	28
Simpevarp area		Surface	160	<0.02	0.024	0.030	0.032	0.044	0.028	0.007	26
Simpevarp area		Bottom	157	<0.02	0.027	0.031	0.032	0.049	0.030	0.006	20
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	37	<0.004	<0.004	<0.004	<0.004	0.0040	<0.004	0.0004	22
Söder Eckarfjärden	PFM000071	Surface	31	<0.004	<0.004	<0.004	<0.004	0.0050	<0.004	0.0005	26
Norr Eckarfjärden	PFM000070	Surface	38	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0004	24
Bolundskogen	PFM000069	Surface	46	<0.004	<0.004	<0.004	<0.004	0.0070	<0.004	0.001	41
Kungstråsket	PFM000068	Surface	46	<0.004	<0.004	<0.004	<0.004	0.0050	<0.004	0.0007	30
Lillputtsundet	PFM000067	Surface	43	<0.004	<0.004	<0.004	<0.004	0.0070	<0.004	0.001	42
Flottbron	PFM000072	Surface	38	<0.004	<0.004	0.0040	0.0050	0.0080	<0.004	0.002	47
Söder Bredviken	PFM000073	Surface	20	<0.004	0.011	0.012	0.013	0.015	0.011	0.003	28
Forsmark area		Surface	299	<0.004	<0.004	<0.004	<0.004	0.015	<0.004	0.003	83
Simpevarp area		Surface	555	<0.004	<0.004	<0.004	<0.004	0.013	<0.004	0.002	61

Surface Water

Lu		Lutetium ($\mu\text{g/l}$)								Lu	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0001	4.6
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	<0.005	<0.005	<0.005	0.010	<0.005	0.003	75
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.005	<0.005	<0.005	0.0056	0.0072	<0.005	0.002	53
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0060	<0.005	0.001	48
Eckarfjärden	PFM000117	Bottom	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0010	32
Bolundsfjärden	PFM000107	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0061	<0.005	0.001	44
Bolundsfjärden	PFM000107	Bottom	3	<0.005	<0.005	<0.005	0.0052	0.0059	<0.005	0.002	40
Norra bassängen	PFM000097	Surface	6	<0.005	<0.005	<0.005	<0.005	0.0067	<0.005	0.002	56
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Forsmark area		Surface	39	<0.005	<0.005	<0.005	<0.005	0.010	<0.005	0.002	52
Forsmark area		Bottom	10	<0.005	<0.005	<0.005	<0.005	0.0072	<0.005	0.002	44
Simpevarp area		Surface	1	<0.005		<0.005		<0.005	<0.005		
Simpevarp area		Bottom	1	<0.005		<0.005		<0.005	<0.005		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006	110
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	81
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	88
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.0018		0.0018		0.0018	0.0018		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0012		0.0012		0.0012	0.0012		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	96
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	94
Alt. Kallriga	PFM000084	Surface	1	0.010		0.010		0.010	0.010		
Alt. Kallriga	PFM000084	Bottom	1	0.011		0.011		0.011	0.011		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	85
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	110
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0003	13
Norr Eckarfjärden	PFM000070	Surface	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0003	14
Bolundskogen	PFM000069	Surface	1	<0.005		<0.005		<0.005	<0.005		
Kungstråsket	PFM000068	Surface	6	<0.005	<0.005	<0.005	0.0052	0.0060	<0.005	0.002	42
Lillputtsundet	PFM000067	Surface	5	<0.005	<0.005	<0.005	<0.005	0.0058	<0.005	0.002	51
Flottbron	PFM000072	Surface	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0009	43
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0004	18
Forsmark area		Surface	33	<0.005	<0.005	<0.005	<0.005	0.0060	<0.005	0.001	41
Simpevarp area		Surface	10	<0.005	<0.005	<0.005	0.0066	0.0096	<0.005	0.003	56

Surface Water

Mg		Magnesium (mg/l)							Mg		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	2.6	3.2	3.5	3.9	4.4	3.5	0.5	13
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	3.1	4.2	4.5	5.1	7.2	4.7	0.8	18
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	3.7	4.6	5.1	5.8	6.7	5.2	0.8	15
Eckarfjärden	PFM000117	Surface	45	0.70	2.6	2.7	2.9	3.5	2.7	0.4	14
Eckarfjärden	PFM000117	Bottom	21	2.5	2.6	2.8	3.0	3.3	2.8	0.3	8.9
Bolundsfjärden	PFM000107	Surface	47	1.6	5.1	5.5	7.4	13	6.4	3	39
Bolundsfjärden	PFM000107	Bottom	21	4.5	8.1	9.0	11	42	11	9	76
Norra bassängen	PFM000097	Surface	37	5.0	6.0	7.5	11	26	9.3	5	51
Fiskarfjärden	PFM000127	Surface	14	5.6	6.0	6.5	6.7	7.2	6.4	0.5	7.7
Fiskarfjärden	PFM000127	Bottom	9	5.7	5.8	6.3	7.1	7.2	6.4	0.7	11
Fiskarfjärden	PFM000135	Surface	17	3.8	6.1	6.3	7.3	9.8	6.8	2	22
Fiskarfjärden	PFM000135	Bottom	1	8.2		8.2		8.2	8.2		
Forsmark area		Surface	247	0.70	3.3	4.7	6.2	26	5.4	3	58
Forsmark area		Bottom	74	2.5	3.3	5.1	7.2	42	6.5	6	87
Simpevarp area		Surface	112	1.9	2.2	2.3	2.9	4.3	2.6	0.6	22
Simpevarp area		Bottom	112	1.9	2.3	2.4	3.0	4.3	2.7	0.6	21
Sweden	N.S.2000	Surface	3464	0.036	0.53	0.81	1.4	180	1.3	4	310
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	160	170	180	180	200	180	8	4.6
SV Forslingens grund	PFM000062	Bottom	15	160	180	180	180	190	180	8	4.4
Alt. SV Forslingen	PFM000082	Surface	8	110	170	180	180	190	170	20	14
Alt. SV Forslingen	PFM000082	Bottom	8	170	170	180	180	190	180	7	3.9
Tixelfjärden	PFM000063	Surface	41	100	170	180	180	200	170	20	12
Tixelfjärden	PFM000063	Bottom	21	160	170	180	180	190	180	8	4.6
Alt. Tixelfjärden	PFM000083	Surface	3	160	170	180	180	180	170	7	4.1
Alt. Tixelfjärden	PFM000083	Bottom	3	170	170	180	180	180	170	4	2.3
Kallriga, norra	PFM000064	Surface	37	21	110	160	170	190	140	50	32
Kallriga, norra	PFM000064	Bottom	19	74	140	160	180	190	160	30	17
Kallriga, södra	PFM000065	Surface	36	10	120	160	170	180	140	50	40
Alt. Kallriga	PFM000084	Surface	5	18	31	46	140	180	85	80	88
Alt. Kallriga	PFM000084	Bottom	5	19	140	140	150	170	130	60	48
Forsmark area		Surface	175	10	160	170	180	200	160	40	27
Forsmark area		Bottom	72	19	160	180	180	190	170	30	15
Simpevarp area		Surface	160	33	180	220	240	260	200	50	24
Simpevarp area		Bottom	157	67	210	230	240	270	220	30	13
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	2.5	2.9	3.1	3.3	4.2	3.2	0.4	13
Söder Eckarfjärden	PFM000071	Surface	33	2.8	3.3	3.5	3.8	4.4	3.5	0.4	9.9
Norr Eckarfjärden	PFM000070	Surface	41	0.70	2.6	2.6	2.7	3.4	2.6	0.4	18
Bolundskogen	PFM000069	Surface	48	1.6	4.5	5.1	5.6	7.6	5.0	1	23
Kungstråsket	PFM000068	Surface	48	2.4	3.7	4.4	5.3	7.9	4.5	1	27
Lillputtsundet	PFM000067	Surface	44	3.8	5.2	6.3	9.7	14	7.3	3	38
Flottbron	PFM000072	Surface	40	4.5	6.0	6.9	8.5	17	7.6	3	35
Söder Bredviken	PFM000073	Surface	23	9.2	13	14	15	17	14	2	14
Forsmark area		Surface	317	0.70	3.2	4.5	6.4	17	5.5	3	61
Simpevarp area		Surface	556	0.90	2.0	2.4	3.2	5.8	2.6	0.9	34
Sweden	N.S.2000	Surface	725	0.097	0.74	1.2	2.6	22	2.3	3	120

Surface Water

Mn	Manganese (mg/l)								Mn		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	13	<0.003	0.0061	0.0074	0.012	0.16	0.027	0.05	180
Gunnarsbo-Lillfjärden	PFM000087	Surface	12	0.0010	0.0042	0.0088	0.032	0.64	0.084	0.2	220
Gunnarsbo-Lillfjärden	PFM000087	Bottom	9	0.0060	0.018	0.037	0.074	0.74	0.15	0.3	170
Eckarfjärden	PFM000117	Surface	13	<0.003	0.0051	0.011	0.029	0.11	0.024	0.03	130
Eckarfjärden	PFM000117	Bottom	7	0.011	0.015	0.047	0.064	0.14	0.051	0.05	90
Bolundsfjärden	PFM000107	Surface	14	<0.003	0.0040	0.0088	0.038	0.069	0.021	0.02	110
Bolundsfjärden	PFM000107	Bottom	6	0.0075	0.010	0.034	0.060	0.072	0.037	0.03	81
Norra bassängen	PFM000097	Surface	9	0.0027	0.0055	0.011	0.022	0.052	0.017	0.02	95
Fiskarfjärden	PFM000127	Surface	3	0.0010	0.0060	0.011	0.013	0.015	0.0090	0.007	80
Fiskarfjärden	PFM000127	Bottom	3	0.0010	0.0060	0.011	0.013	0.015	0.0088	0.007	79
Fiskarfjärden	PFM000135	Surface	5	<0.003	0.0036	0.0040	0.11	0.13	0.050	0.06	130
Forsmark area		Surface	70	<0.003	0.0041	0.0088	0.027	0.64	0.034	0.08	250
Forsmark area		Bottom	25	<0.003	0.011	0.021	0.063	0.74	0.077	0.2	210
Simpevarp area		Surface	112	<0.003	0.014	0.041	0.081	0.22	0.051	0.05	91
Simpevarp area		Bottom	110	<0.003	0.038	0.086	0.18	1.9	0.17	0.3	160
Sweden	N.S.2000	Surface	1206		0.0060	0.018	0.041	62	0.088	2	2000
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	13	<0.003	<0.003	<0.003	0.0040	0.038	0.0055	0.010	180
SV Forslingens grund	PFM000062	Bottom	3	<0.003	<0.003	0.0040	0.0050	0.0060	0.0036	0.003	73
Alt. SV Forslingen	PFM000082	Surface	2	<0.00004	0.00075	0.0015	0.0022	0.0029	0.0015	0.002	140
Alt. SV Forslingen	PFM000082	Bottom	2	0.0018	0.0024	0.0029	0.0035	0.0040	0.0029	0.002	54
Tixelfjärden	PFM000063	Surface	11	<0.003	0.0031	0.0070	0.0092	0.013	0.0068	0.004	65
Tixelfjärden	PFM000063	Bottom	6	<0.003	<0.003	0.0075	0.012	0.052	0.014	0.02	140
Alt. Tixelfjärden	PFM000083	Surface	1	0.0050		0.0050		0.0050	0.0050		
Alt. Tixelfjärden	PFM000083	Bottom	1	<0.00004		<0.00004		<0.00004	<0.00004		
Kallriga, norra	PFM000064	Surface	10	0.0030	0.0092	0.017	0.028	0.037	0.018	0.01	65
Kallriga, norra	PFM000064	Bottom	5	0.0052	0.0055	0.014	0.022	0.053	0.020	0.02	98
Kallriga, södra	PFM000065	Surface	9	0.0020	0.0052	0.011	0.049	0.053	0.024	0.02	91
Alt. Kallriga	PFM000084	Surface	2	0.050	0.060	0.069	0.078	0.087	0.069	0.03	38
Alt. Kallriga	PFM000084	Bottom	2	0.0034	0.025	0.046	0.067	0.088	0.046	0.06	130
Forsmark area		Surface	48	<0.003	<0.003	0.0068	0.015	0.087	0.014	0.02	130
Forsmark area		Bottom	19	<0.003	<0.003	0.0052	0.013	0.088	0.015	0.02	150
Simpevarp area		Surface	160	<0.02	<0.02	<0.02	<0.02	0.084	<0.02	0.01	150
Simpevarp area		Bottom	156	<0.02	<0.02	<0.02	<0.02	0.13	<0.02	0.02	150
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	12	0.0031	0.0090	0.013	0.017	0.19	0.029	0.05	180
Söder Eckarfjärden	PFM000071	Surface	9	<0.003	0.0086	0.014	0.020	0.090	0.024	0.03	120
Norr Eckarfjärden	PFM000070	Surface	12	0.0053	0.014	0.032	0.061	0.65	0.087	0.2	210
Bolundskogen	PFM000069	Surface	14	0.0025	0.0042	0.0091	0.018	0.12	0.018	0.03	160
Kungstråsket	PFM000068	Surface	13	0.0071	0.014	0.031	0.041	0.061	0.029	0.02	55
Lillputtsundet	PFM000067	Surface	12	0.0020	0.0065	0.011	0.017	0.10	0.020	0.03	140
Flottbron	PFM000072	Surface	12	0.0010	0.0059	0.026	0.056	0.10	0.036	0.04	100
Söder Bredviken	PFM000073	Surface	5	0.0042	0.0052	0.0072	0.025	0.12	0.032	0.05	150
Forsmark area		Surface	89	<0.003	0.0080	0.014	0.039	0.65	0.034	0.07	210
Simpevarp area		Surface	555	0.0068	0.045	0.067	0.11	0.90	0.097	0.1	110

Surface Water

Hg		Mercury ($\mu\text{g/l}$)							Hg			
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water												
Labboträsket	PFM000074	Surface	10	<0.002	<0.002	<0.002	<0.002	0.0028	<0.002	0.0006	48	
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.002	<0.002	<0.002	<0.002	0.0022	<0.002	0.0005	39	
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.0020	0.0023	0.0025	0.0047	0.0069	0.0038	0.003	71	
Eckarfjärden	PFM000117	Surface	9	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Eckarfjärden	PFM000117	Bottom	4	<0.002	<0.002	<0.002	<0.002	0.0029	<0.002	0.0010	64	
Bolundsfjärden	PFM000107	Surface	8	<0.002	<0.002	<0.002	<0.002	0.0039	<0.002	0.001	70	
Bolundsfjärden	PFM000107	Bottom	3	<0.002	<0.002	<0.002	<0.002	0.0028	<0.002	0.001	65	
Norra bassängen	PFM000097	Surface	5	<0.002	<0.002	<0.002	0.0050	0.014	0.0044	0.006	130	
Fiskarfjärden	PFM000127	Surface	1	<0.002		<0.002		<0.002	<0.002			
Fiskarfjärden	PFM000127	Bottom	2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Fiskarfjärden	PFM000135	Surface	5	<0.002	<0.002	<0.002	<0.002	0.0032	<0.002	0.0010	68	
Forsmark area		Surface	45	<0.002	<0.002	<0.002	<0.002	0.014	<0.002	0.002	130	
Forsmark area		Bottom	12	<0.002	<0.002	<0.002	0.0026	0.0069	0.0020	0.002	86	
Simpevarp area		Surface	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Simpevarp area		Bottom	1	<0.002		<0.002		<0.002	<0.002	<0.002		
Sea Water												
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
SV Forslingens grund	PFM000062	Bottom	3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	130	
Alt. SV Forslingen	PFM000082	Surface	1	<0.002		<0.002		<0.002	<0.002			
Alt. SV Forslingen	PFM000082	Bottom	1	<0.002		<0.002		<0.002	<0.002			
Tixelfjärden	PFM000063	Surface	9	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Tixelfjärden	PFM000063	Bottom	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Kallriga, norra	PFM000064	Surface	8	<0.002	<0.002	<0.002	<0.002	0.0024	<0.002	0.0005	42	
Kallriga, norra	PFM000064	Bottom	4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Kallriga, södra	PFM000065	Surface	9	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	140	
Forsmark area		Surface	38	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.001	110
Forsmark area		Bottom	13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.002	150
Simpevarp area		Surface	8	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Simpevarp area		Bottom	8	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Streaming Water												
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.002	<0.002	<0.002	<0.002	0.0024	<0.002	0.0006	46	
Söder Eckarfjärden	PFM000071	Surface	1	<0.002		<0.002		<0.002	<0.002			
Norr Eckarfjärden	PFM000070	Surface	7	<0.002	<0.002	<0.002	0.0030	0.0062	0.0023	0.002	98	
Bolundskogen	PFM000069	Surface	3	<0.002	<0.002	<0.002	0.0022	0.0033	<0.002	0.001	75	
Kungstråsket	PFM000068	Surface	8	<0.002	<0.002	0.0020	0.0032	0.0040	0.0022	0.001	59	
Lillputtsundet	PFM000067	Surface	7	<0.002	<0.002	<0.002	<0.002	0.0036	<0.002	0.001	67	
Flottbron	PFM000072	Surface	6	<0.002	<0.002	<0.002	0.0027	0.0047	0.0020	0.002	81	
Söder Bredviken	PFM000073	Surface	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Forsmark area		Surface	42	<0.002	<0.002	<0.002	0.0026	0.0062	<0.002	0.001	75	
Simpevarp area		Surface	17	<0.002	<0.002	0.0030	0.0038	0.0072	0.0031	0.002	58	

Surface Water

Mo	Molybdenum (µg/l)								Mo
Lake Water									
Labboträsket	PFM000074	Surface	Count	Min	25-p	Median	75-p	Max	Mean
Gunnarsbo-Lillfjärden	PFM000087	Surface	10	0.19	0.31	0.40	0.56	0.74	0.43
Gunnarsbo-Lillfjärden	PFM000087	Bottom	7	0.23	0.50	0.53	0.69	0.92	0.58
Eckarfjärden	PFM000117	Surface	4	0.29	0.39	0.43	0.44	0.49	0.41
Eckarfjärden	PFM000117	Bottom	9	0.21	0.25	0.27	0.30	0.38	0.28
Bolundsfjärden	PFM000107	Surface	4	0.20	0.23	0.23	0.24	0.25	0.23
Bolundsfjärden	PFM000107	Bottom	10	0.30	0.44	0.63	0.91	1.0	0.66
Norra bassängen	PFM000097	Surface	5	0.50	0.54	0.58	0.72	1.1	0.68
Fiskarfjärden	PFM000127	Surface	7	0.42	0.52	0.65	0.82	1.0	0.68
Fiskarfjärden	PFM000127	Bottom	1	0.61		0.61		0.61	0.61
Fiskarfjärden	PFM000135	Surface	3	0.62	0.62	0.63	0.84	1.1	0.77
Forsmark area		Surface	49	0.19	0.30	0.47	0.65	1.0	0.52
Forsmark area		Bottom	15	0.20	0.27	0.49	0.62	1.1	0.50
Simpevarp area		Surface	1	1.1		1.1		1.1	1.1
Simpevarp area		Bottom	1	1.0		1.0		1.0	1.0
Sea Water									
SV Forslingens grund	PFM000062	Surface	11	1.2	1.4	1.6	1.8	2.1	1.6
SV Forslingens grund	PFM000062	Bottom	3	1.2	1.5	1.8	1.8	1.9	1.6
Alt. SV Forslingen	PFM000082	Surface	1	1.4		1.4		1.4	1.4
Alt. SV Forslingen	PFM000082	Bottom	1	1.6		1.6		1.6	1.6
Tixelfjärden	PFM000063	Surface	9	1.2	1.4	1.6	1.8	2.1	1.6
Tixelfjärden	PFM000063	Bottom	5	1.1	1.4	1.5	1.9	2.0	1.6
Kallriga, norra	PFM000064	Surface	8	0.86	1.3	1.6	1.7	2.1	1.5
Kallriga, norra	PFM000064	Bottom	4	1.2	1.3	1.5	1.8	2.1	1.6
Kallriga, södra	PFM000065	Surface	9	0.63	1.1	1.3	1.5	1.9	1.3
Forsmark area		Surface	38	0.63	1.3	1.5	1.7	2.1	1.5
Forsmark area		Bottom	13	1.1	1.3	1.6	1.9	2.1	1.6
Simpevarp area		Surface	4	1.5	1.5	1.6	1.7	2.0	1.6
Simpevarp area		Bottom	4	1.4	1.5	1.6	1.7	1.8	1.6
Streaming Water									
Öster Gunnarsboträsket	PFM000066	Surface	2	0.30	0.33	0.45	0.60	0.72	0.48
Söder Eckarfjärden	PFM000071	Surface	8	0.91	0.92	0.92	0.92	0.93	0.92
Norr Eckarfjärden	PFM000070	Surface	4	<0.05	0.16	0.23	0.27	0.31	0.20
Bolundskogen	PFM000069	Surface	4	0.13	0.23	0.31	0.36	0.36	0.28
Kungstråsket	PFM000068	Surface	9	0.25	0.35	0.42	0.57	0.95	0.48
Lillputtsundet	PFM000067	Surface	8	0.51	0.71	1.0	1.1	1.2	0.90
Flottbron	PFM000072	Surface	3	0.17	0.26	0.36	0.45	0.50	0.35
Söder Bredviken	PFM000073	Surface	6	1.2	1.5	1.8	1.8	1.9	1.6
Forsmark area		Surface	10	<0.05	0.29	0.42	0.73	1.9	0.56
Simpevarp area		Surface	1	0.069	0.30	0.79	2.7	6.8	1.7

Surface Water

Nd		Neodymium ($\mu\text{g/l}$)								Nd	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.033	0.055	0.074	0.076	0.14	0.072	0.03	44
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.012	0.043	0.057	0.071	0.13	0.061	0.04	60
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.072	0.079	0.085	0.12	0.15	0.10	0.04	42
Eckarfjärden	PFM000117	Surface	7	0.014	0.018	0.037	0.091	0.13	0.057	0.05	81
Eckarfjärden	PFM000117	Bottom	3	0.031	0.080	0.13	0.13	0.14	0.098	0.06	59
Bolundsfjärden	PFM000107	Surface	7	0.047	0.079	0.090	0.14	0.27	0.12	0.08	63
Bolundsfjärden	PFM000107	Bottom	3	0.12	0.14	0.17	0.20	0.24	0.17	0.06	33
Norra bassängen	PFM000097	Surface	6	0.044	0.065	0.11	0.16	0.26	0.12	0.08	64
Fiskarfjärden	PFM000127	Bottom	1	0.018		0.018		0.018	0.018		
Fiskarfjärden	PFM000135	Surface	4	0.037	0.037	0.038	0.049	0.080	0.048	0.02	44
Forsmark area		Surface	39	0.012	0.042	0.074	0.096	0.27	0.082	0.06	71
Forsmark area		Bottom	10	0.018	0.075	0.13	0.15	0.24	0.11	0.07	57
Simpevarp area		Surface	1	0.13		0.13		0.13	0.13		
Simpevarp area		Bottom	1	0.13		0.13		0.13	0.13		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	52
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.001	11
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	0.023	0.037	0.050	0.064	0.037	0.04	100
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	0.025	0.039	0.054	0.069	0.039	0.04	110
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	0.04	110
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	59
Alt. Tixelfjärden	PFM000083	Surface	1	0.084		0.084		0.084	0.084		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.050		0.050		0.050	0.050		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	0.29	0.73	0.20	0.3	140
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	0.086	0.15	0.065	0.07	110
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	0.076	0.31	1.7	0.34	0.6	170
Alt. Kallriga	PFM000084	Surface	1	0.72		0.72		0.72	0.72		
Alt. Kallriga	PFM000084	Bottom	1	0.78		0.78		0.78	0.78		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	0.12	1.7	1.7	0.3	210
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	0.050	0.78	0.091	0.2	230
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	0.054	0.066	0.090	0.11	0.12	0.087	0.03	30
Norr Eckarfjärden	PFM000070	Surface	6	0.038	0.059	0.077	0.10	0.15	0.083	0.04	47
Bolundskogen	PFM000069	Surface	1	0.12		0.12		0.12	0.12		
Kungstråsket	PFM000068	Surface	6	0.13	0.16	0.23	0.23	0.25	0.20	0.05	26
Lillputtsundet	PFM000067	Surface	5	0.040	0.053	0.068	0.11	0.27	0.11	0.09	86
Flottbron	PFM000072	Surface	5	0.026	0.031	0.032	0.061	0.14	0.057	0.05	81
Söder Bredviken	PFM000073	Surface	3	0.019	0.026	0.033	0.046	0.060	0.037	0.02	56
Forsmark area		Surface	33	0.019	0.054	0.081	0.13	0.27	0.10	0.07	68
Simpevarp area		Surface	10	0.19	0.26	0.36	0.48	0.72	0.39	0.2	41

Surface Water

Ni		Nickel ($\mu\text{g/l}$)							Ni		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	0.18	0.41	0.46	0.55	0.61	0.45	0.1	31
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.19	0.38	0.43	0.48	0.61	0.42	0.1	31
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	0.45	0.50	0.65	1.3	2.8	1.1	1	99
Eckarfjärden	PFM000117	Surface	9	0.14	0.20	0.27	0.29	0.36	0.25	0.07	28
Eckarfjärden	PFM000117	Bottom	4	0.20	0.23	0.27	0.31	0.34	0.27	0.06	23
Bolundsfjärden	PFM000107	Surface	10	0.31	0.41	0.42	0.55	0.68	0.48	0.1	24
Bolundsfjärden	PFM000107	Bottom	4	0.44	0.44	0.47	0.53	0.64	0.50	0.09	18
Norra bassängen	PFM000097	Surface	7	0.38	0.41	0.44	0.48	1.00	0.51	0.2	42
Fiskarfjärden	PFM000127	Surface	1	0.20		0.20		0.20	0.20		
Fiskarfjärden	PFM000127	Bottom	3	0.28	0.29	0.31	0.92	1.5	0.71	0.7	100
Fiskarfjärden	PFM000135	Surface	5	0.16	0.28	0.30	0.39	0.62	0.35	0.2	49
Forsmark area		Surface	49	0.14	0.29	0.41	0.48	1.00	0.41	0.2	39
Forsmark area		Bottom	15	0.20	0.30	0.45	0.58	2.8	0.65	0.7	100
Simpevarp area		Surface	1	1.8		1.8		1.8	1.8		
Simpevarp area		Bottom	1	1.6		1.6		1.6	1.6		
Sweden	N.S.2000	Surface	1206	0.010	0.25	0.45	0.80	600	1.3	20	1300
Sea Water											
SV Forslingens grund	PFM000062	Surface	10	<0.4	0.59	0.83	0.98	1.1	0.76	0.3	36
SV Forslingens grund	PFM000062	Bottom	3	0.88	0.93	0.99	1.1	1.2	1.0	0.1	14
Alt. SV Forslingen	PFM000082	Surface	1	0.95		0.95		0.95	0.95		
Alt. SV Forslingen	PFM000082	Bottom	1	0.63		0.63		0.63	0.63		
Tixelfjärden	PFM000063	Surface	9	<0.5	0.72	0.76	0.91	1.1	0.76	0.2	30
Tixelfjärden	PFM000063	Bottom	5	<0.5	0.59	0.94	1.2	2.0	1.00	0.7	67
Kallriga, norra	PFM000064	Surface	8	0.87	1.1	1.3	2.1	3.0	1.6	0.8	48
Kallriga, norra	PFM000064	Bottom	4	1.1	1.1	1.2	1.4	1.4	1.2	0.2	15
Kallriga, södra	PFM000065	Surface	9	0.72	0.99	1.2	2.1	3.6	1.7	1	65
Forsmark area		Surface	37	<0.5	0.76	0.94	1.2	3.6	1.2	0.8	67
Forsmark area		Bottom	13	<0.5	0.88	1.1	1.2	2.0	1.0	0.4	42
Simpevarp area		Surface	4	0.50	0.59	0.79	1.1	1.3	0.85	0.4	43
Simpevarp area		Bottom	4	0.53	0.81	0.90	1.2	2.3	1.2	0.8	67
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	8	0.40	0.46	0.50	0.55	0.69	0.52	0.09	17
Söder Eckarfjärden	PFM000071	Surface	2	0.69	0.79	0.89	0.99	1.1	0.89	0.3	32
Norr Eckarfjärden	PFM000070	Surface	8	0.18	0.26	0.32	0.37	0.41	0.31	0.08	26
Bolundskogen	PFM000069	Surface	4	0.42	0.50	0.56	0.60	0.61	0.54	0.09	16
Kungstråsket	PFM000068	Surface	9	0.41	0.48	0.66	0.69	0.76	0.60	0.1	21
Lillputtsundet	PFM000067	Surface	8	0.34	0.39	0.42	0.51	0.82	0.48	0.2	33
Flottbron	PFM000072	Surface	6	0.28	0.33	0.42	0.66	0.84	0.50	0.2	46
Söder Bredviken	PFM000073	Surface	3	1.1	1.3	1.4	1.5	1.5	1.3	0.2	17
Forsmark area		Surface	48	0.18	0.39	0.48	0.68	1.5	0.56	0.3	49
Simpevarp area		Surface	10	0.80	1.8	3.4	5.3	15	4.4	4	96

Surface Water

tot-N		Nitrogen - total (mg/l)								tot-N	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	43	0.50	0.71	0.82	0.91	1.3	0.82	0.2	19
Gunnarsbo-Lillfjärden	PFM000087	Surface	40	0.52	0.74	0.83	0.89	1.3	0.82	0.2	21
Gunnarsbo-Lillfjärden	PFM000087	Bottom	21	0.55	0.81	0.92	1.2	1.7	0.95	0.3	28
Eckarfjärden	PFM000117	Surface	47	0.46	1.1	1.2	1.5	1.9	1.3	0.3	23
Eckarfjärden	PFM000117	Bottom	20	0.93	1.1	1.2	1.9	2.2	1.4	0.4	30
Bolundsfjärden	PFM000107	Surface	48	0.49	0.82	1.00	1.1	1.3	0.99	0.2	19
Bolundsfjärden	PFM000107	Bottom	21	0.71	0.90	1.1	1.2	1.8	1.1	0.3	26
Norra bassängen	PFM000097	Surface	36	0.71	0.85	1.0	1.2	1.5	1.0	0.2	21
Fiskarfjärden	PFM000127	Surface	13	1.1	1.4	1.5	1.9	2.2	1.6	0.3	20
Fiskarfjärden	PFM000127	Bottom	8	1.1	1.4	1.5	1.7	2.0	1.5	0.3	20
Fiskarfjärden	PFM000135	Surface	19	0.93	1.3	1.5	1.8	3.7	1.7	0.7	42
Fiskarfjärden	PFM000135	Bottom	1	2.2		2.2		2.2	2.2		
Forsmark area		Surface	250	0.33	0.82	0.99	1.2	3.7	1.1	0.4	38
Forsmark area		Bottom	71	0.55	0.93	1.1	1.4	2.2	1.2	0.4	34
Simpevarp area		Surface	112	0.52	0.82	0.95	1.0	1.3	0.92	0.2	20
Simpevarp area		Bottom	112	0.12	0.84	1.0	1.1	1.6	0.98	0.2	23
Sweden	N.S.2000	Surface	3464	0.086	0.26	0.37	0.53	8.8	0.44	0.4	81
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	0.22	0.24	0.25	0.27	0.96	0.28	0.1	44
SV Forslingens grund	PFM000062	Bottom	14	0.24	0.25	0.26	0.27	0.30	0.26	0.02	6.3
Alt. SV Forslingen	PFM000082	Surface	8	0.29	0.29	0.37	0.47	1.2	0.49	0.3	66
Alt. SV Forslingen	PFM000082	Bottom	8	0.27	0.28	0.29	0.30	0.40	0.30	0.04	13
Tixelfjärden	PFM000063	Surface	40	0.24	0.29	0.30	0.33	1.2	0.37	0.2	53
Tixelfjärden	PFM000063	Bottom	20	0.27	0.30	0.33	0.37	0.57	0.35	0.08	24
Alt. Tixelfjärden	PFM000083	Surface	3	0.28	0.29	0.30	0.32	0.34	0.30	0.03	11
Alt. Tixelfjärden	PFM000083	Bottom	3	0.28	0.29	0.29	0.30	0.31	0.29	0.01	4.0
Kallriga, norra	PFM000064	Surface	36	0.37	0.46	0.52	0.71	2.8	0.75	0.6	76
Kallriga, norra	PFM000064	Bottom	18	0.42	0.44	0.52	0.66	1.5	0.64	0.3	49
Kallriga, södra	PFM000065	Surface	35	0.28	0.36	0.45	0.76	2.5	0.68	0.6	81
Alt. Kallriga	PFM000084	Surface	5	0.49	1.2	1.3	1.6	1.7	1.2	0.5	38
Alt. Kallriga	PFM000084	Bottom	5	0.29	0.35	0.42	0.50	1.2	0.54	0.4	65
Forsmark area		Surface	171	0.22	0.28	0.36	0.52	2.8	0.52	0.4	86
Forsmark area		Bottom	68	0.24	0.28	0.32	0.46	1.5	0.41	0.2	58
Simpevarp area		Surface	162	0.23	0.28	0.37	0.58	1.4	0.46	0.2	50
Simpevarp area		Bottom	159	0.22	0.29	0.36	0.56	1.1	0.44	0.2	42
Bottenhavet	SMHI:MS4	Surface	35	0.19	0.22	0.23	0.25	0.27	0.24	0.02	9.2
Bottenhavet	SMHI:MS4	Bottom	36	0.20	0.22	0.23	0.25	0.31	0.24	0.02	10
Östersjön	SMHI:BY29	Surface	44	0.25	0.27	0.29	0.30	0.34	0.29	0.02	8.2
Östersjön	SMHI:BY29	Bottom	45	0.23	0.24	0.26	0.28	0.32	0.26	0.03	9.8
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	42	0.53	0.69	0.74	0.82	1.2	0.77	0.2	21
Söder Eckarfjärden	PFM000071	Surface	33	0.48	0.58	0.66	0.77	1.4	0.71	0.2	29
Norr Eckarfjärden	PFM000070	Surface	43	0.74	0.96	1.1	1.3	2.0	1.1	0.3	25
Bolundskogen	PFM000069	Surface	48	0.61	0.79	0.88	0.97	1.7	0.89	0.2	21
Kungstråsket	PFM000068	Surface	48	0.66	0.84	0.96	1.1	1.8	0.98	0.2	21
Lillputtsundet	PFM000067	Surface	43	0.59	0.85	1.1	1.2	2.0	1.1	0.3	25
Flottbron	PFM000072	Surface	40	0.72	1.0	1.2	1.4	2.7	1.3	0.4	32
Söder Bredviken	PFM000073	Surface	23	0.59	0.94	1.9	2.8	8.0	2.4	2	78
Forsmark area		Surface	320	0.48	0.78	0.95	1.2	8.0	1.1	0.7	62
Simpevarp area		Surface	563	0.10	1.0	1.2	1.7	4.6	1.5	0.7	47
Sweden	N.S.2000	Surface	725	0.10	0.28	0.48	0.81	12	0.90	1	150

Surface Water

NH4-N		Nitrogen as ammonium (mg/l)							NH4-N		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	43	<0.0005	0.0024	0.0053	0.0084	0.12	0.011	0.02	180
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	0.0011	0.0025	0.0066	0.013	0.34	0.026	0.06	240
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	0.0039	0.0072	0.017	0.16	0.49	0.085	0.1	150
Eckarfjärden	PFM000117	Surface	48	0.0050	0.012	0.035	0.31	0.76	0.17	0.2	130
Eckarfjärden	PFM000117	Bottom	21	0.0073	0.018	0.070	0.72	0.94	0.33	0.4	110
Bolundsfjärden	PFM000107	Surface	49	0.0021	0.0058	0.0081	0.035	0.18	0.030	0.04	140
Bolundsfjärden	PFM000107	Bottom	22	0.0032	0.0066	0.015	0.21	0.39	0.10	0.1	120
Norra bassängen	PFM000097	Surface	37	0.0015	0.0035	0.0062	0.0092	0.29	0.022	0.06	260
Fiskarfjärden	PFM000127	Surface	14	0.0050	0.0079	0.015	0.041	0.13	0.031	0.04	120
Fiskarfjärden	PFM000127	Bottom	9	0.0068	0.0078	0.010	0.024	0.15	0.030	0.05	150
Fiskarfjärden	PFM000135	Surface	19	0.0052	0.016	0.042	0.32	1.4	0.26	0.4	160
Fiskarfjärden	PFM000135	Bottom	1	0.60		0.60		0.60	0.60		
Forsmark area		Surface	255	<0.01	<0.01	<0.01	0.033	1.4	0.069	0.2	250
Forsmark area		Bottom	75	<0.01	<0.01	0.023	0.21	0.94	0.16	0.2	150
Simpevarp area		Surface	112	0.0013	0.0059	0.023	0.066	0.25	0.047	0.05	120
Simpevarp area		Bottom	112	0.0021	0.028	0.057	0.12	0.67	0.11	0.1	120
Sweden	N.S.2000	Surface	3464	0.0010	0.0080	0.019	0.048	1.6	0.042	0.08	180
Sea Water											
SV Forslingens grund	PFM000062	Surface	43	0.00046	0.0012	0.0016	0.0029	0.0090	0.0023	0.002	82
SV Forslingens grund	PFM000062	Bottom	15	0.00036	0.0012	0.0022	0.0036	0.0072	0.0028	0.002	75
Alt. SV Forslingen	PFM000082	Surface	8	0.0016	0.0019	0.0031	0.0054	0.013	0.0048	0.004	89
Alt. SV Forslingen	PFM000082	Bottom	8	0.0014	0.0018	0.0034	0.0051	0.089	0.014	0.03	220
Tixelfjärden	PFM000063	Surface	41	0.000070	0.0013	0.0022	0.013	0.085	0.010	0.02	170
Tixelfjärden	PFM000063	Bottom	21	0.00026	0.0015	0.0082	0.040	0.095	0.021	0.03	130
Alt. Tixelfjärden	PFM000083	Surface	3	0.0010	0.0017	0.0023	0.0027	0.0030	0.0021	0.001	48
Alt. Tixelfjärden	PFM000083	Bottom	3	0.0011	0.0017	0.0023	0.0037	0.0050	0.0028	0.002	71
Kallriga, norra	PFM000064	Surface	37	0.0015	0.0023	0.0044	0.021	0.18	0.022	0.04	170
Kallriga, norra	PFM000064	Bottom	19	0.0014	0.0027	0.0090	0.059	0.14	0.031	0.04	140
Kallriga, södra	PFM000065	Surface	36	0.0010	0.0019	0.0043	0.018	0.11	0.017	0.03	150
Alt. Kallriga	PFM000084	Surface	5	0.0098	0.012	0.024	0.028	0.076	0.030	0.03	89
Alt. Kallriga	PFM000084	Bottom	5	0.0044	0.0090	0.0093	0.011	0.024	0.012	0.008	65
Forsmark area		Surface	175	0.000070	0.0015	0.0028	0.0097	0.18	0.012	0.02	200
Forsmark area		Bottom	71	0.00026	0.0017	0.0041	0.013	0.14	0.018	0.03	170
Simpevarp area		Surface	163	0.00060	0.0015	0.0035	0.020	0.18	0.019	0.03	170
Simpevarp area		Bottom	160	0.00050	0.0018	0.0087	0.039	0.56	0.039	0.07	190
Bottenhavet	SMHI:MS4	Surface	8	0.0013	0.0017	0.0018	0.0026	0.0031	0.0021	0.0007	31
Bottenhavet	SMHI:MS4	Bottom	9	0.0021	0.0022	0.0027	0.0041	0.0048	0.0031	0.0010	32
Östersjön	SMHI:BY29	Surface	46	0.00056	0.00098	0.0014	0.0025	0.015	0.0028	0.004	130
Östersjön	SMHI:BY29	Bottom	46	0.00056	0.0012	0.0030	0.0086	0.021	0.0057	0.006	98
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	42	<0.0005	0.0053	0.0076	0.015	0.048	0.013	0.01	94
Söder Eckarfjärden	PFM000071	Surface	33	<0.0005	0.0093	0.016	0.032	0.14	0.026	0.03	110
Norr Eckarfjärden	PFM000070	Surface	43	<0.0005	0.042	0.11	0.21	0.67	0.15	0.1	94
Bolundskogen	PFM000069	Surface	49	<0.0005	0.0028	0.0050	0.016	0.29	0.016	0.04	260
Kungstråsket	PFM000068	Surface	49	0.00020	0.012	0.018	0.034	0.51	0.036	0.08	210
Lillputtsundet	PFM000067	Surface	44	0.00070	0.013	0.020	0.030	0.28	0.039	0.06	140
Flottbron	PFM000072	Surface	40	<0.0005	0.0079	0.023	0.067	1.3	0.11	0.3	250
Söder Bredviken	PFM000073	Surface	23	<0.0005	0.0047	0.024	0.033	0.47	0.041	0.09	230
Forsmark area		Surface	323	<0.0005	0.0069	0.016	0.041	1.3	0.053	0.1	230
Simpevarp area		Surface	564	<0.0005	0.031	0.060	0.097	1.2	0.085	0.1	130
Sweden	N.S.2000	Surface	725	0.0010	0.0060	0.018	0.048	1.4	0.042	0.10	240

Surface Water

NO3-N		Nitrogen as nitrate (mg/l)							NO3-N		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	1	0.00030		0.00030		0.00030	0.00030		
Gunnarsbo-Lillfjärden	PFM000087	Surface	4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	47
Eckarfjärden	PFM000117	Surface	1	0.00060		0.00060		0.00060	0.00060		
Bolundsfjärden	PFM000107	Surface	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	120
Norra bassängen	PFM000097	Surface	4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	58
Fiskarfjärden	PFM000127	Surface	3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Fiskarfjärden	PFM000127	Bottom	1	<0.01		<0.01		<0.01	<0.01		
Forsmark area		Surface	16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	58
Forsmark area		Bottom	1	<0.01		<0.01		<0.01	<0.01		
Sea Water											
SV Forslingens grund	PFM000062	Surface	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	110
SV Forslingens grund	PFM000062	Bottom	1	<0.01		<0.01		<0.01	<0.01		
Tixelfjärden	PFM000063	Surface	1	<0.01		<0.01		<0.01	<0.01		
Tixelfjärden	PFM000063	Bottom	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Kallriga, norra	PFM000064	Surface	3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	74
Kallriga, norra	PFM000064	Bottom	1	<0.01		<0.01		<0.01	<0.01		
Kallriga, södra	PFM000065	Surface	2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.003	120
Forsmark area		Surface	9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	78
Forsmark area		Bottom	4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	3	<0.01	<0.01	<0.01	0.027	0.048	0.019	0.03	130
Norr Eckarfjärden	PFM000070	Surface	1	0.0051		0.0051		0.0051	0.0051		
Bolundskogen	PFM000069	Surface	1	0.0043		0.0043		0.0043	0.0043		
Kungstråsket	PFM000068	Surface	1	0.034		0.034		0.034	0.034		
Lillputtsundet	PFM000067	Surface	1	0.0066		0.0066		0.0066	0.0066		
Flottbron	PFM000072	Surface	3	<0.01	0.023	0.040	0.044	0.047	0.031	0.02	74
Forsmark area		Surface	10	<0.01	<0.01	<0.01	0.038	0.048	0.020	0.02	98

Surface Water

NO23-N		Nitrogen as nitrate and nitrite (mg/l)								NO23-N	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	0.00020	0.00067	0.0018	0.0095	0.097	0.0093	0.02	190
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.0002	0.00080	0.0017	0.0059	0.073	0.0066	0.01	200
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	0.00020	0.0010	0.0020	0.0037	0.039	0.0048	0.009	200
Eckarfjärden	PFM000117	Surface	48	0.00060	0.0013	0.0061	0.016	0.069	0.012	0.02	130
Eckarfjärden	PFM000117	Bottom	21	0.00040	0.0012	0.0096	0.016	0.028	0.011	0.01	95
Bolundsfjärden	PFM000107	Surface	49	0.00030	0.00090	0.0023	0.019	0.16	0.016	0.03	200
Bolundsfjärden	PFM000107	Bottom	22	0.00015	0.0016	0.0037	0.023	0.14	0.017	0.03	180
Norra bassängen	PFM000097	Surface	37	<0.0002	0.0012	0.0019	0.0049	0.092	0.012	0.02	200
Fiskarfjärden	PFM000127	Surface	14	<0.01	<0.01	<0.01	<0.01	0.019	<0.01	0.005	130
Fiskarfjärden	PFM000127	Bottom	9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	76
Fiskarfjärden	PFM000135	Surface	19	0.00020	0.00080	0.0018	0.0068	0.26	0.020	0.06	300
Fiskarfjärden	PFM000135	Bottom	1	0.0013		0.0013		0.0013	0.0013		
Forsmark area		Surface	255	<0.01	<0.01	<0.01	0.010	0.26	0.011	0.03	220
Forsmark area		Bottom	75	<0.01	<0.01	<0.01	0.011	0.14	<0.01	0.02	200
Simpevarp area		Surface	112	0.00040	0.045	0.12	0.21	0.43	0.14	0.1	79
Simpevarp area		Bottom	112	0.00040	0.063	0.16	0.26	0.60	0.17	0.1	80
Sweden	N.S.2000	Surface	3464	0.0010	0.0070	0.026	0.090	7.6	0.091	0.3	300
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	0.00020	0.00055	0.0019	0.018	0.11	0.016	0.03	170
SV Forslingens grund	PFM000062	Bottom	15	0.00030	0.00048	0.0013	0.013	0.044	0.0078	0.01	150
Alt. SV Forslingen	PFM000082	Surface	8	0.022	0.028	0.065	0.096	0.17	0.076	0.06	75
Alt. SV Forslingen	PFM000082	Bottom	8	0.022	0.032	0.049	0.060	0.076	0.048	0.02	41
Tixelfjärden	PFM000063	Surface	41	<0.0002	0.00060	0.0016	0.042	0.57	0.050	0.1	230
Tixelfjärden	PFM000063	Bottom	21	0.00030	0.00090	0.0074	0.082	0.20	0.044	0.06	140
Alt. Tixelfjärden	PFM000083	Surface	3	0.0012	0.0097	0.018	0.048	0.077	0.032	0.04	120
Alt. Tixelfjärden	PFM000083	Bottom	3	0.011	0.015	0.019	0.023	0.027	0.019	0.008	44
Kallriga, norra	PFM000064	Surface	37	0.00023	0.00080	0.0039	0.17	1.6	0.18	0.4	210
Kallriga, norra	PFM000064	Bottom	19	0.00040	0.0016	0.0070	0.15	0.65	0.099	0.2	180
Kallriga, södra	PFM000065	Surface	36	<0.0002	0.00078	0.0042	0.25	1.6	0.18	0.4	210
Alt. Kallriga	PFM000084	Surface	5	0.089	0.36	0.60	0.79	0.99	0.56	0.4	63
Alt. Kallriga	PFM000084	Bottom	5	0.035	0.096	0.15	0.15	0.35	0.16	0.1	75
Forsmark area		Surface	175	<0.0002	0.00074	0.0044	0.077	1.6	0.11	0.3	250
Forsmark area		Bottom	71	0.00030	0.0010	0.015	0.073	0.65	0.058	0.1	180
Simpevarp area		Surface	163	0.00020	0.00040	0.0052	0.054	0.59	0.045	0.08	180
Simpevarp area		Bottom	160	0.00020	0.00070	0.018	0.061	0.28	0.043	0.06	140
Bottenhavet	SMHI:MS4	Surface	8	0.048	0.056	0.059	0.064	0.067	0.059	0.006	10
Bottenhavet	SMHI:MS4	Bottom	9	0.047	0.058	0.061	0.064	0.067	0.060	0.006	9.7
Östersjön	SMHI:BY29	Surface	46	0.00014	0.00028	0.00056	0.043	0.079	0.018	0.03	140
Östersjön	SMHI:BY29	Bottom	46	0.00028	0.0021	0.012	0.049	0.078	0.025	0.03	100
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	42	0.0014	0.0031	0.0066	0.014	0.33	0.028	0.07	240
Söder Eckarfjärden	PFM000071	Surface	33	0.0015	0.010	0.026	0.096	0.53	0.089	0.1	140
Norr Eckarfjärden	PFM000070	Surface	43	0.0027	0.0097	0.022	0.046	0.28	0.038	0.05	140
Bolundskogen	PFM000069	Surface	49	0.00050	0.0028	0.0062	0.016	0.18	0.018	0.03	180
Kungstråsket	PFM000068	Surface	49	0.00040	0.012	0.030	0.059	0.41	0.049	0.07	140
Lillputtsundet	PFM000067	Surface	44	0.00080	0.0024	0.0049	0.022	0.082	0.014	0.02	130
Flottbron	PFM000072	Surface	40	0.00030	0.0037	0.0072	0.048	1.9	0.072	0.3	410
Söder Bredviken	PFM000073	Surface	23	0.0058	0.045	1.3	2.1	5.5	1.5	2	110
Forsmark area		Surface	323	0.00030	0.0044	0.014	0.047	5.5	0.15	0.6	400
Simpevarp area		Surface	564	0.0021	0.11	0.19	0.30	3.5	0.30	0.4	130
Sweden	N.S.2000	Surface	725	0.0010	0.016	0.074	0.29	14	0.50	1	250

Surface Water

PON		Particulate organic nitrogen (mg/l)							PON		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	43	0.0078	0.021	0.030	0.044	0.087	0.034	0.02	53
Gunnarsbo-Lillfjärden	PFM000087	Surface	40	0.0080	0.027	0.042	0.052	0.074	0.040	0.02	45
Gunnarsbo-Lillfjärden	PFM000087	Bottom	20	0.026	0.035	0.044	0.052	0.091	0.047	0.02	40
Eckarfjärden	PFM000117	Surface	47	0.018	0.047	0.061	0.078	0.12	0.062	0.02	35
Eckarfjärden	PFM000117	Bottom	19	0.033	0.044	0.057	0.068	0.097	0.057	0.02	29
Bolundsfjärden	PFM000107	Surface	47	0.011	0.033	0.051	0.067	0.30	0.064	0.05	79
Bolundsfjärden	PFM000107	Bottom	21	0.023	0.036	0.043	0.067	0.13	0.053	0.03	51
Norra bassängen	PFM000097	Surface	36	0.030	0.039	0.051	0.062	0.089	0.053	0.02	30
Fiskarfjärden	PFM000127	Surface	13	0.060	0.10	0.17	0.26	0.69	0.21	0.2	78
Fiskarfjärden	PFM000127	Bottom	8	0.072	0.12	0.15	0.17	0.26	0.15	0.06	38
Fiskarfjärden	PFM000135	Surface	19	0.045	0.064	0.088	0.098	0.74	0.12	0.2	130
Fiskarfjärden	PFM000135	Bottom	1	0.096		0.096		0.096	0.096		
Forsmark area		Surface	249	0.0078	0.035	0.050	0.069	0.74	0.065	0.07	110
Forsmark area		Bottom	69	0.023	0.038	0.050	0.074	0.26	0.065	0.04	66
Simpevarp area		Surface	112	0.0084	0.048	0.081	0.11	0.28	0.087	0.05	60
Simpevarp area		Bottom	111	0.024	0.051	0.082	0.12	0.27	0.095	0.06	59
Sea Water											
SV Forslingens grund	PFM000062	Surface	41	0.016	0.031	0.038	0.045	0.066	0.038	0.01	29
SV Forslingens grund	PFM000062	Bottom	14	0.020	0.031	0.035	0.046	0.074	0.039	0.01	34
Alt. SV Forslingen	PFM000082	Surface	8	0.014	0.024	0.035	0.059	0.16	0.051	0.05	92
Alt. SV Forslingen	PFM000082	Bottom	8	0.011	0.019	0.033	0.046	0.063	0.034	0.02	54
Tixelfjärden	PFM000063	Surface	40	0.014	0.043	0.057	0.067	0.15	0.057	0.03	48
Tixelfjärden	PFM000063	Bottom	20	0.016	0.027	0.052	0.067	0.088	0.049	0.02	47
Alt. Tixelfjärden	PFM000083	Surface	3	0.038	0.048	0.059	0.068	0.077	0.058	0.02	34
Alt. Tixelfjärden	PFM000083	Bottom	3	0.040	0.051	0.062	0.065	0.068	0.057	0.01	26
Kallriga, norra	PFM000064	Surface	36	0.026	0.072	0.11	0.13	0.32	0.12	0.07	57
Kallriga, norra	PFM000064	Bottom	18	0.030	0.055	0.10	0.12	0.20	0.099	0.05	54
Kallriga, södra	PFM000065	Surface	35	0.031	0.058	0.076	0.10	0.16	0.083	0.03	41
Alt. Kallriga	PFM000084	Surface	5	0.071	0.085	0.087	0.091	0.12	0.091	0.02	22
Alt. Kallriga	PFM000084	Bottom	5	0.035	0.039	0.043	0.090	0.099	0.061	0.03	50
Forsmark area		Surface	170	0.014	0.039	0.059	0.093	0.32	0.071	0.05	67
Forsmark area		Bottom	68	0.011	0.034	0.048	0.074	0.20	0.060	0.04	67
Simpevarp area		Surface	158	0.0053	0.021	0.041	0.076	0.22	0.055	0.04	80
Simpevarp area		Bottom	157	0.0051	0.017	0.035	0.067	0.24	0.050	0.04	88
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	41	0.0030	0.020	0.027	0.033	0.089	0.029	0.02	54
Söder Eckarfjärden	PFM000071	Surface	32	0.0087	0.017	0.026	0.037	0.13	0.035	0.03	82
Norr Eckarfjärden	PFM000070	Surface	42	0.012	0.027	0.040	0.051	0.15	0.044	0.02	56
Bolundskogen	PFM000069	Surface	47	0.018	0.024	0.029	0.041	0.13	0.035	0.02	55
Kungstråsket	PFM000068	Surface	47	0.018	0.026	0.034	0.049	0.13	0.039	0.02	50
Lillputtsundet	PFM000067	Surface	41	0.028	0.040	0.056	0.086	0.25	0.069	0.04	63
Flottbron	PFM000072	Surface	39	0.015	0.045	0.071	0.11	0.28	0.090	0.06	71
Söder Bredviken	PFM000073	Surface	22	0.017	0.025	0.040	0.060	0.27	0.061	0.06	100
Forsmark area		Surface	311	0.0030	0.025	0.037	0.056	0.28	0.049	0.04	84
Simpevarp area		Surface	562	0.0087	0.060	0.099	0.16	1.6	0.14	0.1	110

Surface Water

O2 (lab + field)		Oxygen (lab + field) (mg/l)						O2 (lab + field)			
Lake Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Labboträsket	PFM000074	Surface	43	0.10	4.8	8.4	11	16	8.0	4	50
Gunnarsbo-Lillfjärden	PFM000087	Surface	39	0.10	8.3	11	12	15	9.6	4	41
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	0.10	1.4	9.9	12	14	7.6	5	69
Eckarfjärden	PFM000117	Surface	45	0.75	9.5	11	12	14	9.5	4	38
Eckarfjärden	PFM000117	Bottom	23	0.10	2.0	9.9	11	14	7.1	5	70
Bolundsfjärden	PFM000107	Surface	50	0.70	5.5	11	12	13	9.2	4	43
Bolundsfjärden	PFM000107	Bottom	23	0.12	2.5	10	11	13	7.2	5	66
Norra bassängen	PFM000097	Surface	34	0.10	5.1	11	13	15	9.3	5	53
Fiskarfjärden	PFM000127	Surface	13	10	12	12	13	14	12	1.0	7.7
Fiskarfjärden	PFM000127	Bottom	9	11	12	12	13	14	12	1.0	7.9
Fiskarfjärden	PFM000135	Surface	19	0.10	4.9	11	13	15	8.9	5	59
Fiskarfjärden	PFM000135	Bottom	1	0.10		0.10		0.10	0.10		
Forsmark area		Surface	247	0.10	6.7	11	12	16	9.2	4	44
Forsmark area		Bottom	78	0.10	2.3	10	12	14	7.8	5	64
Simpevarp area		Surface	112	6.0	8.8	9.8	11	14	9.9	2	16
Simpevarp area		Bottom	112	0.15	4.0	6.8	9.6	13	6.5	4	55
Sea Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	42	9.1	11	12	13	16	12	2	14
SV Forslingens grund	PFM000062	Bottom	15	9.5	10	12	13	15	12	2	15
Alt. SV Forslingen	PFM000082	Surface	9	13	14	14	15	15	14	0.5	3.8
Alt. SV Forslingen	PFM000082	Bottom	9	13	14	14	15	15	14	0.6	4.5
Tixelfjärden	PFM000063	Surface	40	9.2	11	12	13	14	12	1	11
Tixelfjärden	PFM000063	Bottom	21	3.3	9.7	11	13	14	11	2	21
Alt. Tixelfjärden	PFM000083	Surface	3	13	14	15	15	15	14	0.8	5.3
Alt. Tixelfjärden	PFM000083	Bottom	3	14	14	15	15	15	14	0.8	5.7
Kallriga, norra	PFM000064	Surface	35	6.6	10	11	12	14	11	1	14
Kallriga, norra	PFM000064	Bottom	19	6.1	10	11	12	13	11	2	20
Kallriga, södra	PFM000065	Surface	35	8.8	10	11	12	13	11	1	11
Alt. Kallriga	PFM000084	Surface	5	10	11	11	12	14	12	1	11
Alt. Kallriga	PFM000084	Bottom	5	12	13	13	13	14	13	0.6	4.6
Forsmark area		Surface	171	6.6	11	12	13	16	12	2	13
Forsmark area		Bottom	72	3.3	10	12	13	15	12	2	19
Simpevarp area		Surface	156	5.8	10	11	12	15	11	2	15
Simpevarp area		Bottom	157	0.50	7.7	11	12	15	9.3	4	38
Streaming Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	41	0.53	4.3	6.1	7.2	9.4	5.6	2	37
Söder Eckarfjärden	PFM000071	Surface	32	2.1	7.0	8.2	9.5	11	7.9	2	27
Norr Eckarfjärden	PFM000070	Surface	42	0.10	6.0	7.1	9.9	12	7.6	3	37
Bolundskogen	PFM000069	Surface	48	0.32	3.0	5.2	7.0	10	4.8	3	54
Kungstråsket	PFM000068	Surface	48	1.6	5.0	6.1	7.4	10	6.2	2	29
Lillputtsundet	PFM000067	Surface	41	1.9	8.1	10	11	13	9.2	3	36
Flottbron	PFM000072	Surface	37	0.10	0.90	3.7	5.3	9.5	3.3	3	79
Söder Bredviken	PFM000073	Surface	21	7.1	8.7	9.9	11	13	9.9	2	16
Forsmark area		Surface	310	0.10	4.5	6.8	8.7	13	6.6	3	48
Simpevarp area		Surface	533	0.060	7.7	9.5	11	17	9.2	3	30

Surface Water

O-18	Oxygen-18 (dev. SMOW)								O-18		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	10	-12.7	-11.2	-9.60	-9.20	-7.90	-10.1	1.5	-15
Gunnarsbo-Lillfjärden	PFM000087	Surface	8	-12.7	-10.8	-9.55	-8.68	-7.50	-9.83	1.7	-18
Gunnarsbo-Lillfjärden	PFM000087	Bottom	7	-12.0	-11.2	-9.80	-8.80	-7.50	-9.90	1.7	-17
Eckarfjärden	PFM000117	Surface	8	-9.80	-8.20	-7.10	-6.63	-6.00	-7.49	1.3	-17
Eckarfjärden	PFM000117	Bottom	4	-9.80	-7.85	-7.10	-6.95	-6.80	-7.70	1.4	-18
Bolundsfjärden	PFM000107	Surface	9	-11.3	-10.8	-6.80	-6.30	-5.40	-8.12	2.4	-30
Bolundsfjärden	PFM000107	Bottom	5	-10.8	-10.1	-8.40	-6.70	-6.40	-8.48	2.0	-23
Norra bassängen	PFM000097	Surface	8	-11.7	-9.65	-8.40	-5.98	-5.10	-8.19	2.4	-29
Fiskarfjärden	PFM000127	Surface	3	-5.00	-4.95	-4.90	-4.70	-4.50	-4.80	0.26	-5.5
Fiskarfjärden	PFM000127	Bottom	3	-8.10	-6.50	-4.90	-4.75	-4.60	-5.87	1.9	-33
Fiskarfjärden	PFM000135	Surface	3	-10.2	-9.05	-7.90	-7.55	-7.20	-8.43	1.6	-19
Forsmark area		Surface	50	-12.7	-10.1	-8.85	-6.73	-4.50	-8.59	2.2	-26
Forsmark area		Bottom	19	-12.0	-9.95	-8.20	-6.90	-4.60	-8.43	2.1	-25
Simpevarp area		Surface	10	-9.60	-9.10	-8.30	-7.95	-6.70	-8.33	0.92	-11
Simpevarp area		Bottom	10	-9.30	-8.85	-8.25	-7.93	-7.10	-8.27	0.73	-8.8
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	8	-8.50	-8.30	-8.15	-8.10	-4.50	-7.76	1.3	-17
SV Forslingens grund	PFM000062	Bottom	3	-8.50	-8.35	-8.20	-7.95	-7.70	-8.13	0.40	-5.0
Alt. SV Forslingen	PFM000082	Surface	2	-8.30	-8.28	-8.25	-8.23	-8.20	-8.25	0.071	-0.86
Alt. SV Forslingen	PFM000082	Bottom	2	-8.30	-8.28	-8.25	-8.23	-8.20	-8.25	0.071	-0.86
Tixelfjärden	PFM000063	Surface	8	-8.50	-8.50	-8.25	-8.10	-7.80	-8.25	0.25	-3.0
Tixelfjärden	PFM000063	Bottom	5	-8.50	-8.50	-8.40	-8.10	-8.00	-8.30	0.23	-2.8
Alt. Tixelfjärden	PFM000083	Surface	1	-8.20		-8.20		-8.20	-8.20		
Alt. Tixelfjärden	PFM000083	Bottom	1	-8.10		-8.10		-8.10	-8.10		
Kallriga, norra	PFM000064	Surface	7	-11.7	-8.85	-8.00	-7.95	-7.60	-8.70	1.4	-17
Kallriga, norra	PFM000064	Bottom	4	-8.70	-8.18	-7.90	-7.75	-7.60	-8.03	0.48	-6.0
Kallriga, södra	PFM000065	Surface	9	-11.2	-9.80	-8.40	-8.10	-7.90	-8.92	1.1	-12
Alt. Kallriga	PFM000084	Surface	1	-11.0		-11.0		-11.0	-11.0		
Alt. Kallriga	PFM000084	Bottom	1	-11.0		-11.0		-11.0	-11.0		
Forsmark area		Surface	37	-11.7	-8.50	-8.20	-8.10	-4.50	-8.46	1.2	-14
Forsmark area		Bottom	17	-11.0	-8.50	-8.20	-8.00	-7.60	-8.34	0.75	-9.0
Simpevarp area		Surface	28	-9.70	-8.30	-7.10	-6.98	-6.80	-7.58	0.85	-11
Simpevarp area		Bottom	28	-8.80	-7.20	-7.10	-6.90	-6.70	-7.21	0.51	-7.0
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	9	-12.7	-11.7	-10.7	-9.50	-8.30	-10.6	1.4	-13
Söder Eckarfjärden	PFM000071	Surface	4	-12.6	-12.2	-11.8	-11.4	-11.2	-11.8	0.64	-5.5
Norr Eckarfjärden	PFM000070	Surface	9	-9.70	-9.60	-7.60	-7.40	-6.90	-8.24	1.2	-14
Bolundskogen	PFM000069	Surface	7	-12.1	-11.1	-10.3	-10.0	-9.70	-10.6	0.93	-8.7
Kungstråsket	PFM000068	Surface	10	-11.2	-10.9	-10.5	-9.63	-8.80	-10.2	0.80	-7.8
Lillputtsundet	PFM000067	Surface	10	-10.8	-8.80	-6.85	-6.03	-5.50	-7.54	2.0	-27
Flottbron	PFM000072	Surface	9	-10.1	-9.20	-8.40	-6.70	-5.60	-8.04	1.6	-20
Söder Bredviken	PFM000073	Surface	3	-12.2	-12.2	-12.1	-12.0	-11.9	-12.1	0.15	-1.3
Forsmark area		Surface	61	-12.7	-10.9	-9.70	-8.30	-5.50	-9.46	2.0	-21
Simpevarp area		Surface	82	-11.7	-11.3	-10.8	-10.4	-8.70	-10.7	0.72	-6.7

Surface Water

POP	Particulate organic phosphorus (mg/l)								POP		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	44	0.0010	0.0025	0.0037	0.0044	0.0088	0.0035	0.002	44
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	0.0019	0.0031	0.0043	0.0052	0.0095	0.0045	0.002	41
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	0.0030	0.0038	0.0047	0.0067	0.012	0.0056	0.002	42
Eckarfjärden	PFM000117	Surface	46	0.0027	0.0034	0.0040	0.0052	0.0069	0.0043	0.001	26
Eckarfjärden	PFM000117	Bottom	20	0.0029	0.0035	0.0043	0.0050	0.0089	0.0046	0.001	32
Bolundsfjärden	PFM000107	Surface	49	0.0022	0.0042	0.0053	0.0067	0.018	0.0059	0.003	49
Bolundsfjärden	PFM000107	Bottom	22	0.0035	0.0042	0.0051	0.0061	0.0089	0.0054	0.001	26
Norra bassängen	PFM000097	Surface	37	0.0026	0.0045	0.0056	0.0065	0.010	0.0057	0.002	29
Fiskarfjärden	PFM000127	Surface	14	0.0064	0.0087	0.013	0.016	0.034	0.014	0.007	51
Fiskarfjärden	PFM000127	Bottom	9	0.0054	0.011	0.012	0.013	0.015	0.011	0.003	28
Fiskarfjärden	PFM000135	Surface	18	0.0039	0.0060	0.0089	0.011	0.036	0.010	0.007	70
Fiskarfjärden	PFM000135	Bottom	1	0.0093		0.0093		0.0093	0.0093		
Forsmark area		Surface	253	0.0010	0.0036	0.0047	0.0065	0.036	0.0057	0.004	70
Forsmark area		Bottom	74	0.0029	0.0040	0.0050	0.0068	0.015	0.0060	0.003	47
Simpevarp area		Surface	111	0.0023	0.0064	0.0092	0.012	0.028	0.0097	0.005	49
Simpevarp area		Bottom	110	0.0020	0.0080	0.011	0.015	0.034	0.012	0.006	50
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	0.0029	0.0047	0.0053	0.0060	0.013	0.0056	0.002	33
SV Forslingens grund	PFM000062	Bottom	14	0.0030	0.0043	0.0056	0.0066	0.0079	0.0055	0.001	27
Alt. SV Forslingen	PFM000082	Surface	8	0.0019	0.0051	0.0067	0.0078	0.031	0.0091	0.009	100
Alt. SV Forslingen	PFM000082	Bottom	8	0.0016	0.0045	0.0057	0.0075	0.012	0.0062	0.003	50
Tixelfjärden	PFM000063	Surface	39	0.0014	0.0065	0.0079	0.010	0.019	0.0083	0.003	42
Tixelfjärden	PFM000063	Bottom	20	0.0029	0.0050	0.0080	0.012	0.017	0.0084	0.004	49
Alt. Tixelfjärden	PFM000083	Surface	3	0.0060	0.0063	0.0066	0.0096	0.013	0.0084	0.004	43
Alt. Tixelfjärden	PFM000083	Bottom	3	0.0070	0.0073	0.0075	0.0091	0.011	0.0084	0.002	24
Kallriga, norra	PFM000064	Surface	36	0.0054	0.011	0.015	0.018	0.046	0.016	0.008	50
Kallriga, norra	PFM000064	Bottom	18	0.0061	0.0094	0.014	0.018	0.034	0.015	0.007	48
Kallriga, södra	PFM000065	Surface	36	0.0071	0.0084	0.012	0.015	0.025	0.013	0.005	37
Alt. Kallriga	PFM000084	Surface	5	0.019	0.021	0.021	0.022	0.025	0.022	0.002	11
Alt. Kallriga	PFM000084	Bottom	5	0.0068	0.0074	0.010	0.018	0.022	0.013	0.007	54
Forsmark area		Surface	171	0.0014	0.0059	0.0086	0.014	0.046	0.011	0.007	62
Forsmark area		Bottom	68	0.0016	0.0055	0.0076	0.012	0.034	0.0095	0.006	62
Simpevarp area		Surface	160	0.00050	0.0037	0.0069	0.011	0.024	0.0075	0.005	64
Simpevarp area		Bottom	157	0.0010	0.0030	0.0067	0.012	0.16	0.011	0.02	170
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	41	0.0012	0.0030	0.0046	0.0057	0.013	0.0048	0.003	54
Söder Eckarfjärden	PFM000071	Surface	32	0.0015	0.0033	0.0055	0.012	0.062	0.010	0.01	120
Norr Eckarfjärden	PFM000070	Surface	42	0.0023	0.0030	0.0042	0.0056	0.015	0.0049	0.003	57
Bolundskogen	PFM000069	Surface	47	0.0013	0.0034	0.0049	0.0058	0.013	0.0050	0.002	44
Kungstråsket	PFM000068	Surface	47	0.0024	0.0040	0.0048	0.0062	0.016	0.0054	0.002	45
Lillputtsundet	PFM000067	Surface	43	0.0030	0.0046	0.0063	0.0088	0.037	0.0074	0.005	71
Flottbron	PFM000072	Surface	38	0.0028	0.0073	0.011	0.020	0.074	0.017	0.01	89
Söder Bredviken	PFM000073	Surface	22	0.0042	0.0070	0.011	0.025	0.14	0.022	0.03	140
Forsmark area		Surface	312	0.0012	0.0039	0.0053	0.0082	0.14	0.0086	0.01	140
Simpevarp area		Surface	561	0.00060	0.0097	0.016	0.026	0.25	0.022	0.02	100

Surface Water

PO4-P		Phosphorus as phosphate (mg/l)								PO4-P	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	<0.0005	<0.0005	0.00070	0.0016	0.0037	0.00095	0.0008	84
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.0005	0.00050	0.00090	0.0019	0.0052	0.0013	0.001	81
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	<0.0005	0.00065	0.0019	0.0023	0.0040	0.0017	0.001	64
Eckarfjärden	PFM000117	Surface	48	<0.0005	0.00068	0.00090	0.0014	0.0042	0.0011	0.0008	69
Eckarfjärden	PFM000117	Bottom	21	<0.0005	0.00087	0.0012	0.0015	0.0030	0.0013	0.0008	59
Bolundsfjärden	PFM000107	Surface	49	<0.0005	0.00050	0.00090	0.0013	0.0030	0.00099	0.0006	59
Bolundsfjärden	PFM000107	Bottom	22	<0.0005	0.00063	0.0011	0.0015	0.0028	0.0012	0.0007	60
Norra bassängen	PFM000097	Surface	37	<0.0005	0.00090	0.0013	0.0019	0.0047	0.0015	0.001	70
Fiskarfjärden	PFM000127	Surface	14	<0.0005	0.0017	0.0020	0.0030	0.0036	0.0021	0.001	53
Fiskarfjärden	PFM000127	Bottom	9	0.00060	0.0018	0.0019	0.0023	0.0032	0.0020	0.0007	36
Fiskarfjärden	PFM000135	Surface	19	<0.0005	0.00070	0.0019	0.0024	0.0036	0.0017	0.001	59
Fiskarfjärden	PFM000135	Bottom	1	0.00060		0.00060		0.00060	0.00060		
Forsmark area		Surface	255	<0.001	<0.001	0.0010	0.0018	0.0052	0.0013	0.0009	73
Forsmark area		Bottom	75	<0.001	<0.001	0.0014	0.0020	0.0040	0.0014	0.0009	61
Simpevarp area		Surface	112	<0.0005	0.00050	0.00080	0.0012	0.0050	0.00099	0.0008	78
Simpevarp area		Bottom	112	<0.0005	0.00070	0.0011	0.0020	0.0058	0.0014	0.001	75
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	<0.0005	<0.0005	0.00080	0.0012	0.0061	0.0012	0.001	120
SV Forslingens grund	PFM000062	Bottom	15	<0.0005	0.00068	0.0010	0.0013	0.0041	0.0012	0.0010	81
Alt. SV Forslingen	PFM000082	Surface	8	<0.0005	0.00068	0.0011	0.0044	0.0054	0.0023	0.002	95
Alt. SV Forslingen	PFM000082	Bottom	8	0.00060	0.00093	0.0030	0.0045	0.0088	0.0033	0.003	86
Tixelfjärden	PFM000063	Surface	41	<0.0005	0.00060	0.00088	0.0016	0.0080	0.0015	0.002	100
Tixelfjärden	PFM000063	Bottom	21	<0.0005	0.0012	0.0018	0.0024	0.0049	0.0021	0.001	68
Alt. Tixelfjärden	PFM000083	Surface	3	<0.001	<0.001	<0.001	<0.001	0.0010	<0.001	0.0004	76
Alt. Tixelfjärden	PFM000083	Bottom	3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0001	34
Kallriga, norra	PFM000064	Surface	37	<0.0005	0.0010	0.0014	0.0024	0.012	0.0020	0.002	99
Kallriga, norra	PFM000064	Bottom	19	<0.0005	0.0011	0.0016	0.0021	0.0045	0.0019	0.001	61
Kallriga, södra	PFM000065	Surface	36	<0.0005	0.0010	0.0014	0.0020	0.013	0.0021	0.002	110
Alt. Kallriga	PFM000084	Surface	5	0.0011	0.0039	0.0040	0.0042	0.012	0.0049	0.004	79
Alt. Kallriga	PFM000084	Bottom	5	0.00090	0.0013	0.0030	0.0053	0.0066	0.0034	0.002	73
Forsmark area		Surface	175	<0.001	<0.001	0.0011	0.0020	0.013	0.0018	0.002	110
Forsmark area		Bottom	71	<0.001	<0.001	0.0014	0.0024	0.0088	0.0020	0.002	85
Simpevarp area		Surface	163	<0.0005	0.0017	0.0055	0.011	0.035	0.0075	0.007	89
Simpevarp area		Bottom	160	0.00050	0.0033	0.010	0.016	0.18	0.013	0.02	150
Bottenhavet	SMHI:MS4	Surface	8	0.0040	0.0061	0.0071	0.0083	0.0093	0.0071	0.002	25
Bottenhavet	SMHI:MS4	Bottom	9	0.0053	0.0071	0.0087	0.0093	0.011	0.0084	0.002	20
Östersjön	SMHI:BY29	Surface	45	0.00062	0.00093	0.0050	0.015	0.021	0.0078	0.007	96
Östersjön	SMHI:BY29	Bottom	46	0.0053	0.011	0.014	0.019	0.028	0.015	0.005	35
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	42	<0.001	<0.001	<0.001	0.0016	0.0046	0.0012	0.001	83
Söder Eckarfjärden	PFM000071	Surface	33	<0.0005	0.0063	0.011	0.016	0.062	0.013	0.01	92
Norr Eckarfjärden	PFM000070	Surface	43	<0.001	<0.001	<0.001	0.0017	0.0030	0.0011	0.0008	74
Bolundskogen	PFM000069	Surface	49	<0.0005	0.00080	0.0014	0.0037	0.049	0.0032	0.007	220
Kungstråsket	PFM000068	Surface	49	<0.001	<0.001	0.0013	0.0025	0.026	0.0024	0.004	160
Lillputtsundet	PFM000067	Surface	44	<0.001	<0.001	0.0012	0.0021	0.0054	0.0015	0.001	74
Flottbron	PFM000072	Surface	40	<0.001	0.0022	0.0047	0.015	0.15	0.016	0.03	180
Söder Bredviken	PFM000073	Surface	23	0.0013	0.011	0.023	0.033	0.15	0.032	0.03	100
Forsmark area		Surface	323	<0.001	<0.001	0.0017	0.0048	0.15	0.0070	0.02	240
Simpevarp area		Surface	564	0.00050	0.0037	0.0061	0.0100	0.073	0.0082	0.008	93

Surface Water

tot-P		Phosphorus- total (mg/l)								tot-P	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	43	0.0044	0.0066	0.0084	0.010	0.016	0.0085	0.003	30
Gunnarsbo-Lillfjärden	PFM000087	Surface	40	0.0062	0.0079	0.010	0.012	0.019	0.010	0.003	30
Gunnarsbo-Lillfjärden	PFM000087	Bottom	21	0.0074	0.0089	0.0098	0.012	0.023	0.011	0.004	33
Eckarfjärden	PFM000117	Surface	47	0.0059	0.0077	0.0088	0.0096	0.014	0.0088	0.002	18
Eckarfjärden	PFM000117	Bottom	20	0.0069	0.0083	0.0093	0.0099	0.012	0.0092	0.001	13
Bolundsfjärden	PFM000107	Surface	48	0.0060	0.0098	0.011	0.014	0.021	0.012	0.003	27
Bolundsfjärden	PFM000107	Bottom	21	0.0067	0.011	0.013	0.014	0.017	0.012	0.003	23
Norra bassängen	PFM000097	Surface	36	0.0080	0.012	0.013	0.015	0.026	0.014	0.003	25
Fiskarfjärden	PFM000127	Surface	13	0.014	0.017	0.021	0.025	0.038	0.022	0.007	33
Fiskarfjärden	PFM000127	Bottom	9	0.015	0.019	0.021	0.024	0.030	0.022	0.005	21
Fiskarfjärden	PFM000135	Surface	19	0.010	0.015	0.018	0.020	0.039	0.018	0.006	35
Fiskarfjärden	PFM000135	Bottom	1	0.021		0.021		0.021	0.021		
Forsmark area		Surface	250	0.0044	0.0084	0.010	0.014	0.039	0.012	0.005	44
Forsmark area		Bottom	72	0.0067	0.0090	0.011	0.015	0.030	0.012	0.005	39
Simpevarp area		Surface	112	0.0054	0.015	0.018	0.023	0.043	0.019	0.008	40
Simpevarp area		Bottom	112	0.0078	0.017	0.021	0.025	0.052	0.021	0.008	37
Sweden	N.S.2000	Surface	3464	0.0010	0.0050	0.0090	0.015	0.67	0.013	0.02	140
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	0.0072	0.0086	0.010	0.011	0.016	0.010	0.002	20
SV Forslingens grund	PFM000062	Bottom	14	0.0078	0.0093	0.010	0.011	0.013	0.010	0.002	15
Alt. SV Forslingen	PFM000082	Surface	8	0.0093	0.011	0.014	0.020	0.028	0.016	0.007	45
Alt. SV Forslingen	PFM000082	Bottom	8	0.0086	0.010	0.011	0.015	0.031	0.014	0.007	52
Tixelfjärden	PFM000063	Surface	40	0.0092	0.012	0.014	0.016	0.026	0.015	0.004	27
Tixelfjärden	PFM000063	Bottom	20	0.0099	0.012	0.015	0.018	0.023	0.015	0.004	27
Alt. Tixelfjärden	PFM000083	Surface	3	0.012	0.012	0.012	0.014	0.016	0.013	0.002	18
Alt. Tixelfjärden	PFM000083	Bottom	3	0.011	0.012	0.012	0.014	0.015	0.013	0.002	17
Kallriga, norra	PFM000064	Surface	36	0.014	0.020	0.024	0.030	0.059	0.026	0.009	35
Kallriga, norra	PFM000064	Bottom	18	0.014	0.018	0.022	0.026	0.051	0.024	0.009	37
Kallriga, södra	PFM000065	Surface	35	0.012	0.017	0.021	0.024	0.044	0.021	0.006	30
Alt. Kallriga	PFM000084	Surface	5	0.030	0.031	0.036	0.038	0.044	0.036	0.005	15
Alt. Kallriga	PFM000084	Bottom	5	0.012	0.014	0.017	0.030	0.039	0.022	0.01	52
Forsmark area		Surface	171	0.0072	0.011	0.016	0.023	0.059	0.018	0.009	48
Forsmark area		Bottom	68	0.0078	0.011	0.014	0.020	0.051	0.017	0.008	48
Simpevarp area		Surface	163	0.012	0.019	0.021	0.024	0.043	0.022	0.006	26
Simpevarp area		Bottom	160	0.013	0.021	0.024	0.029	0.38	0.030	0.03	110
Bottenhavet	SMHI:MS4	Surface	35	0.0071	0.0084	0.011	0.013	0.017	0.011	0.003	26
Bottenhavet	SMHI:MS4	Bottom	36	0.0046	0.0071	0.0085	0.011	0.016	0.0093	0.003	32
Östersjön	SMHI:BY29	Surface	45	0.0071	0.014	0.015	0.023	0.030	0.018	0.006	31
Östersjön	SMHI:BY29	Bottom	45	0.011	0.017	0.021	0.024	0.037	0.021	0.005	26
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	42	0.0053	0.0073	0.0082	0.011	0.019	0.0098	0.004	39
Söder Eckarfjärden	PFM000071	Surface	33	0.0081	0.016	0.022	0.037	0.12	0.030	0.02	78
Norr Eckarfjärden	PFM000070	Surface	43	0.0043	0.0075	0.0091	0.010	0.020	0.0097	0.003	35
Bolundskogen	PFM000069	Surface	48	0.0069	0.010	0.012	0.016	0.094	0.015	0.01	81
Kungstråsket	PFM000068	Surface	48	0.0079	0.0096	0.011	0.015	0.066	0.014	0.009	64
Lillputtsundet	PFM000067	Surface	43	0.0071	0.011	0.014	0.018	0.065	0.016	0.009	56
Flottbron	PFM000072	Surface	40	0.014	0.020	0.031	0.060	0.25	0.045	0.04	99
Söder Bredviken	PFM000073	Surface	23	0.022	0.035	0.050	0.094	0.23	0.081	0.06	79
Forsmark area		Surface	320	0.0043	0.0098	0.014	0.021	0.25	0.024	0.03	130
Simpevarp area		Surface	563	0.012	0.024	0.035	0.049	0.30	0.043	0.03	72
Sweden	N.S.2000	Surface	725	0.0010	0.0060	0.015	0.043	1.1	0.040	0.08	200

Surface Water

K		Potassium (mg/l)							K		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	42	0.84	1.4	2.0	2.4	2.9	1.9	0.6	32
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	1.7	2.3	2.7	2.9	5.1	2.8	0.7	24
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	2.0	2.4	2.9	3.9	4.5	3.1	0.8	27
Eckarfjärden	PFM000117	Surface	45	0.73	1.8	1.9	2.0	2.5	1.9	0.3	15
Eckarfjärden	PFM000117	Bottom	21	1.6	1.9	2.0	2.2	2.5	2.0	0.2	11
Bolundsfjärden	PFM000107	Surface	47	0.94	2.3	2.7	3.4	5.0	2.9	0.9	30
Bolundsfjärden	PFM000107	Bottom	21	2.2	3.6	4.0	4.5	16	4.7	3	63
Norra bassängen	PFM000097	Surface	37	2.3	2.7	3.2	4.3	9.6	3.8	2	45
Fiskarfjärden	PFM000127	Surface	14	3.1	3.4	3.7	3.8	3.9	3.6	0.3	7.4
Fiskarfjärden	PFM000127	Bottom	9	3.0	3.3	3.7	3.8	4.0	3.5	0.3	9.6
Fiskarfjärden	PFM000135	Surface	17	3.0	3.3	3.9	4.5	5.6	4.0	0.9	22
Fiskarfjärden	PFM000135	Bottom	1	5.2		5.2		5.2	5.2		
Forsmark area		Surface	247	0.73	2.0	2.5	3.3	9.6	2.8	1	42
Forsmark area		Bottom	74	1.6	2.2	3.0	3.9	16	3.3	2	58
Simpevarp area		Surface	112	0.86	1.3	1.5	1.8	2.9	1.7	0.5	31
Simpevarp area		Bottom	112	0.76	1.4	1.5	1.8	3.1	1.7	0.5	30
Sweden	N.S.2000	Surface	3464		0.27	0.47	0.82	72	0.77	2	230
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	49	53	55	56	61	55	2	4.6
SV Forslingens grund	PFM000062	Bottom	15	49	52	53	54	56	53	2	3.5
Alt. SV Forslingen	PFM000082	Surface	8	38	51	53	54	60	52	6	12
Alt. SV Forslingen	PFM000082	Bottom	8	51	53	54	56	60	55	3	4.8
Tixelfjärden	PFM000063	Surface	41	32	52	53	55	61	52	6	11
Tixelfjärden	PFM000063	Bottom	21	49	52	53	55	56	53	2	3.9
Alt. Tixelfjärden	PFM000083	Surface	3	50	51	52	53	54	52	2	3.3
Alt. Tixelfjärden	PFM000083	Bottom	3	50	51	52	53	54	52	2	4.0
Kallriga, norra	PFM000064	Surface	37	7.7	36	50	52	54	43	10	30
Kallriga, norra	PFM000064	Bottom	19	24	44	48	51	54	47	7	14
Kallriga, södra	PFM000065	Surface	36	4.1	37	49	52	54	41	20	38
Alt. Kallriga	PFM000084	Surface	5	6.7	10	15	44	58	27	20	85
Alt. Kallriga	PFM000084	Bottom	5	6.9	42	44	48	56	39	20	48
Forsmark area		Surface	175	4.1	48	52	54	61	48	10	26
Forsmark area		Bottom	72	6.9	49	52	54	60	51	7	14
Simpevarp area		Surface	160	11	56	70	74	87	64	20	24
Simpevarp area		Bottom	157	22	66	71	76	88	70	10	14
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	1.5	2.0	2.2	2.6	3.2	2.3	0.5	20
Söder Eckarfjärden	PFM000071	Surface	33	1.6	1.9	2.0	2.2	5.9	2.2	0.7	33
Norr Eckarfjärden	PFM000070	Surface	41	<0.4	1.3	1.7	1.9	3.1	1.6	0.6	36
Bolundskogen	PFM000069	Surface	48	<0.4	1.8	2.1	2.5	5.5	2.1	0.9	44
Kungstråsket	PFM000068	Surface	48	0.54	1.8	2.1	2.3	4.6	2.1	0.7	34
Lillputtsundet	PFM000067	Surface	44	2.0	2.3	2.9	3.9	5.6	3.2	1	32
Flottbron	PFM000072	Surface	40	0.94	3.1	3.7	4.6	7.5	3.8	1	35
Söder Bredviken	PFM000073	Surface	23	6.3	7.3	8.2	8.7	12	8.2	1	16
Forsmark area		Surface	317	<0.4	1.9	2.3	3.1	12	2.9	2	65
Simpevarp area		Surface	556	<0.4	0.95	1.3	1.7	7.8	1.5	0.9	59
Sweden	N.S.2000	Surface	725	0.078	0.39	0.74	2.0	39	1.5	2	140

Surface Water

Pr	Praseodymium (µg/l)								Pr		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.0070	0.014	0.017	0.018	0.031	0.017	0.007	43
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	0.010	0.013	0.016	0.028	0.014	0.008	57
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.016	0.017	0.019	0.027	0.035	0.023	0.010	43
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	0.0089	0.022	0.030	0.013	0.01	90
Eckarfjärden	PFM000117	Bottom	3	0.0073	0.019	0.031	0.032	0.034	0.024	0.01	61
Bolundsfjärden	PFM000107	Surface	7	0.013	0.021	0.026	0.036	0.069	0.032	0.02	59
Bolundsfjärden	PFM000107	Bottom	3	0.032	0.037	0.042	0.050	0.058	0.044	0.01	30
Norra bassängen	PFM000097	Surface	6	0.011	0.017	0.028	0.039	0.065	0.031	0.02	63
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	0.0090	0.0093	0.0097	0.012	0.018	0.012	0.004	36
Forsmark area		Surface	39	<0.005	0.010	0.018	0.026	0.069	0.020	0.01	74
Forsmark area		Bottom	10	<0.005	0.017	0.031	0.034	0.058	0.028	0.02	60
Simpevarp area		Surface	1	0.034		0.034		0.034	0.034		
Simpevarp area		Bottom	1	0.035		0.035		0.035	0.035		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	55
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	26
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	36
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	87
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.022		0.022		0.022	0.022		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.012		0.012		0.012	0.012		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	0.081	0.19	0.056	0.07	130
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	82
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	0.082	0.53	0.10	0.2	180
Alt. Kallriga	PFM000084	Surface	1	0.19		0.19		0.19	0.19		
Alt. Kallriga	PFM000084	Bottom	1	0.21		0.21		0.21	0.21		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.53	<0.05	0.10	200
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	0.21	<0.05	0.05	220
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	0.013	0.016	0.022	0.025	0.031	0.021	0.007	31
Norr Eckarfjärden	PFM000070	Surface	6	0.0092	0.014	0.018	0.024	0.035	0.020	0.009	46
Bolundskogen	PFM000069	Surface	1	0.032		0.032		0.032	0.032		
Kungstråsket	PFM000068	Surface	6	0.033	0.041	0.056	0.058	0.073	0.052	0.01	29
Lillputtsundet	PFM000067	Surface	5	0.010	0.014	0.017	0.028	0.068	0.027	0.02	87
Flottbron	PFM000072	Surface	5	0.0060	0.0077	0.0078	0.015	0.034	0.014	0.01	82
Söder Bredviken	PFM000073	Surface	3	<0.005	0.0053	0.0080	0.012	0.016	0.0088	0.007	76
Forsmark area		Surface	33	<0.005	0.013	0.019	0.033	0.073	0.026	0.02	72
Simpevarp area		Surface	10	0.046	0.067	0.092	0.12	0.18	0.099	0.04	42

Surface Water

Ra-226		Radium-226 (Bq/l)							Ra-226	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1							
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	0.50	0.50		0.50	0.50		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	0.10	0.10		0.10	0.10		
Eckarfjärden	PFM000117	Surface	1	0.20	0.20		0.20	0.20		
Eckarfjärden	PFM000117	Bottom	1							
Bolundsfjärden	PFM000107	Surface	1							
Bolundsfjärden	PFM000107	Bottom	1							
Norra bassängen	PFM000097	Surface	1	0.20	0.20		0.20	0.20		
Fiskarfjärden	PFM000135	Surface	1	0.20	0.20		0.20	0.20		
Forsmark area		Surface	6		0.050	0.20	0.20	0.50	0.18	0.2
Forsmark area		Bottom	3				0.050	0.10	0.033	0.06
Simpevarp area		Surface	3	0.10	0.15	0.20	0.55	0.90	0.40	0.4
Simpevarp area		Bottom	1	0.10		0.10		0.10	0.10	110
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	<0.1	<0.1		<0.1	<0.1		
SV Forslingens grund	PFM000062	Bottom	1	0.10	0.10		0.10	0.10		
Alt. SV Forslingen	PFM000082	Surface	1	0.10	0.10		0.10	0.10		
Alt. SV Forslingen	PFM000082	Bottom	1	0.40	0.40		0.40	0.40		
Tixelfjärden	PFM000063	Surface	2	<0.1	<0.1	<0.1	<0.1	0.10	<0.1	0.04
Tixelfjärden	PFM000063	Bottom	1	0.40		0.40		0.40	0.40	47
Kallriga, norra	PFM000064	Surface	1	0.20		0.20		0.20	0.20	
Kallriga, norra	PFM000064	Bottom	1	<0.1		<0.1		<0.1	<0.1	
Kallriga, södra	PFM000065	Surface	2	0.10	0.10	0.10	0.10	0.10	0.10	
Forsmark area		Surface	7	<0.1	<0.1	0.10	0.10	0.20	0.10	0.05
Forsmark area		Bottom	4	<0.1	<0.1	0.25	0.40	0.40	0.24	0.2
Simpevarp area		Surface	8	<0.1	<0.1	0.10	0.20	0.40	0.14	0.1
Simpevarp area		Bottom	8	<0.1	<0.1	0.10	0.23	0.30	0.14	0.1
Streaming Water										
Simpevarp area		Surface	17	<0.1	0.10	0.10	0.30	0.40	0.15	0.1
										79

Rn-222		Radon-222 (Bq/l)							Rn-222	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1	0.60	0.60		0.60	0.60		
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	0.80	0.80		0.80	0.80		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	0.40	0.40		0.40	0.40		
Eckarfjärden	PFM000117	Surface	1	0.30	0.30		0.30	0.30		
Eckarfjärden	PFM000117	Bottom	1							
Bolundsfjärden	PFM000107	Surface	1	0.10		0.10		0.10	0.10	
Bolundsfjärden	PFM000107	Bottom	1							
Norra bassängen	PFM000097	Surface	1							
Fiskarfjärden	PFM000135	Surface	1	0.30	0.30		0.30	0.30		
Forsmark area		Surface	6		0.15	0.30	0.53	0.80	0.35	0.3
Forsmark area		Bottom	3				0.20	0.40	0.13	0.2
Simpevarp area		Surface	3	0.10	0.10	0.10	0.15	0.20	0.13	0.06
Simpevarp area		Bottom	1	0.20		0.20		0.20	0.20	43
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	0.30	0.30		0.30	0.30		
SV Forslingens grund	PFM000062	Bottom	1	0.10	0.10		0.10	0.10		
Alt. SV Forslingen	PFM000082	Surface	1	0.30	0.30		0.30	0.30		
Alt. SV Forslingen	PFM000082	Bottom	1	0.60	0.60		0.60	0.60		
Tixelfjärden	PFM000063	Surface	2	0.10	0.23	0.35	0.48	0.60	0.35	0.4
Tixelfjärden	PFM000063	Bottom	1	0.60		0.60		0.60	0.60	100
Kallriga, norra	PFM000064	Surface	1	0.20		0.20		0.20	0.20	
Kallriga, norra	PFM000064	Bottom	1	0.10		0.10		0.10	0.10	
Kallriga, södra	PFM000065	Surface	2	0.10	0.15	0.20	0.25	0.30	0.20	0.1
Forsmark area		Surface	7	0.10	0.15	0.30	0.30	0.60	0.27	0.2
Forsmark area		Bottom	4	0.10	0.10	0.35	0.60	0.60	0.35	0.3
Simpevarp area		Surface	8	<0.1	<0.1	<0.1	0.23	1.0	0.21	0.3
Simpevarp area		Bottom	8	<0.1	<0.1	0.15	0.30	0.40	0.18	0.1
Streaming Water										
Simpevarp area		Surface	17	0.20	0.70	1.1	2.8	11	2.8	3
										130

Surface Water

Rb	Rubidium ($\mu\text{g/l}$)								Rb		
Lake Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Labboträsket	PFM000074	Surface	7	1.7	1.8	2.0	2.0	2.2	1.9	0.2	8.3
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	2.1	2.2	2.4	2.7	3.7	2.6	0.6	22
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	2.1	2.7	3.4	4.4	5.4	3.6	2	46
Eckarfjärden	PFM000117	Surface	7	1.8	1.9	2.2	2.3	2.7	2.2	0.3	15
Eckarfjärden	PFM000117	Bottom	3	1.8	2.0	2.3	2.4	2.6	2.2	0.4	18
Bolundsfjärden	PFM000107	Surface	7	2.1	2.6	2.8	2.9	3.3	2.7	0.4	13
Bolundsfjärden	PFM000107	Bottom	3	3.0	3.1	3.2	3.4	3.5	3.2	0.3	8.8
Norra bassängen	PFM000097	Surface	6	2.1	2.7	2.9	3.2	3.9	3.0	0.6	20
Fiskarfjärden	PFM000127	Bottom	1	3.5		3.5		3.5	3.5		
Fiskarfjärden	PFM000135	Surface	4	2.4	3.2	3.5	3.7	4.5	3.5	0.8	24
Forsmark area		Surface	39	1.7	2.0	2.4	2.9	4.5	2.5	0.7	26
Forsmark area		Bottom	10	1.8	2.4	3.1	3.5	5.4	3.1	1	33
Simpevarp area		Surface	1	3.4		3.4		3.4	3.4		
Simpevarp area		Bottom	1	3.4		3.4		3.4	3.4		
Sea Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	8	16	17	18	18	19	17	1	6.0
SV Forslingens grund	PFM000062	Bottom	2	18	18	18	18	19	18	0.4	2.3
Alt. SV Forslingen	PFM000082	Surface	2	17	17	17	17	17	17	0.4	2.5
Alt. SV Forslingen	PFM000082	Bottom	2	17	17	17	17	18	17	0.6	3.3
Tixelfjärden	PFM000063	Surface	8	15	17	17	18	19	17	1	6.0
Tixelfjärden	PFM000063	Bottom	4	15	17	18	18	19	18	2	9.1
Alt. Tixelfjärden	PFM000083	Surface	1	17		17		17	17		
Alt. Tixelfjärden	PFM000083	Bottom	1	17		17		17	17		
Kallriga, norra	PFM000064	Surface	7	4.6	12	16	16	20	14	5	36
Kallriga, norra	PFM000064	Bottom	3	14	15	16	16	16	15	1	8.8
Kallriga, södra	PFM000065	Surface	8	3.8	10	14	16	17	13	5	36
Alt. Kallriga	PFM000084	Surface	1	3.5		3.5		3.5	3.5		
Alt. Kallriga	PFM000084	Bottom	1	4.0		4.0		4.0	4.0		
Forsmark area		Surface	35	3.5	15	17	17	20	15	4	28
Forsmark area		Bottom	13	4.0	16	17	18	19	16	4	24
Simpevarp area		Surface	4	17	19	21	22	22	20	2	11
Simpevarp area		Bottom	4	18	20	22	22	22	21	2	9.6
Streaming Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	7	1.8	2.0	2.1	2.3	3.4	2.3	0.6	24
Norr Eckarfjärden	PFM000070	Surface	6	0.49	1.9	2.2	2.3	3.1	2.0	0.9	43
Bolundskogen	PFM000069	Surface	1	1.8		1.8		1.8	1.8		
Kungstråsket	PFM000068	Surface	6	0.90	2.0	2.2	2.6	4.1	2.3	1	45
Lillputtsundet	PFM000067	Surface	5	1.9	2.6	2.9	3.0	3.0	2.7	0.5	17
Flottbron	PFM000072	Surface	5	2.0	2.7	2.7	3.3	4.9	3.1	1	35
Söder Bredviken	PFM000073	Surface	3	1.7	1.8	1.9	1.9	2.0	1.8	0.1	8.0
Forsmark area		Surface	33	0.49	1.9	2.2	2.7	4.9	2.4	0.8	35
Simpevarp area		Surface	10	1.8	2.0	2.3	3.0	7.7	3.1	2	60

Surface Water

Sm		Samarium (µg/l)							Sm		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.0070	0.013	0.016	0.016	0.031	0.016	0.007	46
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	0.0096	0.014	0.017	0.029	0.014	0.009	61
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.016	0.018	0.020	0.028	0.036	0.024	0.01	43
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	0.0084	0.020	0.030	0.012	0.01	90
Eckarfjärden	PFM000117	Bottom	3	0.0075	0.017	0.027	0.028	0.029	0.021	0.01	56
Bolundsfjärden	PFM000107	Surface	7	0.011	0.015	0.017	0.029	0.054	0.024	0.02	63
Bolundsfjärden	PFM000107	Bottom	3	0.024	0.029	0.034	0.040	0.047	0.035	0.01	33
Norra bassängen	PFM000097	Surface	6	0.0082	0.014	0.022	0.030	0.055	0.025	0.02	67
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	0.0070	0.0078	0.0080	0.010	0.018	0.010	0.005	49
Forsmark area		Surface	39	<0.005	0.0084	0.016	0.021	0.055	0.017	0.01	70
Forsmark area		Bottom	10	<0.005	0.017	0.026	0.033	0.047	0.024	0.01	55
Simpevarp area		Surface	1	0.022		0.022		0.022	0.022		
Simpevarp area		Bottom	1	0.022		0.022		0.022	0.022		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	58
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0007	6.7
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.002	15
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	80
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.016		0.016		0.016	0.016		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0098		0.0098		0.0098	0.0098		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	0.054	0.14	<0.05	0.05	130
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	0.055	0.33	0.066	0.1	170
Alt. Kallriga	PFM000084	Surface	1	0.14		0.14		0.14	0.14		
Alt. Kallriga	PFM000084	Bottom	1	0.15		0.15		0.15	0.15		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.33	<0.05	0.06	180
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	0.04	200
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	0.011	0.014	0.019	0.024	0.027	0.019	0.006	33
Norr Eckarfjärden	PFM000070	Surface	6	0.0085	0.012	0.015	0.022	0.033	0.018	0.009	52
Bolundskogen	PFM000069	Surface	1	0.025		0.025		0.025	0.025		
Kungstråsket	PFM000068	Surface	6	0.028	0.034	0.047	0.049	0.051	0.042	0.01	24
Lillputtsundet	PFM000067	Surface	5	0.0080	0.011	0.013	0.023	0.054	0.022	0.02	88
Flottbron	PFM000072	Surface	5	0.0060	0.0067	0.0069	0.013	0.027	0.012	0.009	75
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	0.0070	0.0096	0.012	0.0072	0.005	67
Forsmark area		Surface	33	<0.005	0.011	0.017	0.027	0.054	0.021	0.01	68
Simpevarp area		Surface	10	0.036	0.048	0.062	0.084	0.13	0.068	0.03	40

Surface Water

Sc		Scandium (µg/l)								Sc	
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.003	12
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.004	19
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	24
Eckarfjärden	PFM000117	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	23
Eckarfjärden	PFM000117	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	24
Bolundsfjärden	PFM000107	Surface	7	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	0.01	48
Bolundsfjärden	PFM000107	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	24
Norra bassängen	PFM000097	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.007	31
Fiskarfjärden	PFM000127	Bottom	1	<0.05		<0.05		<0.05	<0.05		
Fiskarfjärden	PFM000135	Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Forsmark area		Surface	39	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	0.007	29
Forsmark area		Bottom	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.004	19
Simpevarp area		Surface	1	<0.05		<0.05		<0.05	<0.05		
Simpevarp area		Bottom	1	<0.05		<0.05		<0.05	<0.05		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.2	100
SV Forslingens grund	PFM000062	Bottom	2	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.10	140
Alt. SV Forslingen	PFM000082	Surface	2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.10	120
Alt. SV Forslingen	PFM000082	Bottom	2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.09	110
Tixelfjärden	PFM000063	Surface	8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	95
Tixelfjärden	PFM000063	Bottom	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	120
Alt. Tixelfjärden	PFM000083	Surface	1	0.014		0.014		0.014	0.014		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0060		0.0060		0.0060	0.0060		
Kallriga, norra	PFM000064	Surface	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.10	110
Kallriga, norra	PFM000064	Bottom	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	150
Kallriga, södra	PFM000065	Surface	8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	99
Alt. Kallriga	PFM000084	Surface	1	0.076		0.076		0.076	0.076		
Alt. Kallriga	PFM000084	Bottom	1	0.068		0.068		0.068	0.068		
Forsmark area		Surface	35	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.1	100
Forsmark area		Bottom	13	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	0.09	110
Simpevarp area		Surface	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Simpevarp area		Bottom	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.003	13
Norr Eckarfjärden	PFM000070	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	23
Bolundskogen	PFM000069	Surface	1	<0.05		<0.05		<0.05	<0.05		
Kungstråsket	PFM000068	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	20
Lillputtsundet	PFM000067	Surface	5	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	61
Flottbron	PFM000072	Surface	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	35
Söder Bredviken	PFM000073	Surface	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	39
Forsmark area		Surface	33	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	0.008
Simpevarp area		Surface	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		

Surface Water

Si		Silicon (mg/l)							Si		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	42	2.7	3.4	4.6	5.5	8.6	4.7	2	33
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	1.0	3.2	4.8	6.1	11	5.1	3	50
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	2.6	4.1	6.1	9.2	11	6.4	3	41
Eckarfjärden	PFM000117	Surface	45	0.10	1.2	1.8	2.9	4.2	1.9	1	61
Eckarfjärden	PFM000117	Bottom	21	1.2	2.0	3.3	3.4	4.0	2.8	0.9	32
Bolundsfjärden	PFM000107	Surface	47	<0.03	0.34	0.94	2.2	5.3	1.6	2	100
Bolundsfjärden	PFM000107	Bottom	21	0.35	0.94	1.9	2.5	4.3	1.9	1	59
Norra bassängen	PFM000097	Surface	37	<0.03	0.090	0.48	2.1	6.5	1.3	2	130
Fiskarfjärden	PFM000127	Surface	14	0.12	0.46	1.1	2.1	2.9	1.3	1.0	75
Fiskarfjärden	PFM000127	Bottom	9	0.13	0.88	1.1	2.2	2.9	1.3	0.9	71
Fiskarfjärden	PFM000135	Surface	17	<0.03	0.36	1.4	3.9	5.8	2.1	2	96
Fiskarfjärden	PFM000135	Bottom	1	6.0		6.0		6.0	6.0		
Forsmark area		Surface	247	<0.03	0.76	2.3	4.2	11	2.8	2	84
Forsmark area		Bottom	74	0.13	1.6	2.9	4.0	11	3.5	3	75
Simpevarp area		Surface	112	0.33	2.1	3.9	4.6	6.4	3.4	2	47
Simpevarp area		Bottom	112	0.46	2.6	4.2	5.1	6.2	3.8	2	44
Sweden	N.S.2000	Surface	3464		0.58	1.5	2.5	11	1.7	1	79
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	0.090	0.23	0.41	0.47	0.78	0.38	0.2	43
SV Forslingens grund	PFM000062	Bottom	15	0.090	0.22	0.42	0.49	0.67	0.37	0.2	49
Alt. SV Forslingen	PFM000082	Surface	8	0.39	0.47	0.65	0.77	2.9	0.88	0.8	94
Alt. SV Forslingen	PFM000082	Bottom	8	0.37	0.47	0.62	0.70	0.96	0.61	0.2	32
Tixelfjärden	PFM000063	Surface	41	0.12	0.27	0.39	0.67	2.9	0.61	0.6	99
Tixelfjärden	PFM000063	Bottom	21	0.17	0.35	0.45	0.95	1.7	0.66	0.5	71
Alt. Tixelfjärden	PFM000083	Surface	3	0.47	0.51	0.55	0.59	0.62	0.55	0.08	14
Alt. Tixelfjärden	PFM000083	Bottom	3	0.37	0.38	0.39	0.42	0.45	0.40	0.04	10
Kallriga, norra	PFM000064	Surface	37	0.15	0.26	0.32	1.1	6.2	1.0	1	140
Kallriga, norra	PFM000064	Bottom	19	0.20	0.28	0.33	1.2	4.1	0.89	1	120
Kallriga, södra	PFM000065	Surface	36	0.18	0.42	0.54	1.1	5.6	1.2	1	120
Alt. Kallriga	PFM000084	Surface	5	0.82	0.86	3.8	4.1	4.2	2.8	2	64
Alt. Kallriga	PFM000084	Bottom	5	0.59	0.90	0.98	1.2	4.3	1.6	2	95
Forsmark area		Surface	175	0.090	0.28	0.45	0.75	6.2	0.84	1	130
Forsmark area		Bottom	72	0.090	0.29	0.46	0.77	4.3	0.71	0.8	110
Simpevarp area		Surface	160	<0.1	0.25	0.43	1.2	6.3	1.1	1	130
Simpevarp area		Bottom	157	<0.1	0.31	0.47	1.1	5.8	0.79	0.8	99
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	1.5	3.0	3.9	4.4	6.7	3.8	1	31
Söder Eckarfjärden	PFM000071	Surface	33	1.3	3.4	4.0	4.3	5.9	3.9	0.9	24
Norr Eckarfjärden	PFM000070	Surface	41	0.53	1.4	2.2	3.1	5.1	2.4	1	50
Bolundskogen	PFM000069	Surface	48	2.5	4.3	5.2	6.0	8.7	5.3	1	26
Kungstråsket	PFM000068	Surface	48	2.7	3.7	4.6	5.2	8.1	4.7	1	26
Lillputtsundet	PFM000067	Surface	44	0.080	0.34	0.92	2.0	4.8	1.4	1	95
Flottbron	PFM000072	Surface	40	0.71	1.2	1.7	2.1	4.4	1.8	0.9	50
Söder Bredviken	PFM000073	Surface	23	0.34	1.6	3.4	4.0	5.8	3.0	2	50
Forsmark area		Surface	317	0.080	1.9	3.5	4.5	8.7	3.3	2	54
Simpevarp area		Surface	555	2.9	6.5	8.2	10.0	20	8.4	3	31
Sweden	N.S.2000	Surface	725	0.070	1.7	2.9	4.4	19	3.2	2	65

Surface Water

SiO ₂ -Si		Silicon as silicate (mg/l)							SiO ₂ -Si		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	43	2.7	3.4	4.8	5.8	8.8	4.9	2	33
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	1.1	3.3	5.0	6.2	10	5.2	3	49
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	2.7	3.8	6.4	9.0	10	6.5	3	42
Eckarfjärden	PFM000117	Surface	48	0.12	1.1	1.8	3.0	4.0	1.9	1	59
Eckarfjärden	PFM000117	Bottom	21	0.38	2.0	3.0	3.4	4.6	2.7	1	39
Bolundsfjärden	PFM000107	Surface	49	0.077	0.41	0.99	2.2	5.3	1.7	2	100
Bolundsfjärden	PFM000107	Bottom	22	0.40	0.91	1.9	2.4	4.5	1.9	1	62
Norra bassängen	PFM000097	Surface	37	0.037	0.11	0.56	1.9	6.7	1.3	2	140
Fiskarfjärden	PFM000127	Surface	14	0.16	0.51	1.1	2.1	2.9	1.3	0.9	72
Fiskarfjärden	PFM000127	Bottom	9	0.15	0.87	1.1	2.1	2.9	1.3	0.9	69
Fiskarfjärden	PFM000135	Surface	19	0.054	0.27	1.3	3.8	6.0	2.0	2	110
Fiskarfjärden	PFM000135	Bottom	1	6.3		6.3		6.3	6.3		
Forsmark area		Surface	255	0.037	0.78	2.2	4.2	10	2.8	2	85
Forsmark area		Bottom	75	0.15	1.6	2.9	4.1	10	3.5	3	77
Simpevarp area		Surface	112	0.30	2.1	4.0	4.9	6.5	3.5	2	47
Simpevarp area		Bottom	112	0.43	2.7	4.4	5.2	6.3	3.9	2	43
Sea Water											
SV Forslingens grund	PFM000062	Surface	43	0.098	0.27	0.44	0.50	2.1	0.43	0.3	71
SV Forslingens grund	PFM000062	Bottom	15	0.13	0.26	0.30	0.42	0.55	0.32	0.1	40
Alt. SV Forslingen	PFM000082	Surface	8	0.16	0.52	0.68	0.73	0.80	0.59	0.2	36
Alt. SV Forslingen	PFM000082	Bottom	8	0.16	0.51	0.60	0.68	0.85	0.57	0.2	36
Tixelfjärden	PFM000063	Surface	40	0.11	0.26	0.43	0.63	2.6	0.53	0.5	90
Tixelfjärden	PFM000063	Bottom	21	0.13	0.39	0.50	0.93	1.6	0.68	0.5	66
Alt. Tixelfjärden	PFM000083	Surface	3	0.20	0.36	0.53	0.60	0.67	0.47	0.2	52
Alt. Tixelfjärden	PFM000083	Bottom	3	0.19	0.30	0.41	0.47	0.53	0.38	0.2	46
Kallriga, norra	PFM000064	Surface	37	0.12	0.21	0.33	0.99	5.5	1.0	1	140
Kallriga, norra	PFM000064	Bottom	19	0.17	0.25	0.34	1.1	4.1	0.85	1.0	110
Kallriga, södra	PFM000065	Surface	36	0.15	0.38	0.55	1.2	5.4	1.1	1	120
Alt. Kallriga	PFM000084	Surface	5	0.93	3.0	3.5	3.7	3.8	3.0	1	40
Alt. Kallriga	PFM000084	Bottom	5	0.51	0.96	1.0	1.0	3.1	1.3	1	77
Forsmark area		Surface	174	0.098	0.26	0.46	0.72	5.5	0.81	1	130
Forsmark area		Bottom	71	0.13	0.29	0.47	0.85	4.1	0.67	0.7	99
Simpevarp area		Surface	163	0.015	0.27	0.45	1.3	7.1	1.1	2	130
Simpevarp area		Bottom	160	0.031	0.34	0.50	1.1	6.5	0.83	0.8	100
Bottenhavet	SMHI:MS4	Surface	8	0.40	0.48	0.52	0.54	0.57	0.51	0.05	11
Bottenhavet	SMHI:MS4	Bottom	9	0.42	0.50	0.52	0.54	0.65	0.52	0.06	12
Östersjön	SMHI:BY29	Surface	46	0.087	0.19	0.25	0.30	0.42	0.25	0.08	33
Östersjön	SMHI:BY29	Bottom	46	0.17	0.27	0.31	0.36	0.45	0.31	0.06	20
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	42	1.5	3.0	3.8	4.7	6.5	3.9	1	31
Söder Eckarfjärden	PFM000071	Surface	33	1.4	3.4	3.9	4.5	6.8	3.9	1	28
Norr Eckarfjärden	PFM000070	Surface	43	0.35	1.6	2.3	3.4	4.9	2.5	1	49
Bolundskogen	PFM000069	Surface	48	3.4	4.4	5.2	5.9	8.2	5.3	1	22
Kungstråsket	PFM000068	Surface	49	1.2	3.6	4.4	5.0	7.2	4.5	1	26
Lillputtsundet	PFM000067	Surface	44	0.088	0.35	0.96	2.0	4.9	1.5	1	96
Flottbron	PFM000072	Surface	40	0.66	1.2	1.7	2.0	4.3	1.9	0.9	51
Söder Bredviken	PFM000073	Surface	23	0.39	1.4	3.4	4.4	7.5	3.1	2	61
Forsmark area		Surface	322	0.088	1.9	3.6	4.6	8.2	3.4	2	53
Simpevarp area		Surface	563	2.8	6.6	8.5	10	21	8.6	3	30

Surface Water

Na		Sodium (mg/l)							Na		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	42	4.7	6.2	8.1	10	12	8.4	2	27
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	6.4	8.3	9.7	11	15	9.9	2	20
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	6.7	9.0	12	12	15	11	2	21
Eckarfjärden	PFM000117	Surface	45	1.4	5.8	6.0	6.6	7.4	6.1	0.9	15
Eckarfjärden	PFM000117	Bottom	21	5.2	5.6	6.0	6.5	7.6	6.1	0.6	9.9
Bolundsfjärden	PFM000107	Surface	47	3.6	19	23	44	92	33	20	68
Bolundsfjärden	PFM000107	Bottom	21	14	44	55	76	350	76	80	100
Norra bassängen	PFM000097	Surface	37	22	30	46	77	210	61	40	72
Fiskarfjärden	PFM000127	Surface	14	18	22	28	31	33	27	5	19
Fiskarfjärden	PFM000127	Bottom	9	18	21	24	28	33	25	5	20
Fiskarfjärden	PFM000135	Surface	17	7.0	23	29	29	34	26	7	26
Fiskarfjärden	PFM000135	Bottom	1	28		28		28			
Forsmark area		Surface	247	1.4	7.0	12	28	210	23	30	120
Forsmark area		Bottom	74	5.2	6.8	12	28	350	30	50	170
Simpevarp area		Surface	112	2.7	8.7	9.6	11	17	10	2	23
Simpevarp area		Bottom	112	2.5	8.9	10	13	18	11	3	24
Sweden	N.S.2000	Surface	3464	0.092	1.1	1.7	4.5	1300	4.1	30	660
Sea Water											
SV Forslingens grund	PFM000062	Surface	42	1300	1400	1500	1500	1600	1500	50	3.7
SV Forslingens grund	PFM000062	Bottom	15	1300	1400	1500	1500	1600	1500	60	4.0
Alt. SV Forslingen	PFM000082	Surface	8	970	1400	1400	1400	1600	1400	200	13
Alt. SV Forslingen	PFM000082	Bottom	8	1400	1400	1500	1500	1500	1500	50	3.3
Tixelfjärden	PFM000063	Surface	41	850	1400	1400	1500	1600	1400	200	11
Tixelfjärden	PFM000063	Bottom	21	1300	1400	1500	1500	1600	1500	60	4.3
Alt. Tixelfjärden	PFM000083	Surface	3	1300	1400	1400	1400	1400	1400	100	6.9
Alt. Tixelfjärden	PFM000083	Bottom	3	1400	1400	1400	1400	1400	1400	40	3.1
Kallriga, norra	PFM000064	Surface	37	160	950	1400	1400	1500	1200	400	32
Kallriga, norra	PFM000064	Bottom	19	620	1200	1300	1400	1500	1300	200	17
Kallriga, södra	PFM000065	Surface	36	66	970	1300	1400	1500	1100	500	41
Alt. Kallriga	PFM000084	Surface	5	130	230	380	1200	1500	690	600	91
Alt. Kallriga	PFM000084	Bottom	5	140	1100	1200	1300	1400	1000	500	50
Forsmark area		Surface	175	66	1300	1400	1500	1600	1300	300	27
Forsmark area		Bottom	72	140	1400	1400	1500	1600	1400	200	15
Simpevarp area		Surface	160	280	1400	1900	2000	2200	1700	400	25
Simpevarp area		Bottom	157	550	1800	1900	2000	2300	1800	300	14
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	40	3.7	4.8	5.1	5.7	13	5.4	1	27
Söder Eckarfjärden	PFM000071	Surface	33	2.8	3.5	3.7	4.0	5.6	3.8	0.5	14
Norr Eckarfjärden	PFM000070	Surface	41	1.9	5.3	5.8	6.2	9.7	5.7	1	21
Bolundskogen	PFM000069	Surface	48	3.3	12	16	21	33	17	6	37
Kungstråsket	PFM000068	Surface	48	4.3	9.5	13	18	31	14	6	45
Lillputtsundet	PFM000067	Surface	44	13	21	31	59	100	41	30	62
Flottbron	PFM000072	Surface	40	14	22	30	43	76	35	20	52
Söder Bredviken	PFM000073	Surface	23	6.5	8.7	10	11	14	10	2	20
Forsmark area		Surface	317	1.9	5.6	12	22	100	17	20	100
Simpevarp area		Surface	556	2.7	6.1	8.6	11	31	8.9	4	42
Sweden	N.S.2000	Surface	725	0.48	1.4	2.9	6.7	120	5.5	9	160

Surface Water

Sr	Strontium (mg/l)								Sr		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	42	0.057	0.069	0.077	0.085	0.10	0.078	0.01	14
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	0.063	0.079	0.082	0.091	0.53	0.098	0.07	73
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	0.070	0.089	0.092	0.11	0.13	0.097	0.02	16
Eckarfjärden	PFM000117	Surface	45	0.015	0.049	0.050	0.052	0.067	0.051	0.008	15
Eckarfjärden	PFM000117	Bottom	21	0.046	0.050	0.053	0.058	0.065	0.055	0.006	10
Bolundsfjärden	PFM000107	Surface	47	0.031	0.077	0.085	0.099	0.12	0.088	0.02	18
Bolundsfjärden	PFM000107	Bottom	21	0.079	0.099	0.11	0.11	0.32	0.12	0.05	46
Norra bassängen	PFM000097	Surface	37	0.067	0.079	0.098	0.11	0.27	0.11	0.04	42
Fiskarfjärden	PFM000127	Surface	14	0.070	0.073	0.081	0.085	0.096	0.080	0.008	9.9
Fiskarfjärden	PFM000127	Bottom	9	0.070	0.075	0.082	0.092	0.099	0.084	0.01	13
Fiskarfjärden	PFM000135	Surface	17	0.070	0.075	0.082	0.11	0.16	0.097	0.03	30
Fiskarfjärden	PFM000135	Bottom	1	0.13		0.13		0.13	0.13		
Forsmark area		Surface	247	0.015	0.069	0.079	0.091	0.53	0.083	0.04	48
Forsmark area		Bottom	74	0.046	0.065	0.090	0.11	0.32	0.090	0.04	44
Simpevarp area		Surface	112	0.033	0.038	0.045	0.053	0.063	0.046	0.008	17
Simpevarp area		Bottom	112	0.032	0.039	0.047	0.054	0.066	0.047	0.009	18
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	0.95	1.0	1.1	1.1	1.2	1.1	0.05	5.0
SV Forslingens grund	PFM000062	Bottom	15	0.98	1.0	1.0	1.0	1.1	1.0	0.03	2.7
Alt. SV Forslingen	PFM000082	Surface	8	0.73	1.0	1.0	1.1	1.1	1.0	0.1	12
Alt. SV Forslingen	PFM000082	Bottom	8	1.0	1.0	1.1	1.1	1.1	1.1	0.04	3.8
Tixelfjärden	PFM000063	Surface	41	0.65	1.0	1.0	1.1	1.2	1.0	0.1	11
Tixelfjärden	PFM000063	Bottom	21	0.97	1.0	1.0	1.0	1.1	1.0	0.04	3.4
Alt. Tixelfjärden	PFM000083	Surface	3	1.0	1.0	1.0	1.0	1.0	1.0	0.02	1.5
Alt. Tixelfjärden	PFM000083	Bottom	3	0.99	1.0	1.0	1.0	1.0	1.0	0.03	2.9
Kallriga, norra	PFM000064	Surface	37	0.17	0.74	0.99	1.0	1.1	0.86	0.2	29
Kallriga, norra	PFM000064	Bottom	19	0.51	0.88	0.98	0.99	1.1	0.92	0.1	13
Kallriga, södra	PFM000065	Surface	36	0.10	0.73	0.98	1.0	1.1	0.83	0.3	37
Alt. Kallriga	PFM000084	Surface	5	0.16	0.22	0.33	0.88	1.1	0.53	0.4	77
Alt. Kallriga	PFM000084	Bottom	5	0.16	0.84	0.87	0.90	1.1	0.77	0.4	46
Forsmark area		Surface	175	0.10	0.96	1.0	1.1	1.2	0.94	0.2	25
Forsmark area		Bottom	72	0.16	0.98	1.0	1.0	1.2	0.99	0.1	14
Simpevarp area		Surface	160	0.24	1.1	1.4	1.4	1.6	1.2	0.3	24
Simpevarp area		Bottom	157	0.41	1.3	1.4	1.5	1.6	1.3	0.2	13
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	40	0.051	0.064	0.068	0.074	0.13	0.070	0.01	19
Söder Eckarfjärden	PFM000071	Surface	33	0.054	0.069	0.076	0.083	0.092	0.076	0.009	11
Norr Eckarfjärden	PFM000070	Surface	40	0.011	0.048	0.050	0.052	0.069	0.050	0.010	20
Bolundskogen	PFM000069	Surface	48	0.040	0.087	0.094	0.10	0.13	0.094	0.02	19
Kungstråsket	PFM000068	Surface	48	0.047	0.074	0.088	0.098	0.13	0.088	0.02	23
Lillputtsundet	PFM000067	Surface	44	0.057	0.079	0.090	0.11	0.15	0.094	0.02	20
Flottbron	PFM000072	Surface	40	0.053	0.081	0.092	0.10	0.18	0.096	0.03	27
Söder Bredviken	PFM000073	Surface	22	0.15	0.20	0.22	0.24	0.26	0.22	0.03	15
Forsmark area		Surface	315	0.011	0.068	0.082	0.10	0.26	0.091	0.04	46
Simpevarp area		Surface	555	0.021	0.042	0.053	0.068	0.76	0.059	0.05	83

Surface Water

Sr-87		Strontium-87 (Sr87/Sr86) (ratio)							Sr-87		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	3	0.7197	0.7211	0.7226	0.7226	0.7227	0.7216	0.00169	0.23
Gunnarsbo-Lillfjärden	PFM000087	Surface	3	0.7232	0.7233	0.7234	0.7235	0.7236	0.7234	0.000206	0.029
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.7231	0.7231	0.7232	0.7233	0.7234	0.7232	0.000154	0.021
Eckarfjärden	PFM000117	Surface	1	0.7243		0.7243		0.7243	0.7243		
Eckarfjärden	PFM000117	Bottom	1	0.7233		0.7233		0.7233	0.7233		
Bolundsfjärden	PFM000107	Surface	2	0.7191	0.7193	0.7195	0.7197	0.7199	0.7195	0.000499	0.069
Bolundsfjärden	PFM000107	Bottom	1	0.7198		0.7198		0.7198	0.7198		
Norra bassängen	PFM000097	Surface	1	0.7230		0.7230		0.7230	0.7230		
Fiskarfjärden	PFM000127	Surface	1	0.7203		0.7203		0.7203	0.7203		
Fiskarfjärden	PFM000127	Bottom	1	0.7203		0.7203		0.7203	0.7203		
Fiskarfjärden	PFM000135	Surface	1	0.7209		0.7209		0.7209	0.7209		
Forsmark area		Surface	12	0.7191	0.7202	0.7226	0.7233	0.7243	0.7219	0.00179	0.25
Forsmark area		Bottom	6	0.7198	0.7210	0.7231	0.7233	0.7234	0.7222	0.00163	0.23
Simpevarp area		Surface	8	0.7208	0.7219	0.7220	0.7221	0.7280	0.7226	0.00223	0.31
Simpevarp area		Bottom	8	0.7205	0.7219	0.7219	0.7220	0.7280	0.7225	0.00229	0.32
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	2	0.7094	0.7094	0.7094	0.7094	0.7094	0.7094		0.0035
SV Forslingens grund	PFM000062	Bottom	1	0.7095		0.7095		0.7095	0.7095		
Alt. SV Forslingen	PFM000082	Surface	1	0.7095		0.7095		0.7095	0.7095		
Alt. SV Forslingen	PFM000082	Bottom	1	0.7095		0.7095		0.7095	0.7095		
Tixelfjärden	PFM000063	Surface	3	0.7094	0.7095	0.7095	0.7095	0.7095	0.7095		0.0044
Tixelfjärden	PFM000063	Bottom	2	0.7094	0.7094	0.7095	0.7095	0.7095	0.7095		0.010
Kallriga, norra	PFM000064	Surface	2	0.7095	0.7095	0.7095	0.7095	0.7095	0.7095		0.0015
Kallriga, norra	PFM000064	Bottom	1	0.7107		0.7107		0.7107	0.7107		
Kallriga, södra	PFM000065	Surface	3	0.7094	0.7095	0.7095	0.7096	0.7097	0.7095	0.000148	0.021
Forsmark area		Surface	12	0.7094	0.7094	0.7095	0.7095	0.7097	0.7095		0.012
Forsmark area		Bottom	6	0.7094	0.7095	0.7095	0.7095	0.7107	0.7097	0.000503	0.071
Simpevarp area		Surface	23	0.7094	0.7094	0.7095	0.7096	0.7104	0.7096	0.000250	0.035
Simpevarp area		Bottom	23	0.7094	0.7094	0.7094	0.7095	0.7099	0.7095	0.000124	0.017
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	1	0.7230		0.7230		0.7230	0.7230		
Norr Eckarfjärden	PFM000070	Surface	1	0.7223		0.7223		0.7223	0.7223		
Bolundskogen	PFM000069	Surface	1	0.7204		0.7204		0.7204	0.7204		
Kungstråsket	PFM000068	Surface	2	0.7206	0.7217	0.7229	0.7240	0.7251	0.7229	0.00322	0.45
Lillputtsundet	PFM000067	Surface	2	0.7187	0.7190	0.7192	0.7195	0.7198	0.7192	0.000822	0.11
Flottbron	PFM000072	Surface	2	0.7199	0.7199	0.7200	0.7200	0.7201	0.7200	0.000162	0.022
Forsmark area		Surface	9	0.7187	0.7199	0.7204	0.7223	0.7251	0.7211	0.00201	0.28
Simpevarp area		Surface	65	0.7186	0.7201	0.7213	0.7225	0.7263	0.7215	0.00191	0.26

S2 (HS)		Hydrogen sulphide as total sulphide (mg/l)							S2 (HS)		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Gunnarsbo-Lillfjärden		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Gunnarsbo-Lillfjärden		Bottom	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Bolundsfjärden		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Bolundsfjärden		Bottom	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Norra bassängen		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Forsmark area		Surface	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Forsmark area		Bottom	2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Simpevarp area		Surface	3	0.0040	0.0075	0.011	0.011	0.011	0.0087	0.004	47
Simpevarp area		Bottom	1	0.0070		0.0070		0.0070	0.0070		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund		Bottom	1	0.020		0.020		0.020	0.020		
Forsmark area		Bottom	1	0.020		0.020		0.020	0.020		
Simpevarp area		Surface	8	0.0010	0.0030	0.0055	0.0073	0.015	0.0060	0.004	72
Simpevarp area		Bottom	8	0.0010	0.0038	0.0055	0.0075	0.020	0.0069	0.006	85
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Kungstråsket		Surface	1	<0.03		<0.03		<0.03	<0.03	<0.03	
Flottbron		Surface	2	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Forsmark area		Surface	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Simpevarp area		Surface	17	0.0090	0.011	0.015	0.019	0.036	0.017	0.008	46

Surface Water

SO4		Sulphate (mg/l)							SO4		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	42	2.8	4.9	5.8	12	34	9.0	7	76
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	5.3	8.3	11	16	49	15	10	67
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	5.4	6.5	8.3	28	360	32	70	230
Eckarfjärden	PFM000117	Surface	45	3.0	5.2	6.4	7.1	12	6.7	2	32
Eckarfjärden	PFM000117	Bottom	21	4.2	4.5	5.1	7.7	10	6.1	2	33
Bolundsfjärden	PFM000107	Surface	46	9.0	14	16	18	27	17	4	24
Bolundsfjärden	PFM000107	Bottom	21	14	18	19	23	110	27	20	90
Norra bassängen	PFM000097	Surface	37	13	15	21	25	72	23	10	51
Fiskarfjärden	PFM000127	Surface	14	14	15	16	18	19	16	2	11
Fiskarfjärden	PFM000127	Bottom	9	13	14	15	15	18	15	1	9.2
Fiskarfjärden	PFM000135	Surface	17	12	17	20	23	33	22	7	32
Fiskarfjärden	PFM000135	Bottom	1	37		37		37	37		
Forsmark area		Surface	246	2.4	6.9	14	18	72	14	9	65
Forsmark area		Bottom	74	4.2	6.4	14	19	360	21	40	200
Simpevarp area		Surface	112	6.4	9.4	12	15	24	13	5	35
Simpevarp area		Bottom	112	5.9	10	12	15	24	13	5	34
Sweden	N.S.2000	Surface	3464	0.24	1.4	2.8	5.9	1100	6.0	20	400
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	330	370	390	400	480	390	30	7.0
SV Forslingens grund	PFM000062	Bottom	15	320	360	360	370	390	360	10	3.9
Alt. SV Forslingen	PFM000082	Surface	8	260	320	360	380	400	350	50	13
Alt. SV Forslingen	PFM000082	Bottom	8	330	370	380	390	410	380	30	7.4
Tixelfjärden	PFM000063	Surface	41	220	360	380	390	430	370	40	11
Tixelfjärden	PFM000063	Bottom	21	350	360	370	380	410	370	20	4.6
Alt. Tixelfjärden	PFM000083	Surface	3	320	330	330	340	360	340	20	5.0
Alt. Tixelfjärden	PFM000083	Bottom	3	340	360	380	410	450	390	60	15
Kallriga, norra	PFM000064	Surface	37	66	270	350	360	370	300	80	28
Kallriga, norra	PFM000064	Bottom	19	190	320	340	350	370	330	40	12
Kallriga, södra	PFM000065	Surface	36	48	270	350	360	380	290	100	35
Alt. Kallriga	PFM000084	Surface	5	46	47	53	140	300	120	100	93
Alt. Kallriga	PFM000084	Bottom	5	54	280	300	370	430	290	100	49
Forsmark area		Surface	175	46	330	360	380	480	330	90	26
Forsmark area		Bottom	72	54	350	360	380	450	360	50	14
Simpevarp area		Surface	160	53	380	500	530	590	450	100	25
Simpevarp area		Bottom	157	150	460	510	540	620	490	70	15
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	40	3.7	5.8	9.5	17	80	14	10	99
Söder Eckarfjärden	PFM000071	Surface	33	1.1	3.9	5.7	7.4	52	7.5	9	110
Norr Eckarfjärden	PFM000070	Surface	40	1.7	4.0	6.1	8.0	45	7.8	8	100
Bolundskogen	PFM000069	Surface	48	5.6	9.3	13	17	50	15	8	54
Kungstråsket	PFM000068	Surface	47	4.6	9.8	12	16	60	15	10	69
Lillputtsundet	PFM000067	Surface	42	7.8	14	18	21	30	18	5	28
Flottbron	PFM000072	Surface	39	6.8	12	17	30	72	25	20	74
Söder Bredviken	PFM000073	Surface	23	27	46	61	69	94	58	20	30
Forsmark area		Surface	312	1.1	7.1	13	21	94	18	20	94
Simpevarp area		Surface	573	0.92	8.6	13	18	66	16	10	68
Sweden	N.S.2000	Surface	725	0.38	1.9	4.0	12	170	11	20	170

Surface Water

SO4-S		Sulphate as sulphur (mg/l)								SO4-S	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Labboträsket	PFM000074	Surface	42	1.4	2.1	2.5	4.4	14	3.6	3	73
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	2.3	3.3	4.0	6.0	18	5.4	3	64
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	2.2	3.0	3.4	9.7	16	6.1	4	70
Eckarfjärden	PFM000117	Surface	45	0.43	2.2	2.6	2.8	4.4	2.6	0.7	26
Eckarfjärden	PFM000117	Bottom	21	1.8	2.1	2.3	3.1	3.7	2.5	0.6	24
Bolundsfjärden	PFM000107	Surface	47	1.1	5.1	5.7	6.8	9.3	6.0	2	26
Bolundsfjärden	PFM000107	Bottom	21	5.3	6.4	7.2	8.5	35	9.2	7	73
Norra bassängen	PFM000097	Surface	37	4.6	5.7	7.2	8.8	25	8.2	4	50
Fiskarfjärden	PFM000127	Surface	14	5.0	5.7	6.0	6.7	7.2	6.1	0.6	10
Fiskarfjärden	PFM000127	Bottom	9	5.0	5.3	5.7	6.2	6.6	5.8	0.6	11
Fiskarfjärden	PFM000135	Surface	17	4.8	5.8	7.0	8.4	11	7.4	2	27
Fiskarfjärden	PFM000135	Bottom	1	12		12		12	12		
Forsmark area		Surface	247	0.43	2.7	4.9	6.5	25	5.2	3	61
Forsmark area		Bottom	74	1.8	2.7	5.3	7.1	35	6.0	5	83
Simpevarp area		Surface	112	2.7	3.6	4.3	5.5	8.4	4.7	1	32
Simpevarp area		Bottom	112	2.5	3.7	4.4	5.5	8.6	4.8	1	30
Sea Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	42	110	120	120	130	140	120	7	5.4
SV Forslingens grund	PFM000062	Bottom	15	110	120	120	120	130	120	6	4.7
Alt. SV Forslingen	PFM000082	Surface	8	86	120	120	120	130	120	10	12
Alt. SV Forslingen	PFM000082	Bottom	8	120	120	120	130	140	120	6	5.1
Tixelfjärden	PFM000063	Surface	41	77	120	120	130	140	120	10	10
Tixelfjärden	PFM000063	Bottom	21	110	120	120	130	130	120	5	4.4
Alt. Tixelfjärden	PFM000083	Surface	3	110	110	120	120	120	120	5	4.5
Alt. Tixelfjärden	PFM000083	Bottom	3	120	120	120	120	120	120	2	2.0
Kallriga, norra	PFM000064	Surface	37	21	87	110	120	130	100	30	28
Kallriga, norra	PFM000064	Bottom	19	60	100	110	120	130	110	10	13
Kallriga, södra	PFM000065	Surface	36	14	85	110	120	120	95	30	35
Alt. Kallriga	PFM000084	Surface	5	17	27	41	100	130	63	50	78
Alt. Kallriga	PFM000084	Bottom	5	18	98	100	110	120	90	40	46
Forsmark area		Surface	175	14	110	120	120	140	110	30	24
Forsmark area		Bottom	72	18	110	120	120	140	120	20	14
Simpevarp area		Surface	160	27	120	160	170	190	140	30	24
Simpevarp area		Bottom	157	50	150	160	170	190	150	20	14
Streaming Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	40	1.7	2.1	3.3	6.0	23	4.9	4	84
Söder Eckarfjärden	PFM000071	Surface	33	0.55	1.5	2.2	3.0	16	2.7	3	97
Norr Eckarfjärden	PFM000070	Surface	41	1.1	2.0	2.5	3.0	14	3.0	2	82
Bolundskogen	PFM000069	Surface	48	1.7	3.9	5.1	6.2	16	5.4	2	46
Kungstråsket	PFM000068	Surface	48	1.2	3.8	4.3	5.7	18	5.2	3	58
Lillputtsundet	PFM000067	Surface	44	3.1	5.5	6.4	7.5	11	6.5	2	26
Flottbron	PFM000072	Surface	40	3.2	4.8	6.3	10	22	8.8	6	66
Söder Bredviken	PFM000073	Surface	23	10	15	19	22	31	19	6	30
Forsmark area		Surface	317	0.55	2.9	4.7	7.1	31	6.3	5	84
Simpevarp area		Surface	556	1.0	3.5	4.8	6.8	21	5.8	3	61

Surface Water

S-34		Sulphur-34 (dev. CDT)							S-34		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	4	0.200	3.13	5.35	9.93	19.9	7.70	8.5	110
Gunnarsbo-Lillfjärden	PFM000087	Surface	3	-1.00	2.25	5.50	5.90	6.30	3.60	4.0	110
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	-0.500	2.75	6.00	6.30	6.60	4.03	3.9	98
Eckarfjärden	PFM000117	Surface	2	3.40	3.58	3.75	3.93	4.10	3.75	0.49	13
Bolundsfjärden	PFM000107	Surface	3	5.20	5.75	6.30	8.30	10.3	7.27	2.7	37
Bolundsfjärden	PFM000107	Bottom	1	6.20		6.20		6.20	6.20		
Norra bassängen	PFM000097	Surface	2	6.10	6.55	7.00	7.45	7.90	7.00	1.3	18
Fiskarfjärden	PFM000127	Surface	1	1.90		1.90		1.90	1.90		
Fiskarfjärden	PFM000127	Bottom	1	5.20		5.20		5.20	5.20		
Fiskarfjärden	PFM000135	Surface	1	-0.400		-0.400		-0.400	-0.400		
Forsmark area		Surface	16	-1.00	3.03	5.35	6.38	19.9	5.40	4.9	91
Forsmark area		Bottom	5	-0.500	5.20	6.00	6.20	6.60	4.70	3.0	63
Simpevarp area		Surface	10	0.900	2.18	3.50	4.43	8.80	3.95	2.6	67
Simpevarp area		Bottom	9	0.700	2.40	3.00	5.10	8.30	3.79	2.6	68
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	3	20.5	20.6	20.7	20.8	20.8	20.7	0.15	0.74
SV Forslingens grund	PFM000062	Bottom	1	21.4		21.4		21.4	21.4		
Alt. SV Forslingen	PFM000082	Surface	1	20.2		20.2		20.2	20.2		
Alt. SV Forslingen	PFM000082	Bottom	1	19.9		19.9		19.9	19.9		
Tixelfjärden	PFM000063	Surface	4	19.8	19.9	20.1	20.4	21.0	20.2	0.54	2.7
Tixelfjärden	PFM000063	Bottom	2	20.0	20.2	20.4	20.5	20.7	20.4	0.49	2.4
Kallriga, norra	PFM000064	Surface	3	19.3	20.1	20.8	20.9	21.0	20.4	0.93	4.6
Kallriga, norra	PFM000064	Bottom	1	20.6		20.6		20.6	20.6		
Kallriga, södra	PFM000065	Surface	4	17.2	18.5	19.9	20.9	21.0	19.5	1.8	9.3
Forsmark area		Surface	16	17.2	19.9	20.6	20.9	21.0	20.2	1.0	5.1
Forsmark area		Bottom	6	19.9	20.2	20.7	21.1	21.4	20.6	0.61	3.0
Simpevarp area		Surface	31	16.3	19.3	20.2	21.0	23.1	20.0	1.6	8.2
Simpevarp area		Bottom	30	17.8	19.3	20.4	20.7	21.9	20.1	1.0	5.1
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	2	4.10	5.00	5.90	6.80	7.70	5.90	2.5	43
Norr Eckarfjärden	PFM000070	Surface	2	3.80	4.20	4.60	5.00	5.40	4.60	1.1	25
Bolundskogen	PFM000069	Surface	1	8.90		8.90		8.90	8.90		
Kungstråsket	PFM000068	Surface	3	0.600	1.70	2.80	5.90	9.00	4.13	4.4	110
Liliputtsundet	PFM000067	Surface	3	4.70	6.00	7.30	8.85	10.4	7.47	2.9	38
Flottbron	PFM000072	Surface	3	-2.10	-0.950	0.200	4.10	8.00	2.03	5.3	260
Söder Bredviken	PFM000073	Surface	1	-10.3		-10.3		-10.3	-10.3		
Forsmark area		Surface	15	-10.3	1.70	4.70	7.85	10.4	4.03	5.4	130
Simpevarp area		Surface	80	-1.10	4.63	6.30	8.30	15.1	6.42	3.0	47

Surface Water

Tb		Terbium ($\mu\text{g/l}$)							Tb	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Gunnarsbo-Lillfjärden	PFM000087	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	100
Gunnarsbo-Lillfjärden	PFM000087	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	62
Eckarfjärden	PFM000117	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	150
Eckarfjärden	PFM000117	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	120
Bolundsfjärden	PFM000107	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	110
Bolundsfjärden	PFM000107	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	49
Norra bassängen	PFM000097	Surface	5	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Fiskarfjärden	PFM000127	Bottom	1	<0.05		<0.05		<0.05		
Fiskarfjärden	PFM000135	Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	140
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	110
Forsmark area		Bottom	7	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	53
Simpevarp area		Surface	1	<0.05		<0.05		<0.05		
Simpevarp area		Bottom	1	<0.05		<0.05		<0.05		
Sea Water										
SV Forslingens grund	PFM000062	Surface	7	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	190
SV Forslingens grund	PFM000062	Bottom	2	<0.5	<0.5	<0.5	<0.5	<0.5		
Alt. SV Forslingen	PFM000082	Surface	1	<0.3		<0.3		<0.3		
Alt. SV Forslingen	PFM000082	Bottom	1	<0.3		<0.3		<0.3		
Tixelfjärden	PFM000063	Surface	8	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	170
Tixelfjärden	PFM000063	Bottom	4	<0.5	<0.5	<0.5	<0.5	<0.5	0.07	160
Kallriga, norra	PFM000064	Surface	7	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	210
Kallriga, norra	PFM000064	Bottom	3	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	170
Kallriga, södra	PFM000065	Surface	8	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	150
Forsmark area		Surface	31	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	160
Forsmark area		Bottom	10	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	150
Simpevarp area		Surface	4	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	58
Simpevarp area		Bottom	4	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	58
Streaming Water										
Öster Gunnarsboträsket	PFM000066	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	140
Norr Eckarfjärden	PFM000070	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	130
Bolundskogen	PFM000069	Surface	1	0.0062		0.0062		0.0062		
Kungstråsket	PFM000068	Surface	6	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	83
Liliputtsundet	PFM000067	Surface	5	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	110
Flottbron	PFM000072	Surface	5	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	150
Söder Bredviken	PFM000073	Surface	3	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Forsmark area		Surface	32	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	110
Simpevarp area		Surface	10	<0.05	<0.05	<0.05	<0.05	<0.05		

Surface Water

TI		Thallium ($\mu\text{g/l}$)							TI	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	25
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	34
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.006	51
Eckarfjärden	PFM000117	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	39
Eckarfjärden	PFM000117	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.006	53
Bolundsfjärden	PFM000107	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	33
Bolundsfjärden	PFM000107	Bottom	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	40
Norra bassängen	PFM000097	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	37
Fiskarfjärden	PFM000127	Bottom	1	<0.03		<0.03		<0.03	<0.03	
Fiskarfjärden	PFM000135	Surface	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Forsmark area		Surface	39	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	31
Forsmark area		Bottom	10	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	39
Simpevarp area		Surface	1	<0.03		<0.03		<0.03	<0.03	
Simpevarp area		Bottom	1	<0.03		<0.03		<0.03	<0.03	
Sea Water										
SV Forslingens grund	PFM000062	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.06	80
SV Forslingens grund	PFM000062	Bottom	2	<0.3	<0.3	<0.3	<0.3	<0.3	0.02	42
Alt. SV Forslingen	PFM000082	Surface	2	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	95
Alt. SV Forslingen	PFM000082	Bottom	2	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	93
Tixelfjärden	PFM000063	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.06	87
Tixelfjärden	PFM000063	Bottom	4	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	74
Alt. Tixelfjärden	PFM000083	Surface	1	0.010		0.010		0.010	0.010	
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0089		0.0089		0.0089	0.0089	
Kallriga, norra	PFM000064	Surface	7	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	110
Kallriga, norra	PFM000064	Bottom	3	<0.3	<0.3	<0.3	<0.3	<0.3	0.06	65
Kallriga, södra	PFM000065	Surface	8	<0.3	<0.3	<0.3	<0.3	<0.3	0.04	100
Alt. Kallriga	PFM000084	Surface	1	0.0098		0.0098		0.0098	0.0098	
Alt. Kallriga	PFM000084	Bottom	1	0.010		0.010		0.010	0.010	
Forsmark area		Surface	35	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	94
Forsmark area		Bottom	13	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	82
Simpevarp area		Surface	4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Simpevarp area		Bottom	4	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Streaming Water										
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	41
Norr Eckarfjärden	PFM000070	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	32
Bolundskogen	PFM000069	Surface	1	<0.03		<0.03		<0.03	<0.03	
Kungstråsket	PFM000068	Surface	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.002	13
Lillputtsundet	PFM000067	Surface	5	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	29
Flottbron	PFM000072	Surface	5	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	32
Söder Bredviken	PFM000073	Surface	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.002	17
Forsmark area		Surface	33	<0.03	<0.03	<0.03	<0.03	<0.03	0.004	27
Simpevarp area		Surface	10	<0.03	<0.03	<0.03	<0.03	0.060	<0.03	0.01

Surface Water

Th		Thorium ($\mu\text{g/l}$)							Th		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.02	<0.02	<0.02	<0.02	0.026	<0.02	0.006	49
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.02	<0.02	<0.02	<0.02	0.026	<0.02	0.007	48
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.02	<0.02	0.021	0.026	0.030	0.020	0.01	49
Eckarfjärden	PFM000117	Surface	7	<0.02	<0.02	<0.02	<0.02	0.040	<0.02	0.01	72
Eckarfjärden	PFM000117	Bottom	3	<0.02	0.021	0.032	0.035	0.038	0.027	0.01	55
Bolundsfjärden	PFM000107	Surface	7	<0.02	<0.02	<0.02	0.030	0.053	0.022	0.02	77
Bolundsfjärden	PFM000107	Bottom	3	<0.02	0.023	0.036	0.039	0.043	0.030	0.02	59
Norra bassängen	PFM000097	Surface	6	<0.02	<0.02	<0.02	0.028	0.050	0.022	0.02	71
Fiskarfjärden	PFM000127	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Fiskarfjärden	PFM000135	Surface	4	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Forsmark area		Surface	39	<0.02	<0.02	<0.02	0.026	0.053	<0.02	0.01	70
Forsmark area		Bottom	10	<0.02	<0.02	0.026	0.035	0.043	0.024	0.01	55
Simpevarp area		Surface	1	<0.02		<0.02		<0.02	<0.02		
Simpevarp area		Bottom	1	<0.02		<0.02		<0.02	<0.02		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	8	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.07	65
SV Forslingens grund	PFM000062	Bottom	2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4		
Alt. SV Forslingen	PFM000082	Surface	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	94
Alt. SV Forslingen	PFM000082	Bottom	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	94
Tixelfjärden	PFM000063	Surface	8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	45
Tixelfjärden	PFM000063	Bottom	4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	40
Alt. Tixelfjärden	PFM000083	Surface	1	0.021		0.021		0.021	0.021		
Alt. Tixelfjärden	PFM000083	Bottom	1	<0.02		<0.02		<0.02	<0.02		
Kallriga, norra	PFM000064	Surface	7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	45
Kallriga, norra	PFM000064	Bottom	3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	43
Kallriga, södra	PFM000065	Surface	8	<0.2	<0.2	<0.2	<0.2	0.32	<0.2	0.10	110
Alt. Kallriga	PFM000084	Surface	1	0.12		0.12		0.12	0.12		
Alt. Kallriga	PFM000084	Bottom	1	0.14		0.14		0.14	0.14		
Forsmark area		Surface	35	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.06	77
Forsmark area		Bottom	13	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.04	61
Simpevarp area		Surface	4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Simpevarp area		Bottom	4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.02	<0.02	<0.02	0.027	0.029	<0.02	0.010	54
Norr Eckarfjärden	PFM000070	Surface	6	<0.02	<0.02	<0.02	0.021	0.043	<0.02	0.01	75
Bolundskogen	PFM000069	Surface	1	<0.02		<0.02		<0.02	<0.02		
Kungstråsket	PFM000068	Surface	6	<0.02	0.035	0.039	0.049	0.056	0.038	0.02	43
Lillputtsundet	PFM000067	Surface	5	<0.02	<0.02	<0.02	0.024	0.051	0.021	0.02	85
Flottbron	PFM000072	Surface	5	<0.02	<0.02	<0.02	<0.02	0.021	<0.02	0.005	40
Söder Bredviken	PFM000073	Surface	3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Forsmark area		Surface	33	<0.02	<0.02	<0.02	0.028	0.056	0.020	0.01	73
Simpevarp area		Surface	10	<0.02	<0.02	0.027	0.035	0.042	0.025	0.01	55

Surface Water

Th-230		Thorium-230 (mBq/kg)						Th-230		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1	<50	<50	<50	<50	<50		
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	<50	<50	<50	<50	<50		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	<50	<50	<50	<50	<50		
Eckarfjärden	PFM000117	Surface	1	<50	<50	<50	<50	<50		
Eckarfjärden	PFM000117	Bottom	1	50	50	50	50	50		
Bolundsfjärden	PFM000107	Surface	1	<50	<50	<50	<50	<50		
Bolundsfjärden	PFM000107	Bottom	1	<50	<50	<50	<50	<50		
Norra bassängen	PFM000097	Surface	1	<50	<50	<50	<50	<50		
Fiskarfjärden	PFM000135	Surface	1	<50	<50	<50	<50	<50		
Forsmark area		Surface	6	<50	<50	<50	<50	<50		
Forsmark area		Bottom	3	<50	<50	<50	50	<50	10	43
Simpevarp area		Surface	1	<50	<50	<50	<50	<50		
Simpevarp area		Bottom	1	<50	<50	<50	<50	<50		
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	<50	<50	<50	<50	<50		
SV Forslingens grund	PFM000062	Bottom	1	<50	<50	<50	<50	<50		
Alt. SV Forslingen	PFM000082	Surface	1	<50	<50	<50	<50	<50		
Alt. SV Forslingen	PFM000082	Bottom	1	<50	<50	<50	<50	<50		
Tixelfjärden	PFM000063	Surface	2	<50	<50	<50	<50	<50		
Tixelfjärden	PFM000063	Bottom	2	<50	<50	<50	<50	<50		
Kallriga, norra	PFM000064	Surface	1	<50	<50	<50	<50	<50		
Kallriga, norra	PFM000064	Bottom	1	100	100	100	100	100		
Kallriga, södra	PFM000065	Surface	2	<50	<50	<50	<50	<50		
Forsmark area		Surface	7	<50	<50	<50	<50	<50		
Forsmark area		Bottom	5	<50	<50	<50	<50	100	<50	30
Simpevarp area		Surface	4	<50	<50	<50	<50	<50	<50	
Simpevarp area		Bottom	4	<50	<50	<50	<50	<50	<50	
Streaming Water										
Simpevarp area		Surface	10	<50	<50	<50	<50	<50	<50	

Th-232		Thorium-232 (mBq/kg)						Th-232		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1	<50	<50	<50	<50	<50	<50	
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	<50	<50	<50	<50	<50	<50	
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	<50	<50	<50	<50	<50	<50	
Eckarfjärden	PFM000117	Surface	1	<50	<50	<50	<50	<50	<50	
Eckarfjärden	PFM000117	Bottom	1	<50	<50	<50	<50	<50	<50	
Bolundsfjärden	PFM000107	Surface	1	<50	<50	<50	<50	<50	<50	
Bolundsfjärden	PFM000107	Bottom	1	<50	<50	<50	<50	<50	<50	
Norra bassängen	PFM000097	Surface	1	<50	<50	<50	<50	<50	<50	
Fiskarfjärden	PFM000135	Surface	1	<50	<50	<50	<50	<50	<50	
Forsmark area		Surface	6	<50	<50	<50	<50	<50	<50	
Forsmark area		Bottom	3	<50	<50	<50	<50	<50	<50	
Simpevarp area		Surface	1	<50	<50	<50	<50	<50	<50	
Simpevarp area		Bottom	1	<50	<50	<50	<50	<50	<50	
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	<50	<50	<50	<50	<50	<50	
SV Forslingens grund	PFM000062	Bottom	1	<50	<50	<50	<50	<50	<50	
Alt. SV Forslingen	PFM000082	Surface	1	<50	<50	<50	<50	<50	<50	
Alt. SV Forslingen	PFM000082	Bottom	1	<50	<50	<50	<50	<50	<50	
Tixelfjärden	PFM000063	Surface	2	<50	<50	<50	<50	<50	<50	
Tixelfjärden	PFM000063	Bottom	2	<50	<50	<50	<50	<50	<50	
Kallriga, norra	PFM000064	Surface	1	<50	<50	<50	<50	<50	<50	
Kallriga, norra	PFM000064	Bottom	1	<50	<50	<50	<50	<50	<50	
Kallriga, södra	PFM000065	Surface	2	<50	<50	<50	<50	<50	<50	
Forsmark area		Surface	7	<50	<50	<50	<50	<50	<50	
Forsmark area		Bottom	5	<50	<50	<50	<50	<50	<50	
Simpevarp area		Surface	4	<50	<50	<50	<50	<50	<50	
Simpevarp area		Bottom	4	<50	<50	<50	<50	<50	<50	
Streaming Water										
Simpevarp area		Surface	10	<50	<50	<50	<50	<50	<50	

Surface Water

Tm	Thullium (µg/l)								Tm		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0002	6.2
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0003	12
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	<0.005	<0.005	<0.005	<0.005	0.0059	<0.005	0.002	46
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0006	26
Eckarfjärden	PFM000117	Bottom	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0008	26
Bolundsfjärden	PFM000107	Surface	7	<0.005	<0.005	<0.005	<0.005	0.0054	<0.005	0.001	38
Bolundsfjärden	PFM000107	Bottom	3	<0.005	<0.005	<0.005	<0.005	0.0052	<0.005	0.001	36
Norra bassängen	PFM000097	Surface	6	<0.005	<0.005	<0.005	<0.005	0.0060	<0.005	0.002	52
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Forsmark area		Surface	39	<0.005	<0.005	<0.005	<0.005	0.0060	<0.005	0.0008	32
Forsmark area		Bottom	10	<0.005	<0.005	<0.005	<0.005	0.0059	<0.005	0.001	36
Simpevarp area		Surface	1	<0.005		<0.005		<0.005	<0.005		
Simpevarp area		Bottom	1	<0.005		<0.005		<0.005	<0.005		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006	110
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.006	110
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	88
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.0016		0.0016		0.0016	0.0016		
Alt. Tixelfjärden	PFM000083	Bottom	1	<0.001		<0.001		<0.001	<0.001		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	91
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	97
Alt. Kallriga	PFM000084	Surface	1	0.0099		0.0099		0.0099	0.0099		
Alt. Kallriga	PFM000084	Bottom	1	0.011		0.011		0.011	0.011		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	85
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	110
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0003	11
Norr Eckarfjärden	PFM000070	Surface	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0004	19
Bolundskogen	PFM000069	Surface	1	<0.005		<0.005		<0.005	<0.005		
Kungstråsket	PFM000068	Surface	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0006	21
Lillputtsundet	PFM000067	Surface	5	<0.005	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005	50
Flottbron	PFM000072	Surface	5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0009	43
Söder Bredviken	PFM000073	Surface	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0007	33
Forsmark area		Surface	33	<0.005	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005	0.0007
Simpevarp area		Surface	10	<0.005	<0.005	<0.005	<0.005	0.0059	0.0084	<0.005	54

Surface Water

U		Uranium ($\mu\text{g/l}$)							U		
Lake Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Labboträsket	PFM000074	Surface	7	0.97	1.3	2.0	2.2	3.1	1.9	0.7	40
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	2.0	2.7	3.3	3.7	4.3	3.2	0.8	26
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	3.3	3.4	3.5	5.3	7.2	4.6	2	47
Eckarfjärden	PFM000117	Surface	7	1.0	1.3	1.3	1.3	1.5	1.3	0.1	10.0
Eckarfjärden	PFM000117	Bottom	3	1.00	1.1	1.3	1.3	1.3	1.2	0.2	15
Bolundsfjärden	PFM000107	Surface	7	1.7	1.9	2.3	2.6	3.2	2.3	0.5	23
Bolundsfjärden	PFM000107	Bottom	3	1.7	2.0	2.4	2.7	3.1	2.4	0.7	29
Norra bassängen	PFM000097	Surface	6	1.7	1.8	2.2	2.6	3.8	2.4	0.8	33
Fiskarfjärden	PFM000127	Bottom	1	1.5		1.5		1.5	1.5		
Fiskarfjärden	PFM000135	Surface	4	1.1	1.1	1.2	1.5	2.0	1.4	0.4	30
Forsmark area		Surface	39	0.97	1.3	2.0	2.5	4.3	2.1	0.9	42
Forsmark area		Bottom	10	1.00	1.4	2.0	3.2	7.2	2.6	2	70
Simpevarp area		Surface	1	0.38		0.38		0.38	0.38		
Simpevarp area		Bottom	1	0.34		0.34		0.34	0.34		
Sea Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SV Forslingens grund	PFM000062	Surface	8	0.56	0.63	0.67	0.72	0.86	0.68	0.10	14
SV Forslingens grund	PFM000062	Bottom	2	0.60	0.62	0.65	0.67	0.69	0.65	0.06	9.7
Alt. SV Forslingen	PFM000082	Surface	2	0.83	0.83	0.83	0.83	0.83	0.83	0.001	0.17
Alt. SV Forslingen	PFM000082	Bottom	2	0.75	0.79	0.83	0.87	0.91	0.83	0.1	14
Tixelfjärden	PFM000063	Surface	8	0.55	0.64	0.75	0.85	0.93	0.74	0.1	19
Tixelfjärden	PFM000063	Bottom	4	0.60	0.63	0.70	0.77	0.82	0.70	0.10	14
Alt. Tixelfjärden	PFM000083	Surface	1	0.75		0.75		0.75	0.75		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.72		0.72		0.72	0.72		
Kallriga, norra	PFM000064	Surface	7	0.57	0.81	1.2	1.8	2.7	1.4	0.8	55
Kallriga, norra	PFM000064	Bottom	3	0.76	0.91	1.1	1.1	1.2	1.0	0.2	23
Kallriga, södra	PFM000065	Surface	8	0.65	0.85	1.4	1.8	2.4	1.4	0.7	49
Alt. Kallriga	PFM000084	Surface	1	2.4		2.4		2.4	2.4		
Alt. Kallriga	PFM000084	Bottom	1	2.4		2.4		2.4	2.4		
Forsmark area		Surface	35	0.55	0.67	0.83	1.2	2.7	1.1	0.6	58
Forsmark area		Bottom	13	0.60	0.69	0.75	0.91	2.4	0.92	0.5	53
Simpevarp area		Surface	4	0.74	0.75	0.76	0.78	0.78	0.76	0.02	2.3
Simpevarp area		Bottom	4	0.74	0.76	0.77	0.77	0.77	0.76	0.02	2.1
Streaming Water		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Öster Gunnarsboträsket	PFM000066	Surface	7	0.97	1.3	1.8	2.0	4.0	1.9	1	53
Norr Eckarfjärden	PFM000070	Surface	6	0.27	0.46	0.98	1.3	1.3	0.87	0.5	55
Bolundskogen	PFM000069	Surface	1	2.9		2.9		2.9	2.9		
Kungstråsket	PFM000068	Surface	6	2.4	2.9	3.0	3.2	4.3	3.1	0.6	20
Lillputtsundet	PFM000067	Surface	5	2.0	2.2	2.3	3.0	3.1	2.5	0.5	21
Flottbron	PFM000072	Surface	5	0.46	0.46	0.59	0.76	1.0	0.65	0.2	35
Söder Bredviken	PFM000073	Surface	3	23	24	25	26	28	25	3	11
Forsmark area		Surface	33	0.27	1.0	2.0	3.0	28	4.0	7	170
Simpevarp area		Surface	10	0.16	0.30	0.76	0.95	1.9	0.79	0.6	74

Surface Water

U-234		Uranium-234 (mBq/kg)						U-234		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1	70	70		70	70		
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	60	60		60	60		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	<50	<50		<50	<50		
Eckarfjärden	PFM000117	Surface	1	<50	<50		<50	<50		
Eckarfjärden	PFM000117	Bottom	1	50	50		50	50		
Bolundsfjärden	PFM000107	Surface	1	<50	<50		<50	<50		
Bolundsfjärden	PFM000107	Bottom	1	<50	<50		<50	<50		
Norra bassängen	PFM000097	Surface	1	60	60		60	60		
Fiskarfjärden	PFM000135	Surface	1	<50	<50		<50	<50		
Forsmark area		Surface	6	<50	<50	60	70	<50	20	48
Forsmark area		Bottom	3	<50	<50	<50	50	<50	10	43
Simpevarp area		Surface	1	<50	<50		<50	<50		
Simpevarp area		Bottom	1	<50	<50		<50	<50		
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	50	50		50	50		
SV Forslingens grund	PFM000062	Bottom	1	<50	<50		<50	<50		
Alt. SV Forslingen	PFM000082	Surface	1	<50	<50		<50	<50		
Alt. SV Forslingen	PFM000082	Bottom	1	<50	<50		<50	<50		
Tixelfjärden	PFM000063	Surface	2	<50	<50	<50	50	<50	20	47
Tixelfjärden	PFM000063	Bottom	2	<50	<50	<50	<50	<50		
Kallriga, norra	PFM000064	Surface	1	<50	<50		<50	<50		
Kallriga, norra	PFM000064	Bottom	1	100	100		100	100		
Kallriga, södra	PFM000065	Surface	2	<50	<50	<50	<50	<50		
Forsmark area		Surface	7	<50	<50	<50	50	<50	10	38
Forsmark area		Bottom	5	<50	<50	<50	100	<50	30	84
Simpevarp area		Surface	4	<50	<50	<50	<50	<50		
Simpevarp area		Bottom	4	<50	<50	<50	<50	<50		
Streaming Water										
Simpevarp area		Surface	10	<50	<50	<50	<50	<50		

U-235		Uranium-235 (mBq/kg)						U-235		
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water										
Labboträsket	PFM000074	Surface	1	<50	<50		<50	<50		
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	<50	<50		<50	<50		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	<50	<50		<50	<50		
Eckarfjärden	PFM000117	Surface	1	<50	<50		<50	<50		
Eckarfjärden	PFM000117	Bottom	1	<50	<50		<50	<50		
Bolundsfjärden	PFM000107	Surface	1	<50	<50		<50	<50		
Bolundsfjärden	PFM000107	Bottom	1	<50	<50		<50	<50		
Norra bassängen	PFM000097	Surface	1	<50	<50		<50	<50		
Fiskarfjärden	PFM000135	Surface	1	<50	<50		<50	<50		
Forsmark area		Surface	6	<50	<50	<50	<50	<50		
Forsmark area		Bottom	3	<50	<50	<50	<50	<50		
Simpevarp area		Surface	1	<50	<50	<50	<50	<50		
Simpevarp area		Bottom	1	<50	<50	<50	<50	<50		
Sea Water										
SV Forslingens grund	PFM000062	Surface	1	<50	<50		<50	<50		
SV Forslingens grund	PFM000062	Bottom	1	<50	<50		<50	<50		
Alt. SV Forslingen	PFM000082	Surface	1	<50	<50		<50	<50		
Alt. SV Forslingen	PFM000082	Bottom	1	<50	<50		<50	<50		
Tixelfjärden	PFM000063	Surface	2	<50	<50	<50	<50	<50		
Tixelfjärden	PFM000063	Bottom	2	<50	<50	<50	<50	<50		
Kallriga, norra	PFM000064	Surface	1	<50	<50		<50	<50		
Kallriga, norra	PFM000064	Bottom	1	<50	<50		<50	<50		
Kallriga, södra	PFM000065	Surface	2	<50	<50	<50	<50	<50		
Forsmark area		Surface	7	<50	<50	<50	<50	<50		
Forsmark area		Bottom	5	<50	<50	<50	<50	<50		
Simpevarp area		Surface	4	<50	<50	<50	<50	<50		
Simpevarp area		Bottom	4	<50	<50	<50	<50	<50		
Streaming Water										
Simpevarp area		Surface	10	<50	<50	<50	<50	<50		

Surface Water

U-238		Uranium-238 (mBq/kg)							U-238		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	1	70		70		70	70		
Gunnarsbo-Lillfjärden	PFM000087	Surface	1	60		60		60	60		
Gunnarsbo-Lillfjärden	PFM000087	Bottom	1	<50		<50		<50	<50		
Eckarfjärden	PFM000117	Surface	1	<50		<50		<50	<50		
Eckarfjärden	PFM000117	Bottom	1	50		50		50	50		
Bolundsfjärden	PFM000107	Surface	1	<50		<50		<50	<50		
Bolundsfjärden	PFM000107	Bottom	1	<50		<50		<50	<50		
Norra bassängen	PFM000097	Surface	1	60		60		60	60		
Fiskarfjärden	PFM000135	Surface	1	<50		<50		<50	<50		
Forsmark area		Surface	6	<50	<50	<50	60	70	<50	20	48
Forsmark area		Bottom	3	<50	<50	<50	<50	50	<50	10	43
Simpevarp area		Surface	1	<50		<50		<50	<50		
Simpevarp area		Bottom	1	<50		<50		<50	<50		
Sea Water											
SV Forslingens grund	PFM000062	Surface	1	50		50		50	50		
SV Forslingens grund	PFM000062	Bottom	1	<50		<50		<50	<50		
Alt. SV Forslingen	PFM000082	Surface	1	<50		<50		<50	<50		
Alt. SV Forslingen	PFM000082	Bottom	1	<50		<50		<50	<50		
Tixelfjärden	PFM000063	Surface	2	<50	<50	<50	<50	50	<50	20	47
Tixelfjärden	PFM000063	Bottom	2	<50	<50	<50	<50	<50	<50		
Kallriga, norra	PFM000064	Surface	1	<50		<50		<50	<50		
Kallriga, norra	PFM000064	Bottom	1	100		100		100	100		
Kallriga, södra	PFM000065	Surface	2	<50	<50	<50	<50	<50	<50		
Forsmark area		Surface	7	<50	<50	<50	<50	50	<50	10	38
Forsmark area		Bottom	5	<50	<50	<50	<50	100	<50	30	84
Simpevarp area		Surface	4	<50	<50	<50	<50	<50	<50		
Simpevarp area		Bottom	4	<50	<50	<50	<50	<50	<50		
Streaming Water											
Simpevarp area		Surface	10	<50	<50	<50	<50	<50	<50		

Surface Water

V		Vanadium (µg/l)								V	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	10	0.17	0.18	0.21	0.23	0.46	0.24	0.09	38
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.16	0.17	0.22	0.32	0.41	0.25	0.10	39
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.17	0.18	0.18	0.20	0.21	0.19	0.02	11
Eckarfjärden	PFM000117	Surface	9	0.19	0.23	0.27	0.29	0.37	0.27	0.06	21
Eckarfjärden	PFM000117	Bottom	4	0.18	0.20	0.21	0.21	0.23	0.21	0.02	9.6
Bolundsfjärden	PFM000107	Surface	8	0.22	0.23	0.29	0.46	0.61	0.35	0.2	43
Bolundsfjärden	PFM000107	Bottom	3	0.22	0.22	0.23	0.24	0.26	0.23	0.02	11
Norra bassängen	PFM000097	Surface	5	0.22	0.37	0.37	0.42	0.58	0.39	0.1	33
Fiskarfjärden	PFM000127	Surface	1	0.50		0.50		0.50	0.50		
Fiskarfjärden	PFM000127	Bottom	2	0.44	0.46	0.48	0.50	0.52	0.48	0.06	13
Fiskarfjärden	PFM000135	Surface	5	0.22	0.25	0.25	0.31	0.48	0.30	0.1	34
Forsmark area		Surface	45	0.16	0.22	0.25	0.37	0.61	0.30	0.1	39
Forsmark area		Bottom	12	0.17	0.20	0.21	0.24	0.52	0.25	0.1	43
Simpevarp area		Surface	1	0.98		0.98		0.98	0.98		
Simpevarp area		Bottom	1	0.94		0.94		0.94	0.94		
Sweden	N.S.2000	Surface	1206	0.010	0.090	0.22	0.46	740	0.94	20	2300
Sea Water											
SV Forslingens grund	PFM000062	Surface	11	0.096	0.15	0.17	0.25	0.32	0.20	0.08	38
SV Forslingens grund	PFM000062	Bottom	3	0.097	0.13	0.16	0.17	0.18	0.14	0.04	28
Alt. SV Forslingen	PFM000082	Surface	1	0.13		0.13		0.13	0.13		
Alt. SV Forslingen	PFM000082	Bottom	1	0.12		0.12		0.12	0.12		
Tixelfjärden	PFM000063	Surface	9	0.11	0.16	0.21	0.30	0.52	0.24	0.1	51
Tixelfjärden	PFM000063	Bottom	5	0.14	0.16	0.19	0.21	0.34	0.21	0.08	39
Kallriga, norra	PFM000064	Surface	8	0.14	0.23	0.39	0.46	0.92	0.40	0.2	61
Kallriga, norra	PFM000064	Bottom	4	0.20	0.24	0.34	0.49	0.64	0.38	0.2	52
Kallriga, södra	PFM000065	Surface	9	0.18	0.22	0.33	0.36	2.1	0.50	0.6	120
Forsmark area		Surface	38	0.096	0.17	0.23	0.34	2.1	0.32	0.3	100
Forsmark area		Bottom	13	0.097	0.16	0.19	0.25	0.64	0.24	0.2	63
Simpevarp area		Surface	4	0.16	0.17	0.18	0.20	0.23	0.19	0.03	16
Simpevarp area		Bottom	4	0.11	0.14	0.17	0.19	0.20	0.16	0.04	26
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	7	0.15	0.19	0.24	0.35	0.47	0.28	0.1	43
Söder Eckarfjärden	PFM000071	Surface	1	0.35		0.35		0.35	0.35		
Norr Eckarfjärden	PFM000070	Surface	7	0.22	0.22	0.28	0.31	0.35	0.27	0.05	19
Bolundskogen	PFM000069	Surface	3	0.21	0.22	0.22	0.23	0.24	0.22	0.01	5.1
Kungstråsket	PFM000068	Surface	8	0.21	0.22	0.25	0.36	0.61	0.31	0.1	44
Lillputtsundet	PFM000067	Surface	7	0.23	0.30	0.33	0.42	0.69	0.38	0.2	41
Flottbron	PFM000072	Surface	6	0.11	0.28	0.31	0.52	0.60	0.36	0.2	53
Söder Bredviken	PFM000073	Surface	3	0.20	0.33	0.45	0.55	0.64	0.43	0.2	51
Forsmark area		Surface	42	0.11	0.22	0.28	0.36	0.69	0.32	0.1	43
Simpevarp area		Surface	10	0.69	1.1	1.3	2.0	3.0	1.6	0.8	52

Surface Water

Yb		Ytterbium (µg/l)								Yb	
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	7	0.0070	0.0093	0.013	0.014	0.023	0.013	0.005	42
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.0060	0.011	0.015	0.020	0.026	0.016	0.007	46
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.020	0.021	0.022	0.032	0.043	0.028	0.01	45
Eckarfjärden	PFM000117	Surface	7	<0.005	<0.005	0.0091	0.016	0.026	0.011	0.009	78
Eckarfjärden	PFM000117	Bottom	3	0.0084	0.017	0.025	0.025	0.026	0.020	0.010	50
Bolundsfjärden	PFM000107	Surface	7	0.0068	0.010	0.012	0.022	0.038	0.017	0.01	64
Bolundsfjärden	PFM000107	Bottom	3	0.018	0.022	0.026	0.030	0.034	0.026	0.008	31
Norra bassängen	PFM000097	Surface	6	0.0053	0.011	0.017	0.024	0.040	0.019	0.01	65
Fiskarfjärden	PFM000127	Bottom	1	<0.005		<0.005		<0.005	<0.005		
Fiskarfjärden	PFM000135	Surface	4	<0.005	0.0074	0.0093	0.012	0.021	0.010	0.008	73
Forsmark area		Surface	39	<0.005	0.0090	0.013	0.018	0.040	0.015	0.009	60
Forsmark area		Bottom	10	<0.005	0.018	0.023	0.026	0.043	0.022	0.01	51
Simpevarp area		Surface	1	0.010		0.010		0.010	0.010		
Simpevarp area		Bottom	1	0.010		0.010		0.010	0.010		
Sea Water											
SV Forslingens grund	PFM000062	Surface	7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	69
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Alt. SV Forslingen	PFM000082	Surface	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.002	19
Alt. SV Forslingen	PFM000082	Bottom	2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0006	5.9
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	79
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	110
Alt. Tixelfjärden	PFM000083	Surface	1	0.0095		0.0095		0.0095	0.0095		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.0067		0.0067		0.0067	0.0067		
Kallriga, norra	PFM000064	Surface	7	<0.05	<0.05	<0.05	<0.05	0.076	<0.05	0.03	120
Kallriga, norra	PFM000064	Bottom	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	130
Kallriga, södra	PFM000065	Surface	8	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	0.04	130
Alt. Kallriga	PFM000084	Surface	1	0.064		0.064		0.064	0.064		
Alt. Kallriga	PFM000084	Bottom	1	0.067		0.067		0.067	0.067		
Forsmark area		Surface	34	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	0.03	130
Forsmark area		Bottom	13	<0.05	<0.05	<0.05	<0.05	0.067	<0.05	0.02	140
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	7	0.010	0.013	0.015	0.020	0.022	0.016	0.004	28
Norr Eckarfjärden	PFM000070	Surface	6	0.0090	0.011	0.015	0.020	0.026	0.016	0.007	42
Bolundskogen	PFM000069	Surface	1	0.021		0.021		0.021	0.021		
Kungstråsket	PFM000068	Surface	6	0.020	0.023	0.028	0.031	0.034	0.027	0.006	20
Lillputtsundet	PFM000067	Surface	5	0.0060	0.0077	0.011	0.016	0.035	0.015	0.01	77
Flottbron	PFM000072	Surface	5	<0.005	0.0054	0.0067	0.0097	0.016	0.0081	0.005	64
Söder Bredviken	PFM000073	Surface	3	0.0060	0.0065	0.0069	0.0085	0.010	0.0077	0.002	28
Forsmark area		Surface	33	<0.005	0.0097	0.015	0.021	0.035	0.016	0.009	54
Simpevarp area		Surface	10	0.020	0.021	0.028	0.041	0.057	0.032	0.01	39

Surface Water

Y		Yttrium ($\mu\text{g/l}$)						Y			
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	7	0.077	0.12	0.13	0.16	0.26	0.15	0.06	39
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.046	0.10	0.15	0.19	0.26	0.15	0.07	48
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.20	0.20	0.20	0.30	0.40	0.27	0.1	44
Eckarfjärden	PFM000117	Surface	7	0.035	0.051	0.076	0.23	0.24	0.13	0.10	75
Eckarfjärden	PFM000117	Bottom	3	0.085	0.16	0.24	0.29	0.33	0.22	0.1	57
Bolundsfjärden	PFM000107	Surface	7	0.076	0.14	0.16	0.23	0.44	0.20	0.1	60
Bolundsfjärden	PFM000107	Bottom	3	0.20	0.24	0.27	0.33	0.39	0.29	0.09	33
Norra bassängen	PFM000097	Surface	6	0.044	0.13	0.22	0.26	0.44	0.21	0.1	64
Fiskarfjärden	PFM000127	Bottom	1	0.040		0.040		0.040	0.040		
Fiskarfjärden	PFM000135	Surface	4	0.066	0.081	0.093	0.12	0.19	0.11	0.05	49
Forsmark area		Surface	39	0.035	0.089	0.15	0.22	0.44	0.16	0.10	59
Forsmark area		Bottom	10	0.040	0.20	0.22	0.31	0.40	0.24	0.1	50
Simpevarp area		Surface	1	0.093		0.093		0.093	0.093		
Simpevarp area		Bottom	1	0.095		0.095		0.095	0.095		
Sea Water											
SV Forslingens grund	PFM000062	Surface	8	<0.05	<0.05	<0.05	0.057	0.13	0.053	0.03	65
SV Forslingens grund	PFM000062	Bottom	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.004	15
Alt. SV Forslingen	PFM000082	Surface	2	0.063	0.070	0.078	0.086	0.094	0.078	0.02	29
Alt. SV Forslingen	PFM000082	Bottom	2	0.050	0.063	0.075	0.088	0.10	0.075	0.04	47
Tixelfjärden	PFM000063	Surface	8	<0.05	<0.05	<0.05	0.077	0.14	0.060	0.04	67
Tixelfjärden	PFM000063	Bottom	4	<0.05	<0.05	<0.05	0.059	0.064	<0.05	0.02	34
Alt. Tixelfjärden	PFM000083	Surface	1	0.11		0.11		0.11	0.11		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.080		0.080		0.080	0.080		
Kallriga, norra	PFM000064	Surface	7	0.048	0.068	0.072	0.35	1.0	0.28	0.4	130
Kallriga, norra	PFM000064	Bottom	3	0.046	0.059	0.071	0.17	0.27	0.13	0.1	95
Kallriga, södra	PFM000065	Surface	8	0.040	0.057	0.14	0.48	1.5	0.40	0.5	130
Alt. Kallriga	PFM000084	Surface	1	0.81		0.81		0.81	0.81		
Alt. Kallriga	PFM000084	Bottom	1	0.86		0.86		0.86	0.86		
Forsmark area		Surface	35	<0.05	<0.05	0.069	0.14	1.5	0.21	0.3	170
Forsmark area		Bottom	13	<0.05	<0.05	0.057	0.080	0.86	0.13	0.2	170
Simpevarp area		Surface	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area		Bottom	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	7	0.096	0.12	0.15	0.20	0.22	0.16	0.05	32
Norr Eckarfjärden	PFM000070	Surface	6	0.097	0.11	0.14	0.18	0.25	0.15	0.06	38
Bolundskogen	PFM000069	Surface	1	0.19		0.19		0.19	0.19		
Kungstråsket	PFM000068	Surface	6	0.19	0.22	0.30	0.31	0.35	0.28	0.06	23
Lillputtsundet	PFM000067	Surface	5	0.059	0.078	0.10	0.19	0.41	0.17	0.1	86
Flottbron	PFM000072	Surface	5	0.043	0.050	0.064	0.082	0.18	0.084	0.06	67
Söder Bredviken	PFM000073	Surface	3	0.055	0.060	0.065	0.074	0.082	0.067	0.01	20
Forsmark area		Surface	33	0.043	0.082	0.15	0.20	0.41	0.16	0.09	58
Simpevarp area		Surface	10	0.20	0.24	0.30	0.41	0.61	0.34	0.1	38

Surface Water

Zn	Zinc ($\mu\text{g/l}$)								Zn		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	10	0.63	0.90	1.3	1.6	3.7	1.6	1	68
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.50	0.65	0.74	1.3	2.5	1.1	0.7	67
Gunnarsbo-Lillfjärden	PFM000087	Bottom	4	0.80	1.7	2.0	2.2	2.6	1.8	0.8	41
Eckarfjärden	PFM000117	Surface	9	0.38	0.71	1.1	2.1	3.3	1.4	1.0	70
Eckarfjärden	PFM000117	Bottom	4	0.47	0.47	0.54	1.2	2.8	1.1	1	110
Bolundsfjärden	PFM000107	Surface	10	0.46	0.74	1.2	1.8	13	2.4	4	160
Bolundsfjärden	PFM000107	Bottom	4	0.71	1.8	2.3	3.8	7.6	3.2	3	93
Norra bassängen	PFM000097	Surface	7	0.76	1.1	1.5	3.0	3.6	2.0	1	59
Fiskarfjärden	PFM000127	Surface	1	0.44		0.44		0.44	0.44		
Fiskarfjärden	PFM000127	Bottom	3	0.45	1.1	1.8	2.3	2.8	1.7	1	70
Fiskarfjärden	PFM000135	Surface	5	0.66	0.67	0.83	0.84	1.0	0.81	0.2	19
Forsmark area		Surface	49	0.38	0.71	1.1	1.7	13	1.6	2	120
Forsmark area		Bottom	15	0.45	0.66	2.0	2.6	7.6	2.0	2	91
Simpevarp area		Surface	1	2.0		2.0		2.0	2.0		
Simpevarp area		Bottom	1	1.5		1.5		1.5	1.5		
Sweden	N.S.2000	Surface	1206	0.80	1.5	3.0	43000	46	1000	2700	
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	11	<2	<2	<2	2.2	23	3.6	7	180
SV Forslingens grund	PFM000062	Bottom	3	<2	2.6	4.1	4.2	4.4	3.2	2	59
Alt. SV Forslingen	PFM000082	Surface	1	2.5		2.5		2.5	2.5		
Alt. SV Forslingen	PFM000082	Bottom	1	1.7		1.7		1.7	1.7		
Tixelfjärden	PFM000063	Surface	9	<2	<2	<2	2.4	3.0	<2	0.9	50
Tixelfjärden	PFM000063	Bottom	5	<2	2.4	4.1	4.9	110	24	50	190
Kallriga, norra	PFM000064	Surface	8	<1.19	1.4	3.2	4.5	13	4.1	4	98
Kallriga, norra	PFM000064	Bottom	4	1.6	2.7	4.0	5.8	8.6	4.6	3	66
Kallriga, södra	PFM000065	Surface	9	<2	<2	2.1	8.5	17	4.8	5	110
Forsmark area		Surface	38	<2	<2	<2	3.0	23	3.5	5	140
Forsmark area		Bottom	13	<2	<2	4.1	4.9	110	11	30	250
Simpevarp area		Surface	4	<2	<2	2.4	2.7	3.4	2.3	1.0	43
Simpevarp area		Bottom	4	<2	<2	<2	<2	<2	<2		
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	8	1.0	1.2	1.5	2.1	4.4	1.9	1	58
Söder Eckarfjärden	PFM000071	Surface	2	0.79	0.87	0.95	1.0	1.1	0.95	0.2	23
Norr Eckarfjärden	PFM000070	Surface	8	0.76	1.2	1.5	1.8	6.5	2.0	2	92
Bolundskogen	PFM000069	Surface	4	0.53	1.9	2.8	3.5	4.1	2.6	2	60
Kungstråsket	PFM000068	Surface	9	0.55	1.1	2.0	2.1	3.1	1.8	0.8	44
Lillputtsundet	PFM000067	Surface	8	0.41	1.0	1.3	2.0	6.2	2.0	2	93
Flottbron	PFM000072	Surface	6	1.2	1.9	2.2	4.2	20	5.3	7	130
Söder Bredviken	PFM000073	Surface	3	0.74	0.90	1.1	3.4	5.7	2.5	3	110
Forsmark area		Surface	48	0.41	1.1	1.5	2.3	20	2.4	3	120
Simpevarp area		Surface	10	1.4	2.3	4.0	6.2	9.1	4.6	3	61

Surface Water

Zr	Zirconium ($\mu\text{g/l}$)								Zr		
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	7	0.11	0.22	0.31	0.36	0.41	0.28	0.1	39
Gunnarsbo-Lillfjärden	PFM000087	Surface	7	0.098	0.24	0.31	0.36	0.58	0.31	0.1	48
Gunnarsbo-Lillfjärden	PFM000087	Bottom	3	0.30	0.40	0.51	0.55	0.60	0.47	0.2	33
Eckarfjärden	PFM000117	Surface	7	0.100	0.22	0.31	0.36	0.54	0.30	0.1	49
Eckarfjärden	PFM000117	Bottom	3	0.29	0.29	0.30	0.45	0.61	0.40	0.2	46
Bolundsfjärden	PFM000107	Surface	7	0.097	0.27	0.40	0.45	0.61	0.37	0.2	46
Bolundsfjärden	PFM000107	Bottom	3	0.34	0.39	0.44	0.45	0.47	0.41	0.07	17
Norra bassängen	PFM000097	Surface	6	0.089	0.31	0.38	0.43	0.50	0.35	0.1	41
Fiskarfjärden	PFM000127	Bottom	1	0.081		0.081		0.081	0.081		
Fiskarfjärden	PFM000135	Surface	4	0.13	0.14	0.21	0.29	0.38	0.23	0.1	50
Forsmark area		Surface	39	0.089	0.24	0.31	0.39	0.61	0.31	0.1	44
Forsmark area		Bottom	10	0.081	0.30	0.39	0.50	0.61	0.39	0.2	42
Simpevarp area		Surface	1	3.5		3.5		3.5	3.5		
Simpevarp area		Bottom	1	2.4		2.4		2.4	2.4		
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	8	<10	<10	<10	<10	<10	<10	2	170
SV Forslingens grund	PFM000062	Bottom	2	<10	<10	<10	<10	<10	<10	4	140
Alt. SV Forslingen	PFM000082	Surface	2	0.060	0.12	0.17	0.23	0.29	0.17	0.2	93
Alt. SV Forslingen	PFM000082	Bottom	2	0.066	0.092	0.12	0.14	0.17	0.12	0.07	61
Tixelfjärden	PFM000063	Surface	8	<10	<10	<10	<10	<10	<10	2	240
Tixelfjärden	PFM000063	Bottom	4	<10	<10	<10	<10	<10	<10	2	180
Alt. Tixelfjärden	PFM000083	Surface	1	0.090		0.090		0.090	0.090		
Alt. Tixelfjärden	PFM000083	Bottom	1	0.060		0.060		0.060	0.060		
Kallriga, norra	PFM000064	Surface	7	<10	<10	<10	<10	<10	<10	2	180
Kallriga, norra	PFM000064	Bottom	3	<10	<10	<10	<10	<10	<10	3	150
Kallriga, södra	PFM000065	Surface	8	<10	<10	<10	<10	<10	<10	2	160
Alt. Kallriga	PFM000084	Surface	1	0.69		0.69		0.69	0.69		
Alt. Kallriga	PFM000084	Bottom	1	0.71		0.71		0.71	0.71		
Forsmark area		Surface	35	<10	<10	<10	<10	<10	<10	2	180
Forsmark area		Bottom	13	<10	<10	<10	<10	<10	<10	2	160
Simpevarp area		Surface	4	<0.3	<0.3	1.1	2.1	2.7	1.2	1	98
Simpevarp area		Bottom	4	<0.3	1.3	1.9	2.3	2.7	1.7	1	66
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	7	0.11	0.17	0.29	0.40	0.56	0.30	0.2	56
Norr Eckarfjärden	PFM000070	Surface	6	0.13	0.15	0.19	0.29	0.49	0.24	0.1	58
Bolundskogen	PFM000069	Surface	1	0.21		0.21		0.21			
Kungstråsket	PFM000068	Surface	6	0.24	0.30	0.38	0.46	0.85	0.43	0.2	51
Lillputtsundet	PFM000067	Surface	5	0.097	0.14	0.22	0.30	0.44	0.24	0.1	57
Flottbron	PFM000072	Surface	5	0.095	0.11	0.16	0.22	0.33	0.18	0.10	53
Söder Bredviken	PFM000073	Surface	3	0.27	0.28	0.29	0.51	0.73	0.43	0.3	60
Forsmark area		Surface	33	0.095	0.16	0.27	0.34	0.85	0.30	0.2	61
Simpevarp area		Surface	10	1.3	2.1	3.8	4.2	6.0	3.5	2	48

Surface Water

A_436		Spectr. Abscoeff 436 nm ((μmol/mol)-1xm-1)							A_436		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Lake Water											
Labboträsket	PFM000074	Surface	5	0.076	0.096	2.2	2.8	28	6.6	10	180
Eckarfjärden	PFM000117	Surface	6	0.030	0.21	0.84	2.2	12	2.7	5	170
Eckarfjärden	PFM000117	Bottom	2	1.0	3.8	6.5	9.3	12	6.5	8	120
Bolundsfjärden	PFM000107	Surface	6	0.040	0.31	1.1	1.8	31	5.9	10	210
Bolundsfjärden	PFM000107	Bottom	2	1.7	5.0	8.2	12	15	8.2	9	110
Fiskarfjärden	PFM000135	Surface	4	0.022	0.027	0.30	0.59	0.60	0.31	0.3	110
Forsmark area		Surface	21	0.022	0.076	0.72	2.2	31	4.1	9	220
Forsmark area		Bottom	4	1.0	1.5	6.8	13	15	7.4	7	96
Simpevarp area		Surface	2	3.7	4.4	5.2	6.0	6.8	5.2	2	43
Simpevarp area		Bottom	2	3.6	4.1	4.7	5.3	5.9	4.7	2	35
Sweden	N.S.2000	Surface	3464	0.0010	0.065	0.14	0.27	1.4	0.19	0.2	90
Sea Water											
SV Forslingens grund	PFM000062	Surface	5	0.0050	0.0090	0.26	0.30	2.8	0.67	1	180
Forsmark area		Surface	5	0.0050	0.0090	0.26	0.30	2.8	0.67	1	180
Simpevarp area		Surface	5	0.22	0.82	0.84	1.0	1.7	0.92	0.5	57
Simpevarp area		Bottom	5	0.23	0.52	0.55	0.56	0.85	0.54	0.2	41
Streaming Water											
Öster Gunnarsboträsket	PFM000066	Surface	4	0.097	1.6	2.3	8.1	25	7.4	10	160
Norr Eckarfjärden	PFM000070	Surface	5	0.10	0.14	0.86	3.6	31	7.2	10	190
Bolundskogen	PFM000069	Surface	5	0.15	0.18	3.2	3.4	37	8.8	20	180
Kungstråsket	PFM000068	Surface	5	0.17	0.19	3.3	4.7	31	8.0	10	170
Forsmark area		Surface	19	0.097	0.18	2.4	4.1	37	7.9	10	160
Simpevarp area		Surface	24	2.8	3.9	4.8	5.6	8.2	5.0	2	31
Sweden	N.S.2000	Surface	725	0.0020	0.094	0.19	0.31	1.0	0.22	0.2	73

Absorbance 436 nm ((μmol/mol)-1xm-1)

		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Lake Water											
Simpevarp area		Surface	2	0.18	0.22	0.26	0.30	0.34	0.26	0.1	43
Simpevarp area		Bottom	2	0.18	0.21	0.23	0.26	0.29	0.23	0.08	35
Sea Water											
Simpevarp area		Surface	5	0.011	0.041	0.042	0.051	0.085	0.046	0.03	58
Simpevarp area		Bottom	5	0.012	0.026	0.028	0.028	0.043	0.027	0.01	40
Streaming Water											
Simpevarp area		Surface	24	0.14	0.22	0.27	0.36	0.57	0.30	0.1	38

Surface Water

Chlorophyll A ($\mu\text{g/l}$)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	<0.5	0.50	1.0	1.6	5.6	1.2	1	86
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.5	0.83	1.3	2.1	6.6	1.6	1	87
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	<0.5	0.84	1.7	2.4	6.3	2.0	2	79
Eckarfjärden	PFM000117	Surface	48	<0.5	1.1	1.7	2.3	3.7	1.8	0.9	52
Eckarfjärden	PFM000117	Bottom	21	<0.5	0.60	1.3	2.3	3.5	1.5	1.0	66
Bolundsfjärden	PFM000107	Surface	48	<0.5	0.70	1.5	2.6	6.6	1.9	2	83
Bolundsfjärden	PFM000107	Bottom	22	<0.5	<0.5	1.4	2.4	5.3	1.6	1	91
Norra bassängen	PFM000097	Surface	36	<0.5	0.70	1.2	1.7	6.1	1.4	1	79
Fiskarfjärden	PFM000127	Surface	14	1.1	2.9	5.1	11	16	7.0	5	73
Fiskarfjärden	PFM000127	Bottom	9	1.3	2.2	3.6	7.3	12	5.1	4	77
Fiskarfjärden	PFM000135	Surface	19	<0.5	1.1	1.8	2.8	18	3.3	5	140
Fiskarfjärden	PFM000135	Bottom	1	0.70		0.70		0.70	0.70		
Forsmark area		Surface	253	<0.5	0.83	1.4	2.4	18	2.0	2	120
Forsmark area		Bottom	75	<0.5	0.65	1.5	2.6	12	2.1	2	100
Simpevarp area		Surface	112	0.50	1.4	3.5	6.4	38	4.6	5	100
Simpevarp area		Bottom	112	<0.5	1.3	2.5	4.9	22	3.8	4	96
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	<0.5	1.3	1.7	2.3	5.2	1.8	0.9	47
SV Forslingens grund	PFM000062	Bottom	15	0.68	1.3	1.5	2.5	4.3	1.9	1.0	50
Alt. SV Forslingen	PFM000082	Surface	8	<0.5	1.1	3.5	5.1	9.4	3.6	3	87
Alt. SV Forslingen	PFM000082	Bottom	8	<0.5	1.1	3.3	4.4	5.8	3.0	2	70
Tixelfjärden	PFM000063	Surface	41	<0.5	1.6	2.1	3.0	5.9	2.4	1	56
Tixelfjärden	PFM000063	Bottom	20	0.70	1.4	2.4	3.3	7.2	2.8	2	65
Alt. Tixelfjärden	PFM000083	Surface	3	2.2	3.4	4.6	4.9	5.1	4.0	2	39
Alt. Tixelfjärden	PFM000083	Bottom	3	5.2	5.4	5.6	6.9	8.2	6.3	2	26
Kallriga, norra	PFM000064	Surface	37	0.30	2.9	3.9	5.0	19	5.2	4	79
Kallriga, norra	PFM000064	Bottom	18	0.30	3.4	4.2	5.3	10	4.3	2	54
Kallriga, södra	PFM000065	Surface	35	0.40	2.3	3.0	4.4	24	4.5	5	110
Alt. Kallriga	PFM000084	Surface	5	1.1	3.1	3.8	4.5	6.9	3.9	2	54
Alt. Kallriga	PFM000084	Bottom	5	1.9	3.1	3.4	4.0	5.5	3.6	1	37
Forsmark area		Surface	174	<0.5	1.7	2.6	4.1	24	3.5	3	97
Forsmark area		Bottom	69	<0.5	1.5	2.9	4.3	10	3.2	2	64
Simpevarp area		Surface	163	<0.5	0.70	1.6	3.5	13	2.7	3	100
Simpevarp area		Bottom	160	<0.5	0.70	1.4	2.9	16	2.5	3	120
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	14	<0.5	<0.5	<0.5	0.98	7.0	1.0	2	180
Söder Eckarfjärden	PFM000071	Surface	11	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	0.3	79
Norr Eckarfjärden	PFM000070	Surface	11	<0.5	0.62	1.3	2.0	4.0	1.5	1	82
Bolundskogen	PFM000069	Surface	17	<0.5	<0.5	0.60	1.1	1.8	0.68	0.5	78
Kungstråsket	PFM000068	Surface	16	<0.5	<0.5	<0.5	0.99	1.9	0.68	0.6	87
Lillputtsundet	PFM000067	Surface	17	<0.5	0.70	2.2	3.9	22	4.6	7	150
Flottbron	PFM000072	Surface	14	<0.5	<0.5	0.77	1.5	6.3	1.3	2	130
Söder Bredviken	PFM000073	Surface	8	0.24	0.47	0.92	2.3	19	3.5	7	190
Forsmark area		Surface	108	<0.5	<0.5	0.67	1.7	22	1.7	4	210
Simpevarp area		Surface	64	<0.5	1.0	1.8	3.3	23	2.8	4	130

Surface Water

Chlorophyll B (µg/l)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	<0.5	<0.5	<0.5	<0.5	0.60	<0.5	0.10	48
Gunnarsbo-Lillfjärden	PFM000087	Surface	40	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	0.2	66
Gunnarsbo-Lillfjärden	PFM000087	Bottom	21	<0.5	<0.5	<0.5	<0.5	0.82	<0.5	0.2	55
Eckarfjärden	PFM000117	Surface	48	<0.5	<0.5	<0.5	<0.5	0.55	<0.5	0.09	39
Eckarfjärden	PFM000117	Bottom	21	<0.5	<0.5	<0.5	<0.5	0.50	<0.5	0.10	39
Bolundsfjärden	PFM000107	Surface	48	<0.5	<0.5	<0.5	<0.5	0.64	<0.5	0.1	49
Bolundsfjärden	PFM000107	Bottom	22	<0.5	<0.5	<0.5	<0.5	0.61	<0.5	0.1	43
Norra bassängen	PFM000097	Surface	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.08	35
Fiskarfjärden	PFM000127	Surface	14	<0.5	<0.5	<0.5	0.58	1.0	<0.5	0.3	61
Fiskarfjärden	PFM000127	Bottom	9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Fiskarfjärden	PFM000135	Surface	19	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	0.4	130
Fiskarfjärden	PFM000135	Bottom	1	<0.5		<0.5		<0.5	<0.5		
Forsmark area		Surface	252	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	0.2	70
Forsmark area		Bottom	74	<0.5	<0.5	<0.5	<0.5	0.82	<0.5	0.1	45
Simpevarp area		Surface	112	<0.5	<0.5	<0.5	0.70	2.6	0.51	0.5	95
Simpevarp area		Bottom	110	<0.5	<0.5	<0.5	0.50	3.0	<0.5	0.4	89
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	43	<0.5	<0.5	<0.5	<0.5	0.80	<0.5	0.1	46
SV Forslingens grund	PFM000062	Bottom	15	<0.5	<0.5	<0.5	<0.5	0.80	<0.5	0.2	56
Alt. SV Forslingen	PFM000082	Surface	8	<0.5	<0.5	0.60	1.2	2.1	0.79	0.7	87
Alt. SV Forslingen	PFM000082	Bottom	8	<0.5	<0.5	0.59	0.80	1.2	0.61	0.4	63
Tixelfjärden	PFM000063	Surface	41	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	0.2	70
Tixelfjärden	PFM000063	Bottom	21	<0.5	<0.5	<0.5	<0.5	0.80	<0.5	0.2	52
Alt. Tixelfjärden	PFM000083	Surface	3	<0.5	0.68	1.1	1.2	1.2	0.85	0.5	61
Alt. Tixelfjärden	PFM000083	Bottom	3	0.90	1.0	1.1	1.4	1.7	1.2	0.4	34
Kallriga, norra	PFM000064	Surface	37	<0.5	<0.5	<0.5	0.70	6.1	0.77	1	160
Kallriga, norra	PFM000064	Bottom	18	<0.5	<0.5	<0.5	0.60	1.5	0.51	0.4	73
Kallriga, södra	PFM000065	Surface	35	<0.5	<0.5	<0.5	0.50	6.5	0.60	1	180
Alt. Kallriga	PFM000084	Surface	5	<0.5	0.50	0.60	0.90	1.5	0.75	0.5	65
Alt. Kallriga	PFM000084	Bottom	5	<0.5	0.50	0.60	1.1	1.2	0.71	0.4	58
Forsmark area		Surface	174	<0.5	<0.5	<0.5	0.50	6.5	0.51	0.8	160
Forsmark area		Bottom	70	<0.5	<0.5	<0.5	0.68	1.7	<0.5	0.3	73
Simpevarp area		Surface	163	<0.5	<0.5	<0.5	<0.5	2.9	<0.5	0.4	100
Simpevarp area		Bottom	160	<0.5	<0.5	<0.5	<0.5	3.1	<0.5	0.4	110
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	52
Söder Eckarfjärden	PFM000071	Surface	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	19
Norr Eckarfjärden	PFM000070	Surface	11	<0.5	<0.5	<0.5	<0.5	0.51	<0.5	0.1	55
Bolundskogen	PFM000069	Surface	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	24
Kungstråsket	PFM000068	Surface	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	21
Lillputtsundet	PFM000067	Surface	17	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	0.5	120
Flottbron	PFM000072	Surface	14	<0.5	<0.5	<0.5	<0.5	0.50	<0.5	0.1	52
Söder Bredviken	PFM000073	Surface	8	<0.5	<0.5	<0.5	<0.5	0.50	<0.5	0.1	54
Forsmark area		Surface	108	<0.5	<0.5	<0.5	<0.5	2.0	<0.5	0.2	85
Simpevarp area		Surface	64	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	0.2	100

Surface Water

Pheopigment ($\mu\text{g/l}$)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	43	<0.5	<0.5	<0.5	0.70	4.7	0.61	0.8	130
Gunnarsbo-Lillfjärden	PFM000087	Surface	41	<0.5	<0.5	0.50	0.84	2.8	0.73	0.7	89
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	<0.5	0.50	0.60	1.2	3.8	0.95	0.9	96
Eckarfjärden	PFM000117	Surface	48	<0.5	<0.5	<0.5	0.73	1.7	0.51	0.4	83
Eckarfjärden	PFM000117	Bottom	21	<0.5	<0.5	<0.5	0.60	1.8	0.55	0.4	78
Bolundsfjärden	PFM000107	Surface	48	<0.5	<0.5	<0.5	0.55	1.8	<0.5	0.4	81
Bolundsfjärden	PFM000107	Bottom	22	<0.5	<0.5	<0.5	0.66	4.4	0.65	0.9	140
Norra bassängen	PFM000097	Surface	36	<0.5	<0.5	<0.5	0.62	7.5	0.70	1	170
Fiskarfjärden	PFM000127	Surface	14	<0.5	<0.5	0.53	1.2	5.3	1.1	1	130
Fiskarfjärden	PFM000127	Bottom	9	<0.5	<0.5	0.65	1.1	2.4	0.85	0.7	87
Fiskarfjärden	PFM000135	Surface	19	<0.5	<0.5	0.70	1.3	10	1.2	2	180
Fiskarfjärden	PFM000135	Bottom	1	0.50		0.50		0.50	0.50		
Forsmark area		Surface	253	<0.5	<0.5	<0.5	0.80	10	0.66	1.0	150
Forsmark area		Bottom	75	<0.5	<0.5	0.50	0.90	4.4	0.73	0.8	110
Simpevarp area		Surface	112	<0.5	0.80	1.3	2.1	12	1.7	2	90
Simpevarp area		Bottom	112	<0.5	1.1	1.6	2.5	23	2.3	3	120
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	<0.5	<0.5	0.60	0.79	1.9	0.69	0.5	69
SV Forslingens grund	PFM000062	Bottom	15	<0.5	<0.5	<0.5	0.53	1.1	<0.5	0.3	77
Alt. SV Forslingen	PFM000082	Surface	8	<0.5	<0.5	0.55	1.3	2.2	0.90	0.8	88
Alt. SV Forslingen	PFM000082	Bottom	8	<0.5	0.51	0.70	1.0	2.6	0.92	0.8	84
Tixelfjärden	PFM000063	Surface	41	<0.5	<0.5	0.70	1.0	3.9	0.82	0.7	82
Tixelfjärden	PFM000063	Bottom	21	<0.5	<0.5	0.70	1.1	2.9	0.83	0.7	83
Alt. Tixelfjärden	PFM000083	Surface	3	<0.5	<0.5	<0.5	0.78	1.3	0.60	0.6	100
Alt. Tixelfjärden	PFM000083	Bottom	3	<0.5	0.53	0.80	1.4	2.0	1.0	0.9	88
Kallriga, norra	PFM000064	Surface	37	<0.5	0.80	1.2	1.7	3.9	1.4	0.9	67
Kallriga, norra	PFM000064	Bottom	17	<0.5	0.90	1.1	1.5	3.0	1.3	0.7	53
Kallriga, södra	PFM000065	Surface	35	<0.5	0.60	1.0	1.6	7.8	1.5	1	100
Alt. Kallriga	PFM000084	Surface	5	0.50	0.56	0.80	1.3	1.8	0.99	0.6	56
Alt. Kallriga	PFM000084	Bottom	5	0.50	0.58	1.3	1.4	1.5	1.1	0.5	45
Forsmark area		Surface	173	<0.5	<0.5	0.80	1.3	7.8	1.0	0.9	91
Forsmark area		Bottom	69	<0.5	<0.5	0.80	1.2	3.0	0.90	0.7	76
Simpevarp area		Surface	162	<0.5	<0.5	0.60	0.98	6.6	0.88	1	120
Simpevarp area		Bottom	159	<0.5	<0.5	0.70	1.2	5.6	0.96	1.0	100
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	14	<0.5	<0.5	<0.5	<0.5	0.90	<0.5	0.3	79
Söder Eckarfjärden	PFM000071	Surface	11	<0.5	<0.5	<0.5	<0.5	1.9	0.58	0.6	110
Norr Eckarfjärden	PFM000070	Surface	11	<0.5	<0.5	<0.5	0.55	0.66	<0.5	0.2	59
Bolundskogen	PFM000069	Surface	17	<0.5	<0.5	<0.5	0.97	1.3	0.56	0.4	71
Kungstråsket	PFM000068	Surface	16	<0.5	<0.5	<0.5	0.63	2.4	0.54	0.5	100
Lillputtsundet	PFM000067	Surface	17	<0.5	<0.5	<0.5	0.80	23	2.1	6	260
Flottbron	PFM000072	Surface	14	<0.5	<0.5	<0.5	0.82	1.3	0.56	0.4	74
Söder Bredviken	PFM000073	Surface	8	0.40	0.55	0.70	1.8	9.1	1.9	3	150
Forsmark area		Surface	108	<0.5	<0.5	<0.5	0.70	23	0.85	2	280
Simpevarp area		Surface	64	<0.5	0.88	1.4	2.1	12	1.8	2	96

Surface Water

Chlorophyll (field) ($\mu\text{g/l}$)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	32	1.0	6.3	7.1	9.6	45	10	9	86
Gunnarsbo-Lillfjärden	PFM000087	Surface	26	2.6	5.8	6.4	8.0	13	7.1	2	35
Gunnarsbo-Lillfjärden	PFM000087	Bottom	9	3.5	7.3	10	14	17	10	5	44
Eckarfjärden	PFM000117	Surface	32	2.1	3.2	5.1	7.2	13	5.3	2	47
Eckarfjärden	PFM000117	Bottom	10	5.3	5.9	7.0	7.9	17	8.3	4	46
Bolundsfjärden	PFM000107	Surface	36	2.7	3.8	4.6	6.2	14	5.8	3	54
Bolundsfjärden	PFM000107	Bottom	10	2.8	4.2	4.8	7.9	17	6.7	4	64
Norra bassängen	PFM000097	Surface	22	1.7	4.1	5.9	11	17	7.6	4	59
Fiskarfjärden	PFM000127	Surface	5	3.4	4.0	4.6	4.9	9.9	5.4	3	49
Fiskarfjärden	PFM000127	Bottom	1	4.2		4.2		4.2	4.2		
Fiskarfjärden	PFM000135	Surface	17	2.0	3.3	4.8	6.9	14	6.0	4	65
Fiskarfjärden	PFM000135	Bottom	1	15		15		15	15		
Forsmark area		Surface	170	1.0	4.0	5.9	8.1	45	7.0	5	72
Forsmark area		Bottom	31	2.8	5.1	7.2	11	17	8.4	4	52
Simpevarp area		Surface	102	1.1	6.2	8.2	11	8300	200	1000	570
Simpevarp area		Bottom	103	1.9	5.8	7.2	8.3	8200	170	1000	600
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	30	0.40	1.0	1.8	2.5	3.1	1.7	0.8	47
SV Forslingens grund	PFM000062	Bottom	3	1.7	2.1	2.4	4.1	5.7	3.3	2	65
Alt. SV Forslingen	PFM000082	Surface	6	1.1	1.9	2.2	2.9	6.6	2.8	2	69
Alt. SV Forslingen	PFM000082	Bottom	6	1.4	1.7	2.3	3.0	6.8	2.9	2	69
Tixelfjärden	PFM000063	Surface	27	0.30	1.8	2.8	3.1	7.0	2.6	1	51
Tixelfjärden	PFM000063	Bottom	8	2.0	2.3	2.5	3.8	6.8	3.4	2	57
Alt. Tixelfjärden	PFM000083	Surface	1	4.8		4.8		4.8	4.8		
Alt. Tixelfjärden	PFM000083	Bottom	1	7.4		7.4		7.4	7.4		
Kallriga, norra	PFM000064	Surface	23	1.7	3.1	4.7	8.9	42	7.6	9	110
Kallriga, norra	PFM000064	Bottom	7	2.5	4.1	6.2	6.9	7.5	5.4	2	35
Kallriga, södra	PFM000065	Surface	24	1.1	3.0	3.7	7.6	14	5.5	4	73
Alt. Kallriga	PFM000084	Surface	3	6.3	7.1	7.8	15	22	12	8	71
Alt. Kallriga	PFM000084	Bottom	3	1.3	1.9	2.5	5.4	8.3	4.0	4	93
Forsmark area		Surface	114	0.30	1.9	2.9	4.4	42	4.3	5	120
Forsmark area		Bottom	28	1.3	2.3	2.7	6.3	8.3	4.0	2	58
Simpevarp area		Surface	140	<2.2	<2.2	3.0	6.0	11000	180	1000	680
Simpevarp area		Bottom	143	<2.2	<2.2	2.8	5.5	4100	85	500	560
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Söder Bredviken	PFM000073	Surface	1	4.6		4.6		4.6	4.6		
Forsmark area		Surface	1	4.6		4.6		4.6	4.6		

Surface Water

Electrical conductivity (lab) (mS/m)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	35	26	34	37	39	47	37	5	14
Gunnarsbo-Lillfjärden	PFM000087	Surface	34	24	33	37	40	65	38	9	23
Gunnarsbo-Lillfjärden	PFM000087	Bottom	15	30	36	40	42	65	42	10	23
Eckarfjärden	PFM000117	Surface	39	9.0	22	25	28	43	25	6	23
Eckarfjärden	PFM000117	Bottom	13	22	25	27	32	41	28	5	18
Bolundsfjärden	PFM000107	Surface	40	16	35	37	44	81	43	20	35
Bolundsfjärden	PFM000107	Bottom	15	37	47	70	75	240	84	60	76
Norra bassängen	PFM000097	Surface	31	29	41	47	80	190	62	40	60
Fiskarfjärden	PFM000127	Surface	10	29	31	35	37	43	34	4	13
Fiskarfjärden	PFM000127	Bottom	6	29	29	30	31	37	31	3	9.7
Fiskarfjärden	PFM000135	Surface	14	30	32	34	47	67	41	10	32
Fiskarfjärden	PFM000135	Bottom	1	56		56		56	56		
Forsmark area		Surface	206	9.0	31	36	42	190	40	20	50
Forsmark area		Bottom	50	22	30	39	56	240	50	40	83
Simpevarp area		Surface	111	9.2	11	12	15	21	13	3	20
Simpevarp area		Bottom	112	9.6	12	13	17	28	14	3	23
Sweden	N.S.2000	Surface	3464	0.39	2.3	3.7	6.9	1100	6.9	20	340
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	35	790	860	890	900	950	880	30	3.7
SV Forslingens grund	PFM000062	Bottom	8	810	860	880	890	900	870	30	3.5
Alt. SV Forslingen	PFM000082	Surface	5	820	840	840	850	870	850	20	2.2
Alt. SV Forslingen	PFM000082	Bottom	6	830	840	860	870	880	860	20	2.4
Tixelfjärden	PFM000063	Surface	32	540	850	870	890	900	850	80	9.8
Tixelfjärden	PFM000063	Bottom	12	800	860	870	890	900	870	30	3.2
Alt. Tixelfjärden	PFM000083	Surface	3	810	820	820	840	860	830	30	3.2
Alt. Tixelfjärden	PFM000083	Bottom	3	830	840	850	860	860	850	20	2.0
Kallriga, norra	PFM000064	Surface	30	120	600	790	840	890	690	200	32
Kallriga, norra	PFM000064	Bottom	11	390	730	780	840	890	750	100	18
Kallriga, södra	PFM000065	Surface	27	100	650	800	850	870	690	200	34
Alt. Kallriga	PFM000084	Surface	5	73	110	170	250	690	260	300	97
Alt. Kallriga	PFM000084	Bottom	5	110	690	770	860	870	660	300	48
Forsmark area		Surface	139	73	760	850	880	950	770	200	27
Forsmark area		Bottom	45	110	810	860	880	900	810	100	17
Simpevarp area		Surface	160	140	860	1100	1100	1200	970	200	24
Simpevarp area		Bottom	157	340	1000	1100	1200	1300	1100	100	13
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	36	26	31	34	37	50	35	5	14
Söder Eckarfjärden	PFM000071	Surface	29	30	37	40	42	49	40	4	11
Norr Eckarfjärden	PFM000070	Surface	37	7.1	24	26	27	34	26	5	18
Bolundskogen	PFM000069	Surface	40	26	38	41	43	53	40	6	15
Kungstråsket	PFM000068	Surface	40	22	32	36	39	52	36	6	18
Lillputtsundet	PFM000067	Surface	35	30	36	39	56	91	47	20	37
Flottbron	PFM000072	Surface	34	18	36	41	51	69	43	10	27
Söder Bredviken	PFM000073	Surface	21	51	69	73	77	90	72	8	11
Forsmark area		Surface	272	7.1	32	37	43	91	40	10	35
Simpevarp area		Surface	571	5.8	11	13	17	34	14	5	34
Sweden	N.S.2000	Surface	725	0.71	2.9	5.3	11	130	12	20	140

Surface Water

Electrical conductivity (field) (mS/m)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	42	26	34	36	40	57	37	7	18
Gunnarsbo-Lillfjärden	PFM000087	Surface	39	25	31	35	39	50	36	6	16
Gunnarsbo-Lillfjärden	PFM000087	Bottom	22	30	34	39	48	60	41	9	21
Eckarfjärden	PFM000117	Surface	45	17	21	24	28	32	25	4	17
Eckarfjärden	PFM000117	Bottom	23	20	22	26	30	36	27	5	17
Bolundsfjärden	PFM000107	Surface	50	25	34	38	51	130	45	20	42
Bolundsfjärden	PFM000107	Bottom	23	39	49	55	73	480	130	200	130
Norra bassängen	PFM000097	Surface	34	29	47	71	94	450	99	90	93
Fiskarfjärden	PFM000127	Surface	13	28	30	34	36	38	33	3	11
Fiskarfjärden	PFM000127	Bottom	9	28	29	30	34	38	32	3	10
Fiskarfjärden	PFM000135	Surface	19	29	31	35	45	60	39	10	26
Fiskarfjärden	PFM000135	Bottom	1	60		60		60	60		
Forsmark area		Surface	246	17	30	35	42	450	45	40	94
Forsmark area		Bottom	78	20	30	36	51	480	62	100	160
Simpevarp area		Surface	102	9.4	11	12	15	18	13	3	21
Simpevarp area		Bottom	103	9.1	11	14	17	31	15	4	26
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	570	850	890	900	940	860	80	9.6
SV Forslingens grund	PFM000062	Bottom	15	570	750	810	870	900	790	100	13
Alt. SV Forslingen	PFM000082	Surface	9	600	730	830	880	920	810	100	13
Alt. SV Forslingen	PFM000082	Bottom	9	610	740	860	890	920	810	100	13
Tixelfjärden	PFM000063	Surface	40	490	790	860	880	910	810	100	13
Tixelfjärden	PFM000063	Bottom	21	570	720	850	880	920	790	100	14
Alt. Tixelfjärden	PFM000083	Surface	3	820	830	840	860	880	840	30	3.6
Alt. Tixelfjärden	PFM000083	Bottom	3	820	850	870	870	880	860	30	3.8
Kallriga, norra	PFM000064	Surface	35	130	600	750	830	870	680	200	30
Kallriga, norra	PFM000064	Bottom	19	440	670	780	830	870	730	100	17
Kallriga, södra	PFM000065	Surface	35	120	550	790	830	890	660	200	35
Alt. Kallriga	PFM000084	Surface	5	46	80	110	260	700	240	300	110
Alt. Kallriga	PFM000084	Bottom	5	130	610	700	840	900	640	300	48
Forsmark area		Surface	171	46	680	830	870	940	750	200	27
Forsmark area		Bottom	72	130	710	820	870	920	770	100	18
Simpevarp area		Surface	143	200	870	1100	1200	1300	1000	200	20
Simpevarp area		Bottom	145	710	1100	1100	1200	1300	1100	100	9.7
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	41	20	30	33	35	46	33	5	15
Söder Eckarfjärden	PFM000071	Surface	32	29	36	39	40	47	38	4	11
Norr Eckarfjärden	PFM000070	Surface	42	9.4	22	24	27	34	24	5	22
Bolundskogen	PFM000069	Surface	48	27	36	39	42	54	39	6	15
Kungstråsket	PFM000068	Surface	47	22	31	33	40	51	35	6	18
Lillputtsundet	PFM000067	Surface	41	27	36	40	55	87	47	20	33
Flottbron	PFM000072	Surface	37	25	36	42	52	100	47	20	38
Söder Bredviken	PFM000073	Surface	21	30	64	70	77	85	68	10	19
Forsmark area		Surface	309	9.4	31	37	42	100	39	10	37

Surface Water

Light penetration (field) (m)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	38	0.30	0.73	0.90	1.0	1.2	0.87	0.2	22
Gunnarsbo-Lillfjärden	PFM000087	Surface	37	1.6	1.8	1.9	2.0	2.2	1.9	0.1	7.2
Gunnarsbo-Lillfjärden	PFM000087	Bottom	20	1.6	1.8	1.9	2.0	2.2	1.9	0.2	8.5
Eckarfjärden	PFM000117	Surface	43	1.8	2.0	2.1	2.2	2.3	2.1	0.10	4.7
Eckarfjärden	PFM000117	Bottom	21	1.8	2.0	2.1	2.2	2.2	2.1	0.1	5.2
Bolundsfjärden	PFM000107	Surface	48	1.0	1.6	1.7	1.8	2.0	1.7	0.1	8.8
Bolundsfjärden	PFM000107	Bottom	21	1.5	1.6	1.6	1.8	2.0	1.7	0.1	7.8
Norra bassängen	PFM000097	Surface	33	0.50	0.70	0.80	1.0	1.2	0.83	0.2	20
Fiskarfjärden	PFM000127	Surface	13	1.3	1.5	1.6	1.7	1.7	1.6	0.1	8.6
Fiskarfjärden	PFM000127	Bottom	9	1.4	1.5	1.6	1.7	1.7	1.6	0.1	6.9
Fiskarfjärden	PFM000135	Surface	17	0.60	1.2	1.4	1.6	1.8	1.4	0.3	23
Fiskarfjärden	PFM000135	Bottom	1	1.5		1.5		1.5	1.5		
Forsmark area		Surface	230	0.30	1.0	1.6	1.9	2.3	1.5	0.5	34
Forsmark area		Bottom	72	1.4	1.6	1.8	2.0	2.2	1.8	0.2	13
Simpevarp area		Surface	107	0.80	1.4	1.8	2.4	5.4	2.1	1	48
Simpevarp area		Bottom	109	0.80	1.4	1.8	2.4	5.4	2.1	1.0	47
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	2.7	3.4	3.6	3.8	4.6	3.6	0.4	10
SV Forslingens grund	PFM000062	Bottom	15	3.0	3.4	3.5	3.7	4.0	3.5	0.3	7.3
Alt. SV Forslingen	PFM000082	Surface	8	2.3	3.4	4.1	5.2	6.4	4.3	1	33
Alt. SV Forslingen	PFM000082	Bottom	8	2.3	3.4	4.1	5.2	6.4	4.3	1	33
Tixelfjärden	PFM000063	Surface	40	1.5	2.7	3.4	4.1	5.0	3.4	1.0	29
Tixelfjärden	PFM000063	Bottom	21	1.5	2.7	3.7	4.5	5.0	3.5	1	31
Alt. Tixelfjärden	PFM000083	Surface	3	2.2	2.4	2.6	3.1	3.5	2.8	0.7	24
Alt. Tixelfjärden	PFM000083	Bottom	3	2.2	2.4	2.6	3.1	3.5	2.8	0.7	24
Kallriga, norra	PFM000064	Surface	35	0.80	1.3	1.5	1.7	1.8	1.4	0.3	20
Kallriga, norra	PFM000064	Bottom	19	1.0	1.3	1.5	1.6	1.8	1.4	0.2	16
Kallriga, södra	PFM000065	Surface	35	0.30	1.1	1.2	1.3	1.5	1.1	0.3	24
Alt. Kallriga	PFM000084	Surface	4	0.90	1.1	1.4	1.5	1.5	1.3	0.3	23
Alt. Kallriga	PFM000084	Bottom	4	0.90	1.1	1.4	1.5	1.5	1.3	0.3	23
Forsmark area		Surface	169	0.30	1.3	2.3	3.6	6.4	2.5	1	52
Forsmark area		Bottom	70	0.90	1.5	2.9	3.7	6.4	2.9	1	46
Simpevarp area		Surface	159	<5	<5	5.0	8.5	23	6.3	4	68
Simpevarp area		Bottom	155	<5	<5	5.0	8.5	23	6.3	4	69
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	3	0.10	0.15	0.20	0.20	0.20	0.17	0.06	35
Söder Eckarfjärden	PFM000071	Surface	3	0.10	0.10	0.10	0.10	0.10	0.10		
Norr Eckarfjärden	PFM000070	Surface	3	0.10	0.10	0.10	0.20	0.30	0.17	0.1	69
Bolundskogen	PFM000069	Surface	3		0.10	0.20	0.20	0.20	0.13	0.1	87
Kungstråsket	PFM000068	Surface	3	0.30	0.40	0.50	0.50	0.50	0.43	0.1	27
Lillputtsundet	PFM000067	Surface	3	0.10	0.10	0.10	0.15	0.20	0.13	0.06	43
Flottbron	PFM000072	Surface	3	0.50	0.60	0.70	0.85	1.0	0.73	0.3	34
Forsmark area		Surface	21		0.10	0.20	0.30	1.0	0.27	0.2	92

Surface Water

Light (field) ($\mu\text{molE}/\text{m}^{**2}\text{xs}$)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	29	1.7	16	47	130	820	120	200	150
Gunnarsbo-Lillfjärden	PFM000087	Surface	21	1.7	21	50	140	940	130	200	170
Gunnarsbo-Lillfjärden	PFM000087	Bottom	7	<0.2	0.20	1.8	20	70	16	30	170
Eckarfjärden	PFM000117	Surface	28	0.70	44	120	240	1000	170	200	120
Eckarfjärden	PFM000117	Bottom	8	<0.4	4.4	6.5	8.4	59	12	20	160
Bolundsfjärden	PFM000107	Surface	33	0.50	15	49	110	390	88	100	120
Bolundsfjärden	PFM000107	Bottom	8	<0.3	2.0	5.0	20	210	34	70	210
Norra bassängen	PFM000097	Surface	18	0.10	54	91	300	800	220	300	120
Fiskarfjärden	PFM000127	Surface	5	5.9	20	75	320	430	170	200	110
Fiskarfjärden	PFM000127	Bottom	1	2.7		2.7		2.7	2.7		
Fiskarfjärden	PFM000135	Surface	13	3.7	10	70	220	830	160	200	140
Forsmark area		Surface	147	<0.4	19	68	180	1000	140	200	140
Forsmark area		Bottom	24	<0.4	0.73	4.7	13	210	20	40	220
Simpevarp area		Surface	97	3.6	27	54	170	1100	120	200	130
Simpevarp area		Bottom	98	1.6	4.2	4.5	5.1	16	5.1	2	40
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	30		83	220	660	1200	410	400	96
SV Forslingens grund	PFM000062	Bottom	4	6.0	13	18	44	110	39	50	130
Alt. SV Forslingen	PFM000082	Surface	4	52	53	80	390	1200	360	600	160
Alt. SV Forslingen	PFM000082	Bottom	4	2.0	2.8	7.9	14	16	8.5	7	83
Tixelfjärden	PFM000063	Surface	25	1.8	84	240	840	1400	430	400	96
Tixelfjärden	PFM000063	Bottom	6	<0.1	5.3	10	25	42	16	20	100
Alt. Tixelfjärden	PFM000083	Surface	1	48		48		48	48		
Alt. Tixelfjärden	PFM000083	Bottom	1	1.3		1.3		1.3	1.3		
Kallriga, norra	PFM000064	Surface	21	6.3	52	210	580	2100	430	500	120
Kallriga, norra	PFM000064	Bottom	5	3.2	3.4	7.5	38	290	68	100	180
Kallriga, södra	PFM000065	Surface	22	1.8	43	140	520	860	260	300	100
Alt. Kallriga	PFM000084	Surface	3	100	130	160	180	200	150	50	30
Alt. Kallriga	PFM000084	Bottom	3	2.9	3.8	4.7	9.8	15	7.5	6	86
Forsmark area		Surface	106	<0.1	56	190	660	2100	380	400	110
Forsmark area		Bottom	23	<0.1	3.3	7.5	19	290	28	60	220
Simpevarp area		Surface	135	7.2	77	240	520	2400	370	400	110
Simpevarp area		Bottom	137	1.5	4.5	7.4	24	290	23	40	160

Surface Water

Salinity (field) (per mill)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	39	0.160	0.170	0.190	0.270	0.173	0.052	30	
Gunnarsbo-Lillfjärden	PFM000087	Surface	33	0.140	0.170	0.190	0.250	0.162	0.054	33	
Gunnarsbo-Lillfjärden	PFM000087	Bottom	16	0.150	0.175	0.250	0.280	0.178	0.083	47	
Eckarfjärden	PFM000117	Surface	38	0.100	0.110	0.130	0.160	0.109	0.034	31	
Eckarfjärden	PFM000117	Bottom	16	0.100	0.125	0.150	0.170	0.114	0.050	44	
Bolundsfjärden	PFM000107	Surface	48	0.160	0.170	0.193	0.640	0.183	0.089	48	
Bolundsfjärden	PFM000107	Bottom	22	0.100	0.200	0.260	2.54	0.588	0.91	150	
Norra bassängen	PFM000097	Surface	34	0.173	0.255	0.445	2.37	0.436	0.51	120	
Fiskarfjärden	PFM000127	Surface	10	0.160	0.175	0.180	0.200	0.143	0.077	54	
Fiskarfjärden	PFM000127	Bottom	6	0.0400	0.160	0.160	0.180	0.110	0.086	78	
Fiskarfjärden	PFM000135	Surface	18	0.140	0.150	0.170	0.215	0.300	0.192	0.052	
Fiskarfjärden	PFM000135	Bottom	1	0.270		0.270		0.270	0.270		
Forsmark area		Surface	221	0.140	0.170	0.200	2.37	0.202	0.23	110	
Forsmark area		Bottom	61	0.100	0.160	0.230	2.54	0.304	0.58	190	
Simpevarp area		Surface	102	0.0400	0.0500	0.0600	0.0775	0.0900	0.0616	0.013	
Simpevarp area		Bottom	103	0.0400	0.0500	0.0700	0.0800	0.150	0.0693	0.018	
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	42	3.03	4.71	4.90	5.03	5.25	4.75	0.49	10
SV Forslingens grund	PFM000062	Bottom	14	3.03	4.08	4.52	4.80	5.05	4.32	0.63	15
Alt. SV Forslingen	PFM000082	Surface	9	3.25	3.91	4.56	4.70	5.02	4.37	0.59	13
Alt. SV Forslingen	PFM000082	Bottom	9	3.32	3.97	4.60	4.83	5.06	4.42	0.61	14
Tixelfjärden	PFM000063	Surface	40	2.61	4.32	4.76	4.89	5.02	4.47	0.65	15
Tixelfjärden	PFM000063	Bottom	21	3.05	3.85	4.64	4.80	5.03	4.33	0.65	15
Alt. Tixelfjärden	PFM000083	Surface	3	4.40	4.47	4.53	4.62	4.70	4.54	0.15	3.3
Alt. Tixelfjärden	PFM000083	Bottom	3	4.53	4.62	4.70	4.70	4.70	4.64	0.098	2.1
Kallriga, norra	PFM000064	Surface	35	0.650	3.21	4.14	4.63	4.81	3.71	1.2	31
Kallriga, norra	PFM000064	Bottom	19	2.28	3.60	4.20	4.58	4.80	3.99	0.73	18
Kallriga, södra	PFM000065	Surface	35	0.560	2.93	4.37	4.60	4.99	3.64	1.3	37
Alt. Kallriga	PFM000084	Surface	5	0.200	0.220	0.300	1.32	3.81	1.17	1.5	130
Alt. Kallriga	PFM000084	Bottom	5	0.400	3.33	3.81	4.50	4.93	3.39	1.8	53
Forsmark area		Surface	171	0.200	3.65	4.60	4.81	5.25	4.10	1.2	28
Forsmark area		Bottom	71	0.400	3.83	4.52	4.75	5.06	4.19	0.80	19
Simpevarp area		Surface	143	1.00	4.86	6.21	6.65	7.10	5.73	1.2	21
Simpevarp area		Bottom	145	3.90	6.13	6.50	6.76	7.71	6.34	0.65	10
Bottenhavet	SMHI:MS4	Surface	35	4.56	4.89	5.16	5.27	5.46	5.10	0.25	4.8
Bottenhavet	SMHI:MS4	Bottom	34	5.10	5.33	5.42	5.46	5.58	5.40	0.10	1.9
Östersjön	SMHI:BY29	Surface	46	5.78	6.24	6.53	6.79	7.17	6.51	0.35	5.4
Östersjön	SMHI:BY29	Bottom	46	6.60	6.79	6.89	7.05	7.22	6.91	0.16	2.3
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Öster Gunnarsboträsket	PFM000066	Surface	33	0.140	0.150	0.170	0.220	0.153	0.038	25	
Söder Eckarfjärden	PFM000071	Surface	25	0.170	0.180	0.200	0.230	0.175	0.042	24	
Norr Eckarfjärden	PFM000070	Surface	36	0.0975	0.115	0.130	0.160	0.105	0.039	37	
Bolundskogen	PFM000069	Surface	40	0.170	0.190	0.200	0.260	0.181	0.049	27	
Kungstråsket	PFM000068	Surface	39	0.150	0.160	0.195	0.230	0.162	0.048	30	
Lillputtsundet	PFM000067	Surface	39	0.165	0.180	0.200	0.290	0.181	0.057	31	
Flottbron	PFM000072	Surface	29	0.180	0.210	0.280	0.510	0.230	0.11	48	
Söder Bredviken	PFM000073	Surface	19	0.100	0.245	0.350	0.365	0.410	0.295	0.11	36
Forsmark area		Surface	260	0.140	0.170	0.200	0.510	0.177	0.078	44	

Surface Water

Turbidity (field) (FNU)											
Lake Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Labboträsket	PFM000074	Surface	33	0.50	0.80	1.1	57	2.7	10	370	
Gunnarsbo-Lillfjärden	PFM000087	Surface	27	0.55	0.70	0.95	4.9	1.0	1	120	
Gunnarsbo-Lillfjärden	PFM000087	Bottom	10	0.050	0.26	0.53	1.1	11	2.0	3	
Eckarfjärden	PFM000117	Surface	32	0.39	0.53	0.80	4.3	0.70	0.7	100	
Eckarfjärden	PFM000117	Bottom	10	0.24	0.60	0.86	4.6	0.92	1	140	
Bolundsfjärden	PFM000107	Surface	37	0.15	0.45	0.65	0.90	190	6.3	30	
Bolundsfjärden	PFM000107	Bottom	10	0.10	0.20	0.55	0.68	4.4	0.84	1	
Norra bassängen	PFM000097	Surface	22	0.48	1.2	3.1	880	43	200	440	
Fiskarfjärden	PFM000127	Surface	5	0.30	0.30	0.35	1.3	4.7	1.4	2	
Fiskarfjärden	PFM000127	Bottom	1	0.35		0.35		0.35	0.35		
Fiskarfjärden	PFM000135	Surface	17	0.10	0.25	0.55	1.0	12	2.0	3	
Fiskarfjärden	PFM000135	Bottom	1	3.5		3.5		3.5	3.5		
Forsmark area		Surface	173		0.45	0.70	1.0	880	7.8	70	
Forsmark area		Bottom	32		0.20	0.55	0.95	11	1.3	2	
Simpevarp area		Surface	103		0.80	1.2	2.1	19	1.9	2	
Simpevarp area		Bottom	104	0.20	2.7	4.9	8.8	32	7.1	7	
Sea Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SV Forslingens grund	PFM000062	Surface	32	0.35	0.53	0.70	6.4	1.1	2	160	
SV Forslingens grund	PFM000062	Bottom	4	0.50	0.69	2.7	5.0	5.7	2.9	3	
Alt. SV Forslingen	PFM000082	Surface	6	0.20	0.73	0.80	0.90	0.53	0.4	75	
Alt. SV Forslingen	PFM000082	Bottom	6	0.10	0.23	0.38	0.56	1.1	0.46	0.4	
Tixelfjärden	PFM000063	Surface	28	0.20	0.40	1.1	5.1	0.89	1	140	
Tixelfjärden	PFM000063	Bottom	9		0.10	0.70	1.6	5.8	1.7	2	
Alt. Tixelfjärden	PFM000083	Surface	1	1.3		1.3		1.3	1.3		
Alt. Tixelfjärden	PFM000083	Bottom	1	1.5		1.5		1.5	1.5		
Kallriga, norra	PFM000064	Surface	24	0.10	1.3	3.9	5.5	24	4.8	5	
Kallriga, norra	PFM000064	Bottom	8	1.5	1.9	4.5	7.1	33	7.6	10	
Kallriga, södra	PFM000065	Surface	25		1.7	3.8	6.1	40	7.4	10	
Alt. Kallriga	PFM000084	Surface	3	5.3	5.8	6.2	7.0	7.7	6.4	1	
Alt. Kallriga	PFM000084	Bottom	3	0.45	0.53	0.60	4.7	8.7	3.3	5	
Forsmark area		Surface	119		0.40	0.80	4.3	40	3.2	6	
Forsmark area		Bottom	31		0.48	1.2	5.0	33	3.3	6	
Simpevarp area		Surface	142		0.10	0.30	0.78	18	1.1	3	
Simpevarp area		Bottom	143		0.20	0.50	1.6	24	1.9	4	
Streaming Water			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Söder Bredviken	PFM000073	Surface	1	0.10		0.10		0.10	0.10		
Forsmark area		Surface	1	0.10		0.10		0.10	0.10		
Simpevarp area		Surface	2	6.2	6.5	6.8	7.0	7.3	6.8	0.8	12

Appendix 2 – Forsmark soil tubes

Element	Description	Abbreviation	Page
Aluminium	Aluminium	Al	1
Antimony	Antimony	Sb	2
Arsenic	Arsenic	As	2
Barium	Barium	Ba	3
Boron	Boron-10 (B10/B11)	B-10	4
Bromide	Bromide	Br	5
Cadmium	Cadmium	Cd	6
Calcium	Calcium	Ca	7
Carbon	Bicarbonate	HCO ₃	8
	Carbon-13	C-13	9
	Carbon-14	C-14	10
	Dissolved inorganic carbon	DIC	10
	Dissolved organic carbon	DOC	11
	Particulate organic carbon	POC	11
	Total organic carbon	TOC	12
Cerium	Cerium	Ce	12
Cesium	Cesium	Cs	13
Chlorine	Chloride	Cl	14
	Chlorine-37	Cl-37	15
Chromium	Chromium	Cr	15
Cobalt	Cobalt	Co	16
Conductivity	Electrical conductivity		65
Copper	Copper	Cu	16
Deuterium	Deuterium	D	17
Dysprosium	Dysprosium	Dy	18
Erbium	Erbium	Er	18
Europium	Europium	Eu	19
Fluoride	Fluoride	F	20
Gadolinium	Gadolinium	Gd	21
Hafnium	Hafnium	Hf	21
Holmium	Holmium	Ho	22
Hydrogen	pH (lab)	pH	23
	Tritium	Tr	24
Indium	Indium	In	25
Iodide	Iodide	I	26
Iron	Ferrous iron	Fe(II)	27
	Iron (total ICP)	Fe	28
	Iron (total spectrometric)	Fe	29
Lanthanum	Lanthanum	La	29
Lead	Lead	Pb	30
Lithium	Lithium	Li	31
Lutetium	Lutetium	Lu	32
Magnesium	Magnesium	Mg	33
Manganese	Manganese	Mn	34
Mercury	Mercury	Hg	35

Element	Description	Abbreviation	Page
Molybdenum	Molybdenum	Mo	35
Neodymium	Neodymium	Nd	36
Nickel	Nickel	Ni	36
Nitrogen	Nitrogen - total	tot-N	37
	Nitrogen as ammonium	NH4-N	38
Nitrogen	Nitrogen as nitrate	NO3-N	39
	Nitrogen as nitrate and nitrite	NO23-N	39
	Particulate organic nitrogen	PON	40
Oxygen	Chemical oxygen demand	COD	40
	Oxygen (lab + field)	O2 (lab + field)	40
	Oxygen-18	O-18	41
Phosphorus	Particulate organic phosphorus	POP	42
	Phosphorus as phosphate	PO4-P	42
	Phosphorus- total	tot-P	43
Potassium	Potassium	K	44
Praseodymium	Praseodymium	Pr	45
Radium	Radium-226	Ra-226	45
Radon	Radon-222	Rn-222	46
Rubidium	Rubidium	Rb	46
Samarium	Samarium	Sm	47
Scandium	Scandium	Sc	48
Silicon	Silicon	Si	49
	Silicon as silicate	SiO2-Si	50
Sodium	Sodium	Na	51
Strontium	Strontium	Sr	52
	Strontium-87 (Sr87/Sr86)	Sr-87	53
Sulphur	Hydrogen sulphide as total sulphide	S2 (HS)	53
	Sulphate	SO4	54
	Sulphate as sulphur	SO4-S	55
	Sulphur-34	S-34	56
Terbium	Terbium	Tb	56
Thallium	Thallium	Tl	57
Thorium	Thorium	Th	58
	Thorium-230	Th-230	58
	Thorium-232	Th-232	59
Thulium	Thulium	Tm	59
Uranium	Uranium	U	60
	Uranium-234	U-234	60
	Uranium-235	U-235	61
	Uranium-238	U-238	61
Vanadium	Vanadium	V	62
Ytterbium	Ytterbium	Yb	62
Yttrium	Yttrium	Yb	63
Zinc	Zinc	Zn	63
Zirconium	Zirconium	Zr	64

Ground Water

AI		Aluminium ($\mu\text{g/l}$)							AI		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	7	27	32	36	55	70	44	20	37
SFM0002	HIGH (2:1)	DS	7	19	23	25	38	100	38	30	77
SFM0003	HIGH (2:1)	DS	7	0.99	2.2	7.7	26	35	14	10	100
SFM0005	HIGH (Coast)	DS	4	30	37	43	49	53	42	10	23
SFM0006	HIGH (5:1)	DS	3	5.4	7.6	9.9	10	11	8.6	3	32
SFM0008	HIGH (5:1)	DS	5	2.1	3.1	8.4	12	20	9.1	7	80
SFM0009	HIGH (2:6)	DS	5	11	13	20	37	55	27	20	69
SFM0012	LOW (2:8)	Lake	1			5.7			5.7		
SFM0015	LOW (2:10)	Lake	1			<0.2			<0.2		
SFM0023	LOW (2:3)	Lake	1			<2			<2		
SFM0025	LOW (Coast)	Sea	1			2.2			2.2		
SFM0027	LOW (8:1)	not DS	5	1.2	3.5	5.5	6.6	9.6	5.3	3	60
SFM0029	HIGH (4:2)	not DS	5	3.3	3.4	3.8	7.3	28	9.1	10	110
SFM0031	HIGH (2:3)	not DS	5	1.7	2.1	2.2	2.4	5.3	2.7	1	52
SFM0032	HIGH (2:3)	not DS	5	12	13	14	14	20	15	3	22
SFM0037	LOW (2:1)	not DS	4	15	21	31	170	560	160	300	170
SFM0049	HIGH (Coast)	not DS	3	34	38	41	73	100	60	40	64
SFM0051	HIGH (2:1)	DS	4	140	220	280	320	390	270	100	40
SFM0053	HIGH (4:2)	not DS	4	96	200	260	330	500	280	200	60
SFM0056	LOW (Coast)	not DS	4	24	24	24	110	370	110	200	160
SFM0057	LOW (2:8)	DS	5	33	42	59	63	110	62	30	49
SFM0060	HIGH (Coast)	not DS	3	4.5	5.1	5.7	6.0	6.4	5.5	0.9	17
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	89	<2	5.7	23	42	560	56	100	190
Forsmark area	Soil tubes	'Higher'	67	<2	6.8	21	42	500	53	90	180
Forsmark area	Soil tubes	'Lower'	22	<2	5.6	23	41	560	65	100	210
Forsmark area	Soil tubes	In lake	3	<2	<2	<2	3.4	5.7	2.3	3	130
Forsmark area	Soil tubes	At sea	1			2.2			2.2		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	12	25	25	28	38	90	37	20	54
Forsmark area	Private wells	drilled	13	25	25	30	55	220	53	60	100
Simpevarp area	Private wells	excavated	101	5.0	140	360	940	3400	630	700	110
Simpevarp area	Private wells	drilled	248	5.0	20	50	140	1400	130	200	160
Uppsala County	SGU well	excavated	46	<20	<20	<20	20	230	32	50	150
Uppsala County	SGU well	drilled	70	<20	<20	<20	<20	70	<20	10	80
Kalmar County	SGU well	excavated	4	<20	70	150	370	830	290	400	130
Sweden	SGU well	excavated	1423	<20	<20	30	100	1900	96	200	190
Sweden	SGU well	drilled	1668	<20	<20	<20	25	3800	39	100	380

Ground Water

Sb		Antimony ($\mu\text{g/l}$)								Sb	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	0.051	0.072	0.078	0.085	0.10	0.078	0.02	22
SFM0002	HIGH (2:1)	DS	6	0.029	0.039	0.043	0.048	0.20	0.067	0.07	99
SFM0003	HIGH (2:1)	DS	6	<0.05	<0.05	<0.05	<0.05	0.055	<0.05	0.01	38
SFM0005	HIGH (Coast)	DS	3	0.086	0.092	0.097	0.099	0.10	0.095	0.008	8.2
SFM0006	HIGH (5:1)	DS	3	0.16	0.17	0.18	0.19	0.19	0.18	0.02	9.1
SFM0008	HIGH (5:1)	DS	5	0.042	0.053	0.059	0.067	0.081	0.060	0.01	24
SFM0009	HIGH (2:6)	DS	5	0.074	0.084	0.088	0.091	0.097	0.087	0.009	9.9
SFM0012	LOW (2:8)	Lake	1		<0.1			<0.1			
SFM0015	LOW (2:10)	Lake	1			0.012			0.012		
SFM0023	LOW (2:3)	Lake	1			<0.1			<0.1		
SFM0025	LOW (Coast)	Sea	1			<0.1			<0.1		
SFM0027	LOW (8:1)	not DS	5	0.021	0.021	0.024	0.066	0.073	0.041	0.03	64
SFM0029	HIGH (4:2)	not DS	5	0.021	0.022	0.027	0.030	0.033	0.027	0.005	19
SFM0031	HIGH (2:3)	not DS	5	0.042	0.049	0.050	0.051	0.066	0.052	0.009	17
SFM0032	HIGH (2:3)	not DS	5	0.029	0.038	0.044	0.064	0.071	0.049	0.02	36
SFM0037	LOW (2:1)	not DS	4	0.072	0.080	0.087	0.12	0.19	0.11	0.06	52
SFM0049	HIGH (Coast)	not DS	3	0.025	0.030	0.036	0.053	0.070	0.044	0.02	54
SFM0051	HIGH (2:1)	DS	4	0.024	0.025	0.027	0.034	0.050	0.032	0.01	38
SFM0053	HIGH (4:2)	not DS	4	<0.02	<0.02	<0.02	0.021	0.030	<0.02	0.008	44
SFM0056	LOW (Coast)	not DS	4	0.017	0.025	0.029	0.033	0.040	0.029	0.009	33
SFM0057	LOW (2:8)	DS	5	0.082	0.10	0.13	0.13	0.16	0.12	0.03	24
SFM0060	HIGH (Coast)	not DS	3	0.091	0.098	0.10	0.16	0.22	0.14	0.07	50
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.1	<0.1	<0.1	<0.1	0.22	<0.1	0.05	71
Forsmark area	Soil tubes	'Higher'	63	<0.1	<0.1	<0.1	<0.1	0.22	<0.1	0.05	72
Forsmark area	Soil tubes	'Lower'	22	<0.1	<0.1	<0.1	<0.1	0.19	<0.1	0.05	71
Forsmark area	Soil tubes	In lake	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.02	59
Forsmark area	Soil tubes	At sea	1			<0.1		<0.1			

As		Arsenic ($\mu\text{g/l}$)								As	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	3	<0.01	0.75	1.5	1.6	1.6	1.0	0.9	86
SFM0002	HIGH (2:1)	DS	3	0.89	0.96	1.0	1.1	1.1	1.0	0.1	11
SFM0003	HIGH (2:1)	DS	3	7.6	7.8	8.1	8.5	9.0	8.2	0.7	8.8
SFM0006	HIGH (5:1)	DS	1			0.39			0.39		
SFM0008	HIGH (5:1)	DS	1			0.52			0.52		
SFM0009	HIGH (2:6)	DS	1			0.49			0.49		
SFM0027	LOW (8:1)	not DS	1			0.35			0.35		
SFM0029	HIGH (4:2)	not DS	1			2.0			2.0		
SFM0031	HIGH (2:3)	not DS	1			1.2			1.2		
SFM0032	HIGH (2:3)	not DS	1			1.3			1.3		
SFM0037	LOW (2:1)	not DS	1			1.5			1.5		
SFM0049	HIGH (Coast)	not DS	1			0.47			0.47		
SFM0051	HIGH (2:1)	DS	2	0.53		0.87		1.2	0.87	0.5	55
SFM0053	HIGH (4:2)	not DS	2	0.77		0.99		1.2	0.99	0.3	31
SFM0056	LOW (Coast)	not DS	2	0.80		1.1		1.3	1.1	0.4	34
SFM0057	LOW (2:8)	DS	1			0.71			0.71		
SFM0060	HIGH (Coast)	not DS	1			0.26			0.26		
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	26	<0.01	0.52	1.1	1.4	9.0	1.8	2	140
Forsmark area	Soil tubes	'Higher'	21	<0.01	0.52	1.1	1.5	9.0	2.0	3	140
Forsmark area	Soil tubes	'Lower'	5	0.35	0.71	0.80	1.3	1.5	0.93	0.5	49
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	0.056	0.49	0.62	0.99	3.6	0.90	0.8	90
Simpevarp area	Soil tubes	'Higher'	3	0.58	0.79	1.0	1.2	1.3	0.97	0.4	39
Simpevarp area	Soil tubes	'Lower'	15	0.056	0.48	0.61	0.90	3.6	0.89	0.9	99

Ground Water

Ba	Barium (µg/l)								Ba		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	8	32	45	53	63	85	54	20	32
SFM0002	HIGH (2:1)	DS	8	79	84	90	100	120	94	10	14
SFM0003	HIGH (2:1)	DS	8	33	37	40	40	63	41	9	23
SFM0005	HIGH (Coast)	DS	4	47	60	65	65	65	60	9	14
SFM0006	HIGH (5:1)	DS	3	170	180	180	180	190	180	9	4.8
SFM0008	HIGH (5:1)	DS	5	62	67	80	94	100	81	20	22
SFM0009	HIGH (2:6)	DS	5	27	29	32	36	44	34	6	19
SFM0012	LOW (2:8)	Lake	1			35			35		
SFM0015	LOW (2:10)	Lake	1			180			180		
SFM0023	LOW (2:3)	Lake	1			27			27		
SFM0025	LOW (Coast)	Sea	1			37			37		
SFM0027	LOW (8:1)	not DS	5	28	35	37	41	42	37	6	16
SFM0029	HIGH (4:2)	not DS	5	68	72	78	79	80	75	5	6.8
SFM0031	HIGH (2:3)	not DS	5	44	48	51	52	55	50	4	8.6
SFM0032	HIGH (2:3)	not DS	5	46	47	52	53	53	50	3	6.6
SFM0037	LOW (2:1)	not DS	4	59	69	82	94	96	80	20	22
SFM0049	HIGH (Coast)	not DS	3	22	23	23	23	23	23	0.8	3.3
SFM0051	HIGH (2:1)	DS	4	75	82	85	88	91	84	7	7.9
SFM0053	HIGH (4:2)	not DS	4	62	66	70	74	77	70	7	9.6
SFM0056	LOW (Coast)	not DS	4	12	13	14	26	63	26	30	97
SFM0057	LOW (2:8)	DS	5	79	99	120	130	140	110	20	21
SFM0060	HIGH (Coast)	not DS	3	64	71	78	80	83	75	10	13
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	92	12	40	63	81	190	66	40	54
Forsmark area	Soil tubes	'Higher'	70	22	44	63	80	190	66	30	49
Forsmark area	Soil tubes	'Lower'	22	12	35	50	96	180	66	50	70
Forsmark area	Soil tubes	In lake	3	27	31	35	110	180	80	90	110
Forsmark area	Soil tubes	At sea	1			37			37		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	25	49	63	98	150	72	30	48
Simpevarp area	Soil tubes	'Higher'	3	39	46	54	82	110	68	40	56
Simpevarp area	Soil tubes	'Lower'	15	25	50	63	97	150	73	40	49
Laxemar pre-PLU	Soil tubes	All	12	8.4	14	40	63	110	43	30	74

Ground Water

B-10		Boron-10 (B10/B11) (ratio)							B-10		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	9	0.1900	0.2363	0.2380	0.2402	0.2411	0.2330	0.0162	7.0
SFM0002	HIGH (2:1)	DS	9	0.1900	0.2396	0.2418	0.2423	0.2457	0.2354	0.0173	7.3
SFM0003	HIGH (2:1)	DS	9	0.1900	0.2388	0.2415	0.2431	0.2439	0.2357	0.0173	7.3
SFM0005	HIGH (Coast)	DS	5	0.2283	0.2431	0.2436	0.2444	0.2463	0.2411	0.00728	3.0
SFM0006	HIGH (5:1)	DS	4	0.2315	0.2410	0.2454	0.2467	0.2470	0.2423	0.00732	3.0
SFM0008	HIGH (5:1)	DS	7	0.2381	0.2391	0.2397	0.2417	0.2434	0.2404	0.00195	0.81
SFM0009	HIGH (2:6)	DS	6	0.2377	0.2411	0.2446	0.2457	0.2485	0.2436	0.00397	1.6
SFM0012	LOW (2:8)	Lake	6	0.2346	0.2361	0.2370	0.2373	0.2389	0.2368	0.00144	0.61
SFM0015	LOW (2:10)	Lake	6	0.2345	0.2358	0.2374	0.2399	0.2408	0.2377	0.00262	1.1
SFM0022	LOW (8:1)	Lake	2	0.2394		0.2408		0.2422	0.2408	0.00198	0.82
SFM0023	LOW (2:3)	Lake	4	0.2369	0.2372	0.2376	0.2385	0.2402	0.2381	0.00148	0.62
SFM0024	LOW (Coast)	Sea	2	0.2389		0.2390		0.2390	0.2390		0.030
SFM0025	LOW (Coast)	Sea	5	0.2376	0.2383	0.2385	0.2388	0.2401	0.2387	0.000918	0.38
SFM0027	LOW (8:1)	not DS	6	0.2386	0.2393	0.2403	0.2406	0.2414	0.2401	0.00106	0.44
SFM0029	HIGH (4:2)	not DS	6	0.2382	0.2391	0.2407	0.2427	0.2437	0.2409	0.00228	0.95
SFM0031	HIGH (2:3)	not DS	6	0.2388	0.2405	0.2421	0.2435	0.2444	0.2419	0.00218	0.90
SFM0032	HIGH (2:3)	not DS	7	0.2398	0.2400	0.2401	0.2425	0.2540	0.2427	0.00518	2.1
SFM0037	LOW (2:1)	not DS	6	0.2364	0.2392	0.2407	0.2410	0.2421	0.2399	0.00203	0.85
SFM0049	HIGH (Coast)	not DS	2	0.2400		0.2416		0.2432	0.2416	0.00226	0.94
SFM0051	HIGH (2:1)	DS	3	0.2440	0.2445	0.2450	0.2451	0.2452	0.2447	0.000643	0.26
SFM0053	HIGH (4:2)	not DS	3	0.2437	0.2443	0.2448	0.2467	0.2485	0.2457	0.00251	1.0
SFM0056	LOW (Coast)	not DS	3	0.2411	0.2414	0.2417	0.2442	0.2466	0.2431	0.00302	1.2
SFM0057	LOW (2:8)	DS	5	0.2388	0.2395	0.2408	0.2411	0.2424	0.2405	0.00141	0.59
SFM0059	HIGH (7:2)	not DS	1			0.2395			0.2395		
SFM0060	HIGH (Coast)	not DS	3	0.2407	0.2427	0.2447	0.2450	0.2452	0.2435	0.00247	1.0
SFM0061	HIGH (7:2)	not DS	3	0.2405	0.2416	0.2426	0.2432	0.2437	0.2423	0.00163	0.67
SFM0062	LOW (2:3)	Lake	2	0.2497		0.2500		0.2503	0.2500	0.000424	0.17
SFM0063	LOW (2:3)	Lake	1			0.2446			0.2446		
SFM0074	HIGH (2:3)	not DS	10	0.2469	0.2474	0.2481	0.2499	0.2548	0.2491	0.00248	1.00
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	141	0.1900	0.2388	0.2408	0.2437	0.2548	0.2404	0.00852	3.5
Forsmark area	Soil tubes	'Higher'	93	0.1900	0.2396	0.2423	0.2447	0.2548	0.2408	0.0102	4.3
Forsmark area	Soil tubes	'Lower'	48	0.2345	0.2378	0.2392	0.2409	0.2503	0.2398	0.00320	1.3
Forsmark area	Soil tubes	In lake	21	0.2345	0.2369	0.2379	0.2406	0.2503	0.2393	0.00434	1.8
Forsmark area	Soil tubes	At sea	7	0.2376	0.2384	0.2388	0.2390	0.2401	0.2387	0.000763	0.32
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	2	0.2379		0.2399		0.2418	0.2399	0.00276	1.1
Forsmark area	Private wells	drilled	5	0.2367	0.2376	0.2389	0.2394	0.2415	0.2388	0.00184	0.77
Simpevarp area	Soil tubes	All	31	0.2364	0.2411	0.2426	0.2451	0.2500	0.2429	0.00310	1.3
Simpevarp area	Soil tubes	'Higher'	8	0.2395	0.2405	0.2429	0.2460	0.2500	0.2437	0.00402	1.7
Simpevarp area	Soil tubes	'Lower'	23	0.2364	0.2418	0.2426	0.2447	0.2472	0.2427	0.00277	1.1

Ground Water

Br	Bromide (mg/l)								Br		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	0.47	0.90	1.00	1.3	1.8	1.1	0.4	39
SFM0002	HIGH (2:1)	DS	11	0.096	0.15	0.21	0.34	0.42	0.24	0.1	49
SFM0003	HIGH (2:1)	DS	10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	36
SFM0005	HIGH (Coast)	DS	6	0.0030	0.053	0.071	0.084	0.25	0.088	0.08	94
SFM0006	HIGH (5:1)	DS	5	<0.2	<0.2	0.21	0.34	0.45	0.25	0.1	57
SFM0008	HIGH (5:1)	DS	7	0.064	0.11	0.27	0.37	0.82	0.30	0.3	87
SFM0009	HIGH (2:6)	DS	7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	40
SFM0010	HIGH (2:8)	not DS	1			0.011			0.011		
SFM0011	LOW (2:8)	not DS	1			7.0			7.0		
SFM0012	LOW (2:8)	Lake	9	8.3	8.5	9.5	11	12	9.7	1	15
SFM0013	LOW (2:3)	not DS	1			8.8			8.8		
SFM0014	HIGH (2:10)	not DS	1			0.048			0.048		
SFM0015	LOW (2:10)	Lake	8	1.1	1.2	1.4	1.7	2.3	1.5	0.4	29
SFM0016	HIGH (2:10)	not DS	1			0.082			0.082		
SFM0017	LOW (2:10)	not DS	1			0.071			0.071		
SFM0018	LOW (2:10)	not DS	1			0.054			0.054		
SFM0019	HIGH (2:3)	not DS	1			0.097			0.097		
SFM0020	HIGH (2:6)	not DS	1			0.057			0.057		
SFM0021	HIGH (2:3)	not DS	1			0.036			0.036		
SFM0022	LOW (8:1)	Lake	4	3.2	4.1	4.7	5.4	6.4	4.8	1	28
SFM0023	LOW (2:3)	Lake	8	13	13	15	16	20	15	2	15
SFM0024	LOW (Coast)	Sea	3	5.5	5.7	5.9	6.8	7.7	6.3	1	18
SFM0025	LOW (Coast)	Sea	8	4.1	7.4	7.9	9.7	12	8.4	2	30
SFM0026	LOW (8:1)	not DS	1			0.30			0.30		
SFM0027	LOW (8:1)	not DS	8	0.18	0.20	0.25	0.39	0.61	0.32	0.2	51
SFM0028	HIGH (4:2)	not DS	1			0.070			0.070		
SFM0029	HIGH (4:2)	not DS	6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.04	39
SFM0030	HIGH (2:3)	not DS	1			0.27			0.27		
SFM0031	HIGH (2:3)	not DS	7	<0.2	<0.2	<0.2	<0.2	0.26	<0.2	0.08	82
SFM0032	HIGH (2:3)	not DS	9	<0.2	<0.2	<0.2	<0.2	0.41	<0.2	0.10	64
SFM0034	LOW (2:1)	not DS	1			1.4			1.4		
SFM0036	LOW (2:1)	not DS	1			0.56			0.56		
SFM0037	LOW (2:1)	not DS	7	0.25	0.27	0.34	0.45	0.53	0.36	0.1	32
SFM0049	HIGH (Coast)	not DS	4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	35
SFM0051	HIGH (2:1)	DS	6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.03	26
SFM0053	HIGH (4:2)	not DS	6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.02	23
SFM0056	LOW (Coast)	not DS	6	<0.2	1.6	1.7	1.8	1.9	1.5	0.7	47
SFM0057	LOW (2:8)	DS	6	<0.2	0.59	1.2	1.6	2.0	1.1	0.7	67
SFM0059	HIGH (7:2)	not DS	1			1.7			1.7		
SFM0060	HIGH (Coast)	not DS	3	0.041	0.042	0.043	0.15	0.25	0.11	0.1	110
SFM0061	HIGH (7:2)	not DS	3	0.047	0.051	0.054	0.57	1.1	0.39	0.6	150
SFM0062	LOW (2:3)	Lake	3	0.11	0.12	0.13	0.14	0.15	0.13	0.02	16
SFM0063	LOW (2:3)	Lake	2	0.097		0.47		0.85	0.47	0.5	110
SFM0065	LOW (4:2)	Lake	1			1.2			1.2		
SFM0074	HIGH (2:3)	not DS	10	0.14	0.21	0.22	0.23	0.24	0.21	0.03	14
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	199	<0.2	<0.2	0.23	1.3	20	2.0	4	190
Forsmark area	Soil tubes	'Higher'	119	<0.2	<0.2	<0.2	0.23	1.8	0.24	0.3	140
Forsmark area	Soil tubes	'Lower'	80	<0.2	0.41	1.7	8.3	20	4.6	5	110
Forsmark area	Soil tubes	In lake	35	<0.2	1.3	6.4	12	20	6.9	6	85
Forsmark area	Soil tubes	At sea	11	4.1	6.6	7.7	8.7	12	7.8	2	30
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	6	<0.2	<0.2	0.28	3.4	12	2.9	5	170
Forsmark area	Private wells	drilled	14	<0.2	0.29	3.2	23	32	11	10	110
Simpevarp area	Soil tubes	All	55	<0.2	<0.2	<0.2	0.32	1.5	0.29	0.4	120
Simpevarp area	Soil tubes	'Higher'	14	<0.2	<0.2	<0.2	<0.2	0.91	<0.2	0.2	140
Simpevarp area	Soil tubes	'Lower'	41	<0.2	<0.2	<0.2	0.58	1.5	0.33	0.4	110

Ground Water

Cd			Cadmium ($\mu\text{g/l}$)								Cd	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	8	<0.002	0.0040	0.0059	0.0088	0.040	0.010	0.01	120	
SFM0002	HIGH (2:1)	DS	7	<0.002	0.0040	0.0043	0.0050	0.0070	0.0043	0.002	41	
SFM0003	HIGH (2:1)	DS	7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.002	38	
SFM0005	HIGH (Coast)	DS	4	0.017	0.019	0.020	0.021	0.024	0.020	0.003	14	
SFM0006	HIGH (5:1)	DS	3	0.018	0.019	0.019	0.023	0.027	0.021	0.005	23	
SFM0008	HIGH (5:1)	DS	5	0.0090	0.012	0.014	0.015	0.022	0.014	0.005	33	
SFM0009	HIGH (2:6)	DS	5	0.011	0.011	0.018	0.019	0.023	0.016	0.005	32	
SFM0012	LOW (2:8)	Lake	1			<0.02			<0.02			
SFM0015	LOW (2:10)	Lake	1			<0.002			<0.002			
SFM0023	LOW (2:3)	Lake	1			<0.02			<0.02			
SFM0025	LOW (Coast)	Sea	1			<0.02			<0.02			
SFM0027	LOW (8:1)	not DS	5	0.0070	0.011	0.012	0.014	0.025	0.014	0.007	49	
SFM0029	HIGH (4:2)	not DS	5	0.0032	0.0060	0.0070	0.0086	0.010	0.0070	0.003	37	
SFM0031	HIGH (2:3)	not DS	5	0.014	0.014	0.014	0.029	0.053	0.025	0.02	69	
SFM0032	HIGH (2:3)	not DS	5	<0.002	0.0030	0.0044	0.0050	0.0060	0.0039	0.002	50	
SFM0037	LOW (2:1)	not DS	4	0.0030	0.0030	0.0050	0.0075	0.0090	0.0055	0.003	55	
SFM0049	HIGH (Coast)	not DS	3	<0.002	<0.002	<0.002	0.0020	0.0030	<0.002	0.001	69	
SFM0051	HIGH (2:1)	DS	4	<0.004	0.0049	0.0064	0.0078	0.010	0.0062	0.003	53	
SFM0053	HIGH (4:2)	not DS	4	<0.004	<0.004	<0.004	0.0043	0.0050	<0.004	0.002	61	
SFM0056	LOW (Coast)	not DS	4	<0.004	<0.004	<0.004	0.0053	0.0090	0.0040	0.004	89	
SFM0057	LOW (2:8)	DS	5	0.033	0.035	0.045	0.050	0.067	0.046	0.01	30	
SFM0060	HIGH (Coast)	not DS	3	0.028	0.030	0.031	0.039	0.046	0.035	0.010	28	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	90	<0.02	<0.02	<0.02	<0.02	0.067	<0.02	0.01	100	
Forsmark area	Soil tubes	'Higher'	68	<0.02	<0.02	<0.02	<0.02	0.053	<0.02	0.01	97	
Forsmark area	Soil tubes	'Lower'	22	<0.02	<0.02	<0.02	0.022	0.067	<0.02	0.02	110	
Forsmark area	Soil tubes	In lake	3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	74	
Forsmark area	Soil tubes	At sea	1			<0.02			<0.02			
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	<20	<20	<20	<20	<20	<20	2	380	
Simpevarp area	Soil tubes	'Higher'	3	<20	<20	<20	<20	<20	<20	6	170	
Simpevarp area	Soil tubes	'Lower'	15	<20	<20	<20	<20	<20	<20	0.1	150	

Ground Water

Ca	Calcium (mg/l)							Ca			
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	64	82	88	92	100	87	10	12
SFM0002	HIGH (2:1)	DS	10	100	110	110	130	130	120	10	9.0
SFM0003	HIGH (2:1)	DS	9	87	92	93	93	97	93	3	3.0
SFM0005	HIGH (Coast)	DS	6	86	110	110	120	130	110	10	14
SFM0006	HIGH (5:1)	DS	5	120	140	140	150	170	140	20	11
SFM0008	HIGH (5:1)	DS	7	140	150	150	180	210	170	30	17
SFM0009	HIGH (2:6)	DS	7	81	86	89	98	120	94	10	13
SFM0010	HIGH (2:8)	not DS	1			66			66		
SFM0011	LOW (2:8)	not DS	1			150			150		
SFM0012	LOW (2:8)	Lake	9	270	270	280	300	680	330	100	40
SFM0013	LOW (2:3)	not DS	1			250			250		
SFM0014	HIGH (2:10)	not DS	1			85			85		
SFM0015	LOW (2:10)	Lake	8	33	35	36	40	63	40	10	25
SFM0016	HIGH (2:10)	not DS	1			90			90		
SFM0017	LOW (2:10)	not DS	1			44			44		
SFM0018	LOW (2:10)	not DS	1			29			29		
SFM0019	HIGH (2:3)	not DS	1			98			98		
SFM0020	HIGH (2:6)	not DS	1			120			120		
SFM0021	HIGH (2:3)	not DS	1			120			120		
SFM0022	LOW (8:1)	Lake	4	120	140	220	300	360	230	100	50
SFM0023	LOW (2:3)	Lake	8	500	520	530	540	560	530	20	3.9
SFM0024	LOW (Coast)	Sea	3	140	140	140	140	140	140	3	1.8
SFM0025	LOW (Coast)	Sea	8	200	420	430	440	450	400	80	21
SFM0026	LOW (8:1)	not DS	1			99			99		
SFM0027	LOW (8:1)	not DS	8	35	36	39	44	48	40	5	13
SFM0028	HIGH (4:2)	not DS	1			110			110		
SFM0029	HIGH (4:2)	not DS	6	110	120	120	130	130	120	7	5.8
SFM0030	HIGH (2:3)	not DS	1			67			67		
SFM0031	HIGH (2:3)	not DS	7	130	140	140	150	160	140	10	6.8
SFM0032	HIGH (2:3)	not DS	9	94	99	100	100	110	100	4	4.0
SFM0034	LOW (2:1)	not DS	1			100			100		
SFM0036	LOW (2:1)	not DS	1			110			110		
SFM0037	LOW (2:1)	not DS	7	100	110	120	130	160	120	20	15
SFM0049	HIGH (Coast)	not DS	4	58	60	62	64	65	62	3	5.3
SFM0051	HIGH (2:1)	DS	6	110	110	120	120	130	120	6	5.4
SFM0053	HIGH (4:2)	not DS	6	110	120	130	130	140	120	9	7.0
SFM0056	LOW (Coast)	not DS	6	54	55	57	57	110	66	20	36
SFM0057	LOW (2:8)	DS	6	88	120	170	180	190	150	40	28
SFM0059	HIGH (7:2)	not DS	1			210			210		
SFM0060	HIGH (Coast)	not DS	3	110	120	120	120	120	120	5	4.2
SFM0061	HIGH (7:2)	not DS	3	100	100	100	110	120	110	9	8.2
SFM0062	LOW (2:3)	Lake	3	86	87	88	95	100	92	8	9.0
SFM0063	LOW (2:3)	Lake	2	66		75		84	75	10	16
SFM0065	LOW (4:2)	Lake	1			83			83		
SFM0074	HIGH (2:3)	not DS	10	100	100	110	110	110	110	2	1.5
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	197	29	91	110	140	680	150	100	81
Forsmark area	Soil tubes	'Higher'	117	58	94	110	130	210	110	30	24
Forsmark area	Soil tubes	'Lower'	80	29	57	120	280	680	200	200	87
Forsmark area	Soil tubes	In lake	35	33	75	270	430	680	260	200	79
Forsmark area	Soil tubes	At sea	11	140	170	420	440	450	330	100	43
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	20	46	99	130	180	220	140	50	36
Forsmark area	Private wells	drilled	30	11	110	160	680	1200	360	400	99
Simpevarp area	Private wells	excavated	101	1.8	7.3	24	35	160	26	20	90
Simpevarp area	Private wells	drilled	252	1.0	20	29	39	430	37	40	110
Simpevarp area	Soil tubes	All	41	6.1	23	34	47	100	38	20	55
Simpevarp area	Soil tubes	'Higher'	11	9.1	18	32	34	91	32	20	68
Simpevarp area	Soil tubes	'Lower'	30	6.1	24	36	53	100	40	20	51
Laxemar pre-PLU	Soil tubes	All	22	9.1	17	30	50	140	42	30	81
Uppsala County	SGU well	excavated	47	16	49	71	91	140	70	30	42
Uppsala County	SGU well	drilled	73	9.6	40	65	93	200	69	40	56
Kalmar County	SGU well	excavated	81	5.5	12	18	25	91	21	10	67
Kalmar County	SGU well	drilled	108	1.5	26	38	55	280	47	40	86
Sweden	SGU well	excavated	900	1.1	12	23	46	210	35	30	95
Sweden	SGU well	drilled	2056	0.15	22	38	62	550	49	40	85

Ground Water

HCO3		Bicarbonate (mg/l)							HCO3		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	270	420	430	490	580	440	90	21
SFM0002	HIGH (2:1)	DS	11	320	330	340	350	390	350	20	5.7
SFM0003	HIGH (2:1)	DS	10	410	420	420	430	450	420	10	3.0
SFM0005	HIGH (Coast)	DS	6	260	330	360	370	410	350	50	15
SFM0006	HIGH (5:1)	DS	5	350	370	410	440	440	400	40	9.8
SFM0008	HIGH (5:1)	DS	7	340	360	380	420	440	390	40	10
SFM0009	HIGH (2:6)	DS	7	250	270	280	300	330	290	30	9.9
SFM0010	HIGH (2:8)	not DS	1			240			240		
SFM0011	LOW (2:8)	not DS	1			330			330		
SFM0012	LOW (2:8)	Lake	9	300	340	340	350	360	340	20	6.9
SFM0013	LOW (2:3)	not DS	1			240			240		
SFM0014	HIGH (2:10)	not DS	1			320			320		
SFM0015	LOW (2:10)	Lake	8	690	720	740	740	770	730	20	3.4
SFM0016	HIGH (2:10)	not DS	1			340			340		
SFM0017	LOW (2:10)	not DS	1			540			540		
SFM0018	LOW (2:10)	not DS	1			430			430		
SFM0019	HIGH (2:3)	not DS	1			350			350		
SFM0020	HIGH (2:6)	not DS	1			370			370		
SFM0021	HIGH (2:3)	not DS	1			380			380		
SFM0022	LOW (8:1)	Lake	4	320	350	370	380	390	360	30	7.9
SFM0023	LOW (2:3)	Lake	8	72	110	130	160	170	130	30	26
SFM0024	LOW (Coast)	Sea	3	350	350	350	350	350	350	2	0.60
SFM0025	LOW (Coast)	Sea	8	200	240	240	240	250	240	20	6.9
SFM0026	LOW (8:1)	not DS	1			380			380		
SFM0027	LOW (8:1)	not DS	8	400	410	410	420	660	440	90	20
SFM0028	HIGH (4:2)	not DS	1			380			380		
SFM0029	HIGH (4:2)	not DS	6	390	390	400	420	430	410	20	4.5
SFM0030	HIGH (2:3)	not DS	1			410			410		
SFM0031	HIGH (2:3)	not DS	7	420	430	440	450	470	440	20	4.0
SFM0032	HIGH (2:3)	not DS	9	330	340	350	360	360	350	10	3.2
SFM0034	LOW (2:1)	not DS	1			460			460		
SFM0036	LOW (2:1)	not DS	1			520			520		
SFM0037	LOW (2:1)	not DS	7	370	390	430	500	660	460	100	23
SFM0049	HIGH (Coast)	not DS	4	180	190	200	210	240	200	20	11
SFM0051	HIGH (2:1)	DS	6	320	330	330	340	360	340	10	4.1
SFM0053	HIGH (4:2)	not DS	6	340	380	390	400	400	380	20	6.3
SFM0056	LOW (Coast)	not DS	6	390	450	460	460	470	450	30	6.8
SFM0057	LOW (2:8)	DS	6	230	250	260	310	340	270	40	16
SFM0059	HIGH (7:2)	not DS	1			330			330		
SFM0060	HIGH (Coast)	not DS	3	320	330	340	340	340	330	10	3.1
SFM0061	HIGH (7:2)	not DS	3	280	290	290	300	310	300	20	5.5
SFM0062	LOW (2:3)	Lake	3	280	280	280	300	310	290	20	7.1
SFM0063	LOW (2:3)	Lake	2	180		200		220	200	30	13
SFM0065	LOW (4:2)	Lake	1			310			310		
SFM0074	HIGH (2:3)	not DS	10	340	350	350	350	390	350	20	4.3
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	199	72	320	360	420	770	370	100	31
Forsmark area	Soil tubes	'Higher'	119	180	340	360	410	580	370	60	18
Forsmark area	Soil tubes	'Lower'	80	72	250	350	430	770	370	200	44
Forsmark area	Soil tubes	In lake	35	72	200	340	380	770	370	200	59
Forsmark area	Soil tubes	At sea	11	200	240	240	300	350	270	50	21
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	18	120	280	330	400	540	340	100	31
Forsmark area	Private wells	drilled	26	52	170	300	410	660	310	200	61
Simpevarp area	Private wells	excavated	133	0.50	11	54	93	270	66	70	100
Simpevarp area	Private wells	drilled	285	10	110	180	230	400	170	90	50
Simpevarp area	Soil tubes	All	63	2.0	52	93	190	550	130	100	79
Simpevarp area	Soil tubes	'Higher'	16	3.0	35	58	94	370	83	90	110
Simpevarp area	Soil tubes	'Lower'	47	2.0	67	120	200	550	140	100	71
Laxemar pre-PLU	Soil tubes	All	21	8.0	100	180	330	620	230	200	74
Uppsala County	SGU well	excavated	66	32	160	240	290	500	230	100	43
Uppsala County	SGU well	drilled	672	24	210	260	320	620	270	80	31
Kalmar County	SGU well	excavated	367	1.0	18	29	54	400	50	60	120
Kalmar County	SGU well	drilled	375	0.50	75	130	180	560	130	80	62
Sweden	SGU well	excavated	8897		18	36	81	850	68	80	120
Sweden	SGU well	drilled	13579		89	150	220	1100	160	100	63

Ground Water

C-13		Carbon-13 (dev. PDB)							C-13		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	7	-15.6	-14.7	-14.4	-13.8	-12.6	-14.2	0.94	-6.6
SFM0002	HIGH (2:1)	DS	6	-15.8	-15.3	-15.0	-14.6	-13.2	-14.8	0.89	-6.0
SFM0003	HIGH (2:1)	DS	6	-14.2	-13.8	-13.1	-11.7	-9.95	-12.6	1.7	-13
SFM0005	HIGH (Coast)	DS	3	-15.4	-15.0	-14.5	-13.6	-12.7	-14.2	1.4	-9.8
SFM0006	HIGH (5:1)	DS	3	-15.5	-15.3	-15.2	-14.9	-14.6	-15.1	0.43	-2.8
SFM0008	HIGH (5:1)	DS	3	-14.9	-14.8	-14.6	-13.6	-12.5	-14.0	1.3	-9.3
SFM0009	HIGH (2:6)	DS	2	-14.0		-13.3		-12.6	-13.3	0.93	-7.0
SFM0012	LOW (2:8)	Lake	4	-6.81	-6.60	-6.53	-6.09	-4.80	-6.17	0.92	-15
SFM0015	LOW (2:10)	Lake	5	6.77	6.83	7.64	8.10	8.25	7.52	0.69	9.2
SFM0022	LOW (8:1)	Lake	1			-8.40			-8.40		
SFM0023	LOW (2:3)	Lake	3	-7.60	-7.04	-6.48	-3.62	-0.760	-4.95	3.7	-74
SFM0024	LOW (Coast)	Sea	2	-12.4		-12.4		-12.4	-12.4	0.021	-0.17
SFM0025	LOW (Coast)	Sea	3	-11.3	-11.2	-11.2	-9.98	-8.74	-10.4	1.4	-14
SFM0027	LOW (8:1)	not DS	3	-14.2	-14.1	-14.1	-13.7	-13.3	-13.9	0.45	-3.3
SFM0029	HIGH (4:2)	not DS	2	-14.1		-13.1		-12.1	-13.1	1.4	-11
SFM0031	HIGH (2:3)	not DS	3	-16.5	-15.9	-15.2	-14.2	-13.2	-15.0	1.7	-11
SFM0032	HIGH (2:3)	not DS	4	-14.6	-14.6	-13.7	-9.70	-0.540	-10.6	6.8	-64
SFM0037	LOW (2:1)	not DS	3	-16.3	-15.9	-15.5	-14.6	-13.8	-15.2	1.3	-8.4
SFM0049	HIGH (Coast)	not DS	1			-10.2			-10.2		
SFM0051	HIGH (2:1)	DS	5	-14.8	-14.1	-13.6	-13.5	-12.9	-13.8	0.73	-5.3
SFM0053	HIGH (4:2)	not DS	5	-13.3	-13.0	-12.5	-11.9	-4.98	-11.1	3.5	-31
SFM0057	LOW (2:8)	DS	3	-15.2	-14.1	-13.0	-12.8	-12.7	-13.6	1.4	-9.9
SFM0060	HIGH (Coast)	not DS	2	-13.1		-12.1		-11.0	-12.1	1.5	-12
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	79	-16.5	-14.6	-13.2	-11.2	8.25	-11.2	5.9	-52
Forsmark area	Soil tubes	'Higher'	52	-16.5	-14.7	-13.9	-12.7	-0.540	-13.3	2.6	-19
Forsmark area	Soil tubes	'Lower'	27	-16.3	-13.2	-8.74	-5.64	8.25	-7.19	8.0	-110
Forsmark area	Soil tubes	In lake	13	-8.40	-6.53	-4.80	6.83	8.25	-0.793	7.1	-890
Forsmark area	Soil tubes	At sea	5	-12.4	-12.4	-11.3	-11.2	-8.74	-11.2	1.5	-13
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	30	-21.5	-18.1	-16.9	-13.0	-6.32	-15.6	3.5	-22
Simpevarp area	Soil tubes	'Higher'	6	-20.5	-19.0	-17.4	-15.4	-12.7	-17.0	2.9	-17
Simpevarp area	Soil tubes	'Lower'	24	-21.5	-17.7	-16.9	-12.4	-6.32	-15.3	3.6	-24

Ground Water

C-14		Carbon-14 (PMC)								C-14	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	88.4	89.5	90.6	91.4	98.8	91.5	3.7	4.1
SFM0002	HIGH (2:1)	DS	5	85.3	85.3	86.7	87.0	88.0	86.5	1.2	1.3
SFM0003	HIGH (2:1)	DS	5	69.1	88.0	90.7	90.9	91.1	86.0	9.5	11
SFM0005	HIGH (Coast)	DS	2	94.6		95.0		95.4	95.0	0.58	0.61
SFM0006	HIGH (5:1)	DS	2	103		104		105	104	1.7	1.7
SFM0008	HIGH (5:1)	DS	2	96.3		97.9		99.6	97.9	2.3	2.3
SFM0009	HIGH (2:6)	DS	2	91.0		93.1		95.3	93.1	3.1	3.3
SFM0012	LOW (2:8)	Lake	4	47.9	48.4	49.8	55.3	67.8	53.9	9.4	17
SFM0015	LOW (2:10)	Lake	4	82.0	82.6	83.3	83.9	84.4	83.3	1.1	1.3
SFM0022	LOW (8:1)	Lake	1			66.8			66.8		
SFM0023	LOW (2:3)	Lake	2	42.1		44.4		46.6	44.4	3.2	7.3
SFM0024	LOW (Coast)	Sea	2	87.9		88.9		89.8	88.9	1.3	1.5
SFM0025	LOW (Coast)	Sea	2	47.6		47.7		47.7	47.7	0.064	0.13
SFM0027	LOW (8:1)	not DS	2	78.3		79.8		81.3	79.8	2.1	2.6
SFM0029	HIGH (4:2)	not DS	1			93.4			93.4		
SFM0031	HIGH (2:3)	not DS	2	94.5		95.5		96.5	95.5	1.4	1.5
SFM0032	HIGH (2:3)	not DS	3	90.6	92.6	94.7	99.9	105	96.8	7.5	7.7
SFM0037	LOW (2:1)	not DS	2	101		103		105	103	3.1	3.0
SFM0049	HIGH (Coast)	not DS	1			114			114		
SFM0051	HIGH (2:1)	DS	3	86.3	86.9	87.5	87.8	88.2	87.3	0.93	1.1
SFM0053	HIGH (4:2)	not DS	3	89.9	91.9	93.9	96.0	98.1	94.0	4.1	4.4
SFM0057	LOW (2:8)	DS	2	92.1		94.4		96.7	94.4	3.2	3.4
SFM0060	HIGH (Coast)	not DS	1			88.9			88.9		
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	59	42.1	84.1	89.8	94.6	114	85.5	16	19
Forsmark area	Soil tubes	'Higher'	38	69.1	88.2	91.0	95.4	114	92.4	7.3	7.9
Forsmark area	Soil tubes	'Lower'	21	42.1	48.6	81.3	87.9	105	72.9	21	28
Forsmark area	Soil tubes	In lake	11	42.1	48.2	66.8	82.4	84.4	64.0	17	27
Forsmark area	Soil tubes	At sea	4	47.6	47.7	67.8	88.4	89.8	68.3	24	35
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	7	45.4	68.0	82.2	98.6	103	80.6	23	28
Simpevarp area	Soil tubes	'Higher'	1			103			103		
Simpevarp area	Soil tubes	'Lower'	6	45.4	61.5	81.7	93.7	99.6	76.8	22	29

DIC		Dissolved inorganic carbon (mg/l)								DIC	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	45	64	79	93	110	78	20	25
SFM0002	HIGH (2:1)	DS	10	44	52	56	62	69	56	8	14
SFM0003	HIGH (2:1)	DS	10	57	68	72	78	83	72	7	10
SFM0005	HIGH (Coast)	DS	5	56	57	59	66	70	62	6	9.9
SFM0006	HIGH (5:1)	DS	5	57	57	64	69	74	64	7	11
SFM0008	HIGH (5:1)	DS	8	39	56	58	68	73	60	10	18
SFM0009	HIGH (2:6)	DS	6	31	43	52	54	65	49	10	24
SFM0012	LOW (2:8)	Lake	7	35	41	42	51	63	46	10	21
SFM0015	LOW (2:10)	Lake	6	120	130	140	140	140	140	8	5.9
SFM0022	LOW (8:1)	Lake	3	46	53	60	61	62	56	9	16
SFM0023	LOW (2:3)	Lake	6	8.1	10	15	18	20	14	5	34
SFM0024	LOW (Coast)	Sea	2	37		46		55	46	10	27
SFM0025	LOW (Coast)	Sea	6	14	26	30	32	38	28	8	29
SFM0027	LOW (8:1)	not DS	6	66	66	68	70	79	69	5	7.5
SFM0029	HIGH (4:2)	not DS	5	51	61	73	76	84	69	10	19
SFM0031	HIGH (2:3)	not DS	6	59	65	76	81	83	73	10	14
SFM0032	HIGH (2:3)	not DS	6	51	60	64	66	72	63	7	12
SFM0037	LOW (2:1)	not DS	6	71	72	75	95	110	83	20	19
SFM0049	HIGH (Coast)	not DS	3	38	38	39	42	46	41	4	11
SFM0057	LOW (2:8)	DS	5	32	43	43	54	60	46	10	23
SFM0060	HIGH (Coast)	not DS	3	52	56	60	62	64	59	6	11
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	124	8.1	49	62	72	140	62	30	41
Forsmark area	Soil tubes	'Higher'	77	31	56	63	72	110	64	10	22
Forsmark area	Soil tubes	'Lower'	47	8.1	34	55	71	140	60	40	62
Forsmark area	Soil tubes	In lake	22	8.1	24	45	110	140	63	50	77
Forsmark area	Soil tubes	At sea	8	14	28	32	37	55	33	10	36
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	4	26	63	76	81	92	67	30	43
Forsmark area	Private wells	drilled	9	7.3	19	41	91	120	54	40	81

Ground Water

DOC		Dissolved organic carbon (mg/l)							DOC		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	11	17	21	24	27	37	24	6	23
SFM0002	HIGH (2:1)	DS	11	12	14	15	15	17	15	1	9.3
SFM0003	HIGH (2:1)	DS	11	10	11	11	11	14	11	1	9.4
SFM0005	HIGH (Coast)	DS	5	8.6	9.7	11	13	13	11	2	17
SFM0006	HIGH (5:1)	DS	5	13	13	14	14	16	14	1	11
SFM0008	HIGH (5:1)	DS	8	4.3	5.9	6.5	7.0	8.5	6.4	1	22
SFM0009	HIGH (2:6)	DS	6	13	14	15	17	18	15	2	11
SFM0012	LOW (2:8)	Lake	7	3.1	3.2	3.4	3.7	3.7	3.4	0.3	7.6
SFM0015	LOW (2:10)	Lake	6	7.9	8.3	8.7	8.8	9.3	8.6	0.5	5.7
SFM0022	LOW (8:1)	Lake	3	4.6	5.0	5.4	5.5	5.6	5.2	0.5	10
SFM0023	LOW (2:3)	Lake	6	2.5	2.7	3.0	5.2	6.7	4.0	2	46
SFM0024	LOW (Coast)	Sea	2	8.9		9.0		9.1	9.0	0.1	1.6
SFM0025	LOW (Coast)	Sea	6	2.1	2.2	2.4	2.4	2.5	2.3	0.1	6.4
SFM0027	LOW (8:1)	not DS	6	5.4	5.5	5.7	6.3	7.7	6.1	0.9	15
SFM0029	HIGH (4:2)	not DS	5	6.8	7.8	7.8	8.0	8.8	7.8	0.7	9.1
SFM0031	HIGH (2:3)	not DS	6	7.4	7.6	7.8	9.3	11	8.5	1	17
SFM0032	HIGH (2:3)	not DS	6	16	16	17	19	20	18	2	11
SFM0037	LOW (2:1)	not DS	6	16	20	21	25	27	22	4	18
SFM0049	HIGH (Coast)	not DS	3	18	18	18	18	19	18	0.9	4.7
SFM0057	LOW (2:8)	DS	5	10	11	13	19	20	15	5	31
SFM0060	HIGH (Coast)	not DS	3	4.7	5.5	6.2	6.5	6.7	5.9	1	18
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	127	2.1	6.6	11	16	37	12	7	58
Forsmark area	Soil tubes	'Higher'	80	4.3	8.8	13	17	37	14	6	45
Forsmark area	Soil tubes	'Lower'	47	2.1	3.3	5.7	9.2	27	8.2	7	81
Forsmark area	Soil tubes	In lake	22	2.5	3.3	4.2	7.6	9.3	5.2	2	46
Forsmark area	Soil tubes	At sea	8	2.1	2.3	2.4	4.1	9.1	4.0	3	78
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	4	5.5	5.6	8.3	11	12	8.4	3	40
Forsmark area	Private wells	drilled	9	1.2	3.3	6.4	7.7	16	6.8	5	71

POC		Particulate organic carbon (mg/l)							POC		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	3	0.15	0.35	0.55	0.76	0.97	0.56	0.4	73
SFM0002	HIGH (2:1)	DS	3	0.39	0.47	0.54	0.71	0.88	0.60	0.3	42
SFM0003	HIGH (2:1)	DS	2	0.50		0.70		0.90	0.70	0.3	40
SFM0005	HIGH (Coast)	DS	1			0.65			0.65		
SFM0006	HIGH (5:1)	DS	1			0.16			0.16		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	10	0.15	0.42	0.55	0.82	0.97	0.57	0.3	51
Forsmark area	Soil tubes	'Higher'	10	0.15	0.42	0.55	0.82	0.97	0.57	0.3	51

Ground Water

TOC		Total organic carbon (mg/l)							TOC		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	11	21	22	25	28	36	25	5	19
SFM0002	HIGH (2:1)	DS	11	12	14	15	15	16	15	1	7.2
SFM0003	HIGH (2:1)	DS	11	6.5	10	11	11	11	10	1	13
SFM0005	HIGH (Coast)	DS	6	8.6	9.4	11	12	13	11	2	17
SFM0006	HIGH (5:1)	DS	5	13	13	14	14	16	14	1	8.3
SFM0008	HIGH (5:1)	DS	8	4.4	5.6	6.3	7.0	8.4	6.3	1	21
SFM0009	HIGH (2:6)	DS	6	14	14	16	17	18	16	2	10
SFM0012	LOW (2:8)	Lake	7	3.0	3.2	3.3	3.4	3.8	3.3	0.3	7.7
SFM0015	LOW (2:10)	Lake	6	8.0	8.3	8.6	8.8	9.4	8.6	0.5	5.8
SFM0022	LOW (8:1)	Lake	3	4.4	4.7	4.9	4.9	4.9	4.7	0.3	6.1
SFM0023	LOW (2:3)	Lake	6	2.6	2.7	2.9	4.3	5.8	3.6	1	38
SFM0024	LOW (Coast)	Sea	2	6.6		7.8		8.9	7.8	2	21
SFM0025	LOW (Coast)	Sea	6	1.6	2.0	2.1	2.2	2.4	2.1	0.3	13
SFM0027	LOW (8:1)	not DS	6	5.3	5.4	5.6	5.8	6.2	5.6	0.3	5.8
SFM0029	HIGH (4:2)	not DS	5	6.8	7.4	7.8	7.8	7.9	7.5	0.5	6.0
SFM0031	HIGH (2:3)	not DS	6	7.4	7.6	7.7	7.9	8.1	7.7	0.3	3.5
SFM0032	HIGH (2:3)	not DS	6	15	16	17	19	21	18	2	11
SFM0037	LOW (2:1)	not DS	6	16	20	21	25	26	22	4	17
SFM0049	HIGH (Coast)	not DS	3	18	18	18	19	19	18	0.7	3.6
SFM0057	LOW (2:8)	DS	5	10	11	13	19	20	15	5	31
SFM0060	HIGH (Coast)	not DS	3	4.7	5.4	6.1	6.2	6.2	5.7	0.8	15
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	128	1.6	6.1	10	16	36	11	7	61
Forsmark area	Soil tubes	'Higher'	81	4.4	8.0	13	16	36	13	6	47
Forsmark area	Soil tubes	'Lower'	47	1.6	3.2	5.5	9.2	26	8.0	7	84
Forsmark area	Soil tubes	In lake	22	2.6	3.2	4.1	7.5	9.4	5.0	2	48
Forsmark area	Soil tubes	At sea	8	1.6	2.0	2.2	3.5	8.9	3.5	3	78
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	4	5.3	5.6	8.4	11	12	8.4	3	40
Forsmark area	Private wells	drilled	10	1.4	3.7	7.0	8.0	16	6.9	5	67

Ce		Cerium ($\mu\text{g/l}$)							Ce		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	2.5	3.6	4.4	5.8	10	5.2	3	54
SFM0002	HIGH (2:1)	DS	6	3.3	3.8	4.1	4.5	5.6	4.2	0.8	19
SFM0003	HIGH (2:1)	DS	6	0.13	0.18	0.20	0.24	0.29	0.21	0.06	27
SFM0005	HIGH (Coast)	DS	3	1.9	2.1	2.3	2.5	2.7	2.3	0.4	18
SFM0006	HIGH (5:1)	DS	3	1.7	1.8	1.9	2.2	2.4	2.0	0.4	18
SFM0008	HIGH (5:1)	DS	5	0.22	0.28	0.28	0.50	0.69	0.40	0.2	50
SFM0009	HIGH (2:6)	DS	5	0.52	0.58	0.93	1.2	1.6	0.96	0.4	45
SFM0012	LOW (2:8)	Lake	1		<0.05				<0.05		
SFM0015	LOW (2:10)	Lake	1			0.0058			0.0058		
SFM0023	LOW (2:3)	Lake	1		<0.05				<0.05		
SFM0025	LOW (Coast)	Sea	1		<0.05				<0.05		
SFM0027	LOW (8:1)	not DS	5	0.024	0.027	0.030	0.053	0.11	0.049	0.04	74
SFM0029	HIGH (4:2)	not DS	5	0.99	1.2	1.2	1.3	1.4	1.2	0.2	13
SFM0031	HIGH (2:3)	not DS	5	0.41	0.45	0.52	0.82	0.86	0.61	0.2	35
SFM0032	HIGH (2:3)	not DS	5	1.1	1.2	1.4	1.8	2.1	1.5	0.4	28
SFM0037	LOW (2:1)	not DS	4	2.6	3.6	5.1	6.4	6.7	4.9	2	39
SFM0049	HIGH (Coast)	not DS	3	2.9	3.1	3.3	4.5	5.6	3.9	1	38
SFM0051	HIGH (2:1)	DS	4	1.7	2.9	3.6	4.1	5.0	3.5	1	39
SFM0053	HIGH (4:2)	not DS	4	0.64	0.76	1.1	1.5	1.9	1.2	0.6	50
SFM0056	LOW (Coast)	not DS	4	0.059	0.10	0.14	0.45	1.3	0.41	0.6	140
SFM0057	LOW (2:8)	DS	5	3.3	4.5	5.4	5.7	8.0	5.4	2	32
SFM0060	HIGH (Coast)	not DS	3	0.22	0.26	0.30	0.32	0.33	0.29	0.05	19
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	0.29	1.3	3.3	10	2.0	2	110
Forsmark area	Soil tubes	'Higher'	63	0.13	0.52	1.4	3.1	10	2.0	2	97
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	0.14	4.3	8.0	2.2	3	120
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	60
Forsmark area	Soil tubes	At sea	1		<0.05			<0.05			
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.46	17	29	42	150	44	50	100
Simpevarp area	Soil tubes	'Higher'	3	28	31	34	69	100	56	40	77
Simpevarp area	Soil tubes	'Lower'	15	0.46	14	24	42	150	42	50	110
Laxemar pre-PLU	Soil tubes	All	12	0.61	2.2	3.9	6.2	22	5.5	6	100

Ground Water

Cs		Cesium ($\mu\text{g/l}$)							Cs	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	47
SFM0002	HIGH (2:1)	DS	6	<0.03	<0.03	<0.03	<0.03	<0.03	0.003	19
SFM0003	HIGH (2:1)	DS	6	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	74
SFM0005	HIGH (Coast)	DS	3	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0006	HIGH (5:1)	DS	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.005	37
SFM0008	HIGH (5:1)	DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0009	HIGH (2:6)	DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0012	LOW (2:8)	Lake	1		<0.3			<0.3		
SFM0015	LOW (2:10)	Lake	1		<0.03			<0.03		
SFM0023	LOW (2:3)	Lake	1		<0.3			<0.3		
SFM0025	LOW (Coast)	Sea	1		<0.3			<0.3		
SFM0027	LOW (8:1)	not DS	5	0.034	0.042	0.075	0.079	0.085	0.063	37
SFM0029	HIGH (4:2)	not DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0031	HIGH (2:3)	not DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0032	HIGH (2:3)	not DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0037	LOW (2:1)	not DS	4	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0049	HIGH (Coast)	not DS	3	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0051	HIGH (2:1)	DS	4	0.050	0.067	0.090	0.11	0.12	0.087	37
SFM0053	HIGH (4:2)	not DS	4	0.050	0.069	0.076	0.084	0.10	0.076	28
SFM0056	LOW (Coast)	not DS	4	<0.03	0.041	0.050	0.056	0.074	0.047	51
SFM0057	LOW (2:8)	DS	5	<0.03	<0.03	<0.03	<0.03	<0.03		
SFM0060	HIGH (Coast)	not DS	3	<0.03	<0.03	<0.03	<0.03	<0.03		
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.3	<0.3	<0.3	<0.3	<0.3	0.03	110
Forsmark area	Soil tubes	'Higher'	63	<0.3	<0.3	<0.3	<0.3	<0.3	0.02	98
Forsmark area	Soil tubes	'Lower'	22	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	94
Forsmark area	Soil tubes	In lake	3	<0.3	<0.3	<0.3	<0.3	<0.3	0.08	74
Forsmark area	Soil tubes	At sea	1		<0.3			<0.3		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	<0.03	0.29	0.57	1.7	3.5	1.1	110
Simpevarp area	Soil tubes	'Higher'	3	0.21	0.32	0.43	1.5	2.6	1.1	120
Simpevarp area	Soil tubes	'Lower'	15	<0.03	0.32	0.64	1.4	3.5	1.1	110
Laxemar pre-PLU	Soil tubes	All	12	0.0090	0.016	0.045	0.087	7.9	0.85	270

Ground Water

CI	Chloride (mg/l)								CI		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	120	270	340	430	510	330	100	41
SFM0002	HIGH (2:1)	DS	11	31	39	51	100	130	67	40	52
SFM0003	HIGH (2:1)	DS	10	8.8	11	13	17	19	13	4	28
SFM0005	HIGH (Coast)	DS	6	4.7	7.3	8.2	15	17	10	5	51
SFM0006	HIGH (5:1)	DS	5	28	31	40	56	68	45	20	38
SFM0008	HIGH (5:1)	DS	7	18	50	110	190	270	120	90	75
SFM0009	HIGH (2:6)	DS	7	4.2	5.5	8.4	12	13	8.6	4	44
SFM0011	LOW (2:8)	not DS	1			1800			1800		
SFM0012	LOW (2:8)	Lake	9	2200	2200	2200	2200	2300	2200	60	2.7
SFM0013	LOW (2:3)	not DS	1			1800			1800		
SFM0014	HIGH (2:10)	not DS	1			7.2			7.2		
SFM0015	LOW (2:10)	Lake	8	280	300	310	320	380	310	30	9.6
SFM0016	HIGH (2:10)	not DS	1			26			26		
SFM0017	LOW (2:10)	not DS	1			18			18		
SFM0018	LOW (2:10)	not DS	1			12			12		
SFM0019	HIGH (2:3)	not DS	1			5.1			5.1		
SFM0020	HIGH (2:6)	not DS	1			11			11		
SFM0022	LOW (8:1)	Lake	4	950	1100	1200	1300	1300	1200	200	14
SFM0023	LOW (2:3)	Lake	7	3700	3800	3800	3800	3800	3800	40	1.1
SFM0024	LOW (Coast)	Sea	3	1600	1700	1700	1800	1800	1700	80	4.9
SFM0025	LOW (Coast)	Sea	8	690	1800	1900	1900	2000	1700	400	25
SFM0026	LOW (8:1)	not DS	1			97			97		
SFM0027	LOW (8:1)	not DS	8	60	62	62	64	65	62	2	3.1
SFM0028	HIGH (4:2)	not DS	1			13			13		
SFM0029	HIGH (4:2)	not DS	6	14	16	19	31	43	24	10	50
SFM0030	HIGH (2:3)	not DS	1			69			69		
SFM0031	HIGH (2:3)	not DS	7	7.4	7.9	8.1	8.7	11	8.5	1	14
SFM0032	HIGH (2:3)	not DS	9	18	21	24	32	36	26	6	25
SFM0034	LOW (2:1)	not DS	1			430			430		
SFM0036	LOW (2:1)	not DS	1			150			150		
SFM0037	LOW (2:1)	not DS	7	52	54	68	83	130	75	30	40
SFM0049	HIGH (Coast)	not DS	4	11	15	16	17	18	15	3	18
SFM0051	HIGH (2:1)	DS	6	36	41	45	47	49	44	5	11
SFM0053	HIGH (4:2)	not DS	6	9.6	10	11	12	13	11	1	13
SFM0056	LOW (Coast)	not DS	6	12	490	510	520	560	430	200	48
SFM0057	LOW (2:8)	DS	6	67	220	310	350	400	270	100	45
SFM0059	HIGH (7:2)	not DS	1			580			580		
SFM0060	HIGH (Coast)	not DS	3	6.8	7.0	7.2	39	71	28	40	130
SFM0061	HIGH (7:2)	not DS	3	7.1	10	13	15	17	12	5	41
SFM0062	LOW (2:3)	Lake	3	27	27	27	28	29	28	1	4.1
SFM0063	LOW (2:3)	Lake	2	23		150			150	200	120
SFM0065	LOW (4:2)	Lake	1			370			370		
SFM0074	HIGH (2:3)	not DS	10	24	48	55	60	64	52	10	23
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	196	4.2	18	56	340	3800	460	900	190
Forsmark area	Soil tubes	'Higher'	117	4.2	11	23	56	580	64	100	170
Forsmark area	Soil tubes	'Lower'	79	12	69	400	1900	3800	1000	1000	110
Forsmark area	Soil tubes	In lake	34	23	300	1300	2300	3800	1600	1000	87
Forsmark area	Soil tubes	At sea	11	690	1700	1800	1900	2000	1700	400	21
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	20	3.0	4.8	14	140	1900	260	500	210
Forsmark area	Private wells	drilled	29	8.0	44	91	3600	5600	1500	2000	130
Simpevarp area	Private wells	excavated	134	2.5	7.0	18	46	750	49	100	210
Simpevarp area	Private wells	drilled	291	2.5	14	45	140	1200	120	200	150
Simpevarp area	Soil tubes	All	55	3.2	5.4	7.4	24	200	36	50	150
Simpevarp area	Soil tubes	'Higher'	14	3.7	5.0	5.9	7.2	17	6.8	3	49
Simpevarp area	Soil tubes	'Lower'	41	3.2	5.7	12	86	200	46	60	130
Laxemar pre-PLU	Soil tubes	All	22	9.7	33	220	450	1400	370	500	120
Uppsala County	SGU well	excavated	66	0.32	7.1	13	24	730	33	100	290
Uppsala County	SGU well	drilled	672	0.50	9.7	19	42	2600	65	200	260
Kalmar County	SGU well	excavated	377	2.0	11	20	32	180	26	20	85
Kalmar County	SGU well	drilled	375	2.0	11	21	45	1400	58	100	260
Sweden	SGU well	excavated	6822	5.0	11	11	21	1600	20	50	230
Sweden	SGU well	drilled	12433	7.0	15	15	32	11000	52	200	390

Ground Water

CI-37		Chlorine-37 (dev. SMOC)								CI-37	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	9	-0.560	-0.100	0.250	0.260	0.430	0.0911	0.32	350
SFM0002	HIGH (2:1)	DS	9	-0.490	-0.380	-0.290	-0.0700	0.0600	-0.250	0.21	-84
SFM0003	HIGH (2:1)	DS	8	-0.230	0.0550	0.230	0.273	0.580	0.185	0.24	130
SFM0005	HIGH (Coast)	DS	5	-0.460	-0.190	-0.110	0.0100	0.0800	-0.134	0.21	-160
SFM0006	HIGH (5:1)	DS	4	-0.570	-0.308	-0.180	-0.0575	0.190	-0.185	0.31	-170
SFM0008	HIGH (5:1)	DS	6	-0.400	-0.258	0.0800	0.170	0.330	-0.0133	0.30	-2300
SFM0009	HIGH (2:6)	DS	5	-0.420	-0.370	-0.0700	-0.0500		-0.182	0.20	-110
SFM0012	LOW (2:8)	Lake	5	-0.180	0.0800	0.170	0.170	0.570	0.162	0.27	170
SFM0015	LOW (2:10)	Lake	4	0.680	1.04	1.19	1.31	1.56	1.16	0.36	31
SFM0022	LOW (8:1)	Lake	1			-0.670			-0.670		
SFM0023	LOW (2:3)	Lake	4	-0.140	-0.0425	0.0950	0.203	0.210	0.0650	0.17	260
SFM0024	LOW (Coast)	Sea	1			0.0400			0.0400		
SFM0025	LOW (Coast)	Sea	4	-0.410	-0.373	-0.315	-0.268	-0.260	-0.325	0.072	-22
SFM0027	LOW (8:1)	not DS	5	-0.720	-0.640	-0.540	-0.400	-0.320	-0.524	0.17	-32
SFM0029	HIGH (4:2)	not DS	5	-0.590	-0.260	-0.140	-0.0700	0.0300	-0.206	0.24	-120
SFM0031	HIGH (2:3)	not DS	5	-0.550	-0.360	-0.0700	-0.0400	0.180	-0.168	0.29	-170
SFM0032	HIGH (2:3)	not DS	5	-0.410	-0.290	-0.220	-0.180	0.190	-0.182	0.23	-120
SFM0037	LOW (2:1)	not DS	5		0.120	0.120	0.230	0.290	0.152	0.11	74
SFM0049	HIGH (Coast)	not DS	1			-0.480			-0.480		
SFM0051	HIGH (2:1)	DS	4	-0.410	-0.403	-0.0250	0.388	0.500	0.01000	0.48	4800
SFM0053	HIGH (4:2)	not DS	4	0.0600	0.150	0.210	0.258	0.310	0.198	0.11	54
SFM0056	LOW (Coast)	not DS	1			0.330			0.330		
SFM0057	LOW (2:8)	DS	3	-0.570	-0.425	-0.280	-0.280	-0.280	-0.377	0.17	-44
SFM0060	HIGH (Coast)	not DS	2	-0.190		-0.110	-0.0300	-0.110	0.11	-100	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	105	-0.720	-0.320	-0.0500	0.200	1.56	-0.0371	0.39	-1000
Forsmark area	Soil tubes	'Higher'	72	-0.590	-0.305	-0.0700	0.190	0.580	-0.0694	0.29	-420
Forsmark area	Soil tubes	'Lower'	33	-0.720	-0.320		0.210	1.56	0.0333	0.54	1600
Forsmark area	Soil tubes	In lake	14	-0.670	0.0125	0.185	0.653	1.56	0.359	0.61	170
Forsmark area	Soil tubes	At sea	5	-0.410	-0.360	-0.270	-0.260	0.0400	-0.252	0.17	-69
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	32	-0.710	-0.380	-0.235	0.0750	0.770	-0.133	0.37	-280
Simpevarp area	Soil tubes	'Higher'	10	-0.630	-0.380	-0.280	0.353	0.470	-0.102	0.43	-420
Simpevarp area	Soil tubes	'Lower'	22	-0.710	-0.353	-0.235	0.0250	0.770	-0.148	0.35	-230

Cr		Chromium ($\mu\text{g/l}$)								Cr	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	0.23	0.26	0.37	0.48	0.71	0.40	0.2	44
SFM0002	HIGH (2:1)	DS	6	0.23	0.27	0.32	0.33	0.56	0.33	0.1	35
SFM0003	HIGH (2:1)	DS	7	0.040	0.053	0.060	0.10	0.15	0.080	0.04	52
SFM0005	HIGH (Coast)	DS	4	0.18	0.21	0.25	0.32	0.43	0.28	0.1	39
SFM0006	HIGH (5:1)	DS	3	0.078	0.084	0.089	0.12	0.16	0.11	0.04	39
SFM0008	HIGH (5:1)	DS	5	0.058	0.063	0.075	0.10	0.13	0.086	0.03	36
SFM0009	HIGH (2:6)	DS	5	0.13	0.14	0.19	0.20	0.21	0.17	0.04	21
SFM0012	LOW (2:8)	Lake	1			<0.1			<0.1		
SFM0015	LOW (2:10)	Lake	1			0.070			0.070		
SFM0023	LOW (2:3)	Lake	1			<0.1			<0.1		
SFM0025	LOW (Coast)	Sea	1			<0.1			<0.1		
SFM0027	LOW (8:1)	not DS	5	0.023	0.038	0.041	0.045	0.058	0.041	0.01	31
SFM0029	HIGH (4:2)	not DS	5	0.058	0.079	0.082	0.088	0.095	0.080	0.01	17
SFM0031	HIGH (2:3)	not DS	5	0.032	0.035	0.044	0.046	0.059	0.043	0.01	25
SFM0032	HIGH (2:3)	not DS	5	0.19	0.20	0.23	0.30	0.34	0.25	0.06	26
SFM0037	LOW (2:1)	not DS	4	0.40	0.43	0.44	0.46	0.53	0.45	0.06	13
SFM0049	HIGH (Coast)	not DS	3	0.20	0.22	0.25	0.29	0.33	0.26	0.06	25
SFM0051	HIGH (2:1)	DS	4	0.74	0.93	1.0	1.2	1.6	1.1	0.4	34
SFM0053	HIGH (4:2)	not DS	4	0.50	0.57	0.82	1.1	1.2	0.84	0.3	42
SFM0056	LOW (Coast)	not DS	4	0.15	0.17	0.22	0.38	0.71	0.33	0.3	80
SFM0057	LOW (2:8)	DS	5	0.21	0.22	0.27	0.30	0.47	0.30	0.1	36
SFM0060	HIGH (Coast)	not DS	3	0.076	0.076	0.076	0.11	0.14	0.096	0.03	36
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	88	<0.1	<0.1	0.20	0.33	1.6	0.27	0.3	110
Forsmark area	Soil tubes	'Higher'	66	<0.1	<0.1	0.20	0.33	1.6	0.28	0.3	110
Forsmark area	Soil tubes	'Lower'	22	<0.1	<0.1	0.19	0.37	0.71	0.23	0.2	86
Forsmark area	Soil tubes	In lake	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	20
Forsmark area	Soil tubes	At sea	1			<0.1			<0.1		

Ground Water

Co		Cobalt ($\mu\text{g/l}$)							Co		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	0.23	0.24	0.25	0.34	0.50	0.31	0.10	33
SFM0002	HIGH (2:1)	DS	7	0.18	0.23	0.28	0.47	0.75	0.37	0.2	60
SFM0003	HIGH (2:1)	DS	7	0.13	0.13	0.14	0.15	0.22	0.15	0.03	20
SFM0005	HIGH (Coast)	DS	4	0.14	0.14	0.15	0.17	0.19	0.16	0.03	16
SFM0006	HIGH (5:1)	DS	3	0.18	0.22	0.25	0.61	0.96	0.46	0.4	93
SFM0008	HIGH (5:1)	DS	5	0.27	0.27	0.27	0.32	0.42	0.31	0.07	22
SFM0009	HIGH (2:6)	DS	5	0.078	0.099	0.17	0.27	0.27	0.18	0.09	50
SFM0012	LOW (2:8)	Lake	1			0.49			0.49		
SFM0015	LOW (2:10)	Lake	1			0.55			0.55		
SFM0023	LOW (2:3)	Lake	1			3.2			3.2		
SFM0025	LOW (Coast)	Sea	1			0.20			0.20		
SFM0027	LOW (8:1)	not DS	5	0.021	0.048	0.053	0.10	0.11	0.067	0.04	56
SFM0029	HIGH (4:2)	not DS	5	0.15	0.20	0.20	0.29	0.35	0.24	0.08	34
SFM0031	HIGH (2:3)	not DS	5	0.24	0.29	0.31	0.43	0.44	0.34	0.09	25
SFM0032	HIGH (2:3)	not DS	5	0.10	0.11	0.11	0.14	0.20	0.13	0.04	31
SFM0037	LOW (2:1)	not DS	4	0.10	0.11	0.14	0.20	0.27	0.16	0.08	47
SFM0049	HIGH (Coast)	not DS	3	0.052	0.056	0.061	0.091	0.12	0.078	0.04	48
SFM0051	HIGH (2:1)	DS	4	0.16	0.21	0.25	0.31	0.43	0.27	0.1	43
SFM0053	HIGH (4:2)	not DS	4	0.15	0.16	0.22	0.28	0.28	0.22	0.07	32
SFM0056	LOW (Coast)	not DS	4	0.11	0.12	0.13	0.16	0.26	0.16	0.07	45
SFM0057	LOW (2:8)	DS	5	0.26	0.28	0.35	0.37	0.44	0.34	0.07	21
SFM0060	HIGH (Coast)	not DS	3	0.049	0.062	0.074	0.15	0.22	0.12	0.09	82
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	89	0.021	0.14	0.22	0.28	3.2	0.27	0.4	130
Forsmark area	Soil tubes	'Higher'	67	0.049	0.14	0.22	0.28	0.96	0.24	0.2	64
Forsmark area	Soil tubes	'Lower'	22	0.021	0.11	0.19	0.34	3.2	0.35	0.7	190
Forsmark area	Soil tubes	In lake	3	0.49	0.52	0.55	1.9	3.2	1.4	2	110
Forsmark area	Soil tubes	At sea	1			0.20			0.20		
Cu		Copper ($\mu\text{g/l}$)							Cu		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	8	<0.5	<0.5	<0.5	0.73	0.99	0.51	0.3	55
SFM0002	HIGH (2:1)	DS	6	0.13	0.18	0.29	0.46	0.53	0.32	0.2	55
SFM0003	HIGH (2:1)	DS	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	68
SFM0005	HIGH (Coast)	DS	4	2.4	2.7	3.0	3.3	3.5	3.0	0.5	16
SFM0006	HIGH (5:1)	DS	3	6.5	6.6	6.7	7.3	7.9	7.0	0.8	11
SFM0008	HIGH (5:1)	DS	5	0.69	1.2	1.4	1.5	1.6	1.3	0.4	28
SFM0009	HIGH (2:6)	DS	5	3.0	3.1	3.1	3.4	3.6	3.3	0.3	8.2
SFM0012	LOW (2:8)	Lake	1			<1			<1		
SFM0015	LOW (2:10)	Lake	1			<0.1			<0.1		
SFM0023	LOW (2:3)	Lake	1			<1			<1		
SFM0025	LOW (Coast)	Sea	1			<1			<1		
SFM0027	LOW (8:1)	not DS	5	<0.1	<0.1	0.12	0.20	0.21	0.13	0.08	62
SFM0029	HIGH (4:2)	not DS	5	0.12	0.14	0.19	0.24	0.31	0.20	0.08	40
SFM0031	HIGH (2:3)	not DS	5	0.91	0.98	0.99	1.2	1.4	1.1	0.2	20
SFM0032	HIGH (2:3)	not DS	5	<0.1	<0.1	0.20	0.23	0.28	0.16	0.1	66
SFM0037	LOW (2:1)	not DS	4	0.40	0.41	0.46	0.55	0.65	0.49	0.1	24
SFM0049	HIGH (Coast)	not DS	3	<0.1	<0.1	0.12	0.23	0.33	0.17	0.1	87
SFM0051	HIGH (2:1)	DS	4	0.71	0.81	0.92	1.5	3.2	1.4	1	82
SFM0053	HIGH (4:2)	not DS	4	0.52	0.60	0.80	1.3	2.3	1.1	0.8	75
SFM0056	LOW (Coast)	not DS	4	0.28	0.39	0.58	0.91	1.5	0.73	0.5	72
SFM0057	LOW (2:8)	DS	5	1.5	2.2	3.3	3.4	4.2	2.9	1	37
SFM0060	HIGH (Coast)	not DS	3	4.6	4.8	5.0	5.2	5.5	5.0	0.4	8.5
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	89	<1	<1	<1	1.5	7.9	1.3	2	130
Forsmark area	Soil tubes	'Higher'	67	<1	<1	<1	2.0	7.9	1.4	2	130
Forsmark area	Soil tubes	'Lower'	22	<1	<1	<1	1.3	4.2	<1	1	120
Forsmark area	Soil tubes	In lake	3	<1	<1	<1	<1	<1	<1	0.3	74
Forsmark area	Soil tubes	At sea	1			<1			<1		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	14	5.0	5.0	7.5	24	45	15	10	92
Forsmark area	Private wells	drilled	16	5.0	5.0	7.5	13	140	21	30	160

Ground Water

D		Deuterium (dev. SMOW)								D	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	-90.6	-83.9	-82.6	-77.3	-73.1	-81.6	5.2	-6.4
SFM0002	HIGH (2:1)	DS	10	-95.2	-88.5	-87.1	-84.2	-81.6	-87.0	3.9	-4.5
SFM0003	HIGH (2:1)	DS	10	-82.3	-78.5	-75.9	-75.0	-71.3	-76.5	3.7	-4.8
SFM0005	HIGH (Coast)	DS	5	-93.8	-92.5	-89.4	-86.3	-84.3	-89.3	4.0	-4.5
SFM0006	HIGH (5:1)	DS	4	-92.5	-92.4	-92.0	-91.0	-89.1	-91.4	1.6	-1.7
SFM0008	HIGH (5:1)	DS	7	-90.6	-89.9	-87.7	-85.3	-82.1	-87.2	3.4	-3.9
SFM0009	HIGH (2:6)	DS	7	-87.9	-86.9	-86.6	-83.4	-81.3	-85.2	2.7	-3.1
SFM0010	HIGH (2:8)	not DS	1			-86.9			-86.9		
SFM0011	LOW (2:8)	not DS	1			-73.5			-73.5		
SFM0012	LOW (2:8)	Lake	8	-78.5	-77.5	-75.7	-74.7	-71.4	-75.8	2.3	-3.1
SFM0013	LOW (2:3)	not DS	1			-81.0			-81.0		
SFM0014	HIGH (2:10)	not DS	1			-87.5			-87.5		
SFM0015	LOW (2:10)	Lake	7	-68.0	-67.8	-67.4	-65.7	-62.5	-66.4	2.0	-3.0
SFM0016	HIGH (2:10)	not DS	1			-78.5			-78.5		
SFM0017	LOW (2:10)	not DS	1			-84.9			-84.9		
SFM0018	LOW (2:10)	not DS	1			-86.3			-86.3		
SFM0019	HIGH (2:3)	not DS	1			-86.0			-86.0		
SFM0020	HIGH (2:6)	not DS	1			-86.0			-86.0		
SFM0021	HIGH (2:3)	not DS	1			-86.8			-86.8		
SFM0022	LOW (8:1)	Lake	2	-77.5		-75.0		-72.5	-75.0	3.5	-4.7
SFM0023	LOW (2:3)	Lake	7	-72.9	-70.4	-69.0	-68.0	-65.7	-69.2	2.4	-3.4
SFM0024	LOW (Coast)	Sea	3	-77.8	-76.7	-75.5	-74.4	-73.2	-75.5	2.3	-3.0
SFM0025	LOW (Coast)	Sea	7	-89.9	-88.1	-87.5	-86.9	-85.6	-87.6	1.3	-1.5
SFM0026	LOW (8:1)	not DS	1			-87.0			-87.0		
SFM0027	LOW (8:1)	not DS	7	-89.6	-88.7	-86.5	-86.0	-83.5	-87.0	2.2	-2.5
SFM0028	HIGH (4:2)	not DS	1			-86.1			-86.1		
SFM0029	HIGH (4:2)	not DS	6	-88.3	-86.9	-85.1	-84.9	-84.4	-85.9	1.6	-1.9
SFM0030	HIGH (2:3)	not DS	1			-80.8			-80.8		
SFM0031	HIGH (2:3)	not DS	6	-76.0	-74.0	-72.4	-72.2	-68.8	-72.7	2.4	-3.4
SFM0032	HIGH (2:3)	not DS	8	-86.2	-85.4	-85.1	-83.6	-76.0	-83.8	3.3	-4.0
SFM0034	LOW (2:1)	not DS	1			-81.1			-81.1		
SFM0036	LOW (2:1)	not DS	1			-80.7			-80.7		
SFM0037	LOW (2:1)	not DS	6	-84.0	-81.4	-77.6	-74.5	-67.1	-77.1	6.1	-8.0
SFM0049	HIGH (Coast)	not DS	4	-79.8	-77.1	-75.8	-73.8	-68.8	-75.1	4.6	-6.1
SFM0051	HIGH (2:1)	DS	5	-89.2	-87.7	-86.1	-85.8	-85.2	-86.8	1.6	-1.9
SFM0053	HIGH (4:2)	not DS	5	-88.6	-86.8	-86.5	-86.1	-84.8	-86.6	1.4	-1.6
SFM0056	LOW (Coast)	not DS	5	-85.2	-83.9	-83.7	-81.7	-81.1	-83.1	1.7	-2.0
SFM0057	LOW (2:8)	DS	5	-93.5	-90.7	-89.7	-82.9	-80.9	-87.5	5.4	-6.1
SFM0059	HIGH (7:2)	not DS	1			-82.0			-82.0		
SFM0060	HIGH (Coast)	not DS	3	-90.7	-89.7	-88.7	-87.3	-85.9	-88.4	2.4	-2.7
SFM0061	HIGH (7:2)	not DS	2	-90.2		-89.2		-88.2	-89.2	1.4	-1.6
SFM0062	LOW (2:3)	Lake	2	-84.5		-83.8		-83.1	-83.8	0.99	-1.2
SFM0063	LOW (2:3)	Lake	2	-81.2		-80.9		-80.5	-80.9	0.49	-0.61
SFM0065	LOW (4:2)	Lake	1			-77.4			-77.4		
SFM0074	HIGH (2:3)	not DS	10	-86.3	-85.5	-82.7	-82.3	-81.6	-83.6	1.8	-2.2
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	180	-95.2	-86.8	-83.7	-76.8	-62.5	-81.9	6.9	-8.4
Forsmark area	Soil tubes	'Higher'	111	-95.2	-87.4	-85.1	-81.7	-68.8	-83.8	5.6	-6.7
Forsmark area	Soil tubes	'Lower'	69	-93.5	-85.6	-80.7	-73.2	-62.5	-79.0	7.8	-9.8
Forsmark area	Soil tubes	In lake	29	-84.5	-77.4	-72.5	-68.0	-62.5	-72.8	5.9	-8.0
Forsmark area	Soil tubes	At sea	10	-89.9	-87.8	-86.9	-79.8	-73.2	-83.9	6.0	-7.2
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	2	-87.8		-82.7		-77.6	-82.7	7.2	-8.7
Forsmark area	Private wells	drilled	5	-85.1	-82.3	-82.2	-78.6	-75.9	-80.8	3.6	-4.4
Simpevarp area	Soil tubes	All	40	-85.2	-79.2	-77.4	-74.5	-66.0	-76.7	4.0	-5.2
Simpevarp area	Soil tubes	'Higher'	10	-85.2	-78.9	-76.9	-74.2	-70.2	-76.6	4.3	-5.6
Simpevarp area	Soil tubes	'Lower'	30	-84.3	-79.7	-77.4	-75.1	-66.0	-76.8	3.9	-5.1
Laxemar pre-PLU	Soil tubes	All	22	-80.4	-77.4	-75.6	-71.4	-59.9	-73.5	5.5	-7.5

Ground Water

Dy		Dysprosium ($\mu\text{g/l}$)								Dy	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.23	0.31	0.34	0.40	0.71	0.39	0.2	43
SFM0002	HIGH (2:1)	DS	6	0.32	0.34	0.36	0.42	0.55	0.39	0.09	22
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	0.020	0.023	0.037	0.021	0.009	45
SFM0005	HIGH (Coast)	DS	3	0.26	0.29	0.31	0.33	0.35	0.31	0.05	15
SFM0006	HIGH (5:1)	DS	3	0.40	0.43	0.46	0.53	0.60	0.49	0.1	21
SFM0008	HIGH (5:1)	DS	5	0.032	0.039	0.051	0.081	0.12	0.064	0.04	55
SFM0009	HIGH (2:6)	DS	5	0.11	0.11	0.13	0.18	0.25	0.15	0.06	39
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.015	0.018	0.018	0.019	0.038	0.021	0.009	43
SFM0029	HIGH (4:2)	not DS	5	0.12	0.16	0.16	0.17	0.19	0.16	0.03	16
SFM0031	HIGH (2:3)	not DS	5	0.15	0.16	0.22	0.26	0.33	0.22	0.08	34
SFM0032	HIGH (2:3)	not DS	5	0.20	0.21	0.23	0.24	0.29	0.23	0.03	14
SFM0037	LOW (2:1)	not DS	4	0.24	0.34	0.48	0.60	0.61	0.46	0.2	40
SFM0049	HIGH (Coast)	not DS	3	0.17	0.17	0.17	0.23	0.30	0.21	0.07	34
SFM0051	HIGH (2:1)	DS	4	0.13	0.22	0.26	0.29	0.36	0.25	0.09	36
SFM0053	HIGH (4:2)	not DS	4	0.044	0.049	0.069	0.097	0.13	0.077	0.04	49
SFM0056	LOW (Coast)	not DS	4	0.0049	0.0065	0.0075	0.027	0.083	0.026	0.04	150
SFM0057	LOW (2:8)	DS	5	0.34	0.41	0.46	0.56	0.84	0.52	0.2	38
SFM0060	HIGH (Coast)	not DS	3	0.075	0.080	0.086	0.093	0.099	0.087	0.01	14
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	0.051	0.17	0.33	0.84	0.22	0.2	86
Forsmark area	Soil tubes	'Higher'	63	<0.05	0.10	0.19	0.32	0.71	0.22	0.2	70
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.40	0.84	0.21	0.3	120
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.033	0.75	1.6	2.3	6.7	2.1	2	97
Simpevarp area	Soil tubes	'Higher'	3	1.5	1.7	2.0	3.7	5.5	3.0	2	74
Simpevarp area	Soil tubes	'Lower'	15	0.033	0.57	1.4	2.2	6.7	2.0	2	110

Er		Erbium ($\mu\text{g/l}$)								Er	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.13	0.19	0.21	0.24	0.41	0.23	0.09	40
SFM0002	HIGH (2:1)	DS	6	0.23	0.25	0.28	0.31	0.36	0.28	0.05	17
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	0.022	<0.02	0.005	35
SFM0005	HIGH (Coast)	DS	3	0.15	0.17	0.18	0.19	0.20	0.18	0.03	15
SFM0006	HIGH (5:1)	DS	3	0.26	0.28	0.29	0.36	0.43	0.33	0.09	27
SFM0008	HIGH (5:1)	DS	5	0.022	0.029	0.037	0.053	0.083	0.045	0.02	54
SFM0009	HIGH (2:6)	DS	5	0.060	0.061	0.071	0.093	0.13	0.083	0.03	36
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.018	0.021	0.022	0.023	0.038	0.024	0.008	32
SFM0029	HIGH (4:2)	not DS	5	0.064	0.080	0.087	0.087	0.11	0.086	0.02	20
SFM0031	HIGH (2:3)	not DS	5	0.100	0.11	0.16	0.20	0.22	0.16	0.05	33
SFM0032	HIGH (2:3)	not DS	5	0.14	0.15	0.16	0.18	0.19	0.16	0.02	13
SFM0037	LOW (2:1)	not DS	4	0.15	0.23	0.33	0.40	0.41	0.30	0.1	40
SFM0049	HIGH (Coast)	not DS	3	0.085	0.088	0.091	0.12	0.16	0.11	0.04	36
SFM0051	HIGH (2:1)	DS	4	0.089	0.14	0.15	0.17	0.22	0.15	0.05	34
SFM0053	HIGH (4:2)	not DS	4	0.024	0.026	0.036	0.050	0.066	0.040	0.02	49
SFM0056	LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	0.013	0.043	0.012	0.02	160
SFM0057	LOW (2:8)	DS	5	0.19	0.26	0.26	0.31	0.46	0.30	0.10	33
SFM0060	HIGH (Coast)	not DS	3	0.048	0.053	0.059	0.064	0.070	0.059	0.01	19
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	<0.05	0.100	0.21	0.46	0.14	0.1	85
Forsmark area	Soil tubes	'Higher'	63	<0.05	0.060	0.11	0.20	0.43	0.14	0.1	73
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.26	0.46	0.13	0.2	120
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.026	0.43	0.85	1.2	3.6	1.1	1	92
Simpevarp area	Soil tubes	'Higher'	3	0.84	0.92	1.0	1.8	2.6	1.5	1.0	66
Simpevarp area	Soil tubes	'Lower'	15	0.026	0.34	0.77	1.2	3.6	1.0	1	100
Laxemar pre-PLU	Soil tubes	All	12	0.080	0.11	0.14	0.21	0.93	0.22	0.2	110

Ground Water

Eu		Europium (µg/l)								Eu	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.033	0.047	0.054	0.062	0.12	0.062	0.03	50
SFM0002	HIGH (2:1)	DS	6	0.036	0.042	0.049	0.063	0.080	0.053	0.02	31
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.005	74
SFM0005	HIGH (Coast)	DS	3	0.042	0.049	0.055	0.056	0.058	0.052	0.008	16
SFM0006	HIGH (5:1)	DS	3	0.083	0.089	0.095	0.12	0.14	0.11	0.03	28
SFM0008	HIGH (5:1)	DS	5	<0.005	0.0059	0.010	0.019	0.024	0.012	0.009	73
SFM0009	HIGH (2:6)	DS	5	0.022	0.024	0.025	0.034	0.051	0.031	0.01	39
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	<0.005	<0.005	<0.005	<0.005	0.010	<0.005	0.003	84
SFM0029	HIGH (4:2)	not DS	5	0.025	0.031	0.035	0.037	0.045	0.035	0.007	21
SFM0031	HIGH (2:3)	not DS	5	0.021	0.023	0.029	0.049	0.053	0.035	0.02	43
SFM0032	HIGH (2:3)	not DS	5	0.025	0.028	0.034	0.037	0.047	0.034	0.009	26
SFM0037	LOW (2:1)	not DS	4	0.029	0.066	0.079	0.082	0.092	0.069	0.03	40
SFM0049	HIGH (Coast)	not DS	3	0.030	0.031	0.031	0.043	0.054	0.038	0.01	35
SFM0051	HIGH (2:1)	DS	4	0.016	0.029	0.036	0.042	0.050	0.035	0.01	41
SFM0053	HIGH (4:2)	not DS	4	0.0070	0.0078	0.011	0.016	0.024	0.013	0.008	59
SFM0056	LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	0.0056	0.015	0.0054	0.006	110
SFM0057	LOW (2:8)	DS	5	0.063	0.092	0.099	0.12	0.15	0.10	0.03	31
SFM0060	HIGH (Coast)	not DS	3	0.012	0.013	0.015	0.023	0.032	0.019	0.01	56
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	<0.05	<0.05	0.051	0.15	<0.05	0.03	86
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	0.03	73
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.079	0.15	<0.05	0.05	110
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.014	0.22	0.43	0.68	2.3	0.62	0.6	100
Simpevarp area	Soil tubes	'Higher'	3	0.43	0.47	0.51	1.0	1.6	0.83	0.6	76
Simpevarp area	Soil tubes	'Lower'	15	0.014	0.16	0.39	0.64	2.3	0.57	0.6	110
Laxemar pre-PLU	Soil tubes	All	12	0.017	0.032	0.052	0.070	0.30	0.075	0.08	100

Ground Water

F		Fluoride (mg/l)							F		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	0.54	0.57	0.59	0.69	0.86	0.64	0.10	15
SFM0002	HIGH (2:1)	DS	11	0.28	0.46	0.54	0.61	0.70	0.52	0.1	23
SFM0003	HIGH (2:1)	DS	10	0.57	0.60	0.69	0.75	0.78	0.68	0.08	12
SFM0005	HIGH (Coast)	DS	6	<0.2	<0.2	<0.2	<0.2	0.35	<0.2	0.1	74
SFM0006	HIGH (5:1)	DS	5	0.23	0.27	0.30	0.54	0.55	0.38	0.2	41
SFM0008	HIGH (5:1)	DS	7	0.24	0.32	0.32	0.38	0.73	0.38	0.2	43
SFM0009	HIGH (2:6)	DS	7	0.21	0.28	0.29	0.37	0.55	0.33	0.1	35
SFM0011	LOW (2:8)	not DS	1			0.48			0.48		
SFM0012	LOW (2:8)	Lake	9	<0.2	0.46	0.60	0.75	1.0	0.55	0.3	54
SFM0013	LOW (2:3)	not DS	1			0.96			0.96		
SFM0014	HIGH (2:10)	not DS	1			0.68			0.68		
SFM0015	LOW (2:10)	Lake	8	0.26	0.44	0.56	0.66	0.88	0.55	0.2	40
SFM0016	HIGH (2:10)	not DS	1			0.45			0.45		
SFM0017	LOW (2:10)	not DS	1			1.2			1.2		
SFM0018	LOW (2:10)	not DS	1			1.5			1.5		
SFM0019	HIGH (2:3)	not DS	1			0.63			0.63		
SFM0020	HIGH (2:6)	not DS	1			0.68			0.68		
SFM0022	LOW (8:1)	Lake	4	0.28	0.67	0.90	1.1	1.5	0.88	0.5	55
SFM0023	LOW (2:3)	Lake	7	<0.2	<0.2	0.35	0.72	1.0	0.44	0.4	85
SFM0024	LOW (Coast)	Sea	3	<0.2	0.21	0.32	0.34	0.36	0.26	0.1	54
SFM0025	LOW (Coast)	Sea	7	<0.2	<0.2	0.36	0.73	1.3	0.50	0.5	90
SFM0026	LOW (8:1)	not DS	1			0.48			0.48		
SFM0027	LOW (8:1)	not DS	8	0.20	0.36	0.45	0.48	0.52	0.41	0.1	26
SFM0028	HIGH (4:2)	not DS	1			0.46			0.46		
SFM0029	HIGH (4:2)	not DS	6	0.31	0.32	0.35	0.38	0.40	0.35	0.04	11
SFM0030	HIGH (2:3)	not DS	1			1.0			1.0		
SFM0031	HIGH (2:3)	not DS	7	0.22	0.46	0.53	0.60	0.69	0.51	0.2	30
SFM0032	HIGH (2:3)	not DS	9	0.55	0.60	0.65	0.71	0.76	0.65	0.07	11
SFM0034	LOW (2:1)	not DS	1			0.59			0.59		
SFM0036	LOW (2:1)	not DS	1			0.64			0.64		
SFM0037	LOW (2:1)	not DS	7	0.49	0.59	0.61	0.66	0.67	0.61	0.06	10
SFM0049	HIGH (Coast)	not DS	4	0.29	0.32	0.34	0.34	0.35	0.33	0.03	8.0
SFM0051	HIGH (2:1)	DS	6	0.47	0.53	0.55	0.58	0.58	0.54	0.04	7.7
SFM0053	HIGH (4:2)	not DS	6	0.26	0.35	0.37	0.39	0.39	0.36	0.05	14
SFM0056	LOW (Coast)	not DS	6	0.27	0.46	0.63	0.74	0.76	0.58	0.2	34
SFM0057	LOW (2:8)	DS	6	<0.2	<0.2	<0.2	0.36	2.3	0.53	0.9	170
SFM0059	HIGH (7:2)	not DS	1			0.65			0.65		
SFM0060	HIGH (Coast)	not DS	3	0.70	0.71	0.71	0.74	0.77	0.73	0.04	5.2
SFM0061	HIGH (7:2)	not DS	3	0.64	0.71	0.77	0.81	0.85	0.75	0.1	14
SFM0062	LOW (2:3)	Lake	3	0.28	0.47	0.66	0.68	0.69	0.54	0.2	42
SFM0063	LOW (2:3)	Lake	2	<0.2		0.42		0.74	0.42	0.5	110
SFM0065	LOW (4:2)	Lake	1			<0.2		<0.2			
SFM0074	HIGH (2:3)	not DS	10	0.58	0.61	0.62	0.62	0.63	0.61	0.01	2.4
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	195	<0.2	0.34	0.55	0.66	2.3	0.53	0.3	53
Forsmark area	Soil tubes	'Higher'	117	<0.2	0.35	0.56	0.64	1.0	0.51	0.2	36
Forsmark area	Soil tubes	'Lower'	78	<0.2	0.28	0.52	0.70	2.3	0.55	0.4	69
Forsmark area	Soil tubes	In lake	34	<0.2	0.28	0.60	0.75	1.5	0.55	0.3	61
Forsmark area	Soil tubes	At sea	10	<0.2	<0.2	0.34	0.54	1.3	0.43	0.4	91
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	20	<0.2	0.30	0.50	0.57	0.90	0.46	0.2	43
Forsmark area	Private wells	drilled	29	<0.2	0.34	0.50	0.81	1.3	0.58	0.3	60
Simpevarp area	Private wells	excavated	133	0.30	0.60	0.80	1.2	5.9	1.1	1.0	89
Simpevarp area	Private wells	drilled	289	0.20	1.2	1.7	3.4	6.1	2.3	1	62
Simpevarp area	Soil tubes	All	55	<0.2	0.82	1.4	2.2	5.4	1.6	1	70
Simpevarp area	Soil tubes	'Higher'	14	0.32	0.73	1.1	1.5	5.4	1.3	1	93
Simpevarp area	Soil tubes	'Lower'	41	<0.2	0.84	1.8	2.3	4.3	1.8	1	63
Uppsala County	SGU well	excavated	66	0.020	0.10	0.20	0.37	1.7	0.31	0.3	110
Uppsala County	SGU well	drilled	647	0.020	0.50	0.90	1.7	7.2	1.2	1	86
Kalmar County	SGU well	excavated	171	0.010	0.15	0.27	0.59	4.5	0.53	0.7	130
Kalmar County	SGU well	drilled	280	0.050	0.40	1.0	1.9	6.6	1.4	1	89
Sweden	SGU well	excavated	1464	0.010	0.10	0.21	0.44	5.0	0.38	0.5	130
Sweden	SGU well	drilled	9362	0.020	0.40	0.80	1.5	22	1.1	1	99

Ground Water

Gd		Gadolinium ($\mu\text{g/l}$)								Gd	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	0.30	0.39	0.43	0.51	0.94	0.50	0.2	46
SFM0002	HIGH (2:1)	DS	6	0.35	0.38	0.41	0.45	0.75	0.46	0.1	32
SFM0003	HIGH (2:1)	DS	6	<0.02	0.022	0.030	0.035	0.058	0.031	0.02	53
SFM0005	HIGH (Coast)	DS	3	0.37	0.39	0.41	0.44	0.47	0.42	0.05	13
SFM0006	HIGH (5:1)	DS	3	0.64	0.68	0.72	0.84	0.96	0.77	0.2	22
SFM0008	HIGH (5:1)	DS	5	0.044	0.054	0.058	0.100	0.14	0.079	0.04	51
SFM0009	HIGH (2:6)	DS	5	0.17	0.17	0.19	0.27	0.36	0.23	0.08	36
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.010	0.013	0.014	0.014	0.037	0.018	0.01	63
SFM0029	HIGH (4:2)	not DS	5	0.22	0.28	0.28	0.29	0.35	0.28	0.05	17
SFM0031	HIGH (2:3)	not DS	5	0.19	0.21	0.27	0.35	0.38	0.28	0.08	30
SFM0032	HIGH (2:3)	not DS	5	0.21	0.26	0.29	0.30	0.34	0.28	0.05	18
SFM0037	LOW (2:1)	not DS	4	0.29	0.40	0.58	0.73	0.76	0.55	0.2	41
SFM0049	HIGH (Coast)	not DS	3	0.23	0.24	0.24	0.31	0.39	0.29	0.09	30
SFM0051	HIGH (2:1)	DS	4	0.16	0.28	0.32	0.34	0.40	0.30	0.1	33
SFM0053	HIGH (4:2)	not DS	4	0.056	0.059	0.085	0.12	0.16	0.098	0.05	52
SFM0056	LOW (Coast)	not DS	4	0.0046	0.0064	0.0080	0.032	0.099	0.030	0.05	150
SFM0057	LOW (2:8)	DS	5	0.48	0.62	0.64	0.81	1.0	0.72	0.2	30
SFM0060	HIGH (Coast)	not DS	3	0.11	0.11	0.12	0.13	0.13	0.12	0.01	12
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.05	0.058	0.27	0.40	1.0	0.28	0.2	87
Forsmark area	Soil tubes	'Higher'	63	<0.05	0.14	0.28	0.38	0.96	0.29	0.2	72
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.59	1.0	0.28	0.3	120
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	0.044	1.2	2.7	3.8	13	3.6	4	100
Simpevarp area	Soil tubes	'Higher'	3	2.4	2.9	3.3	6.5	9.7	5.1	4	77
Simpevarp area	Soil tubes	'Lower'	15	0.044	0.90	2.0	3.6	13	3.3	4	110

Hf		Hafnium ($\mu\text{g/l}$)								Hf	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	0.088	0.11	0.13	0.14	0.18	0.13	0.03	24
SFM0002	HIGH (2:1)	DS	6	0.19	0.20	0.21	0.22	0.29	0.22	0.04	18
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.001	19
SFM0005	HIGH (Coast)	DS	3	0.031	0.034	0.036	0.037	0.037	0.035	0.003	9.4
SFM0006	HIGH (5:1)	DS	3	0.017	0.019	0.020	0.090	0.16	0.065	0.08	120
SFM0008	HIGH (5:1)	DS	5	0.0070	0.010	0.021	0.022	0.027	0.018	0.009	49
SFM0009	HIGH (2:6)	DS	5	0.022	0.023	0.029	0.031	0.041	0.029	0.008	26
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			0.0074			0.0074		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.0060	0.0065	0.0069	0.0090	0.012	0.0081	0.002	31
SFM0029	HIGH (4:2)	not DS	5	0.016	0.021	0.021	0.021	0.023	0.021	0.003	13
SFM0031	HIGH (2:3)	not DS	5	<0.005	0.0056	0.0070	0.0073	0.0090	0.0063	0.002	39
SFM0032	HIGH (2:3)	not DS	5	0.085	0.087	0.10	0.11	0.11	0.099	0.01	12
SFM0037	LOW (2:1)	not DS	4	0.088	0.12	0.15	0.16	0.17	0.14	0.04	27
SFM0049	HIGH (Coast)	not DS	3	0.017	0.019	0.020	0.029	0.038	0.025	0.01	45
SFM0051	HIGH (2:1)	DS	4	0.11	0.12	0.14	0.18	0.22	0.15	0.05	33
SFM0053	HIGH (4:2)	not DS	4	0.050	0.055	0.057	0.060	0.068	0.058	0.007	13
SFM0056	LOW (Coast)	not DS	4	<0.004	0.0050	0.0060	0.018	0.055	0.017	0.03	150
SFM0057	LOW (2:8)	DS	5	0.049	0.049	0.053	0.057	0.062	0.054	0.006	10
SFM0060	HIGH (Coast)	not DS	3	0.013	0.016	0.018	0.020	0.022	0.018	0.005	25
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.05	<0.05	<0.05	0.10	0.29	0.062	0.07	110
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	<0.05	0.11	0.29	0.068	0.07	110
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.056	0.17	<0.05	0.05	110
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	53
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	<0.05	<0.05	0.053	0.12	0.28	0.082	0.08	94
Simpevarp area	Soil tubes	'Higher'	3	<0.05	<0.05	0.072	0.18	0.28	0.13	0.1	110
Simpevarp area	Soil tubes	'Lower'	15	<0.05	<0.05	0.051	0.10	0.21	0.073	0.06	86

Ground Water

Ho		Holmium ($\mu\text{g/l}$)								Ho	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.051	0.069	0.077	0.086	0.15	0.084	0.03	39
SFM0002	HIGH (2:1)	DS	6	0.073	0.083	0.090	0.10	0.13	0.094	0.02	19
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	63
SFM0005	HIGH (Coast)	DS	3	0.054	0.059	0.064	0.069	0.073	0.064	0.010	15
SFM0006	HIGH (5:1)	DS	3	0.094	0.099	0.10	0.12	0.15	0.11	0.03	24
SFM0008	HIGH (5:1)	DS	5	0.0070	0.010	0.013	0.019	0.028	0.016	0.008	54
SFM0009	HIGH (2:6)	DS	5	0.022	0.022	0.027	0.039	0.049	0.032	0.01	37
SFM0012	LOW (2:8)	Lake	1		<0.05			<0.05			
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	<0.005	0.0053	0.0060	0.0065	0.011	0.0062	0.003	47
SFM0029	HIGH (4:2)	not DS	5	0.025	0.033	0.033	0.036	0.041	0.034	0.006	17
SFM0031	HIGH (2:3)	not DS	5	0.035	0.041	0.055	0.067	0.078	0.055	0.02	32
SFM0032	HIGH (2:3)	not DS	5	0.046	0.049	0.052	0.060	0.068	0.055	0.009	16
SFM0037	LOW (2:1)	not DS	4	0.056	0.078	0.11	0.13	0.14	0.10	0.04	37
SFM0049	HIGH (Coast)	not DS	3	0.032	0.034	0.036	0.048	0.059	0.042	0.01	34
SFM0051	HIGH (2:1)	DS	4	0.029	0.046	0.052	0.057	0.073	0.051	0.02	35
SFM0053	HIGH (4:2)	not DS	4	0.0090	0.011	0.014	0.018	0.024	0.015	0.007	45
SFM0056	LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	0.0071	0.021	0.0070	0.009	130
SFM0057	LOW (2:8)	DS	5	0.071	0.094	0.094	0.12	0.17	0.11	0.04	34
SFM0060	HIGH (Coast)	not DS	3	0.019	0.020	0.021	0.023	0.025	0.022	0.003	14
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	<0.05	<0.05	0.073	0.17	<0.05	0.04	82
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	<0.05	0.070	0.15	<0.05	0.03	71
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.092	0.17	<0.05	0.05	110
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.0080	0.15	0.31	0.43	1.3	0.41	0.4	95
Simpevarp area	Soil tubes	'Higher'	3	0.30	0.34	0.39	0.70	1.0	0.57	0.4	69
Simpevarp area	Soil tubes	'Lower'	15	0.0080	0.12	0.27	0.43	1.3	0.37	0.4	100
Laxemar pre-PLU	Soil tubes	All	12	0.024	0.034	0.049	0.070	0.32	0.076	0.08	110

pH		pH (field) (pH unit)								pH	
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	1			6.76			6.76		

Ground Water

pH	pH (lab) (pH unit)								pH		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	7.24	7.30	7.32	7.42	7.60	7.36	0.11	1.5
SFM0002	HIGH (2:1)	DS	11	7.05	7.09	7.12	7.32	7.50	7.20	0.16	2.2
SFM0003	HIGH (2:1)	DS	10	7.26	7.29	7.39	7.40	7.60	7.38	0.11	1.5
SFM0005	HIGH (Coast)	DS	6	6.73	6.86	6.94	7.13	7.49	7.02	0.28	3.9
SFM0006	HIGH (5:1)	DS	5	7.16	7.17	7.30	7.50	7.69	7.36	0.23	3.1
SFM0008	HIGH (5:1)	DS	7	6.99	7.06	7.07	7.17	7.22	7.10	0.084	1.2
SFM0009	HIGH (2:6)	DS	6	7.07	7.14	7.23	7.29	7.39	7.22	0.12	1.6
SFM0012	LOW (2:8)	Lake	8	6.94	7.10	7.16	7.19	7.34	7.14	0.13	1.8
SFM0014	HIGH (2:10)	not DS	1			7.65			7.65		
SFM0015	LOW (2:10)	Lake	7	7.15	7.21	7.28	7.36	7.50	7.30	0.12	1.7
SFM0016	HIGH (2:10)	not DS	1			7.58			7.58		
SFM0022	LOW (8:1)	Lake	4	7.15	7.27	7.35	7.39	7.39	7.31	0.11	1.5
SFM0023	LOW (2:3)	Lake	7	6.38	6.59	6.64	6.81	6.92	6.68	0.19	2.8
SFM0024	LOW (Coast)	Sea	2	7.08		7.41			7.74	7.41	0.47
SFM0025	LOW (Coast)	Sea	7	6.99	7.04	7.05	7.07	7.13	7.05	0.044	0.62
SFM0027	LOW (8:1)	not DS	7	7.64	7.65	7.68	7.82	7.95	7.74	0.13	1.7
SFM0029	HIGH (4:2)	not DS	6	7.02	7.06	7.09	7.11	7.13	7.08	0.040	0.57
SFM0031	HIGH (2:3)	not DS	7	6.98	7.14	7.17	7.24	7.35	7.18	0.12	1.6
SFM0032	HIGH (2:3)	not DS	9	7.03	7.11	7.21	7.33	7.52	7.23	0.17	2.3
SFM0037	LOW (2:1)	not DS	7	6.98	7.03	7.05	7.13	7.32	7.09	0.11	1.6
SFM0049	HIGH (Coast)	not DS	3	6.71	6.83	6.94	6.95	6.95	6.87	0.14	2.0
SFM0051	HIGH (2:1)	DS	6	7.27	7.35	7.43	7.49	7.65	7.44	0.13	1.8
SFM0053	HIGH (4:2)	not DS	6	7.13	7.26	7.31	7.47	7.69	7.37	0.20	2.8
SFM0056	LOW (Coast)	not DS	6	7.36	7.81	7.92	8.01	8.04	7.84	0.25	3.2
SFM0057	LOW (2:8)	DS	6	6.85	6.88	7.00	7.09	7.13	6.99	0.12	1.8
SFM0059	HIGH (7:2)	not DS	1			6.89			6.89		
SFM0060	HIGH (Coast)	not DS	3	7.10	7.13	7.16	7.17	7.17	7.14	0.038	0.53
SFM0061	HIGH (7:2)	not DS	3	7.16	7.17	7.17	7.17	7.17	7.17	0.0058	0.081
SFM0062	LOW (2:3)	Lake	3	7.21	7.22	7.22	7.29	7.36	7.26	0.084	1.2
SFM0063	LOW (2:3)	Lake	2	7.40		7.43			7.45	7.43	0.035
SFM0065	LOW (4:2)	Lake	1			7.52			7.52		
SFM0074	HIGH (2:3)	not DS	10	7.29	7.32	7.34	7.36	7.51	7.36	0.070	0.95
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	178	6.38	7.08	7.22	7.39	8.04	7.25	0.27	3.7
Forsmark area	Soil tubes	'Higher'	111	6.71	7.11	7.25	7.37	7.69	7.25	0.20	2.7
Forsmark area	Soil tubes	'Lower'	67	6.38	7.04	7.17	7.40	8.04	7.24	0.36	5.0
Forsmark area	Soil tubes	In lake	32	6.38	6.97	7.21	7.35	7.52	7.14	0.29	4.1
Forsmark area	Soil tubes	At sea	9	6.99	7.05	7.07	7.08	7.74	7.13	0.23	3.2
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	18	6.70	6.95	7.40	7.68	8.20	7.34	0.44	5.9
Forsmark area	Private wells	drilled	26	6.60	6.99	7.12	7.30	8.20	7.20	0.36	5.0
Simpevarp area	Private wells	excavated	133	4.60	6.00	6.70	7.30	8.40	6.61	0.89	13
Simpevarp area	Private wells	drilled	287	5.90	7.20	7.70	8.10	9.90	7.66	0.71	9.3
Simpevarp area	Soil tubes	All	63	5.17	6.33	6.68	6.95	7.97	6.68	0.58	8.6
Simpevarp area	Soil tubes	'Higher'	16	5.17	6.20	6.37	6.72	7.75	6.45	0.56	8.7
Simpevarp area	Soil tubes	'Lower'	47	5.17	6.39	6.71	6.98	7.97	6.76	0.57	8.4
Laxemar pre-PLU	Soil tubes	All	22	5.50	6.23	6.50	6.70	7.00	6.41	0.39	6.0
Uppsala County	SGU well	excavated	59	6.20	6.90	7.20	7.40	7.80	7.16	0.35	4.9
Uppsala County	SGU well	drilled	667	5.70	7.40	7.70	8.00	9.40	7.66	0.48	6.3
Kalmar County	SGU well	excavated	414	5.20	6.00	6.30	6.80	8.80	6.46	0.59	9.1
Kalmar County	SGU well	drilled	390	5.20	6.61	7.20	7.70	9.90	7.14	0.71	10.0
Sweden	SGU well	excavated	8948	3.90	6.00	6.40	6.90	9.70	6.48	0.65	10
Sweden	SGU well	drilled	13745	4.20	7.00	7.50	7.90	10.5	7.40	0.70	9.4

Ground Water

Tr	Tritium (TU)								Tr		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	3.00	11.8	12.2	12.5	15.3	11.6	3.2	28
SFM0002	HIGH (2:1)	DS	10	9.60	10.8	11.6	12.7	13.7	11.7	1.3	11
SFM0003	HIGH (2:1)	DS	10	3.00	14.0	14.6	15.5	24.9	14.7	5.3	36
SFM0005	HIGH (Coast)	DS	5	11.0	11.2	11.3	11.7	11.8	11.4	0.34	3.0
SFM0006	HIGH (5:1)	DS	4	7.80	9.15	10.5	11.5	12.0	10.2	1.9	18
SFM0008	HIGH (5:1)	DS	7	8.10	10.2	10.4	10.9	12.2	10.4	1.2	12
SFM0009	HIGH (2:6)	DS	7	10.6	11.2	11.7	12.1	12.6	11.6	0.73	6.3
SFM0010	HIGH (2:8)	not DS	1			0.400			0.400		
SFM0011	LOW (2:8)	not DS	1			2.00			2.00		
SFM0012	LOW (2:8)	Lake	8	0.400	0.400	1.05	2.80	12.4	3.01	4.4	150
SFM0013	LOW (2:3)	not DS	1			7.00			7.00		
SFM0014	HIGH (2:10)	not DS	1			13.5			13.5		
SFM0015	LOW (2:10)	Lake	7	0.400	3.70	4.20	4.65	8.00	4.19	2.2	54
SFM0016	HIGH (2:10)	not DS	1			13.8			13.8		
SFM0017	LOW (2:10)	not DS	1			7.80			7.80		
SFM0018	LOW (2:10)	not DS	1			7.10			7.10		
SFM0019	HIGH (2:3)	not DS	1			12.7			12.7		
SFM0020	HIGH (2:6)	not DS	1			10.1			10.1		
SFM0021	HIGH (2:3)	not DS	1			12.0			12.0		
SFM0022	LOW (8:1)	Lake	2	1.00		1.25			1.50	1.25	0.35
SFM0023	LOW (2:3)	Lake	7	2.40	2.45	2.70	3.35	12.8	4.21	3.8	90
SFM0024	LOW (Coast)	Sea	3	4.80	8.50	12.2	12.9	13.5	10.2	4.7	46
SFM0025	LOW (Coast)	Sea	7	5.00	6.50	7.90	8.85	14.5	8.30	3.1	38
SFM0026	LOW (8:1)	not DS	1			15.7			15.7		
SFM0027	LOW (8:1)	not DS	7	8.90	9.80	10.2	11.7	12.3	10.6	1.3	12
SFM0028	HIGH (4:2)	not DS	1			15.5			15.5		
SFM0029	HIGH (4:2)	not DS	6	10.7	11.0	11.8	13.2	13.7	12.0	1.3	11
SFM0030	HIGH (2:3)	not DS	1			11.8			11.8		
SFM0031	HIGH (2:3)	not DS	6	10.8	12.1	12.3	12.9	13.4	12.3	0.90	7.3
SFM0032	HIGH (2:3)	not DS	8	5.60	10.3	12.3	12.6	15.6	11.4	2.9	26
SFM0034	LOW (2:1)	not DS	1			12.9			12.9		
SFM0036	LOW (2:1)	not DS	1			11.5			11.5		
SFM0037	LOW (2:1)	not DS	6	11.2	11.9	12.8	13.2	13.6	12.6	0.94	7.5
SFM0049	HIGH (Coast)	not DS	4	9.60	12.1	13.1	13.2	13.3	12.3	1.8	14
SFM0051	HIGH (2:1)	DS	5	7.30	10.2	10.4	11.0	11.5	10.1	1.6	16
SFM0053	HIGH (4:2)	not DS	5	1.20	9.40	10.2	11.2	11.8	8.76	4.3	49
SFM0056	LOW (Coast)	not DS	5	0.400	0.400	0.400	0.400	0.400	0.400		
SFM0057	LOW (2:8)	DS	5	8.60	9.70	9.80	10.6	12.5	10.2	1.5	14
SFM0059	HIGH (7:2)	not DS	1			9.00			9.00		
SFM0060	HIGH (Coast)	not DS	3	9.90	9.95	10.0	10.4	10.8	10.2	0.49	4.8
SFM0061	HIGH (7:2)	not DS	3	9.90	10.4	10.9	11.3	11.6	10.8	0.85	7.9
SFM0062	LOW (2:3)	Lake	2	9.80		9.90			9.90	0.14	1.4
SFM0063	LOW (2:3)	Lake	1			9.00			9.00		
SFM0074	HIGH (2:3)	not DS	10	8.70	9.03	10.6	11.0	11.8	10.2	1.1	11
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	179	0.400	8.35	10.9	12.4	24.9	9.75	4.2	43
Forsmark area	Soil tubes	'Higher'	112	0.400	10.4	11.6	12.5	24.9	11.4	2.9	25
Forsmark area	Soil tubes	'Lower'	67	0.400	2.45	7.80	11.3	15.7	7.01	4.7	67
Forsmark area	Soil tubes	In lake	27	0.400	1.30	3.00	6.00	12.8	4.23	3.8	89
Forsmark area	Soil tubes	At sea	10	4.80	6.35	7.95	11.6	14.5	8.86	3.5	39
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	2	11.8		12.5			12.5	0.99	7.9
Forsmark area	Private wells	drilled	5	3.90	6.00	9.40	12.1	12.7	8.82	3.8	43
Simpevarp area	Soil tubes	All	39	0.400	11.0	12.0	13.3	14.8	11.4	3.3	29
Simpevarp area	Soil tubes	'Higher'	10	11.0	12.2	13.0	13.4	13.6	12.7	0.89	7.0
Simpevarp area	Soil tubes	'Lower'	29	0.400	10.7	11.8	12.9	14.8	10.9	3.7	34
Laxemar pre-PLU	Soil tubes	All	22	10.5	13.7	14.4	15.4	21.6	14.7	2.1	15

Ground Water

In	Indium ($\mu\text{g/l}$)						In				
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	1		<0.3				<0.3		
SFM0002	HIGH (2:1)	DS	1		<0.05				<0.05		
SFM0003	HIGH (2:1)	DS	1		<0.3				<0.3		
SFM0008	HIGH (5:1)	DS	1		0.13				0.13		
SFM0009	HIGH (2:6)	DS	1		<0.05				<0.05		
SFM0027	LOW (8:1)	not DS	1		<0.05				<0.05		
SFM0029	HIGH (4:2)	not DS	1		<0.05				<0.05		
SFM0031	HIGH (2:3)	not DS	1		<0.05				<0.05		
SFM0032	HIGH (2:3)	not DS	1		<0.05				<0.05		
SFM0037	LOW (2:1)	not DS	1		<0.05				<0.05		
SFM0049	HIGH (Coast)	not DS	1		<0.05				<0.05		
SFM0051	HIGH (2:1)	DS	2	<0.05	<0.05			<0.05	<0.05		
SFM0053	HIGH (4:2)	not DS	2	<0.05	<0.05			<0.05	<0.05		
SFM0056	LOW (Coast)	not DS	2	<0.05	<0.05			<0.05	<0.05		
SFM0057	LOW (2:8)	DS	1		<0.05				<0.05		
SFM0060	HIGH (Coast)	not DS	1		<0.05				<0.05		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	19	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.04	100
Forsmark area	Soil tubes	'Higher'	14	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	100
Forsmark area	Soil tubes	'Lower'	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	<0.05	<0.05	<0.05	<0.05	0.070	<0.05	0.01	38
Simpevarp area	Soil tubes	'Higher'	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Simpevarp area	Soil tubes	'Lower'	15	<0.05	<0.05	<0.05	<0.05	0.070	<0.05	0.01	41
Laxemar pre-PLU	Soil tubes	All	12	0.0025	0.0063	0.0084	0.019	0.043	0.013	0.01	89

Ground Water

Iodide (mg/l)											
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	9	0.0050	0.0060	0.0080	0.0090	0.011	0.0077	0.002	28
SFM0002	HIGH (2:1)	DS	10	0.0050	0.0060	0.0070	0.0088	0.016	0.0079	0.003	42
SFM0003	HIGH (2:1)	DS	9	0.0040	0.0050	0.0050	0.0060	0.029	0.0080	0.008	100
SFM0005	HIGH (Coast)	DS	6	0.0050	0.0083	0.018	0.020	0.063	0.022	0.02	99
SFM0006	HIGH (5:1)	DS	4	0.0030	0.0030	0.0030	0.0058	0.014	0.0058	0.006	96
SFM0008	HIGH (5:1)	DS	5	<0.001	0.0010	0.0010	0.0010	0.0070	0.0021	0.003	130
SFM0009	HIGH (2:6)	DS	6	0.0030	0.0033	0.0045	0.0080	0.010	0.0057	0.003	54
SFM0011	LOW (2:8)	not DS	1			0.021			0.021		
SFM0012	LOW (2:8)	Lake	6	0.042	0.050	0.057	0.059	0.071	0.056	0.010	18
SFM0013	LOW (2:3)	not DS	1			0.027			0.027		
SFM0014	HIGH (2:10)	not DS	1			0.0060			0.0060		
SFM0015	LOW (2:10)	Lake	6	0.072	0.082	0.087	0.089	0.11	0.087	0.01	13
SFM0016	HIGH (2:10)	not DS	1			0.0060			0.0060		
SFM0017	LOW (2:10)	not DS	1			0.0080			0.0080		
SFM0018	LOW (2:10)	not DS	1			0.0060			0.0060		
SFM0019	HIGH (2:3)	not DS	1			0.0070			0.0070		
SFM0020	HIGH (2:6)	not DS	1			0.0030			0.0030		
SFM0021	HIGH (2:3)	not DS	1			0.0020			0.0020		
SFM0022	LOW (8:1)	Lake	3	0.056	0.059	0.061	0.067	0.072	0.063	0.008	13
SFM0023	LOW (2:3)	Lake	5	0.048	0.048	0.048	0.056	0.058	0.052	0.005	9.7
SFM0024	LOW (Coast)	Sea	2	0.011		0.012		0.012	0.012	0.0007	6.1
SFM0025	LOW (Coast)	Sea	5	0.021	0.028	0.029	0.030	0.033	0.028	0.004	16
SFM0026	LOW (8:1)	not DS	1			0.0060			0.0060		
SFM0027	LOW (8:1)	not DS	6	0.0050	0.0060	0.0065	0.0070	0.017	0.0080	0.004	56
SFM0028	HIGH (4:2)	not DS	1			0.0070			0.0070		
SFM0029	HIGH (4:2)	not DS	4	0.0070	0.0070	0.0075	0.0088	0.011	0.0083	0.002	23
SFM0030	HIGH (2:3)	not DS	1			0.0080			0.0080		
SFM0031	HIGH (2:3)	not DS	5	0.0040	0.0040	0.0040	0.0040	0.011	0.0054	0.003	58
SFM0032	HIGH (2:3)	not DS	7	0.0040	0.0050	0.0050	0.0065	0.015	0.0067	0.004	57
SFM0034	LOW (2:1)	not DS	1			0.0080			0.0080		
SFM0036	LOW (2:1)	not DS	1			0.0070			0.0070		
SFM0037	LOW (2:1)	not DS	5	0.0040	0.0050	0.0060	0.0070	0.014	0.0072	0.004	55
SFM0049	HIGH (Coast)	not DS	3	0.0020	0.0030	0.0040	0.0040	0.0040	0.0033	0.001	35
SFM0051	HIGH (2:1)	DS	3	0.0050	0.0055	0.0060	0.0060	0.0060	0.0057	0.0006	10
SFM0053	HIGH (4:2)	not DS	3	0.0070	0.0070	0.0070	0.0075	0.0080	0.0073	0.0006	7.9
SFM0056	LOW (Coast)	not DS	4	0.010	0.011	0.012	0.012	0.012	0.011	0.0010	8.5
SFM0057	LOW (2:8)	DS	4	0.010	0.012	0.013	0.013	0.014	0.012	0.002	14
SFM0059	HIGH (7:2)	not DS	1			0.0090			0.0090		
SFM0060	HIGH (Coast)	not DS	3	0.0020	0.0020	0.0020	0.0025	0.0030	0.0023	0.0006	25
SFM0061	HIGH (7:2)	not DS	3	0.0010	0.0015	0.0020	0.0020	0.0020	0.0017	0.0006	35
SFM0062	LOW (2:3)	Lake	3	0.0060	0.0060	0.0060	0.0070	0.0080	0.0067	0.001	17
SFM0063	LOW (2:3)	Lake	2	0.0070		0.0085		0.010	0.0085	0.002	25
SFM0065	LOW (4:2)	Lake	1			0.0080			0.0080		
SFM0074	HIGH (2:3)	not DS	10	0.0050	0.0050	0.0060	0.0060	0.0060	0.0056	0.0005	9.2
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	157	<0.001	0.0050	0.0070	0.012	0.11	0.016	0.02	130
Forsmark area	Soil tubes	'Higher'	98	<0.001	0.0040	0.0060	0.0080	0.063	0.0070	0.007	100
Forsmark area	Soil tubes	'Lower'	59	0.0040	0.0075	0.014	0.052	0.11	0.030	0.03	93
Forsmark area	Soil tubes	In lake	26	0.0060	0.044	0.056	0.072	0.11	0.052	0.03	56
Forsmark area	Soil tubes	At sea	7	0.011	0.017	0.028	0.030	0.033	0.023	0.009	38
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	drilled	3	0.0070	0.0085	0.010	0.012	0.013	0.010	0.003	30
Simpevarp area	Soil tubes	All	17	0.0030	0.0060	0.010	0.016	0.050	0.013	0.01	90
Simpevarp area	Soil tubes	'Higher'	3	0.0040	0.0050	0.0060	0.012	0.018	0.0093	0.008	81
Simpevarp area	Soil tubes	'Lower'	14	0.0030	0.0060	0.011	0.016	0.050	0.014	0.01	90

Ground Water

Fe(II)			Ferrous iron (mg/l)								Fe(II)		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Soil tube													
SFM0001	HIGH (Coast)	DS	5	1.2	1.5	1.5	1.8	2.0	1.6	0.3	19		
SFM0002	HIGH (2:1)	DS	5	1.7	1.9	1.9	2.0	2.1	1.9	0.2	7.8		
SFM0003	HIGH (2:1)	DS	5	1.5	1.6	1.7	1.7	1.9	1.7	0.1	8.0		
SFM0005	HIGH (Coast)	DS	4	0.024	0.026	0.031	0.036	0.039	0.031	0.007	22		
SFM0006	HIGH (5:1)	DS	2	0.0030		0.0040		0.0050	0.0040	0.001	35		
SFM0008	HIGH (5:1)	DS	5	0.28	0.42	0.42	0.46	0.51	0.42	0.08	20		
SFM0009	HIGH (2:6)	DS	5	0.010	0.010	0.017	0.021	0.023	0.016	0.006	37		
SFM0027	LOW (8:1)	not DS	4	0.022	0.066	0.10	0.13	0.13	0.090	0.05	56		
SFM0029	HIGH (4:2)	not DS	5	0.37	1.7	1.8	2.0	2.0	1.6	0.7	44		
SFM0031	HIGH (2:3)	not DS	5	0.082	0.088	0.33	0.37	0.88	0.35	0.3	93		
SFM0032	HIGH (2:3)	not DS	5	2.1	2.2	2.3	2.3	2.8	2.3	0.3	11		
SFM0037	LOW (2:1)	not DS	4	2.1	2.1	2.2	2.3	2.6	2.2	0.3	12		
SFM0049	HIGH (Coast)	not DS	2	1.3		1.4		1.5	1.4	0.1	11		
SFM0051	HIGH (2:1)	DS	4	3.5	3.6	3.6	3.7	3.8	3.7	0.1	3.8		
SFM0053	HIGH (4:2)	not DS	4	3.2	3.4	3.6	3.7	3.7	3.5	0.2	6.5		
SFM0057	LOW (2:8)	DS	4	0.038	0.073	0.12	0.15	0.15	0.11	0.05	52		
SFM0060	HIGH (Coast)	not DS	3	<0.002	0.0030	0.0050	0.011	0.016	0.0073	0.008	110		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Forsmark area	Soil tubes	All	71	<0.002	0.083	1.5	2.0	3.8	1.3	1	94		
Forsmark area	Soil tubes	'Higher'	59	<0.002	0.085	1.5	2.0	3.8	1.4	1	88		
Forsmark area	Soil tubes	'Lower'	12	0.022	0.083	0.14	2.1	2.6	0.81	1	130		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Simpevarp area	Soil tubes	All	25	0.17	0.96	1.9	4.1	8.4	2.7	2	85		
Simpevarp area	Soil tubes	'Higher'	5	1.7	1.8	2.5	4.1	6.4	3.3	2	60		
Simpevarp area	Soil tubes	'Lower'	20	0.17	0.71	1.8	3.4	8.4	2.6	2	94		

Ground Water

Fe	Iron (total ICP) (mg/l)								Fe		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	9	1.1	1.4	1.7	1.8	2.2	1.6	0.4	24
SFM0002	HIGH (2:1)	DS	9	1.1	1.5	1.8	2.3	3.5	1.9	0.7	36
SFM0003	HIGH (2:1)	DS	8	1.1	1.4	1.5	1.6	5.7	2.0	2	77
SFM0005	HIGH (Coast)	DS	6	0.043	0.051	0.058	0.12	0.17	0.085	0.05	61
SFM0006	HIGH (5:1)	DS	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	33
SFM0008	HIGH (5:1)	DS	6	0.29	0.39	0.43	0.56	0.75	0.48	0.2	35
SFM0009	HIGH (2:6)	DS	5	0.019	0.029	0.039	0.049	0.20	0.067	0.08	110
SFM0012	LOW (2:8)	Lake	4	3.9	4.1	7.1	10	11	7.2	4	51
SFM0015	LOW (2:10)	Lake	3	0.22	3.0	5.7	8.3	11	5.6	5	95
SFM0021	HIGH (2:3)	not DS	1			0.055			0.055		
SFM0022	LOW (8:1)	Lake	2	<0.02		6.8		14	6.8	10	140
SFM0023	LOW (2:3)	Lake	3	24	25	25	29	33	27	5	17
SFM0025	LOW (Coast)	Sea	3	6.2	6.4	6.5	7.4	8.3	7.0	1	16
SFM0027	LOW (8:1)	not DS	6	0.026	0.057	0.079	0.17	0.25	0.11	0.09	78
SFM0029	HIGH (4:2)	not DS	5	1.5	1.6	1.9	2.1	2.2	1.8	0.3	16
SFM0031	HIGH (2:3)	not DS	6	0.055	0.12	0.28	0.34	0.92	0.33	0.3	97
SFM0032	HIGH (2:3)	not DS	6	0.63	1.9	2.1	2.2	2.5	1.9	0.7	35
SFM0037	LOW (2:1)	not DS	5	1.9	2.1	2.3	2.8	3.2	2.5	0.5	21
SFM0049	HIGH (Coast)	not DS	3	1.2	1.3	1.3	1.4	1.4	1.3	0.1	7.7
SFM0051	HIGH (2:1)	DS	5	0.28	4.1	6.6	8.3	18	7.4	6	88
SFM0053	HIGH (4:2)	not DS	5	0.16	2.7	3.1	3.4	10.0	3.9	4	94
SFM0056	LOW (Coast)	not DS	5	0.0046	0.28	0.35	2.7	510	100	200	220
SFM0057	LOW (2:8)	DS	6	0.043	0.13	0.15	0.15	0.17	0.13	0.05	35
SFM0060	HIGH (Coast)	not DS	3	0.0091	0.015	0.020	0.021	0.023	0.017	0.007	42
SFM0062	LOW (2:3)	Lake	3	<0.02	2.2	4.4	6.9	9.4	4.6	5	100
SFM0063	LOW (2:3)	Lake	2	<0.02		5.2		10	5.2	7	140
SFM0065	LOW (4:2)	Lake	1			<0.02			<0.02		
SFM0074	HIGH (2:3)	not DS	10	1.1	1.1	1.2	1.3	1.6	1.2	0.2	13
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	135	<0.02	0.16	1.3	2.3	510	6.3	40	690
Forsmark area	Soil tubes	'Higher'	92	<0.02	0.25	1.2	1.8	18	1.6	2	150
Forsmark area	Soil tubes	'Lower'	43	<0.02	0.13	2.1	7.4	510	17	80	470
Forsmark area	Soil tubes	In lake	18	<0.02	1.1	7.6	11	33	9.2	10	100
Forsmark area	Soil tubes	At sea	3	6.2	6.4	6.5	7.4	8.3	7.0	1	16
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	16	0.030	0.16	0.38	1.2	32	2.7	8	290
Forsmark area	Private wells	drilled	19	0.10	0.34	0.94	2.8	12	2.1	3	130
Simpevarp area	Private wells	excavated	134	0.020	0.16	0.36	1.1	9.4	0.99	1	150
Simpevarp area	Private wells	drilled	291		0.090	0.24	0.73	35	0.87	2	280
Simpevarp area	Soil tubes	All	41	0.33	2.3	5.8	9.4	42	7.7	8	100
Simpevarp area	Soil tubes	'Higher'	11	0.99	6.2	8.7	9.0	42	10	10	110
Simpevarp area	Soil tubes	'Lower'	30	0.33	2.1	3.8	10	21	6.8	6	96
Laxemar pre-PLU	Soil tubes	All	22	0.064	0.63	1.6	4.4	31	3.9	7	170
Uppsala County	SGU well	excavated	66	<0.02	<0.02	0.040	0.090	3.5	0.14	0.4	310
Uppsala County	SGU well	drilled	672	<0.02	0.050	0.12	0.28	16	0.32	0.9	300
Kalmar County	SGU well	excavated	342	<0.02	0.060	0.14	0.37	7.3	0.38	0.7	190
Kalmar County	SGU well	drilled	384	<0.02	0.060	0.15	0.40	34	0.68	2	320
Sweden	SGU well	excavated	4555	<0.02	0.025	0.10	0.31	33	0.50	2	320
Sweden	SGU well	drilled	11091	<0.02	0.060	0.19	0.52	84	0.69	2	300

Ground Water

Fe		Iron (total spectrometric) (mg/l)								Fe	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	5	1.3	1.5	1.5	1.9	2.0	1.6	0.3	18
SFM0002	HIGH (2:1)	DS	5	1.8	1.9	1.9	2.2	2.2	2.0	0.2	9.2
SFM0003	HIGH (2:1)	DS	5	1.5	1.6	1.6	1.8	1.9	1.7	0.1	8.0
SFM0005	HIGH (Coast)	DS	4	0.053	0.055	0.056	0.058	0.065	0.057	0.005	9.3
SFM0006	HIGH (5:1)	DS	3	0.010	0.012	0.014	0.016	0.018	0.014	0.004	29
SFM0008	HIGH (5:1)	DS	5	0.31	0.44	0.45	0.49	0.51	0.44	0.08	17
SFM0009	HIGH (2:6)	DS	5	0.025	0.027	0.029	0.030	0.058	0.034	0.01	40
SFM0027	LOW (8:1)	not DS	4	0.049	0.087	0.12	0.15	0.16	0.11	0.05	45
SFM0029	HIGH (4:2)	not DS	5	0.38	1.7	1.8	2.0	2.2	1.6	0.7	44
SFM0031	HIGH (2:3)	not DS	5	0.092	0.092	0.33	0.37	0.93	0.36	0.3	94
SFM0032	HIGH (2:3)	not DS	5	2.1	2.1	2.3	2.4	2.8	2.3	0.3	11
SFM0037	LOW (2:1)	not DS	4	2.1	2.2	2.2	2.3	2.7	2.3	0.2	11
SFM0049	HIGH (Coast)	not DS	2	1.3		1.4		1.5	1.4	0.1	9.8
SFM0051	HIGH (2:1)	DS	4	3.5	3.5	3.6	3.7	3.9	3.6	0.2	4.7
SFM0053	HIGH (4:2)	not DS	4	3.4	3.5	3.6	3.7	3.8	3.6	0.2	4.8
SFM0057	LOW (2:8)	DS	4	0.058	0.094	0.13	0.16	0.17	0.12	0.05	42
SFM0060	HIGH (Coast)	not DS	3	0.0060	0.011	0.016	0.017	0.017	0.013	0.006	47
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	72	0.0060	0.092	1.4	2.1	3.9	1.3	1	94
Forsmark area	Soil tubes	'Higher'	60	0.0060	0.085	1.5	2.1	3.9	1.4	1	89
Forsmark area	Soil tubes	'Lower'	12	0.049	0.10	0.16	2.1	2.7	0.84	1	130
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	25	0.19	1.1	2.0	4.8	8.3	3.1	2	82
Simpevarp area	Soil tubes	'Higher'	5	1.9	2.0	2.8	4.8	7.7	3.8	2	64
Simpevarp area	Soil tubes	'Lower'	20	0.19	0.86	2.0	4.5	8.3	2.9	3	89
La		Lanthanum (μ g/l)								La	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	1.8	2.2	2.6	3.4	7.1	3.3	2	59
SFM0002	HIGH (2:1)	DS	6	1.7	2.2	2.4	2.6	5.1	2.7	1	44
SFM0003	HIGH (2:1)	DS	6	0.17	0.17	0.19	0.26	0.51	0.25	0.1	53
SFM0005	HIGH (Coast)	DS	3	3.0	3.5	4.0	4.1	4.1	3.7	0.6	17
SFM0006	HIGH (5:1)	DS	2	5.6		6.2		6.9	6.2	0.9	15
SFM0008	HIGH (5:1)	DS	5	0.39	0.46	0.55	0.63	0.68	0.54	0.1	22
SFM0009	HIGH (2:6)	DS	5	1.4	1.6	1.7	1.9	2.5	1.8	0.4	23
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			0.0097			0.0097		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.029	0.031	0.049	0.052	0.12	0.056	0.04	67
SFM0029	HIGH (4:2)	not DS	5	1.8	2.2	2.3	2.5	3.1	2.4	0.5	21
SFM0031	HIGH (2:3)	not DS	5	1.5	1.5	1.9	2.4	2.8	2.0	0.6	28
SFM0032	HIGH (2:3)	not DS	5	1.1	1.6	1.9	1.9	2.2	1.7	0.4	24
SFM0037	LOW (2:1)	not DS	4	1.5	2.1	3.1	4.0	4.6	3.1	1	46
SFM0049	HIGH (Coast)	not DS	3	1.6	1.6	1.7	2.4	3.1	2.1	0.8	40
SFM0051	HIGH (2:1)	DS	4	0.85	1.4	1.8	2.0	2.4	1.7	0.6	38
SFM0053	HIGH (4:2)	not DS	4	0.31	0.41	0.54	0.73	0.98	0.59	0.3	49
SFM0056	LOW (Coast)	not DS	4	0.028	0.041	0.049	0.21	0.66	0.20	0.3	160
SFM0057	LOW (2:8)	DS	5	4.3	5.2	5.9	5.9	6.0	5.5	0.7	13
SFM0060	HIGH (Coast)	not DS	3	0.82	0.95	1.1	1.1	1.1	1.0	0.2	16
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	84	<0.05	0.49	1.7	2.5	7.1	1.9	2	90
Forsmark area	Soil tubes	'Higher'	62	0.17	0.88	1.8	2.5	7.1	2.0	1	75
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	0.087	4.2	6.0	1.8	2	130
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	44
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.25	8.7	19	31	96	26	20	94
Simpevarp area	Soil tubes	'Higher'	3	17	19	22	35	47	29	20	57
Simpevarp area	Soil tubes	'Lower'	15	0.25	7.0	16	30	96	25	30	100
Laxemar pre-PLU	Soil tubes	All	12	0.32	1.2	2.1	3.3	12	3.0	3	100

Ground Water

Pb	Lead ($\mu\text{g/l}$)								Pb		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	0.069	0.11	0.19	0.26	0.29	0.18	0.09	49
SFM0002	HIGH (2:1)	DS	7	0.054	0.069	0.13	0.13	0.23	0.12	0.06	52
SFM0003	HIGH (2:1)	DS	7	0.031	0.052	0.075	0.12	0.16	0.086	0.05	56
SFM0005	HIGH (Coast)	DS	4	0.088	0.12	0.15	0.18	0.22	0.15	0.06	38
SFM0006	HIGH (5:1)	DS	3	0.058	0.11	0.15	0.26	0.37	0.19	0.2	82
SFM0008	HIGH (5:1)	DS	5	0.012	0.022	0.027	0.055	0.059	0.035	0.02	60
SFM0009	HIGH (2:6)	DS	5	0.058	0.095	0.10	0.21	0.29	0.15	0.09	63
SFM0012	LOW (2:8)	Lake	1		<0.1				<0.1		
SFM0015	LOW (2:10)	Lake	1			<0.01			<0.01		
SFM0023	LOW (2:3)	Lake	1			<0.1			<0.1		
SFM0025	LOW (Coast)	Sea	1			<0.1			<0.1		
SFM0027	LOW (8:1)	not DS	5	0.017	0.029	0.030	0.053	0.077	0.041	0.02	58
SFM0029	HIGH (4:2)	not DS	5	0.019	0.021	0.037	0.060	0.15	0.057	0.05	94
SFM0031	HIGH (2:3)	not DS	5	<0.01	<0.01	0.019	0.020	0.078	0.025	0.03	120
SFM0032	HIGH (2:3)	not DS	5	0.028	0.032	0.036	0.036	0.10	0.046	0.03	65
SFM0037	LOW (2:1)	not DS	4	0.021	0.041	0.050	0.054	0.064	0.046	0.02	39
SFM0049	HIGH (Coast)	not DS	3	0.079	0.080	0.081	0.19	0.29	0.15	0.1	82
SFM0051	HIGH (2:1)	DS	4	0.43	0.56	0.78	1.1	1.4	0.84	0.4	49
SFM0053	HIGH (4:2)	not DS	4	0.18	0.22	0.35	0.49	0.56	0.36	0.2	50
SFM0056	LOW (Coast)	not DS	4	0.077	0.079	0.14	0.30	0.62	0.24	0.3	110
SFM0057	LOW (2:8)	DS	5	0.083	0.095	0.24	0.34	0.44	0.24	0.2	64
SFM0060	HIGH (Coast)	not DS	3	0.031	0.034	0.036	0.074	0.11	0.060	0.05	76
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	89	<0.1	<0.1	<0.1	0.18	1.4	0.15	0.2	140
Forsmark area	Soil tubes	'Higher'	67	<0.1	<0.1	<0.1	0.19	1.4	0.16	0.2	140
Forsmark area	Soil tubes	'Lower'	22	<0.1	<0.1	<0.1	<0.1	0.62	0.12	0.2	130
Forsmark area	Soil tubes	In lake	3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.03	74
Forsmark area	Soil tubes	At sea	1			<0.1			<0.1		

Ground Water

Li	Lithium (mg/l)								Li		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	0.0090	0.013	0.016	0.018	0.023	0.015	0.004	29
SFM0002	HIGH (2:1)	DS	11	<0.004	<0.004	<0.004	0.0050	0.0060	<0.004	0.002	43
SFM0003	HIGH (2:1)	DS	9	0.013	0.014	0.015	0.016	0.020	0.015	0.002	14
SFM0005	HIGH (Coast)	DS	6	<0.004	<0.004	<0.004	<0.004	0.0080	<0.004	0.002	76
SFM0006	HIGH (5:1)	DS	5	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0005	21
SFM0008	HIGH (5:1)	DS	7	0.0040	0.0095	0.011	0.011	0.013	0.0099	0.003	30
SFM0009	HIGH (2:6)	DS	7	<0.004	<0.004	0.0040	0.0040	0.0080	<0.004	0.002	53
SFM0010	HIGH (2:8)	not DS	1			<0.004			<0.004		
SFM0011	LOW (2:8)	not DS	1			0.026			0.026		
SFM0012	LOW (2:8)	Lake	9	0.031	0.032	0.034	0.035	0.037	0.034	0.002	5.6
SFM0013	LOW (2:3)	not DS	1			0.025			0.025		
SFM0014	HIGH (2:10)	not DS	1			0.0050			0.0050		
SFM0015	LOW (2:10)	Lake	8	0.015	0.018	0.018	0.020	0.026	0.019	0.004	19
SFM0016	HIGH (2:10)	not DS	1			<0.004			<0.004		
SFM0017	LOW (2:10)	not DS	1			0.0070			0.0070		
SFM0018	LOW (2:10)	not DS	1			<0.004			<0.004		
SFM0019	HIGH (2:3)	not DS	1			0.0050			0.0050		
SFM0020	HIGH (2:6)	not DS	1			0.0050			0.0050		
SFM0021	HIGH (2:3)	not DS	1			0.0070			0.0070		
SFM0022	LOW (8:1)	Lake	4	0.019	0.024	0.026	0.028	0.030	0.025	0.005	18
SFM0023	LOW (2:3)	Lake	8	0.047	0.052	0.054	0.057	0.060	0.054	0.004	8.3
SFM0024	LOW (Coast)	Sea	3	0.026	0.028	0.029	0.029	0.029	0.028	0.002	6.2
SFM0025	LOW (Coast)	Sea	8	0.015	0.022	0.023	0.023	0.025	0.022	0.003	14
SFM0026	LOW (8:1)	not DS	1			0.010			0.010		
SFM0027	LOW (8:1)	not DS	8	0.0060	0.010	0.011	0.012	0.014	0.011	0.002	22
SFM0028	HIGH (4:2)	not DS	1			0.0070			0.0070		
SFM0029	HIGH (4:2)	not DS	6	0.0060	0.0073	0.0080	0.0088	0.013	0.0085	0.002	29
SFM0030	HIGH (2:3)	not DS	1			0.011			0.011		
SFM0031	HIGH (2:3)	not DS	7	0.0090	0.010	0.011	0.011	0.012	0.011	0.0010	9.2
SFM0032	HIGH (2:3)	not DS	9	0.0060	0.0060	0.0070	0.0070	0.012	0.0073	0.002	26
SFM0034	LOW (2:1)	not DS	1			0.014			0.014		
SFM0036	LOW (2:1)	not DS	1			0.014			0.014		
SFM0037	LOW (2:1)	not DS	7	0.0080	0.0085	0.011	0.013	0.017	0.011	0.003	29
SFM0049	HIGH (Coast)	not DS	4	<0.004	<0.004	<0.004	0.0045	0.0090	0.0040	0.003	84
SFM0051	HIGH (2:1)	DS	6	0.0060	0.0063	0.0070	0.0078	0.0080	0.0070	0.0009	13
SFM0053	HIGH (4:2)	not DS	6	0.0060	0.0075	0.0090	0.0098	0.016	0.0095	0.004	37
SFM0056	LOW (Coast)	not DS	6	0.0060	0.016	0.017	0.019	0.024	0.017	0.006	36
SFM0057	LOW (2:8)	DS	6	<0.004	<0.004	<0.004	<0.004	0.0040	<0.004	0.001	55
SFM0059	HIGH (7:2)	not DS	1			0.021			0.021		
SFM0060	HIGH (Coast)	not DS	3	0.0040	0.0040	0.0040	0.0045	0.0050	0.0043	0.0006	13
SFM0061	HIGH (7:2)	not DS	3	<0.004	<0.004	0.0040	0.0045	0.0050	<0.004	0.002	42
SFM0062	LOW (2:3)	Lake	3	0.0060	0.0065	0.0070	0.0070	0.0070	0.0067	0.0006	8.7
SFM0063	LOW (2:3)	Lake	2	0.0050		0.0085		0.012	0.0085	0.005	58
SFM0065	LOW (4:2)	Lake	1			0.013			0.013		
SFM0074	HIGH (2:3)	not DS	10	0.0060	0.0070	0.0070	0.0070	0.0080	0.0071	0.0006	8.0
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	198	<0.004	0.0060	0.0090	0.017	0.060	0.013	0.01	90
Forsmark area	Soil tubes	'Higher'	118	<0.004	0.0040	0.0070	0.011	0.023	0.0078	0.005	61
Forsmark area	Soil tubes	'Lower'	80	<0.004	0.011	0.018	0.028	0.060	0.021	0.01	69
Forsmark area	Soil tubes	In lake	35	0.0050	0.018	0.030	0.036	0.060	0.030	0.02	54
Forsmark area	Soil tubes	At sea	11	0.015	0.022	0.023	0.026	0.029	0.024	0.004	17
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	6	<0.004	<0.004	0.0070	0.016	0.019	0.0092	0.008	87
Forsmark area	Private wells	drilled	14	0.0070	0.016	0.027	0.041	0.048	0.028	0.01	52
Simpevarp area	Soil tubes	All	41	<0.004	0.0090	0.014	0.023	0.048	0.016	0.01	68
Simpevarp area	Soil tubes	'Higher'	11	<0.004	0.0060	0.0090	0.014	0.020	0.0097	0.006	62
Simpevarp area	Soil tubes	'Lower'	30	<0.004	0.0093	0.017	0.025	0.048	0.018	0.01	62
Laxemar pre-PLU	Soil tubes	All	22	0.0020	0.011	0.018	0.026	0.15	0.026	0.03	120

Ground Water

Lu		Lutetium ($\mu\text{g/l}$)							Lu		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	<0.02	0.028	0.033	0.038	0.061	0.034	0.02	49
SFM0002	HIGH (2:1)	DS	6	0.044	0.050	0.054	0.057	0.066	0.054	0.008	14
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	78
SFM0005	HIGH (Coast)	DS	3	0.019	0.020	0.021	0.023	0.025	0.022	0.003	13
SFM0006	HIGH (5:1)	DS	3	0.031	0.032	0.034	0.039	0.044	0.036	0.007	18
SFM0008	HIGH (5:1)	DS	5	<0.005	<0.005	<0.005	0.0084	0.012	0.0055	0.004	78
SFM0009	HIGH (2:6)	DS	5	0.0080	0.0080	0.010	0.013	0.016	0.011	0.003	32
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	<0.005	<0.005	<0.005	<0.005	0.0063	<0.005	0.002	52
SFM0029	HIGH (4:2)	not DS	5	0.0080	0.0098	0.010	0.011	0.014	0.010	0.002	19
SFM0031	HIGH (2:3)	not DS	5	0.013	0.014	0.022	0.024	0.026	0.020	0.006	31
SFM0032	HIGH (2:3)	not DS	5	0.023	0.026	0.027	0.031	0.032	0.028	0.004	14
SFM0037	LOW (2:1)	not DS	4	0.025	0.037	0.052	0.063	0.064	0.048	0.02	39
SFM0049	HIGH (Coast)	not DS	3	0.012	0.013	0.013	0.017	0.021	0.015	0.005	32
SFM0051	HIGH (2:1)	DS	4	0.017	0.022	0.026	0.030	0.038	0.027	0.009	33
SFM0053	HIGH (4:2)	not DS	4	<0.005	<0.005	<0.005	0.0065	0.0088	<0.005	0.003	62
SFM0056	LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	<0.005	0.0059	<0.005	0.002	56
SFM0057	LOW (2:8)	DS	5	0.026	0.034	0.034	0.042	0.054	0.038	0.01	27
SFM0060	HIGH (Coast)	not DS	3	0.0070	0.0074	0.0077	0.0084	0.0090	0.0079	0.001	13
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	<0.05	<0.05	<0.05	0.066	<0.05	0.02	84
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	<0.05	<0.05	0.066	<0.05	0.02	80
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	<0.05	0.064	<0.05	0.02	94
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.0058	0.073	0.12	0.18	0.51	0.15	0.1	85
Simpevarp area	Soil tubes	'Higher'	3	0.14	0.14	0.15	0.23	0.32	0.20	0.1	50
Simpevarp area	Soil tubes	'Lower'	15	0.0058	0.058	0.12	0.18	0.51	0.14	0.1	95
Laxemar pre-PLU	Soil tubes	All	12	0.019	0.021	0.024	0.043	0.18	0.043	0.04	100

Ground Water

Mg	Magnesium (mg/l)								Mg		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	22	32	35	41	52	36	10	27
SFM0002	HIGH (2:1)	DS	11	7.4	7.7	8.0	9.4	12	8.6	1	16
SFM0003	HIGH (2:1)	DS	10	25	26	26	27	31	27	2	6.5
SFM0005	HIGH (Coast)	DS	6	4.7	4.9	5.3	5.9	6.2	5.4	0.6	12
SFM0006	HIGH (5:1)	DS	5	8.0	8.7	10	13	14	11	3	24
SFM0008	HIGH (5:1)	DS	7	12	16	18	18	18	17	2	13
SFM0009	HIGH (2:6)	DS	7	5.5	5.6	5.8	6.2	7.8	6.1	0.8	14
SFM0010	HIGH (2:8)	not DS	1			4.2			4.2		
SFM0011	LOW (2:8)	not DS	1			72			72		
SFM0012	LOW (2:8)	Lake	9	88	89	91	93	97	91	3	3.2
SFM0013	LOW (2:3)	not DS	1			96			96		
SFM0014	HIGH (2:10)	not DS	1			7.1			7.1		
SFM0015	LOW (2:10)	Lake	8	57	59	61	62	96	65	10	20
SFM0016	HIGH (2:10)	not DS	1			7.5			7.5		
SFM0017	LOW (2:10)	not DS	1			11			11		
SFM0018	LOW (2:10)	not DS	1			4.4			4.4		
SFM0019	HIGH (2:3)	not DS	1			9.6			9.6		
SFM0020	HIGH (2:6)	not DS	1			8.1			8.1		
SFM0021	HIGH (2:3)	not DS	1			12			12		
SFM0022	LOW (8:1)	Lake	4	49	58	62	65	68	60	8	14
SFM0023	LOW (2:3)	Lake	8	170	170	170	180	180	170	3	1.8
SFM0024	LOW (Coast)	Sea	3	110	120	120	120	120	120	6	4.7
SFM0025	LOW (Coast)	Sea	8	41	75	78	80	82	74	10	18
SFM0026	LOW (8:1)	not DS	1			13			13		
SFM0027	LOW (8:1)	not DS	8	12	12	13	14	14	13	1	7.8
SFM0028	HIGH (4:2)	not DS	1			12			12		
SFM0029	HIGH (4:2)	not DS	6	11	11	12	13	13	12	1.0	8.1
SFM0030	HIGH (2:3)	not DS	1			19			19		
SFM0031	HIGH (2:3)	not DS	7	16	17	18	20	21	18	2	9.9
SFM0032	HIGH (2:3)	not DS	9	7.8	8.4	8.8	8.9	9.7	8.7	0.5	6.3
SFM0034	LOW (2:1)	not DS	1			36			36		
SFM0036	LOW (2:1)	not DS	1			33			33		
SFM0037	LOW (2:1)	not DS	7	18	21	24	29	33	25	6	24
SFM0049	HIGH (Coast)	not DS	4	4.2	4.4	4.4	4.5	4.7	4.4	0.2	4.7
SFM0051	HIGH (2:1)	DS	6	6.7	7.0	7.2	7.7	7.9	7.3	0.5	7.0
SFM0053	HIGH (4:2)	not DS	6	9.8	11	11	11	11	11	0.5	5.1
SFM0056	LOW (Coast)	not DS	6	9.8	20	20	21	21	19	4	23
SFM0057	LOW (2:8)	DS	6	5.2	7.4	9.0	11	13	9.2	3	32
SFM0059	HIGH (7:2)	not DS	1			43			43		
SFM0060	HIGH (Coast)	not DS	3	7.7	8.0	8.3	8.7	9.1	8.4	0.7	8.4
SFM0061	HIGH (7:2)	not DS	3	6.5	6.5	6.5	7.0	7.5	6.8	0.6	8.4
SFM0062	LOW (2:3)	Lake	3	7.4	8.0	8.5	8.8	9.1	8.3	0.9	10
SFM0063	LOW (2:3)	Lake	2	6.5		12		18	12	8	67
SFM0065	LOW (4:2)	Lake	1			38			38		
SFM0074	HIGH (2:3)	not DS	10	8.7	9.6	9.9	10	10	9.8	0.5	4.9
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	199	4.2	8.5	13	35	180	32	40	120
Forsmark area	Soil tubes	'Higher'	119	4.2	7.8	9.8	18	52	14	10	72
Forsmark area	Soil tubes	'Lower'	80	4.4	14	53	89	180	59	50	86
Forsmark area	Soil tubes	In lake	35	6.5	59	88	96	180	88	50	63
Forsmark area	Soil tubes	At sea	11	41	76	79	96	120	86	20	27
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	20	1.8	5.3	6.7	16	89	19	30	140
Forsmark area	Private wells	drilled	30	2.3	16	30	150	190	69	70	110
Simpevarp area	Private wells	excavated	101	0.50	2.1	4.9	7.4	34	6.0	6	98
Simpevarp area	Private wells	drilled	252	0.50	4.5	6.9	11	47	9.3	8	83
Simpevarp area	Soil tubes	All	41	1.3	5.1	8.2	11	45	10	8	78
Simpevarp area	Soil tubes	'Higher'	11	2.6	5.1	5.9	9.0	29	9.0	8	86
Simpevarp area	Soil tubes	'Lower'	30	1.3	7.5	8.7	12	45	11	8	76
Laxemar pre-PLU	Soil tubes	All	22	2.5	14	31	50	110	39	30	86
Uppsala County	SGU well	excavated	56	1.4	4.2	6.5	10	17	7.2	4	54
Uppsala County	SGU well	drilled	85	0.97	4.5	7.0	8.3	19	6.7	3	47
Kalmar County	SGU well	excavated	95	1.0	3.0	4.3	5.5	21	4.6	3	61
Kalmar County	SGU well	drilled	133	0.50	4.0	6.0	8.0	25	7.0	5	66
Sweden	SGU well	excavated	1058	0.20	1.9	3.6	7.2	39	5.5	5	98
Sweden	SGU well	drilled	2231	0.19	3.5	5.9	9.6	130	8.1	8	99

Ground Water

Mn	Manganese (mg/l)								Mn		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	9	0.15	0.18	0.19	0.21	0.24	0.19	0.03	14
SFM0002	HIGH (2:1)	DS	10	0.14	0.16	0.17	0.23	0.42	0.21	0.09	44
SFM0003	HIGH (2:1)	DS	9	0.17	0.17	0.18	0.19	0.36	0.20	0.06	31
SFM0005	HIGH (Coast)	DS	6	0.030	0.041	0.078	0.16	0.35	0.13	0.1	99
SFM0006	HIGH (5:1)	DS	5	0.0027	0.013	0.065	0.10	0.34	0.10	0.1	130
SFM0008	HIGH (5:1)	DS	6	0.086	0.12	0.13	0.15	0.17	0.13	0.03	22
SFM0009	HIGH (2:6)	DS	5	0.0048	0.0051	0.033	0.047	0.060	0.030	0.02	82
SFM0012	LOW (2:8)	Lake	4	0.40	0.41	0.44	0.70	1.4	0.68	0.5	75
SFM0015	LOW (2:10)	Lake	3	0.44	0.47	0.49	0.60	0.70	0.55	0.1	25
SFM0021	HIGH (2:3)	not DS	1			0.0062			0.0062		
SFM0022	LOW (8:1)	Lake	2	0.24		0.52		0.80	0.52	0.4	76
SFM0023	LOW (2:3)	Lake	3	0.79	0.84	0.89	0.89	0.90	0.86	0.06	7.3
SFM0025	LOW (Coast)	Sea	3	0.93	0.97	1.0	1.0	1.1	1.00	0.06	6.3
SFM0027	LOW (8:1)	not DS	6	0.068	0.073	0.074	0.076	0.10	0.078	0.01	15
SFM0029	HIGH (4:2)	not DS	5	0.16	0.18	0.20	0.21	0.24	0.20	0.03	15
SFM0031	HIGH (2:3)	not DS	6	0.20	0.21	0.23	0.25	0.28	0.23	0.03	13
SFM0032	HIGH (2:3)	not DS	7	0.13	0.20	0.21	0.23	0.29	0.21	0.05	23
SFM0037	LOW (2:1)	not DS	6	0.19	0.22	0.26	0.30	0.34	0.26	0.05	21
SFM0049	HIGH (Coast)	not DS	3	0.13	0.13	0.14	0.15	0.15	0.14	0.01	9.4
SFM0051	HIGH (2:1)	DS	5	0.20	0.24	0.25	0.25	0.27	0.24	0.03	12
SFM0053	HIGH (4:2)	not DS	5	0.14	0.14	0.15	0.15	0.16	0.15	0.008	5.5
SFM0056	LOW (Coast)	not DS	5	0.060	0.068	0.069	0.069	0.13	0.079	0.03	36
SFM0057	LOW (2:8)	DS	6	0.031	0.070	0.085	0.11	0.13	0.085	0.03	41
SFM0060	HIGH (Coast)	not DS	3	0.010	0.015	0.020	0.032	0.044	0.025	0.02	71
SFM0062	LOW (2:3)	Lake	3	0.041	0.064	0.086	0.19	0.30	0.14	0.1	98
SFM0063	LOW (2:3)	Lake	2	0.37		0.45		0.54	0.45	0.1	26
SFM0065	LOW (4:2)	Lake	1			0.63			0.63		
SFM0074	HIGH (2:3)	not DS	10	0.12	0.12	0.13	0.13	0.15	0.13	0.01	9.5
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	139	0.0027	0.11	0.17	0.24	1.4	0.23	0.2	100
Forsmark area	Soil tubes	'Higher'	95	0.0027	0.12	0.17	0.20	0.42	0.16	0.08	51
Forsmark area	Soil tubes	'Lower'	44	0.031	0.076	0.24	0.50	1.4	0.36	0.3	96
Forsmark area	Soil tubes	In lake	18	0.041	0.38	0.48	0.76	1.4	0.55	0.3	60
Forsmark area	Soil tubes	At sea	3	0.93	0.97	1.0	1.0	1.1	1.00	0.06	6.3
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	16	0.0050	0.024	0.080	0.17	0.61	0.13	0.2	120
Forsmark area	Private wells	drilled	19	0.050	0.11	0.23	0.94	1.2	0.47	0.4	92
Simpevarp area	Private wells	excavated	134		0.010	0.040	0.13	19	0.26	2	630
Simpevarp area	Private wells	drilled	291		0.020	0.090	0.30	46	0.35	3	770
Simpevarp area	Soil tubes	All	41	0.082	0.22	0.49	0.61	6.1	0.58	0.9	160
Simpevarp area	Soil tubes	'Higher'	11	0.13	0.31	0.39	0.58	6.1	0.92	2	190
Simpevarp area	Soil tubes	'Lower'	30	0.082	0.18	0.51	0.62	1.3	0.45	0.3	65
Laxemar pre-PLU	Soil tubes	All	22	0.040	0.080	0.15	0.27	1.6	0.30	0.4	140
Uppsala County	SGU well	excavated	66	<0.05	<0.05	<0.05	<0.05	0.58	0.050	0.1	200
Uppsala County	SGU well	drilled	672	<0.05	<0.05	0.050	0.10	0.90	0.082	0.10	120
Kalmar County	SGU well	excavated	338	<0.05	<0.05	<0.05	0.070	4.9	0.10	0.3	310
Kalmar County	SGU well	drilled	382	<0.05	<0.05	0.095	0.30	2.0	0.23	0.3	140
Sweden	SGU well	excavated	4252	<0.05	<0.05	<0.05	0.070	26	0.10	0.6	550
Sweden	SGU well	drilled	10934	<0.05	<0.05	0.080	0.22	30	0.19	0.4	240

Ground Water

Hg	Mercury ($\mu\text{g/l}$)								Hg		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	8	<0.002	<0.002	<0.002	<0.002	0.0033	<0.002	0.0008	63
SFM0002	HIGH (2:1)	DS	8	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0003	HIGH (2:1)	DS	8	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0005	HIGH (Coast)	DS	4	<0.002	<0.002	<0.002	<0.002	0.0028	<0.002	0.0009	62
SFM0006	HIGH (5:1)	DS	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0008	HIGH (5:1)	DS	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0009	HIGH (2:6)	DS	5	<0.002	<0.002	<0.002	0.0025	0.0034	<0.002	0.001	63
SFM0012	LOW (2:8)	Lake	1			<0.002			<0.002		
SFM0015	LOW (2:10)	Lake	1			<0.002			<0.002		
SFM0023	LOW (2:3)	Lake	1			<0.002			<0.002		
SFM0025	LOW (Coast)	Sea	1			<0.002			<0.002		
SFM0027	LOW (8:1)	not DS	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0029	HIGH (4:2)	not DS	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0031	HIGH (2:3)	not DS	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0032	HIGH (2:3)	not DS	5	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0037	LOW (2:1)	not DS	4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0049	HIGH (Coast)	not DS	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0051	HIGH (2:1)	DS	4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0053	HIGH (4:2)	not DS	4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0056	LOW (Coast)	not DS	4	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
SFM0057	LOW (2:8)	DS	5	<0.002	0.0024	0.0030	0.0036	0.0057	0.0031	0.002	55
SFM0060	HIGH (Coast)	not DS	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	92	<0.002	<0.002	<0.002	<0.002	0.0057	<0.002	0.0007	60
Forsmark area	Soil tubes	'Higher'	70	<0.002	<0.002	<0.002	<0.002	0.0034	<0.002	0.0005	43
Forsmark area	Soil tubes	'Lower'	22	<0.002	<0.002	<0.002	<0.002	0.0057	<0.002	0.001	80
Forsmark area	Soil tubes	In lake	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Forsmark area	Soil tubes	At sea	1			<0.002			<0.002		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Simpevarp area	Soil tubes	'Higher'	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Simpevarp area	Soil tubes	'Lower'	15	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	

Mo	Molybdenum ($\mu\text{g/l}$)								Mo		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	1.0	1.7	2.3	2.7	3.3	2.2	0.8	37
SFM0002	HIGH (2:1)	DS	7	1.2	1.6	1.8	2.2	2.4	1.9	0.4	23
SFM0003	HIGH (2:1)	DS	7	0.71	0.83	0.88	0.92	0.96	0.87	0.09	10
SFM0005	HIGH (Coast)	DS	4	0.35	0.43	0.48	0.56	0.74	0.51	0.2	32
SFM0006	HIGH (5:1)	DS	3	2.2	2.2	2.3	2.6	3.0	2.5	0.4	18
SFM0008	HIGH (5:1)	DS	5	0.68	0.72	0.78	0.81	1.1	0.82	0.2	21
SFM0009	HIGH (2:6)	DS	5	0.61	0.80	0.99	1.0	1.1	0.90	0.2	22
SFM0012	LOW (2:8)	Lake	1			3.1			3.1		
SFM0015	LOW (2:10)	Lake	1			0.60			0.60		
SFM0023	LOW (2:3)	Lake	1			1.6			1.6		
SFM0025	LOW (Coast)	Sea	1			5.5			5.5		
SFM0027	LOW (8:1)	not DS	5	3.9	3.9	4.2	12	31	11	10	110
SFM0029	HIGH (4:2)	not DS	5	1.3	1.4	1.4	1.4	2.0	1.5	0.3	19
SFM0031	HIGH (2:3)	not DS	5	1.4	1.6	1.9	1.9	2.3	1.8	0.4	20
SFM0032	HIGH (2:3)	not DS	5	1.8	1.8	1.9	2.0	2.6	2.0	0.3	17
SFM0037	LOW (2:1)	not DS	4	0.77	0.89	1.6	2.6	3.6	1.9	1	70
SFM0049	HIGH (Coast)	not DS	3	<0.05	<0.05	<0.05	0.063	0.10	<0.05	0.04	87
SFM0051	HIGH (2:1)	DS	4	0.85	0.91	1.1	1.4	1.8	1.2	0.4	34
SFM0053	HIGH (4:2)	not DS	4	0.90	1.0	1.1	1.3	1.8	1.2	0.4	30
SFM0056	LOW (Coast)	not DS	4	0.96	1.8	2.2	2.3	2.6	2.0	0.7	36
SFM0057	LOW (2:8)	DS	5	0.40	0.40	0.50	0.51	0.66	0.49	0.1	21
SFM0060	HIGH (Coast)	not DS	3	2.4	2.4	2.4	2.8	3.1	2.6	0.4	16
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	89	<0.05	0.85	1.4	2.3	31	2.0	3	170
Forsmark area	Soil tubes	'Higher'	67	<0.05	0.88	1.4	1.9	3.3	1.4	0.8	53
Forsmark area	Soil tubes	'Lower'	22	0.40	0.69	2.2	3.8	31	3.8	7	170
Forsmark area	Soil tubes	In lake	3	0.60	1.1	1.6	2.4	3.1	1.8	1	71
Forsmark area	Soil tubes	At sea	1			5.5			5.5		

Ground Water

Nd		Neodymium ($\mu\text{g/l}$)								Nd	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	1.5	2.0	2.1	2.7	5.6	2.7	1	55
SFM0002	HIGH (2:1)	DS	6	1.5	1.9	2.0	2.3	3.9	2.3	0.8	37
SFM0003	HIGH (2:1)	DS	6	0.12	0.14	0.17	0.19	0.35	0.19	0.08	45
SFM0005	HIGH (Coast)	DS	3	1.9	2.2	2.5	2.5	2.6	2.3	0.4	15
SFM0006	HIGH (5:1)	DS	3	3.7	4.0	4.4	5.2	6.1	4.7	1	26
SFM0008	HIGH (5:1)	DS	5	0.23	0.25	0.29	0.43	0.69	0.38	0.2	50
SFM0009	HIGH (2:6)	DS	5	1.1	1.1	1.3	1.5	2.5	1.5	0.6	41
SFM0012	LOW (2:8)	Lake	1		<0.05				<0.05		
SFM0015	LOW (2:10)	Lake	1		0.0071				0.0071		
SFM0023	LOW (2:3)	Lake	1		<0.05				<0.05		
SFM0025	LOW (Coast)	Sea	1		<0.05				<0.05		
SFM0027	LOW (8:1)	not DS	5	0.029	0.034	0.042	0.056	0.13	0.058	0.04	72
SFM0029	HIGH (4:2)	not DS	5	1.5	1.7	1.9	1.9	2.3	1.9	0.3	16
SFM0031	HIGH (2:3)	not DS	5	1.1	1.1	1.5	1.9	2.6	1.6	0.6	37
SFM0032	HIGH (2:3)	not DS	5	1.2	1.3	1.4	1.7	1.8	1.5	0.2	16
SFM0037	LOW (2:1)	not DS	4	1.4	1.8	2.7	3.6	3.9	2.7	1	46
SFM0049	HIGH (Coast)	not DS	3	1.3	1.4	1.5	2.0	2.6	1.8	0.7	38
SFM0051	HIGH (2:1)	DS	4	0.73	1.2	1.6	1.8	2.1	1.5	0.6	39
SFM0053	HIGH (4:2)	not DS	4	0.30	0.34	0.47	0.66	0.86	0.53	0.3	48
SFM0056	LOW (Coast)	not DS	4	0.025	0.035	0.043	0.18	0.56	0.17	0.3	160
SFM0057	LOW (2:8)	DS	5	2.8	3.1	3.7	4.2	6.2	4.0	1	33
SFM0060	HIGH (Coast)	not DS	3	0.53	0.59	0.66	0.67	0.67	0.62	0.08	13
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.05	0.35	1.4	2.1	6.2	1.6	1	90
Forsmark area	Soil tubes	'Higher'	63	0.12	0.68	1.5	2.0	6.1	1.6	1	75
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	0.093	3.0	6.2	1.4	2	130
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	54
Forsmark area	Soil tubes	At sea	1		<0.05				<0.05		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	0.23	7.6	17	25	99	24	30	110
Simpevarp area	Soil tubes	'Higher'	3	15	18	20	44	68	34	30	84
Simpevarp area	Soil tubes	'Lower'	15	0.23	5.8	13	24	99	22	30	120
Laxemar pre-PLU	Soil tubes	All	12	0.35	1.1	2.0	2.8	11	2.7	3	100

Ni		Nickel ($\mu\text{g/l}$)								Ni	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	5	0.51	0.66	0.78	1.2	1.8	0.99	0.5	53
SFM0002	HIGH (2:1)	DS	5	1.5	2.3	2.4	3.8	4.5	2.9	1	42
SFM0003	HIGH (2:1)	DS	7	0.35	0.37	0.40	0.51	1.3	0.54	0.3	62
SFM0005	HIGH (Coast)	DS	4	0.77	0.86	0.95	1.2	1.8	1.1	0.5	41
SFM0006	HIGH (5:1)	DS	3	3.1	3.1	3.2	4.5	5.8	4.0	2	38
SFM0008	HIGH (5:1)	DS	5	1.1	1.3	1.4	1.5	1.5	1.4	0.2	12
SFM0009	HIGH (2:6)	DS	5	0.91	1.0	1.3	1.4	1.6	1.2	0.3	23
SFM0012	LOW (2:8)	Lake	1		0.89				0.89		
SFM0015	LOW (2:10)	Lake	1		1.00				1.00		
SFM0023	LOW (2:3)	Lake	1		7.1				7.1		
SFM0025	LOW (Coast)	Sea	1		<0.5				<0.5		
SFM0027	LOW (8:1)	not DS	5	0.15	0.19	0.25	0.31	0.35	0.25	0.08	33
SFM0029	HIGH (4:2)	not DS	5	0.38	0.39	0.40	0.64	0.84	0.53	0.2	39
SFM0031	HIGH (2:3)	not DS	5	0.81	0.83	0.83	0.86	0.93	0.85	0.05	5.8
SFM0032	HIGH (2:3)	not DS	5	0.32	0.40	0.50	0.50	1.00	0.54	0.3	49
SFM0037	LOW (2:1)	not DS	4	0.76	0.85	0.92	1.1	1.6	1.0	0.4	36
SFM0049	HIGH (Coast)	not DS	3	0.16	0.23	0.29	0.41	0.53	0.33	0.2	57
SFM0051	HIGH (2:1)	DS	4	0.75	0.76	1.0	1.4	2.0	1.2	0.6	48
SFM0053	HIGH (4:2)	not DS	4	1.1	1.2	1.3	1.5	1.8	1.4	0.3	22
SFM0056	LOW (Coast)	not DS	4	0.45	0.65	0.89	1.3	2.0	1.1	0.7	64
SFM0057	LOW (2:8)	DS	5	0.71	0.74	1.1	1.1	1.3	0.99	0.3	26
SFM0060	HIGH (Coast)	not DS	3	1.5	1.7	1.9	2.5	3.1	2.2	0.8	38
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.5	0.51	0.91	1.4	7.1	1.2	1	94
Forsmark area	Soil tubes	'Higher'	63	<0.5	0.56	1.00	1.5	5.8	1.3	1	83
Forsmark area	Soil tubes	'Lower'	22	<0.5	<0.5	0.82	1.1	7.1	1.1	1	130
Forsmark area	Soil tubes	In lake	3	0.89	0.94	1.00	4.0	7.1	3.0	4	120
Forsmark area	Soil tubes	At sea	1		<0.5				<0.5		

Ground Water

tot-N			Nitrogen - total (mg/l)								tot-N		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Soil tube													
SFM0001	HIGH (Coast)	DS	10	1.00	1.1	1.2	1.2	1.5	1.2	0.2	13		
SFM0002	HIGH (2:1)	DS	10	0.48	0.49	0.50	0.51	0.56	0.51	0.02	4.8		
SFM0003	HIGH (2:1)	DS	10	0.55	0.56	0.56	0.57	0.71	0.58	0.05	8.5		
SFM0005	HIGH (Coast)	DS	5	0.48	0.51	0.52	0.57	0.63	0.54	0.06	11		
SFM0006	HIGH (5:1)	DS	5	1.0	1.5	1.5	1.8	1.8	1.5	0.3	21		
SFM0008	HIGH (5:1)	DS	7	0.26	0.28	0.29	0.33	0.37	0.31	0.04	14		
SFM0009	HIGH (2:6)	DS	5	0.51	0.60	0.69	0.70	1.1	0.73	0.2	33		
SFM0012	LOW (2:8)	Lake	6	3.4	3.5	3.6	3.6	3.7	3.6	0.1	3.3		
SFM0015	LOW (2:10)	Lake	5	6.4	6.9	8.4	8.5	8.7	7.8	1	13		
SFM0022	LOW (8:1)	Lake	3	2.2	2.2	2.3	2.4	2.6	2.3	0.2	9.3		
SFM0023	LOW (2:3)	Lake	5	2.8	2.9	2.9	3.0	3.0	2.9	0.07	2.3		
SFM0024	LOW (Coast)	Sea	1			1.00			1.00				
SFM0025	LOW (Coast)	Sea	5	1.3	1.3	1.3	1.4	1.4	1.3	0.02	1.5		
SFM0027	LOW (8:1)	not DS	5	0.72	0.81	0.81	0.88	0.92	0.83	0.08	9.2		
SFM0029	HIGH (4:2)	not DS	4	0.30	0.32	0.32	0.34	0.36	0.33	0.03	7.7		
SFM0031	HIGH (2:3)	not DS	5	0.35	0.36	0.37	0.37	0.37	0.36	0.01	3.0		
SFM0032	HIGH (2:3)	not DS	5	0.61	0.63	0.64	0.72	0.74	0.67	0.06	9.0		
SFM0037	LOW (2:1)	not DS	5	0.72	0.82	0.84	0.88	1.00	0.85	0.1	12		
SFM0049	HIGH (Coast)	not DS	3	0.60	0.65	0.71	0.73	0.75	0.69	0.08	12		
SFM0057	LOW (2:8)	DS	4	0.38	0.42	0.51	0.71	1.1	0.61	0.3	50		
SFM0060	HIGH (Coast)	not DS	3	0.28	0.30	0.32	0.53	0.74	0.44	0.3	58		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Forsmark area	Soil tubes	All	111	0.26	0.51	0.72	1.3	8.7	1.3	2	120		
Forsmark area	Soil tubes	'Higher'	72	0.26	0.45	0.56	0.74	1.8	0.68	0.4	55		
Forsmark area	Soil tubes	'Lower'	39	0.38	0.88	1.4	3.4	8.7	2.6	2	90		
Forsmark area	Soil tubes	In lake	19	2.2	2.9	3.5	5.1	8.7	4.3	2	52		
Forsmark area	Soil tubes	At sea	6	1.00	1.3	1.3	1.4	1.4	1.3	0.1	11		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Forsmark area	Private wells	excavated	2	0.68		0.98		1.3	0.98	0.4	42		
Forsmark area	Private wells	drilled	6	0.84	1.3	2.0	2.5	4.4	2.2	1	60		

Ground Water

NH4-N			Nitrogen as ammonium (mg/l)							NH4-N		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Soil tube												
SFM0001	HIGH (Coast)	DS	11	0.14	0.17	0.21	0.27	0.32	0.22	0.06	27	
SFM0002	HIGH (2:1)	DS	11	0.057	0.069	0.080	0.088	0.26	0.093	0.06	61	
SFM0003	HIGH (2:1)	DS	11	0.15	0.21	0.21	0.22	0.22	0.21	0.02	10	
SFM0005	HIGH (Coast)	DS	6	0.00080	0.0021	0.0043	0.011	0.026	0.0082	0.009	120	
SFM0006	HIGH (5:1)	DS	5	0.0030	0.0052	0.0053	0.020	0.033	0.013	0.01	97	
SFM0008	HIGH (5:1)	DS	8	0.016	0.018	0.038	0.048	0.064	0.036	0.02	49	
SFM0009	HIGH (2:6)	DS	6	0.00060	0.0039	0.0082	0.018	0.025	0.011	0.010	90	
SFM0012	LOW (2:8)	Lake	7	3.1	3.3	3.4	3.4	3.6	3.4	0.2	4.7	
SFM0015	LOW (2:10)	Lake	6	6.3	6.9	7.5	8.0	8.6	7.5	0.9	11	
SFM0022	LOW (8:1)	Lake	3	1.9	2.0	2.1	2.2	2.2	2.1	0.2	7.5	
SFM0023	LOW (2:3)	Lake	6	2.6	2.7	2.7	2.8	2.8	2.7	0.07	2.6	
SFM0024	LOW (Coast)	Sea	2	0.27		0.34		0.41	0.34	0.1	30	
SFM0025	LOW (Coast)	Sea	6	1.2	1.2	1.2	1.3	1.3	1.2	0.03	2.7	
SFM0027	LOW (8:1)	not DS	6	0.30	0.47	0.48	0.52	0.58	0.47	0.09	20	
SFM0029	HIGH (4:2)	not DS	5	0.049	0.052	0.070	0.073	0.15	0.079	0.04	52	
SFM0031	HIGH (2:3)	not DS	6	0.072	0.075	0.082	0.091	0.10	0.084	0.01	13	
SFM0032	HIGH (2:3)	not DS	6	0.039	0.070	0.075	0.081	0.083	0.071	0.02	24	
SFM0037	LOW (2:1)	not DS	6	0.0086	0.012	0.019	0.027	0.031	0.020	0.010	49	
SFM0049	HIGH (Coast)	not DS	3	0.061	0.081	0.10	0.12	0.13	0.098	0.04	37	
SFM0057	LOW (2:8)	DS	5	0.014	0.015	0.021	0.032	0.037	0.024	0.01	44	
SFM0060	HIGH (Coast)	not DS	3	<0.0005	<0.0005	0.00050	0.00090	0.0013	0.00068	0.0005	80	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	128	<0.0005	0.032	0.092	0.47	8.6	0.86	2	200	
Forsmark area	Soil tubes	'Higher'	81	<0.0005	0.025	0.074	0.16	0.32	0.097	0.09	89	
Forsmark area	Soil tubes	'Lower'	47	0.0086	0.28	1.3	3.2	8.6	2.2	2	110	
Forsmark area	Soil tubes	In lake	22	1.9	2.7	3.3	5.6	8.6	4.1	2	53	
Forsmark area	Soil tubes	At sea	8	0.27	1.0	1.2	1.2	1.3	1.0	0.4	42	
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	18	0.0050	0.0068	0.021	0.44	3.4	0.53	1.0	190	
Forsmark area	Private wells	drilled	25	0.020	0.050	0.91	1.6	3.9	1.1	1	110	
Simpevarp area	Private wells	excavated	134		0.010	0.030	0.060	5.0	0.13	0.5	360	
Simpevarp area	Private wells	drilled	291		0.010	0.050	0.13	2.1	0.10	0.2	170	
Uppsala County	SGU well	excavated	65	<0.1	<0.1	<0.1	0.16	0.71	0.11	0.1	130	
Uppsala County	SGU well	drilled	669	<0.1	<0.1	<0.1	<0.1	8.1	0.11	0.4	350	
Kalmar County	SGU well	excavated	115	<0.1	<0.1	<0.1	<0.1	0.86	<0.1	0.1	210	
Kalmar County	SGU well	drilled	256	<0.1	<0.1	<0.1	<0.1	2.4	0.11	0.3	240	
Sweden	SGU well	excavated	1611	<0.1	<0.1	<0.1	<0.1	5.6	0.11	0.3	290	
Sweden	SGU well	drilled	9805	<0.1	<0.1	<0.1	<0.1	18	0.12	0.4	360	

Ground Water

NO3-N		Nitrogen as nitrate (mg/l)							NO3-N		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	1		<0.002			<0.002			
SFM0002	HIGH (2:1)	DS	1		0.0015			0.0015			
SFM0003	HIGH (2:1)	DS	1		0.00040			0.00040			
SFM0008	HIGH (5:1)	DS	1		0.00050			0.00050			
SFM0009	HIGH (2:6)	DS	1		0.042			0.042			
SFM0012	LOW (2:8)	Lake	1		<0.0002			<0.0002			
SFM0015	LOW (2:10)	Lake	1		0.00020			0.00020			
SFM0023	LOW (2:3)	Lake	1		<0.0002			<0.0002			
SFM0024	LOW (Coast)	Sea	1		<0.0002			<0.0002			
SFM0025	LOW (Coast)	Sea	1		0.0091			0.0091			
SFM0027	LOW (8:1)	not DS	1		0.00030			0.00030			
SFM0029	HIGH (4:2)	not DS	1		0.0022			0.0022			
SFM0031	HIGH (2:3)	not DS	1		0.00070			0.00070			
SFM0032	HIGH (2:3)	not DS	1		0.0020			0.0020			
SFM0037	LOW (2:1)	not DS	1		<0.0002			<0.0002			
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	15	<0.002	<0.002	<0.002	<0.002	0.042	0.0040	0.01	270
Forsmark area	Soil tubes	'Higher'	8	<0.002	<0.002	<0.002	0.0021	0.042	0.0063	0.01	230
Forsmark area	Soil tubes	'Lower'	7	<0.002	<0.002	<0.002	<0.002	0.0091	<0.002	0.003	240
Forsmark area	Soil tubes	In lake	3	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00006	43
Forsmark area	Soil tubes	At sea	2	<0.002		0.0046		0.0091	0.0046	0.006	140
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Private wells	excavated	4	0.050	0.050	0.33	1.3	3.3	1.00	2	160
Simpevarp area	Private wells	drilled	15	0.050	0.050	0.050	0.23	4.2	0.55	1	210
Uppsala County	SGU well	excavated	66	<2	<2	2.3	4.7	8.4	2.9	3	86
Uppsala County	SGU well	drilled	671	<2	<2	<2	<2	18	<2	2	180
Kalmar County	SGU well	excavated	115	<2	<2	2.2	5.7	51	4.6	8	170
Kalmar County	SGU well	drilled	259	<2	<2	<2	<2	40	2.0	5	240
Sweden	SGU well	excavated	1724	<2	<2	<2	3.4	130	2.9	6	200
Sweden	SGU well	drilled	10134	<2	<2	<2	<2	84	<2	3	290

NO23-N		Nitrogen as nitrate and nitrite (mg/l)							NO23-N		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	11	0.00030	0.00040	0.00070	0.0091	0.069	0.013	0.02	190
SFM0002	HIGH (2:1)	DS	10	0.00020	0.00065	0.0014	0.0025	0.026	0.0043	0.008	180
SFM0003	HIGH (2:1)	DS	10	<0.0002	0.00080	0.0036	0.0060	0.028	0.0056	0.008	150
SFM0005	HIGH (Coast)	DS	6	0.034	0.043	0.065	0.18	0.26	0.11	0.10	87
SFM0006	HIGH (5:1)	DS	5	0.17	0.46	0.62	0.75	0.85	0.57	0.3	47
SFM0008	HIGH (5:1)	DS	8	<0.0002	<0.0002	0.0020	0.0096	0.011	0.0044	0.005	110
SFM0009	HIGH (2:6)	DS	6	<0.0002	0.0021	0.025	0.17	0.48	0.12	0.2	160
SFM0012	LOW (2:8)	Lake	7	<0.0002	<0.0002	0.00030	0.00090	0.027	0.0042	0.01	240
SFM0015	LOW (2:10)	Lake	6	<0.0002	<0.0002	0.00020	0.0020	0.0026	0.00097	0.001	130
SFM0022	LOW (8:1)	Lake	3	<0.0002	0.00070	0.0013	0.0017	0.0020	0.0011	0.0010	85
SFM0023	LOW (2:3)	Lake	6	<0.0002	0.00030	0.00065	0.00093	0.0019	0.00075	0.0007	87
SFM0024	LOW (Coast)	Sea	2	0.00020		0.00030		0.00040	0.00030	0.0001	47
SFM0025	LOW (Coast)	Sea	6	<0.0002	<0.0002	0.00040	0.0020	0.0091	0.0021	0.004	170
SFM0027	LOW (8:1)	not DS	6	0.00030	0.0031	0.011	0.016	0.063	0.017	0.02	140
SFM0029	HIGH (4:2)	not DS	5	<0.0002	0.00080	0.00090	0.0022	0.0066	0.0021	0.003	120
SFM0031	HIGH (2:3)	not DS	6	0.00070	0.0030	0.0045	0.011	0.038	0.011	0.01	130
SFM0032	HIGH (2:3)	not DS	6	<0.0002	0.00080	0.0022	0.0079	0.011	0.0043	0.005	110
SFM0037	LOW (2:1)	not DS	6	0.00030	0.00040	0.00075	0.0021	0.0027	0.0012	0.001	88
SFM0049	HIGH (Coast)	not DS	3	<0.0002	<0.0002	0.00020	0.00065	0.0011	0.00047	0.0006	120
SFM0057	LOW (2:8)	DS	5	0.00020	0.00090	0.0017	0.12	0.43	0.11	0.2	170
SFM0060	HIGH (Coast)	not DS	3	0.071	0.083	0.096	0.32	0.54	0.24	0.3	110
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	126	<0.0002	0.00033	0.0016	0.011	0.85	0.048	0.1	300
Forsmark area	Soil tubes	'Higher'	79	<0.0002	0.00060	0.0035	0.031	0.85	0.068	0.2	250
Forsmark area	Soil tubes	'Lower'	47	<0.0002	0.00020	0.00060	0.0025	0.43	0.015	0.06	420
Forsmark area	Soil tubes	In lake	22	<0.0002	<0.0002	0.00040	0.0013	0.027	0.0020	0.006	290
Forsmark area	Soil tubes	At sea	8	<0.0002	<0.0002	0.00035	0.0010	0.0091	0.0017	0.003	190
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	4	0.00020	0.00050	0.0012	0.24	0.97	0.24	0.5	200
Forsmark area	Private wells	drilled	9	0.00090	0.0017	0.023	0.40	0.64	0.19	0.3	140
Simpevarp area	Private wells	excavated	129	0.050	0.13	0.76	3.6	40	2.4	4	180
Simpevarp area	Private wells	drilled	276	0.0050	0.13	0.25	1.6	43	1.8	4	250

Ground Water

PON		Particulate organic nitrogen (mg/l)								PON		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001		HIGH (Coast)	DS	3	0.0042	0.0064	0.0086	0.019	0.030	0.014	0.01	96
SFM0002		HIGH (2:1)	DS	3	0.037	0.039	0.040	0.047	0.055	0.044	0.009	21
SFM0003		HIGH (2:1)	DS	2	0.0046		0.0064		0.0081	0.0064	0.002	39
SFM0005		HIGH (Coast)	DS	1			0.034			0.034		
SFM0006		HIGH (5:1)	DS	1			0.037			0.037		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	10	0.0042	0.0083	0.032	0.037	0.055	0.026	0.02	69	
Forsmark area	Soil tubes	'Higher'	10	0.0042	0.0083	0.032	0.037	0.055	0.026	0.02	69	
COD		Chemical oxygen demand (mg/l)								COD		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	14	4.6	8.9	10	13	31	13	8	59	
Forsmark area	Private wells	drilled	16	4.0	5.2	8.3	13	20	9.1	5	51	
Simpevarp area	Private wells	excavated	129	1.3	7.0	11	16	61	14	10	78	
Simpevarp area	Private wells	drilled	275	0.50	5.0	7.0	10	51	8.5	6	67	
Uppsala County	SGU well	excavated	9	0.50	1.0	2.0	5.0	9.0	3.3	3	100	
Uppsala County	SGU well	drilled	12	0.50	0.88	2.0	4.0	9.0	3.0	3	93	
Kalmar County	SGU well	excavated	251	0.10	1.8	3.8	8.0	98	7.4	10	150	
Kalmar County	SGU well	drilled	120	0.20	2.0	3.8	7.0	63	7.0	10	140	
Sweden	SGU well	excavated	5374		1.6	3.5	8.0	300	7.0	10	160	
Sweden	SGU well	drilled	2887		0.50	2.0	5.0	140	4.4	7	160	
O2 (lab + field)		Oxygen (lab + field) (mg/l)								O2 (lab + field)		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	3	0.050	0.050	0.050	0.075	0.10	0.067	0.03	43	
SFM0002	HIGH (2:1)	DS	4	0.30	0.50	0.73	1.6	3.7	1.4	2	120	
SFM0003	HIGH (2:1)	DS	4	0.30	0.33	0.37	0.58	1.1	0.54	0.4	71	
SFM0005	HIGH (Coast)	DS	2	0.90		3.1		5.2	3.1	3	100	
SFM0006	HIGH (5:1)	DS	2	6.2		7.5		8.7	7.5	2	24	
SFM0008	HIGH (5:1)	DS	1			0.30			0.30			
SFM0012	LOW (2:8)	Lake	1			0.30			0.30			
SFM0015	LOW (2:10)	Lake	1			0.90			0.90			
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	18	0.050	0.30	0.48	1.1	8.7	1.7	3	150	
Forsmark area	Soil tubes	'Higher'	16	0.050	0.30	0.48	1.8	8.7	1.8	3	150	
Forsmark area	Soil tubes	'Lower'	2	0.30		0.60		0.90	0.60	0.4	71	
Forsmark area	Soil tubes	In lake	2	0.30		0.60		0.90	0.60	0.4	71	
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	1			0.39			0.39			

Ground Water

O-18		Oxygen-18 (dev. SMOW)							O-18		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	-12.3	-11.1	-11.0	-10.7	-10.7	-11.1	0.55	-4.9
SFM0002	HIGH (2:1)	DS	10	-12.5	-12.2	-12.1	-11.9	-11.8	-12.1	0.21	-1.8
SFM0003	HIGH (2:1)	DS	10	-10.1	-9.88	-9.75	-9.70	-9.00	-9.73	0.30	-3.1
SFM0005	HIGH (Coast)	DS	5	-13.1	-12.7	-12.3	-12.0	-11.9	-12.4	0.50	-4.0
SFM0006	HIGH (5:1)	DS	4	-13.0	-12.8	-12.7	-12.7	-12.6	-12.8	0.17	-1.4
SFM0008	HIGH (5:1)	DS	7	-12.4	-12.3	-12.3	-12.2	-12.1	-12.3	0.098	-0.80
SFM0009	HIGH (2:6)	DS	7	-12.3	-12.0	-11.9	-11.9	-11.8	-12.0	0.16	-1.3
SFM0010	HIGH (2:8)	not DS	1			-12.3			-12.3		
SFM0011	LOW (2:8)	not DS	1			-9.50			-9.50		
SFM0012	LOW (2:8)	Lake	8	-10.0	-9.63	-9.60	-9.60	-9.50	-9.65	0.15	-1.6
SFM0013	LOW (2:3)	not DS	1			-10.8			-10.8		
SFM0014	HIGH (2:10)	not DS	1			-12.1			-12.1		
SFM0015	LOW (2:10)	Lake	7	-8.00	-7.70	-7.60	-7.60	-7.60	-7.69	0.15	-1.9
SFM0016	HIGH (2:10)	not DS	1			-10.1			-10.1		
SFM0017	LOW (2:10)	not DS	1			-11.5			-11.5		
SFM0018	LOW (2:10)	not DS	1			-11.9			-11.9		
SFM0019	HIGH (2:3)	not DS	1			-11.9			-11.9		
SFM0020	HIGH (2:6)	not DS	1			-11.9			-11.9		
SFM0021	HIGH (2:3)	not DS	1			-11.8			-11.8		
SFM0022	LOW (8:1)	Lake	2	-10.0		-10.0		-10.0	-10.0		
SFM0023	LOW (2:3)	Lake	7	-9.20	-9.00	-8.90	-8.90	-8.80	-8.96	0.14	-1.6
SFM0024	LOW (Coast)	Sea	3	-10.1	-9.95	-9.80	-9.75	-9.70	-9.87	0.21	-2.1
SFM0025	LOW (Coast)	Sea	7	-12.2	-11.9	-11.7	-11.7	-11.4	-11.8	0.24	-2.1
SFM0026	LOW (8:1)	not DS	1			-12.0			-12.0		
SFM0027	LOW (8:1)	not DS	7	-12.3	-12.1	-11.9	-11.9	-11.9	-12.0	0.15	-1.3
SFM0028	HIGH (4:2)	not DS	1			-11.9			-11.9		
SFM0029	HIGH (4:2)	not DS	6	-12.2	-12.0	-12.0	-11.9	-11.9	-12.0	0.12	-0.98
SFM0030	HIGH (2:3)	not DS	1			-10.2			-10.2		
SFM0031	HIGH (2:3)	not DS	6	-10.5	-10.2	-10.2	-10.1	-10.0	-10.2	0.17	-1.7
SFM0032	HIGH (2:3)	not DS	8	-12.0	-11.8	-11.8	-11.3	-10.9	-11.6	0.41	-3.5
SFM0034	LOW (2:1)	not DS	1			-10.8			-10.8		
SFM0036	LOW (2:1)	not DS	1			-11.0			-11.0		
SFM0037	LOW (2:1)	not DS	6	-12.0	-11.6	-10.7	-10.5	-9.80	-10.9	0.84	-7.7
SFM0049	HIGH (Coast)	not DS	4	-11.0	-10.3	-9.80	-9.45	-9.30	-9.98	0.76	-7.7
SFM0051	HIGH (2:1)	DS	5	-12.5	-12.3	-12.3	-12.1	-12.0	-12.2	0.19	-1.6
SFM0053	HIGH (4:2)	not DS	5	-12.3	-12.3	-12.1	-11.9	-11.9	-12.1	0.20	-1.7
SFM0056	LOW (Coast)	not DS	5	-11.9	-11.6	-11.5	-11.3	-11.2	-11.5	0.27	-2.4
SFM0057	LOW (2:8)	DS	5	-13.1	-12.8	-12.5	-12.2	-12.1	-12.5	0.42	-3.3
SFM0059	HIGH (7:2)	not DS	1			-11.1			-11.1		
SFM0060	HIGH (Coast)	not DS	3	-12.5	-12.5	-12.5	-12.4	-12.3	-12.4	0.12	-0.93
SFM0061	HIGH (7:2)	not DS	2	-12.5		-12.4		-12.2	-12.4	0.21	-1.7
SFM0062	LOW (2:3)	Lake	2	-11.8		-11.8		-11.8	-11.8		
SFM0063	LOW (2:3)	Lake	2	-11.5		-11.3		-11.1	-11.3	0.28	-2.5
SFM0065	LOW (4:2)	Lake	1			-11.2			-11.2		
SFM0074	HIGH (2:3)	not DS	10	-12.3	-12.0	-11.7	-11.4	-11.3	-11.7	0.37	-3.2
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	180	-13.1	-12.1	-11.8	-10.1	-7.60	-11.2	1.3	-11
Forsmark area	Soil tubes	'Higher'	111	-13.1	-12.2	-11.9	-11.1	-9.00	-11.5	0.94	-8.1
Forsmark area	Soil tubes	'Lower'	69	-13.1	-11.9	-11.0	-9.60	-7.60	-10.6	1.5	-14
Forsmark area	Soil tubes	In lake	29	-11.8	-10.0	-9.50	-8.80	-7.60	-9.35	1.3	-14
Forsmark area	Soil tubes	At sea	10	-12.2	-11.8	-11.7	-10.4	-9.70	-11.2	0.95	-8.4
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	2	-12.8		-11.9		-10.9	-11.9	1.3	-11
Forsmark area	Private wells	drilled	5	-12.0	-11.6	-10.9	-10.4	-10.3	-11.0	0.74	-6.7
Simpevarp area	Soil tubes	All	40	-11.8	-11.0	-10.8	-10.6	-9.60	-10.7	0.49	-4.6
Simpevarp area	Soil tubes	'Higher'	10	-11.8	-10.8	-10.7	-10.1	-9.90	-10.6	0.58	-5.5
Simpevarp area	Soil tubes	'Lower'	30	-11.7	-11.0	-10.8	-10.6	-9.60	-10.8	0.46	-4.3
Laxemar pre-PLU	Soil tubes	All	15	-9.90	-9.75	-9.30	-8.60	-7.30	-9.04	0.86	-9.5

Ground Water

POP		Particulate organic phosphorus (mg/l)								POP	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	3	0.0048	0.012	0.019	3.9	7.7	2.6	4	170
SFM0002	HIGH (2:1)	DS	2	0.043		0.049		0.055	0.049	0.008	17
SFM0003	HIGH (2:1)	DS	3	0.020	0.031	0.042	0.56	1.1	0.38	0.6	160
SFM0005	HIGH (Coast)	DS	1			0.020			0.020		
SFM0006	HIGH (5:1)	DS	1			0.0094			0.0094		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	10	0.0048	0.019	0.031	0.052	7.7	0.90	2	270
Forsmark area	Soil tubes	'Higher'	10	0.0048	0.019	0.031	0.052	7.7	0.90	2	270
PO4-P		Phosphorus as phosphate (mg/l)								PO4-P	
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	11	0.015	0.022	0.025	0.031	0.046	0.027	0.009	32
SFM0002	HIGH (2:1)	DS	11	0.0017	0.0029	0.0044	0.0059	0.0064	0.0043	0.002	42
SFM0003	HIGH (2:1)	DS	11	0.0075	0.013	0.018	0.038	0.043	0.024	0.01	57
SFM0005	HIGH (Coast)	DS	6	0.0037	0.0041	0.0046	0.0051	0.0052	0.0045	0.0006	14
SFM0006	HIGH (5:1)	DS	5	0.0022	0.0036	0.0043	0.0074	0.0085	0.0052	0.003	51
SFM0008	HIGH (5:1)	DS	8	0.0014	0.0019	0.0025	0.0029	0.0039	0.0025	0.0008	34
SFM0009	HIGH (2:6)	DS	6	0.0010	0.0014	0.0018	0.0023	0.0025	0.0018	0.0006	34
SFM0012	LOW (2:8)	Lake	7	<0.0005	0.00065	0.00090	0.0017	0.0086	0.0021	0.003	140
SFM0015	LOW (2:10)	Lake	6	0.00080	0.014	0.032	0.081	0.20	0.062	0.07	120
SFM0022	LOW (8:1)	Lake	3	<0.0005	0.00058	0.00090	0.00095	0.0010	0.00072	0.0004	57
SFM0023	LOW (2:3)	Lake	6	<0.0005	0.00053	0.0015	0.0026	0.0051	0.0019	0.002	98
SFM0024	LOW (Coast)	Sea	2	0.0014		0.014		0.027	0.014	0.02	130
SFM0025	LOW (Coast)	Sea	6	<0.0005	0.0012	0.0020	0.0027	0.0078	0.0027	0.003	100
SFM0027	LOW (8:1)	not DS	6	0.023	0.037	0.041	0.055	0.070	0.045	0.02	37
SFM0029	HIGH (4:2)	not DS	5	0.0084	0.0085	0.0088	0.013	0.016	0.011	0.003	32
SFM0031	HIGH (2:3)	not DS	6	0.00050	0.00060	0.00070	0.00080	0.0015	0.00080	0.0004	45
SFM0032	HIGH (2:3)	not DS	6	0.0025	0.0065	0.0075	0.0083	0.011	0.0071	0.003	38
SFM0037	LOW (2:1)	not DS	6	0.0014	0.0022	0.0041	0.0070	0.010	0.0049	0.003	71
SFM0049	HIGH (Coast)	not DS	3	0.0068	0.0077	0.0086	0.010	0.012	0.0092	0.003	29
SFM0057	LOW (2:8)	DS	5	0.0026	0.0028	0.0042	0.0050	0.0064	0.0042	0.002	38
SFM0060	HIGH (Coast)	not DS	3	0.0017	0.0017	0.0017	0.0019	0.0020	0.0018	0.0002	9.6
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	128	<0.0005	0.0019	0.0050	0.012	0.20	0.012	0.02	180
Forsmark area	Soil tubes	'Higher'	81	0.00050	0.0024	0.0055	0.013	0.046	0.010	0.01	110
Forsmark area	Soil tubes	'Lower'	47	<0.0005	0.0010	0.0027	0.011	0.20	0.016	0.03	210
Forsmark area	Soil tubes	In lake	22	<0.0005	0.00065	0.0012	0.0077	0.20	0.018	0.05	250
Forsmark area	Soil tubes	At sea	8	<0.0005	0.0013	0.0020	0.0041	0.027	0.0055	0.009	160
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	18	0.0022	0.0050	0.0072	0.021	1.4	0.089	0.3	370
Forsmark area	Private wells	drilled	25	<0.0005	0.00060	0.0050	0.0050	0.19	0.011	0.04	340
Simpevarp area	Private wells	excavated	134	0.0025	0.0050	0.050	0.10	2.5	0.25	0.6	220
Simpevarp area	Private wells	drilled	291		0.0050	0.020	0.055	2.1	0.087	0.2	230
Laxemar pre-PLU	Soil tubes	All	5	0.020	0.041	0.053	0.12	0.24	0.095	0.09	95
Uppsala County	SGU well	excavated	18	<0.1	<0.1	<0.1	<0.1	2.2	0.42	0.8	180
Uppsala County	SGU well	drilled	571	<0.1	<0.1	<0.1	<0.1	3.6	<0.1	0.2	440
Kalmar County	SGU well	excavated	32	<0.1	<0.1	<0.1	0.12	0.99	0.13	0.2	190
Kalmar County	SGU well	drilled	133	<0.1	<0.1	<0.1	<0.1	2.1	<0.1	0.3	410
Sweden	SGU well	excavated	713	<0.1	<0.1	<0.1	<0.1	2.2	<0.1	0.2	310
Sweden	SGU well	drilled	7532	<0.1	<0.1	<0.1	<0.1	7.9	<0.1	0.1	440

Ground Water

tot-P			Phosphorus- total (mg/l)								tot-P		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Soil tube													
SFM0001	HIGH (Coast)	DS	10	0.031	0.038	0.042	0.046	0.053	0.042	0.007	17		
SFM0002	HIGH (2:1)	DS	10	0.0083	0.010	0.020	0.096	0.20	0.061	0.08	130		
SFM0003	HIGH (2:1)	DS	10	0.030	0.039	0.045	0.053	3.0	0.34	0.9	280		
SFM0005	HIGH (Coast)	DS	5	0.0080	0.0090	0.010	0.011	0.013	0.010	0.002	20		
SFM0006	HIGH (5:1)	DS	5	0.015	0.017	0.017	0.017	0.019	0.017	0.001	7.6		
SFM0008	HIGH (5:1)	DS	7	0.0041	0.0053	0.0090	0.0099	0.015	0.0083	0.004	44		
SFM0009	HIGH (2:6)	DS	5	0.0076	0.0098	0.013	0.017	0.049	0.019	0.02	88		
SFM0012	LOW (2:8)	Lake	5	0.0034	0.012	0.013	0.028	0.068	0.025	0.03	100		
SFM0015	LOW (2:10)	Lake	5	0.11	0.20	0.59	0.63	0.75	0.45	0.3	62		
SFM0022	LOW (8:1)	Lake	2	0.0034		0.0076		0.012	0.0076	0.006	78		
SFM0023	LOW (2:3)	Lake	5	0.0038	0.0039	0.0051	0.0052	0.0065	0.0049	0.001	23		
SFM0024	LOW (Coast)	Sea	1			0.043			0.043				
SFM0025	LOW (Coast)	Sea	5	0.0044	0.013	0.014	0.015	0.017	0.013	0.005	38		
SFM0027	LOW (8:1)	not DS	5	0.062	0.063	0.068	0.069	0.070	0.066	0.003	5.1		
SFM0029	HIGH (4:2)	not DS	4	0.012	0.017	0.019	0.020	0.022	0.018	0.004	24		
SFM0031	HIGH (2:3)	not DS	5	0.0039	0.0040	0.0045	0.0066	0.033	0.010	0.01	120		
SFM0032	HIGH (2:3)	not DS	5	0.012	0.013	0.013	0.013	0.014	0.013	0.0006	4.6		
SFM0037	LOW (2:1)	not DS	4	0.021	0.030	0.034	0.092	0.26	0.087	0.1	130		
SFM0049	HIGH (Coast)	not DS	3	0.012	0.013	0.013	0.014	0.015	0.014	0.001	10		
SFM0057	LOW (2:8)	DS	4	0.0050	0.0066	0.0078	0.0096	0.013	0.0084	0.003	41		
SFM0060	HIGH (Coast)	not DS	3	0.0029	0.0032	0.0034	0.0040	0.0045	0.0036	0.0008	23		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Forsmark area	Soil tubes	All	108	0.0029	0.0096	0.015	0.043	3.0	0.076	0.3	400		
Forsmark area	Soil tubes	'Higher'	72	0.0029	0.0099	0.015	0.039	3.0	0.069	0.4	510		
Forsmark area	Soil tubes	'Lower'	36	0.0034	0.0070	0.016	0.068	0.75	0.090	0.2	200		
Forsmark area	Soil tubes	In lake	17	0.0034	0.0051	0.012	0.11	0.75	0.14	0.3	170		
Forsmark area	Soil tubes	At sea	6	0.0044	0.013	0.014	0.016	0.043	0.018	0.01	75		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%		
Forsmark area	Private wells	excavated	2	0.0034		0.038		0.072	0.038	0.05	130		
Forsmark area	Private wells	drilled	6	0.0014	0.0038	0.0046	0.0068	0.010	0.0053	0.003	59		

Ground Water

K	Potassium (mg/l)								K		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	11	15	16	19	24	17	4	24
SFM0002	HIGH (2:1)	DS	11	3.8	4.2	4.5	5.3	6.2	4.8	0.8	17
SFM0003	HIGH (2:1)	DS	10	13	13	13	14	16	14	0.9	6.4
SFM0005	HIGH (Coast)	DS	6	1.7	1.8	1.9	1.9	2.1	1.9	0.1	7.7
SFM0006	HIGH (5:1)	DS	5	21	25	26	26	27	25	2	8.1
SFM0008	HIGH (5:1)	DS	7	5.9	6.4	7.1	7.3	7.5	6.8	0.6	9.5
SFM0009	HIGH (2:6)	DS	7	1.9	2.2	2.7	2.7	3.2	2.5	0.4	18
SFM0010	HIGH (2:8)	not DS	1			2.2			2.2		
SFM0011	LOW (2:8)	not DS	1			24			24		
SFM0012	LOW (2:8)	Lake	9	34	34	35	35	37	35	1	3.2
SFM0013	LOW (2:3)	not DS	1			31			31		
SFM0014	HIGH (2:10)	not DS	1			5.2			5.2		
SFM0015	LOW (2:10)	Lake	8	28	28	29	29	50	31	8	25
SFM0016	HIGH (2:10)	not DS	1			3.6			3.6		
SFM0017	LOW (2:10)	not DS	1			8.6			8.6		
SFM0018	LOW (2:10)	not DS	1			6.1			6.1		
SFM0019	HIGH (2:3)	not DS	1			5.9			5.9		
SFM0020	HIGH (2:6)	not DS	1			5.1			5.1		
SFM0021	HIGH (2:3)	not DS	1			4.9			4.9		
SFM0022	LOW (8:1)	Lake	4	27	30	31	31	32	30	2	8.1
SFM0023	LOW (2:3)	Lake	8	63	64	65	66	70	65	2	3.0
SFM0024	LOW (Coast)	Sea	3	39	40	42	43	43	41	2	5.6
SFM0025	LOW (Coast)	Sea	8	13	18	19	19	19	18	2	11
SFM0026	LOW (8:1)	not DS	1			8.2			8.2		
SFM0027	LOW (8:1)	not DS	8	7.8	8.1	8.2	8.4	8.7	8.2	0.3	3.7
SFM0028	HIGH (4:2)	not DS	1			5.7			5.7		
SFM0029	HIGH (4:2)	not DS	6	4.6	4.7	4.9	5.3	5.4	5.0	0.4	7.3
SFM0030	HIGH (2:3)	not DS	1			13			13		
SFM0031	HIGH (2:3)	not DS	7	9.1	9.4	9.8	10	11	9.9	0.6	6.0
SFM0032	HIGH (2:3)	not DS	9	4.9	4.9	5.4	5.8	6.1	5.4	0.5	8.5
SFM0034	LOW (2:1)	not DS	1			15			15		
SFM0036	LOW (2:1)	not DS	1			12			12		
SFM0037	LOW (2:1)	not DS	7	6.8	7.8	9.0	11	13	9.3	2	24
SFM0049	HIGH (Coast)	not DS	4	1.8	2.3	2.7	3.0	3.2	2.6	0.6	23
SFM0051	HIGH (2:1)	DS	6	4.9	5.1	5.1	5.1	7.6	5.5	1	19
SFM0053	HIGH (4:2)	not DS	6	3.9	4.3	4.5	4.7	5.0	4.5	0.4	8.4
SFM0056	LOW (Coast)	not DS	5	4.2	9.7	9.8	10	10	8.8	3	29
SFM0057	LOW (2:8)	DS	5	3.0	4.6	4.7	4.7	5.9	4.6	1	22
SFM0059	HIGH (7:2)	not DS	1			13			13		
SFM0060	HIGH (Coast)	not DS	3	4.3	4.7	5.1	5.6	6.1	5.2	0.9	18
SFM0061	HIGH (7:2)	not DS	3	4.4	4.4	4.4	4.5	4.7	4.5	0.2	3.8
SFM0062	LOW (2:3)	Lake	3	5.2	5.2	5.3	5.7	6.1	5.5	0.5	8.7
SFM0063	LOW (2:3)	Lake	2	4.9		6.9		9.0	6.9	3	42
SFM0065	LOW (4:2)	Lake	1			14			14		
SFM0074	HIGH (2:3)	not DS	10	5.0	5.4	5.5	5.6	5.7	5.5	0.2	4.0
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	197	1.7	5.0	7.8	18	70	14	10	110
Forsmark area	Soil tubes	'Higher'	119	1.7	4.5	5.4	10	27	7.7	6	75
Forsmark area	Soil tubes	'Lower'	78	3.0	8.4	18	34	70	23	20	79
Forsmark area	Soil tubes	In lake	35	4.9	28	34	44	70	36	20	54
Forsmark area	Soil tubes	At sea	11	13	18	19	29	43	24	10	46
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	18	2.3	5.9	6.8	12	40	11	10	92
Forsmark area	Private wells	drilled	27	2.7	6.3	13	26	38	16	10	65
Simpevarp area	Private wells	excavated	101	0.050	2.5	4.7	9.6	25	7.3	7	91
Simpevarp area	Private wells	drilled	252	0.90	3.0	4.2	6.2	18	5.0	3	60
Simpevarp area	Soil tubes	All	41	1.1	2.5	4.8	7.0	46	7.7	10	130
Simpevarp area	Soil tubes	'Higher'	11	1.6	2.5	3.3	5.1	12	4.5	3	70
Simpevarp area	Soil tubes	'Lower'	30	1.1	4.1	5.2	7.4	46	8.9	10	130
Laxemar pre-PLU	Soil tubes	All	22	0.70	2.0	6.5	13	36	9.4	9	100
Uppsala County	SGU well	excavated	56	0.90	3.2	5.8	13	93	14	20	150
Uppsala County	SGU well	drilled	85	0.45	3.0	4.4	7.7	51	8.2	10	130
Kalmar County	SGU well	excavated	95	0.40	2.4	4.1	7.2	180	7.7	20	250
Kalmar County	SGU well	drilled	133	0.40	1.8	3.1	6.6	100	7.0	10	180
Sweden	SGU well	excavated	974	0.030	1.7	3.2	6.6	180	7.0	10	180
Sweden	SGU well	drilled	2223	0.0050	1.7	2.9	5.0	370	5.6	10	260

Ground Water

Pr	Praseodymium (µg/l)								Pr		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.37	0.51	0.57	0.68	1.4	0.69	0.4	54
SFM0002	HIGH (2:1)	DS	6	0.36	0.48	0.52	0.57	0.89	0.55	0.2	33
SFM0003	HIGH (2:1)	DS	6	0.027	0.032	0.042	0.047	0.084	0.045	0.02	46
SFM0005	HIGH (Coast)	DS	3	0.48	0.56	0.64	0.64	0.65	0.59	0.09	16
SFM0006	HIGH (5:1)	DS	3	0.85	0.94	1.0	1.2	1.5	1.1	0.3	29
SFM0008	HIGH (5:1)	DS	5	0.055	0.068	0.071	0.100	0.17	0.092	0.04	48
SFM0009	HIGH (2:6)	DS	5	0.28	0.29	0.34	0.38	0.65	0.39	0.2	40
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.0060	0.0070	0.011	0.013	0.027	0.013	0.009	67
SFM0029	HIGH (4:2)	not DS	5	0.41	0.42	0.46	0.47	0.57	0.47	0.07	14
SFM0031	HIGH (2:3)	not DS	5	0.26	0.28	0.35	0.52	0.63	0.41	0.2	39
SFM0032	HIGH (2:3)	not DS	5	0.29	0.32	0.39	0.39	0.42	0.36	0.06	15
SFM0037	LOW (2:1)	not DS	4	0.32	0.47	0.69	0.89	0.97	0.67	0.3	45
SFM0049	HIGH (Coast)	not DS	3	0.33	0.36	0.40	0.54	0.69	0.47	0.2	41
SFM0051	HIGH (2:1)	DS	4	0.19	0.36	0.43	0.48	0.59	0.41	0.2	40
SFM0053	HIGH (4:2)	not DS	4	0.078	0.099	0.14	0.18	0.24	0.15	0.07	48
SFM0056	LOW (Coast)	not DS	4	0.0066	0.0099	0.012	0.051	0.17	0.049	0.08	160
SFM0057	LOW (2:8)	DS	5	0.70	0.88	0.96	0.99	1.6	1.0	0.3	31
SFM0060	HIGH (Coast)	not DS	3	0.12	0.14	0.15	0.16	0.17	0.15	0.02	16
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	0.084	0.36	0.57	1.6	0.39	0.3	88
Forsmark area	Soil tubes	'Higher'	63	<0.05	0.17	0.39	0.55	1.5	0.40	0.3	73
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.82	1.6	0.37	0.5	130
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.061	2.0	4.5	6.7	26	6.6	7	110
Simpevarp area	Soil tubes	'Higher'	3	4.0	4.6	5.3	12	19	9.4	8	89
Simpevarp area	Soil tubes	'Lower'	15	0.061	1.5	3.5	6.3	26	6.0	7	120
Laxemar pre-PLU	Soil tubes	All	12	0.085	0.28	0.52	0.79	2.9	0.72	0.8	100

Ra-226	Radium-226 (Bq/l)								Ra-226		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	4	0.10	0.10	0.30	0.50	0.50	0.30	0.2	77
SFM0002	HIGH (2:1)	DS	4	0.20	0.43	0.55	0.65	0.80	0.53	0.3	48
SFM0003	HIGH (2:1)	DS	4	<0.1	<0.1	<0.1	<0.1	0.10	<0.1	0.03	40
SFM0005	HIGH (Coast)	DS	1			0.10			0.10		
SFM0006	HIGH (5:1)	DS	1			<0.1			<0.1		
SFM0008	HIGH (5:1)	DS	3	0.10	0.10	0.10	0.20	0.30	0.17	0.1	69
SFM0009	HIGH (2:6)	DS	2	0.10		0.40		0.70	0.40	0.4	110
SFM0012	LOW (2:8)	Lake	1			0.50			0.50		
SFM0015	LOW (2:10)	Lake	1			0.60			0.60		
SFM0027	LOW (8:1)	not DS	2	0.20		0.20		0.20	0.20		
SFM0029	HIGH (4:2)	not DS	2	0.10		0.15		0.20	0.15	0.07	47
SFM0031	HIGH (2:3)	not DS	2	0.10		0.30		0.50	0.30	0.3	94
SFM0032	HIGH (2:3)	not DS	2	0.10		0.20		0.30	0.20	0.1	71
SFM0037	LOW (2:1)	not DS	2	<0.1		0.13		0.20	0.13	0.1	85
SFM0049	HIGH (Coast)	not DS	1			0.30			0.30		
SFM0057	LOW (2:8)	DS	2	0.20		0.55		0.90	0.55	0.5	90
SFM0060	HIGH (Coast)	not DS	1			<0.1			<0.1		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	35	<0.1	0.10	0.20	0.50	0.90	0.27	0.2	88
Forsmark area	Soil tubes	'Higher'	27	<0.1	0.10	0.10	0.40	0.80	0.25	0.2	91
Forsmark area	Soil tubes	'Lower'	8	<0.1	0.20	0.20	0.53	0.90	0.36	0.3	80
Forsmark area	Soil tubes	In lake	2	0.50		0.55		0.60	0.55	0.07	13
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	27	<0.1	0.10	0.10	0.20	0.50	0.14	0.1	71
Simpevarp area	Soil tubes	'Higher'	6	0.10	0.10	0.10	0.10	0.20	0.12	0.04	35
Simpevarp area	Soil tubes	'Lower'	21	<0.1	0.10	0.10	0.20	0.50	0.15	0.1	75
Sweden	SSI well	drilled	492	0.00020	0.0050	0.012	0.035	2.5			

Ground Water

Rn-222			Radon-222 (Bq/l)							Rn-222		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	4	24	25	27	29	33	28	4	14	
SFM0002	HIGH (2:1)	DS	4	25	42	53	64	78	52	20	43	
SFM0003	HIGH (2:1)	DS	4	9.8	14	19	23	26	18	7	38	
SFM0005	HIGH (Coast)	DS	1			75			75			
SFM0006	HIGH (5:1)	DS	1			7.7			7.7			
SFM0008	HIGH (5:1)	DS	3	20	25	30	35	40	30	10	34	
SFM0009	HIGH (2:6)	DS	2	34		40		46	40	9	22	
SFM0012	LOW (2:8)	Lake	1			65			65			
SFM0015	LOW (2:10)	Lake	1			75			75			
SFM0027	LOW (8:1)	not DS	2	150		160		180	160	20	12	
SFM0029	HIGH (4:2)	not DS	2	9.6		12		15	12	4	29	
SFM0031	HIGH (2:3)	not DS	2	29		89		150	89	90	96	
SFM0032	HIGH (2:3)	not DS	2	19		34		48	34	20	63	
SFM0037	LOW (2:1)	not DS	2	29		31		33	31	2	7.5	
SFM0049	HIGH (Coast)	not DS	1			19			19			
SFM0057	LOW (2:8)	DS	2	23		29		35	29	9	31	
SFM0060	HIGH (Coast)	not DS	1			36			36			
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	35	7.7	22	30	48	180	44	40	90	
Forsmark area	Soil tubes	'Higher'	27	7.7	19	28	43	150	36	30	80	
Forsmark area	Soil tubes	'Lower'	8	23	32	50	93	180	73	60	80	
Forsmark area	Soil tubes	In lake	2	65		70		75	70	7	10	
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	27	11	15	22	26	56	23	10	45	
Simpevarp area	Soil tubes	'Higher'	6	11	16	21	23	24	19	5	29	
Simpevarp area	Soil tubes	'Lower'	21	11	15	22	28	56	24	10	46	
Sweden	SSI well	drilled	1000		30	85	220	9300				
Sweden	SSI well	excavated	1000	1.0	8.0	20	49	950				

Rb			Rubidium ($\mu\text{g/l}$)							Rb		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	2.3	2.8	4.3	4.7	5.5	3.9	1	34	
SFM0002	HIGH (2:1)	DS	6	1.5	1.8	2.0	2.2	2.5	2.0	0.3	17	
SFM0003	HIGH (2:1)	DS	6	1.4	1.5	1.5	1.5	1.6	1.5	0.09	5.7	
SFM0005	HIGH (Coast)	DS	3	1.6	1.6	1.7	1.7	1.7	1.7	0.08	4.9	
SFM0006	HIGH (5:1)	DS	3	0.77	0.81	0.86	1.2	1.5	1.0	0.4	38	
SFM0008	HIGH (5:1)	DS	5	1.9	1.9	2.2	2.4	4.0	2.5	0.9	34	
SFM0009	HIGH (2:6)	DS	5	2.3	2.5	3.5	4.3	4.3	3.4	1.0	28	
SFM0012	LOW (2:8)	Lake	1			4.9			4.9			
SFM0015	LOW (2:10)	Lake	1			5.3			5.3			
SFM0023	LOW (2:3)	Lake	1			17			17			
SFM0025	LOW (Coast)	Sea	1			6.2			6.2			
SFM0027	LOW (8:1)	not DS	5	1.8	2.5	3.0	3.0	3.1	2.7	0.6	21	
SFM0029	HIGH (4:2)	not DS	5	1.5	1.5	1.7	1.8	2.2	1.7	0.3	18	
SFM0031	HIGH (2:3)	not DS	5	1.1	1.4	1.4	1.5	1.5	1.4	0.2	11	
SFM0032	HIGH (2:3)	not DS	5	1.7	1.8	2.4	2.4	2.5	2.2	0.4	16	
SFM0037	LOW (2:1)	not DS	4	2.2	2.2	3.1	3.9	3.9	3.0	1.0	32	
SFM0049	HIGH (Coast)	not DS	3	3.0	3.4	3.9	4.8	5.7	4.2	1	33	
SFM0051	HIGH (2:1)	DS	4	2.0	2.1	2.4	2.9	4.0	2.7	0.9	35	
SFM0053	HIGH (4:2)	not DS	4	2.0	2.2	2.3	2.4	2.4	2.3	0.2	8.3	
SFM0056	LOW (Coast)	not DS	4	2.0	2.1	2.2	2.4	2.7	2.3	0.3	13	
SFM0057	LOW (2:8)	DS	5	3.3	3.5	3.8	5.0	5.5	4.2	1.0	23	
SFM0060	HIGH (Coast)	not DS	3	4.3	4.4	4.6	5.2	5.8	4.9	0.8	16	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	0.77	1.7	2.3	3.8	17	2.9	2	70	
Forsmark area	Soil tubes	'Higher'	63	0.77	1.6	2.2	2.5	5.8	2.5	1	49	
Forsmark area	Soil tubes	'Lower'	22	1.8	2.4	3.2	4.6	17	4.1	3	78	
Forsmark area	Soil tubes	In lake	3	4.9	5.1	5.3	11	17	9.1	7	76	
Forsmark area	Soil tubes	At sea	1			6.2			6.2			
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	2.2	7.5	8.7	24	45	16	10	83	
Simpevarp area	Soil tubes	'Higher'	3	7.5	8.3	9.1	22	34	17	20	89	
Simpevarp area	Soil tubes	'Lower'	15	2.2	7.4	8.2	24	45	16	10	85	
Laxemar pre-PLU	Soil tubes	All	12	1.3	2.5	4.2	5.8	9.9	4.6	3	56	

Ground Water

Sm	Samarium (µg/l)								Sm		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.25	0.35	0.36	0.46	0.95	0.46	0.3	55
SFM0002	HIGH (2:1)	DS	6	0.27	0.32	0.35	0.40	0.56	0.38	0.1	27
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	0.027	0.030	0.049	0.026	0.01	51
SFM0005	HIGH (Coast)	DS	3	0.31	0.35	0.39	0.41	0.42	0.38	0.06	16
SFM0006	HIGH (5:1)	DS	3	0.52	0.58	0.64	0.72	0.81	0.66	0.1	22
SFM0008	HIGH (5:1)	DS	5	0.033	0.039	0.042	0.067	0.11	0.058	0.03	54
SFM0009	HIGH (2:6)	DS	5	0.16	0.17	0.20	0.24	0.38	0.23	0.09	39
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.0070	0.0070	0.0080	0.011	0.027	0.012	0.008	71
SFM0029	HIGH (4:2)	not DS	5	0.22	0.24	0.27	0.29	0.34	0.27	0.05	17
SFM0031	HIGH (2:3)	not DS	5	0.15	0.16	0.20	0.27	0.36	0.23	0.09	38
SFM0032	HIGH (2:3)	not DS	5	0.20	0.22	0.24	0.27	0.29	0.24	0.04	15
SFM0037	LOW (2:1)	not DS	4	0.24	0.32	0.49	0.65	0.71	0.48	0.2	47
SFM0049	HIGH (Coast)	not DS	3	0.24	0.24	0.25	0.34	0.44	0.31	0.1	38
SFM0051	HIGH (2:1)	DS	4	0.15	0.25	0.31	0.36	0.42	0.30	0.1	39
SFM0053	HIGH (4:2)	not DS	4	0.056	0.064	0.094	0.13	0.17	0.10	0.05	51
SFM0056	LOW (Coast)	not DS	4	<0.005	0.0068	0.0086	0.035	0.11	0.033	0.05	160
SFM0057	LOW (2:8)	DS	5	0.42	0.48	0.61	0.64	1.0	0.64	0.2	38
SFM0060	HIGH (Coast)	not DS	3	0.073	0.085	0.098	0.099	0.099	0.090	0.01	17
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	0.056	0.24	0.36	1.0	0.25	0.2	88
Forsmark area	Soil tubes	'Higher'	63	<0.05	0.12	0.24	0.35	0.95	0.26	0.2	72
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.46	1.0	0.24	0.3	130
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.039	1.3	2.7	4.1	15	3.8	4	100
Simpevarp area	Soil tubes	'Higher'	3	2.6	3.0	3.5	6.8	10	5.4	4	77
Simpevarp area	Soil tubes	'Lower'	15	0.039	0.96	2.3	3.9	15	3.5	4	110
Laxemar pre-PLU	Soil tubes	All	12	0.075	0.19	0.35	0.46	1.9	0.47	0.5	100

Ground Water

Sc	Scandium (µg/l)								Sc	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	46
SFM0002	HIGH (2:1)	DS	6	0.088	0.11	0.12	0.12	0.16	0.12	0.02
SFM0003	HIGH (2:1)	DS	6	<0.3	<0.3	<0.3	<0.3	<0.3	0.05	110
SFM0005	HIGH (Coast)	DS	3	0.077	0.090	0.10	0.11	0.11	0.096	0.02
SFM0006	HIGH (5:1)	DS	3	<0.05	<0.05	<0.05	<0.05	0.051	<0.05	0.01
SFM0008	HIGH (5:1)	DS	5	<0.05	<0.05	<0.05	0.056	0.057	<0.05	0.02
SFM0009	HIGH (2:6)	DS	5	<0.05	<0.05	<0.05	<0.05	0.056	<0.05	0.01
SFM0012	LOW (2:8)	Lake	1		<0.5			<0.5		
SFM0015	LOW (2:10)	Lake	1		<0.05			<0.05		
SFM0023	LOW (2:3)	Lake	1		<0.5			<0.5		
SFM0025	LOW (Coast)	Sea	1		<0.5			<0.5		
SFM0027	LOW (8:1)	not DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
SFM0029	HIGH (4:2)	not DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
SFM0031	HIGH (2:3)	not DS	5	0.052	0.052	0.054	0.067	0.094	0.064	0.02
SFM0032	HIGH (2:3)	not DS	5	<0.05	0.055	0.066	0.076	0.077	0.060	0.02
SFM0037	LOW (2:1)	not DS	4	0.071	0.075	0.13	0.19	0.22	0.14	0.08
SFM0049	HIGH (Coast)	not DS	3	0.082	0.082	0.082	0.11	0.14	0.100	0.03
SFM0051	HIGH (2:1)	DS	4	0.14	0.19	0.21	0.24	0.32	0.22	0.07
SFM0053	HIGH (4:2)	not DS	4	0.091	0.091	0.11	0.13	0.16	0.12	0.03
SFM0056	LOW (Coast)	not DS	4	<0.08	<0.08	<0.08	<0.08	0.12	<0.08	0.04
SFM0057	LOW (2:8)	DS	5	0.10	0.12	0.18	0.19	0.27	0.17	0.07
SFM0060	HIGH (Coast)	not DS	3	<0.05	<0.05	<0.05	<0.05	0.051	<0.05	0.02
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.5	<0.5	<0.5	<0.5	<0.5	0.07	81
Forsmark area	Soil tubes	'Higher'	63	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	77
Forsmark area	Soil tubes	'Lower'	22	<0.5	<0.5	<0.5	<0.5	<0.5	0.09	80
Forsmark area	Soil tubes	In lake	3	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	74
Forsmark area	Soil tubes	At sea	1		<0.5			<0.5		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	<0.05	0.39	0.82	1.7	4.0	1.2	1
Simpevarp area	Soil tubes	'Higher'	3	0.50	0.60	0.70	1.9	3.1	1.4	1
Simpevarp area	Soil tubes	'Lower'	15	<0.05	0.33	0.83	1.5	4.0	1.1	1
Laxemar pre-PLU	Soil tubes	All	12	0.034	0.046	0.076	0.12	0.67	0.14	0.2

Ground Water

Si	Silicon (mg/l)								Si		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	6.3	6.4	6.6	7.6	8.0	6.9	0.7	9.6
SFM0002	HIGH (2:1)	DS	11	5.1	5.3	5.5	6.1	8.2	5.9	0.9	15
SFM0003	HIGH (2:1)	DS	10	8.8	9.3	9.5	10	14	10.0	2	15
SFM0005	HIGH (Coast)	DS	6	3.8	4.0	4.4	4.6	5.5	4.4	0.6	13
SFM0006	HIGH (5:1)	DS	5	5.3	5.5	5.6	6.0	6.1	5.7	0.3	5.9
SFM0008	HIGH (5:1)	DS	7	4.5	4.5	4.6	4.8	5.2	4.7	0.3	5.5
SFM0009	HIGH (2:6)	DS	7	3.4	3.8	4.2	4.3	4.8	4.1	0.5	12
SFM0010	HIGH (2:8)	not DS	1			4.1			4.1		
SFM0011	LOW (2:8)	not DS	1			5.5			5.5		
SFM0012	LOW (2:8)	Lake	9	5.7	6.8	7.2	7.9	10	7.4	1	17
SFM0013	LOW (2:3)	not DS	1			5.1			5.1		
SFM0014	HIGH (2:10)	not DS	1			4.5			4.5		
SFM0015	LOW (2:10)	Lake	8	7.8	8.0	8.3	8.8	14	9.1	2	23
SFM0016	HIGH (2:10)	not DS	1			4.9			4.9		
SFM0017	LOW (2:10)	not DS	1			7.2			7.2		
SFM0018	LOW (2:10)	not DS	1			4.2			4.2		
SFM0019	HIGH (2:3)	not DS	1			5.0			5.0		
SFM0020	HIGH (2:6)	not DS	1			4.5			4.5		
SFM0021	HIGH (2:3)	not DS	1			4.3			4.3		
SFM0022	LOW (8:1)	Lake	4	6.8	8.0	9.0	10.0	11	9.0	2	20
SFM0023	LOW (2:3)	Lake	8	1.2	3.8	4.9	6.0	7.0	4.5	2	46
SFM0024	LOW (Coast)	Sea	3	5.6	5.9	6.3	6.4	6.5	6.1	0.4	7.2
SFM0025	LOW (Coast)	Sea	8	5.5	8.5	8.9	9.2	9.7	8.5	1	15
SFM0026	LOW (8:1)	not DS	1			5.6			5.6		
SFM0027	LOW (8:1)	not DS	8	7.3	7.7	8.3	9.0	10	8.4	1.0	12
SFM0028	HIGH (4:2)	not DS	1			5.4			5.4		
SFM0029	HIGH (4:2)	not DS	6	5.0	5.6	5.7	6.1	6.3	5.8	0.4	7.8
SFM0030	HIGH (2:3)	not DS	1			6.1			6.1		
SFM0031	HIGH (2:3)	not DS	7	7.2	7.5	7.9	8.6	9.2	8.1	0.7	9.3
SFM0032	HIGH (2:3)	not DS	9	5.5	5.9	6.5	7.0	8.0	6.5	0.8	12
SFM0034	LOW (2:1)	not DS	1			5.0			5.0		
SFM0036	LOW (2:1)	not DS	1			5.5			5.5		
SFM0037	LOW (2:1)	not DS	7	5.3	6.0	6.8	7.4	8.2	6.7	1	16
SFM0049	HIGH (Coast)	not DS	4	4.0	4.3	4.6	4.8	5.0	4.5	0.4	9.7
SFM0051	HIGH (2:1)	DS	6	7.0	7.2	7.7	7.9	9.1	7.7	0.8	10
SFM0053	HIGH (4:2)	not DS	6	5.1	5.4	5.7	5.8	6.3	5.7	0.4	7.6
SFM0056	LOW (Coast)	not DS	6	5.2	7.3	8.0	8.8	9.4	7.8	2	20
SFM0057	LOW (2:8)	DS	6	3.2	3.3	3.5	3.7	4.2	3.6	0.4	11
SFM0059	HIGH (7:2)	not DS	1			7.0			7.0		
SFM0060	HIGH (Coast)	not DS	3	3.3	3.3	3.4	3.4	3.5	3.4	0.08	2.3
SFM0061	HIGH (7:2)	not DS	3	3.0	3.0	3.0	3.4	3.8	3.2	0.4	13
SFM0062	LOW (2:3)	Lake	3	2.7	3.0	3.3	3.9	4.4	3.5	0.9	25
SFM0063	LOW (2:3)	Lake	2	1.0		2.4		3.7	2.4	2	81
SFM0065	LOW (4:2)	Lake	1			3.0			3.0		
SFM0074	HIGH (2:3)	not DS	10	6.1	6.3	6.4	6.4	6.5	6.4	0.1	1.9
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	199	1.0	5.0	6.3	7.8	14	6.4	2	33
Forsmark area	Soil tubes	'Higher'	119	3.0	4.9	6.0	7.0	14	6.1	2	30
Forsmark area	Soil tubes	'Lower'	80	1.0	5.2	6.9	8.3	14	6.7	2	36
Forsmark area	Soil tubes	In lake	35	1.0	4.6	6.8	8.2	14	6.6	3	44
Forsmark area	Soil tubes	At sea	11	5.5	6.4	8.6	9.0	9.7	7.8	2	20
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	6	3.8	4.2	5.4	6.2	7.2	5.3	1	26
Forsmark area	Private wells	drilled	14	4.9	6.0	6.5	7.0	8.4	6.5	0.9	14
Simpevarp area	Soil tubes	All	41	4.3	8.5	11	15	26	12	5	42
Simpevarp area	Soil tubes	'Higher'	11	4.9	9.8	11	14	20	12	4	33
Simpevarp area	Soil tubes	'Lower'	30	4.3	8.1	11	15	26	12	5	45
Laxemar pre-PLU	Soil tubes	All	22	6.3	10	16	19	23	15	5	37

Ground Water

SiO ₂ -Si			Silicon as silicate (mg/l)						SiO ₂ -Si		
			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Soil tube											
SFM0001	HIGH (Coast)	DS	11	4.0	5.3	6.3	7.2	7.9	6.2	1	21
SFM0002	HIGH (2:1)	DS	11	1.9	4.7	5.3	5.5	6.1	4.9	1	25
SFM0003	HIGH (2:1)	DS	11	3.6	8.7	9.7	9.8	11	8.9	2	23
SFM0005	HIGH (Coast)	DS	6	2.8	4.2	4.4	4.5	4.7	4.2	0.7	16
SFM0006	HIGH (5:1)	DS	5	5.3	5.4	5.7	5.9	6.0	5.7	0.3	5.8
SFM0008	HIGH (5:1)	DS	8	4.4	4.5	4.6	5.2	5.4	4.8	0.4	8.4
SFM0009	HIGH (2:6)	DS	6	3.7	3.8	3.9	4.5	4.9	4.2	0.5	12
SFM0012	LOW (2:8)	Lake	7	6.7	7.0	7.1	7.7	8.4	7.3	0.6	8.6
SFM0015	LOW (2:10)	Lake	6	7.4	8.0	8.5	8.7	8.8	8.3	0.6	6.9
SFM0022	LOW (8:1)	Lake	3	7.7	8.1	8.5	8.5	8.5	8.2	0.4	5.2
SFM0023	LOW (2:3)	Lake	6	1.2	2.2	3.9	4.5	5.5	3.5	2	48
SFM0024	LOW (Coast)	Sea	2	5.8		6.4		6.9	6.4	0.8	13
SFM0025	LOW (Coast)	Sea	6	8.3	8.4	8.9	9.5	11	9.1	1.0	10
SFM0027	LOW (8:1)	not DS	6	6.4	7.9	8.3	8.8	9.1	8.1	1.0	12
SFM0029	HIGH (4:2)	not DS	5	5.4	5.9	6.0	6.1	6.2	5.9	0.3	5.5
SFM0031	HIGH (2:3)	not DS	6	7.7	7.8	8.1	8.3	8.8	8.1	0.4	5.0
SFM0032	HIGH (2:3)	not DS	6	5.9	6.5	7.0	7.1	7.7	6.8	0.6	9.5
SFM0037	LOW (2:1)	not DS	6	5.1	5.8	6.1	6.6	7.7	6.2	0.9	14
SFM0049	HIGH (Coast)	not DS	3	3.9	4.1	4.4	4.7	5.0	4.4	0.5	12
SFM0057	LOW (2:8)	DS	5	3.2	3.2	3.6	3.7	4.2	3.6	0.4	12
SFM0060	HIGH (Coast)	not DS	3	3.3	3.3	3.3	3.4	3.4	3.3	0.07	2.1
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	128	1.2	4.6	6.0	7.8	11	6.2	2	33
Forsmark area	Soil tubes	'Higher'	81	1.9	4.5	5.5	7.1	11	5.9	2	33
Forsmark area	Soil tubes	'Lower'	47	1.2	5.7	7.3	8.4	11	6.8	2	32
Forsmark area	Soil tubes	In lake	22	1.2	5.8	7.3	8.4	8.8	6.7	2	34
Forsmark area	Soil tubes	At sea	8	5.8	8.0	8.4	9.4	11	8.4	2	18
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	4	4.1	4.4	5.2	6.1	6.7	5.3	1	22
Forsmark area	Private wells	drilled	9	4.9	5.9	6.7	7.5	7.8	6.5	1	16

Ground Water

Na		Sodium (mg/l)							Na		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	120	240	260	340	410	270	100	36
SFM0002	HIGH (2:1)	DS	11	15	19	22	39	47	28	10	41
SFM0003	HIGH (2:1)	DS	10	24	24	26	30	34	27	4	14
SFM0005	HIGH (Coast)	DS	6	5.4	6.0	7.1	8.2	8.7	7.1	1	19
SFM0006	HIGH (5:1)	DS	5	9.5	18	20	23	30	20	7	36
SFM0008	HIGH (5:1)	DS	7	9.2	19	30	36	64	30	20	60
SFM0009	HIGH (2:6)	DS	7	4.7	5.5	5.9	6.3	7.2	5.9	0.8	14
SFM0010	HIGH (2:8)	not DS	1			2.2			2.2		
SFM0011	LOW (2:8)	not DS	1			1000			1000		
SFM0012	LOW (2:8)	Lake	9	1100	1100	1100	1100	1200	1100	30	2.9
SFM0013	LOW (2:3)	not DS	1			790			790		
SFM0014	HIGH (2:10)	not DS	1			15			15		
SFM0015	LOW (2:10)	Lake	8	240	260	270	290	460	290	70	24
SFM0016	HIGH (2:10)	not DS	1			23			23		
SFM0017	LOW (2:10)	not DS	1			150			150		
SFM0018	LOW (2:10)	not DS	1			130			130		
SFM0019	HIGH (2:3)	not DS	1			7.0			7.0		
SFM0020	HIGH (2:6)	not DS	1			8.0			8.0		
SFM0021	HIGH (2:3)	not DS	1			11			11		
SFM0022	LOW (8:1)	Lake	4	500	590	630	640	690	610	80	13
SFM0023	LOW (2:3)	Lake	8	1600	1600	1600	1600	1600	1600	20	1.4
SFM0024	LOW (Coast)	Sea	3	880	900	920	940	970	920	50	4.9
SFM0025	LOW (Coast)	Sea	8	350	720	730	740	750	680	100	20
SFM0026	LOW (8:1)	not DS	1			73			73		
SFM0027	LOW (8:1)	not DS	8	120	130	130	140	140	130	8	6.1
SFM0028	HIGH (4:2)	not DS	1			16			16		
SFM0029	HIGH (4:2)	not DS	6	15	15	16	26	33	21	8	39
SFM0030	HIGH (2:3)	not DS	1			110			110		
SFM0031	HIGH (2:3)	not DS	7	15	18	19	21	24	20	3	15
SFM0032	HIGH (2:3)	not DS	9	23	25	27	32	48	30	8	27
SFM0034	LOW (2:1)	not DS	1			260			260		
SFM0036	LOW (2:1)	not DS	1			130			130		
SFM0037	LOW (2:1)	not DS	7	48	58	90	100	160	88	40	43
SFM0049	HIGH (Coast)	not DS	4	12	12	12	12	13	12	0.4	3.6
SFM0051	HIGH (2:1)	DS	6	5.1	16	17	19	21	16	6	35
SFM0053	HIGH (4:2)	not DS	6	4.6	9.5	9.6	9.8	11	9.1	2	25
SFM0056	LOW (Coast)	not DS	5	9.3	490	500	500	500	400	200	55
SFM0057	LOW (2:8)	DS	5	37	71	83	92	110	78	30	34
SFM0059	HIGH (7:2)	not DS	1			270			270		
SFM0060	HIGH (Coast)	not DS	3	5.8	6.2	6.6	16	26	13	10	90
SFM0061	HIGH (7:2)	not DS	3	6.5	8.0	9.4	10	11	9.0	2	25
SFM0062	LOW (2:3)	Lake	3	23	24	26	26	27	25	2	7.8
SFM0063	LOW (2:3)	Lake	2	17		61		110	61	60	100
SFM0065	LOW (4:2)	Lake	1			220			220		
SFM0074	HIGH (2:3)	not DS	10	25	38	43	45	47	40	7	17
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	197	2.2	17	37	260	1600	240	400	170
Forsmark area	Soil tubes	'Higher'	119	2.2	11	22	33	410	45	80	170
Forsmark area	Soil tubes	'Lower'	78	9.3	130	340	910	1600	550	500	92
Forsmark area	Soil tubes	In lake	35	17	260	690	1200	1600	800	600	73
Forsmark area	Soil tubes	At sea	11	350	720	740	820	970	750	200	21
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	18	2.8	5.9	14	43	650	91	200	200
Forsmark area	Private wells	drilled	27	8.0	43	120	920	1900	500	600	130
Simpevarp area	Private wells	excavated	101	2.0	4.9	9.0	27	350	35	70	200
Simpevarp area	Private wells	drilled	252	4.6	27	62	140	650	110	100	110
Simpevarp area	Soil tubes	All	41	4.6	7.5	12	39	230	39	60	150
Simpevarp area	Soil tubes	'Higher'	11	5.4	5.9	6.5	9.2	59	13	20	120
Simpevarp area	Soil tubes	'Lower'	30	4.6	9.8	25	63	230	49	70	130
Laxemar pre-PLU	Soil tubes	All	22	9.3	41	140	310	810	230	200	110
Uppsala County	SGU well	excavated	56	1.8	6.8	11	15	260	16	30	210
Uppsala County	SGU well	drilled	85	3.4	18	41	86	210	57	50	89
Kalmar County	SGU well	excavated	95	1.9	6.0	8.5	13	130	13	20	140
Kalmar County	SGU well	drilled	133	3.8	9.3	17	35	600	50	90	190
Sweden	SGU well	excavated	1054	0.67	4.5	7.9	14	550	14	30	210
Sweden	SGU well	drilled	2237	1.0	9.0	21	59	1800	56	100	200

Ground Water

Sr	Strontium (mg/l)								Sr		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	10	0.24	0.31	0.33	0.38	0.50	0.35	0.08	22
SFM0002	HIGH (2:1)	DS	11	0.15	0.16	0.17	0.20	0.25	0.18	0.03	16
SFM0003	HIGH (2:1)	DS	9	0.42	0.45	0.46	0.47	0.50	0.46	0.02	4.7
SFM0005	HIGH (Coast)	DS	6	0.11	0.11	0.11	0.12	0.13	0.11	0.008	7.1
SFM0006	HIGH (5:1)	DS	5	0.15	0.17	0.19	0.24	0.26	0.20	0.05	24
SFM0008	HIGH (5:1)	DS	7	0.20	0.23	0.24	0.27	0.30	0.25	0.03	14
SFM0009	HIGH (2:6)	DS	7	0.087	0.095	0.098	0.11	0.13	0.10	0.01	13
SFM0010	HIGH (2:8)	not DS	1			0.077			0.077		
SFM0011	LOW (2:8)	not DS	1			1.1			1.1		
SFM0012	LOW (2:8)	Lake	9	1.9	1.9	2.0	2.1	2.3	2.0	0.2	7.7
SFM0013	LOW (2:3)	not DS	1			2.4			2.4		
SFM0014	HIGH (2:10)	not DS	1			0.17			0.17		
SFM0015	LOW (2:10)	Lake	8	0.43	0.48	0.50	0.53	0.83	0.54	0.1	23
SFM0016	HIGH (2:10)	not DS	1			0.18			0.18		
SFM0017	LOW (2:10)	not DS	1			0.17			0.17		
SFM0018	LOW (2:10)	not DS	1			0.080			0.080		
SFM0019	HIGH (2:3)	not DS	1			0.27			0.27		
SFM0020	HIGH (2:6)	not DS	1			0.18			0.18		
SFM0021	HIGH (2:3)	not DS	1			0.18			0.18		
SFM0022	LOW (8:1)	Lake	4	1.5	1.9	2.1	2.4	2.6	2.1	0.5	23
SFM0023	LOW (2:3)	Lake	8	3.5	3.5	3.6	3.8	3.8	3.6	0.1	3.5
SFM0024	LOW (Coast)	Sea	3	0.99	1.0	1.0	1.0	1.1	1.0	0.04	4.1
SFM0025	LOW (Coast)	Sea	8	1.9	4.2	4.3	4.4	4.6	4.0	0.9	22
SFM0026	LOW (8:1)	not DS	1			0.38			0.38		
SFM0027	LOW (8:1)	not DS	8	0.19	0.24	0.27	0.30	0.32	0.27	0.05	17
SFM0028	HIGH (4:2)	not DS	1			0.21			0.21		
SFM0029	HIGH (4:2)	not DS	6	0.19	0.20	0.20	0.21	0.22	0.20	0.01	5.6
SFM0030	HIGH (2:3)	not DS	1			0.35			0.35		
SFM0031	HIGH (2:3)	not DS	7	0.37	0.39	0.43	0.45	0.47	0.42	0.04	9.0
SFM0032	HIGH (2:3)	not DS	9	0.17	0.19	0.19	0.21	0.21	0.20	0.01	6.2
SFM0034	LOW (2:1)	not DS	1			0.40			0.40		
SFM0036	LOW (2:1)	not DS	1			0.40			0.40		
SFM0037	LOW (2:1)	not DS	7	0.26	0.29	0.34	0.37	0.41	0.34	0.06	18
SFM0049	HIGH (Coast)	not DS	4	0.075	0.080	0.083	0.087	0.094	0.084	0.008	9.5
SFM0051	HIGH (2:1)	DS	6	0.16	0.17	0.18	0.19	0.19	0.18	0.01	7.0
SFM0053	HIGH (4:2)	not DS	6	0.15	0.18	0.18	0.19	0.19	0.18	0.01	8.1
SFM0056	LOW (Coast)	not DS	6	0.15	0.40	0.40	0.41	0.41	0.36	0.1	29
SFM0057	LOW (2:8)	DS	6	0.13	0.19	0.25	0.28	0.30	0.23	0.07	29
SFM0059	HIGH (7:2)	not DS	1			0.46			0.46		
SFM0060	HIGH (Coast)	not DS	3	0.14	0.14	0.14	0.14	0.15	0.14	0.009	6.6
SFM0061	HIGH (7:2)	not DS	3	0.12	0.12	0.12	0.13	0.14	0.13	0.01	8.5
SFM0062	LOW (2:3)	Lake	3	0.17	0.17	0.17	0.18	0.19	0.18	0.01	6.4
SFM0063	LOW (2:3)	Lake	2	0.16		0.29		0.43	0.29	0.2	64
SFM0065	LOW (4:2)	Lake	1			0.36			0.36		
SFM0074	HIGH (2:3)	not DS	10	0.19	0.21	0.22	0.22	0.22	0.21	0.008	4.0
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	198	0.075	0.18	0.25	0.45	4.6	0.69	1	150
Forsmark area	Soil tubes	'Higher'	118	0.075	0.16	0.20	0.26	0.50	0.23	0.1	49
Forsmark area	Soil tubes	'Lower'	80	0.080	0.30	0.48	2.1	4.6	1.4	1	100
Forsmark area	Soil tubes	In lake	35	0.16	0.49	1.9	2.5	3.8	1.8	1	73
Forsmark area	Soil tubes	At sea	11	0.99	1.5	4.3	4.4	4.6	3.2	2	49
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	6	0.23	0.24	0.30	0.45	0.64	0.36	0.2	46
Forsmark area	Private wells	drilled	14	0.30	0.47	1.5	7.3	8.7	3.5	4	100
Simpevarp area	Soil tubes	All	41	0.025	0.076	0.13	0.19	0.54	0.15	0.10	65
Simpevarp area	Soil tubes	'Higher'	11	0.035	0.069	0.076	0.14	0.27	0.12	0.08	66
Simpevarp area	Soil tubes	'Lower'	30	0.025	0.096	0.14	0.20	0.54	0.16	0.1	64
Laxemar pre-PLU	Soil tubes	All	22	0.060	0.19	0.28	0.57	0.78	0.36	0.2	64

Ground Water

Sr-87		Strontium-87 (Sr87/Sr86) (ratio)							Sr-87	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	0.7209	0.7210	0.7210	0.7211	0.7212	0.7210	0.000120 0.017
SFM0002	HIGH (2:1)	DS	7	0.7217	0.7222	0.7222	0.7224	0.7242	0.7225	0.000807 0.11
SFM0003	HIGH (2:1)	DS	7	0.7241	0.7247	0.7247	0.7247	0.7248	0.7246	0.000236 0.033
SFM0005	HIGH (Coast)	DS	3	0.7228	0.7229	0.7231	0.7234	0.7236	0.7232	0.000427 0.059
SFM0006	HIGH (5:1)	DS	2	0.7223		0.7224		0.7226	0.7224	0.000237 0.033
SFM0008	HIGH (5:1)	DS	6	0.7269	0.7270	0.7271	0.7273	0.7286	0.7274	0.000652 0.090
SFM0009	HIGH (2:6)	DS	6	0.7241	0.7242	0.7245	0.7251	0.7279	0.7251	0.00145 0.20
SFM0012	LOW (2:8)	Lake	6	0.7221	0.7221	0.7222	0.7222	0.7222	0.7221	0.00052
SFM0015	LOW (2:10)	Lake	5	0.7121	0.7121	0.7127	0.7128	0.7130	0.7125	0.000424 0.059
SFM0022	LOW (8:1)	Lake	2	0.7173		0.7173		0.7173	0.7173	0.0019
SFM0023	LOW (2:3)	Lake	6	0.7250	0.7250	0.7250	0.7250	0.7250	0.7250	0.0025
SFM0024	LOW (Coast)	Sea	2	0.7138		0.7139		0.7140	0.7139	0.000144 0.020
SFM0025	LOW (Coast)	Sea	6	0.7185	0.7186	0.7186	0.7186	0.7186	0.7186	0.00033
SFM0027	LOW (8:1)	not DS	6	0.7368	0.7374	0.7375	0.7378	0.7381	0.7375	0.000432 0.059
SFM0029	HIGH (4:2)	not DS	6	0.7247	0.7249	0.7249	0.7249	0.7250	0.7249	0.012
SFM0031	HIGH (2:3)	not DS	6	0.7269	0.7270	0.7271	0.7273	0.7274	0.7272	0.000193 0.027
SFM0032	HIGH (2:3)	not DS	6	0.7263	0.7263	0.7265	0.7268	0.7270	0.7266	0.000334 0.046
SFM0037	LOW (2:1)	not DS	6	0.7184	0.7185	0.7186	0.7189	0.7195	0.7187	0.000412 0.057
SFM0049	HIGH (Coast)	not DS	2	0.7229		0.7229		0.7230	0.7229	0.000123 0.017
SFM0051	HIGH (2:1)	DS	5	0.7234	0.7235	0.7236	0.7237	0.7238	0.7236	0.000176 0.024
SFM0053	HIGH (4:2)	not DS	5	0.7247	0.7247	0.7247	0.7248	0.7251	0.7248	0.000184 0.025
SFM0057	LOW (2:8)	DS	5	0.7189	0.7190	0.7194	0.7198	0.7204	0.7195	0.000646 0.090
SFM0060	HIGH (Coast)	not DS	3	0.7265	0.7266	0.7267	0.7268	0.7269	0.7267	0.000235 0.032
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	115	0.7121	0.7210	0.7241	0.7252	0.7381	0.7235	0.00496 0.69
Forsmark area	Soil tubes	'Higher'	71	0.7209	0.7231	0.7247	0.7266	0.7286	0.7246	0.00203 0.28
Forsmark area	Soil tubes	'Lower'	44	0.7121	0.7185	0.7192	0.7250	0.7381	0.7217	0.00730 1.0
Forsmark area	Soil tubes	In lake	19	0.7121	0.7151	0.7222	0.7250	0.7250	0.7200	0.00513 0.71
Forsmark area	Soil tubes	At sea	8	0.7138	0.7174	0.7186	0.7186	0.7186	0.7174	0.00218 0.30
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	40	0.7117	0.7163	0.7194	0.7220	0.7336	0.7201	0.00503 0.70
Simpevarp area	Soil tubes	'Higher'	11	0.7124	0.7217	0.7220	0.7227	0.7286	0.7219	0.00394 0.55
Simpevarp area	Soil tubes	'Lower'	29	0.7117	0.7160	0.7187	0.7198	0.7336	0.7194	0.00529 0.73

S2 (HS)		Hydrogen sulphide as total sulphide (mg/l)							S2 (HS)	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	7	<0.03	0.052	0.054	0.061	0.085	0.054	0.02 38
SFM0002	HIGH (2:1)	DS	6	<0.03	<0.03	<0.03	0.042	0.070	0.031	0.02 76
SFM0003	HIGH (2:1)	DS	7	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.005 42
SFM0005	HIGH (Coast)	DS	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.005 45
SFM0006	HIGH (5:1)	DS	4	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	
SFM0008	HIGH (5:1)	DS	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.006 80
SFM0009	HIGH (2:6)	DS	4	0.0050	0.0065	0.028	0.049	0.050	0.028	0.02 90
SFM0012	LOW (2:8)	Lake	1			0.13			0.13	
SFM0015	LOW (2:10)	Lake	1			0.091			0.091	
SFM0027	LOW (8:1)	not DS	3	0.0080	0.0085	0.0090	0.016	0.023	0.013	0.008 63
SFM0029	HIGH (4:2)	not DS	3	0.0050	0.0085	0.012	0.014	0.015	0.011	0.005 48
SFM0031	HIGH (2:3)	not DS	3	0.0040	0.014	0.024	0.034	0.043	0.024	0.02 82
SFM0032	HIGH (2:3)	not DS	4	0.037	0.042	0.047	0.070	0.13	0.065	0.04 66
SFM0037	LOW (2:1)	not DS	2	0.083		0.17		0.25	0.17	0.1 72
SFM0049	HIGH (Coast)	not DS	1			0.44			0.44	
SFM0057	LOW (2:8)	DS	4	<0.002	0.0040	0.0060	0.0078	0.010	0.0058	0.004 66
SFM0060	HIGH (Coast)	not DS	1			0.018			0.018	
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	59	<0.03	<0.03	<0.03	0.050	0.44	0.039	0.07 170
Forsmark area	Soil tubes	'Higher'	48	<0.03	<0.03	<0.03	0.048	0.44	0.035	0.07 190
Forsmark area	Soil tubes	'Lower'	11	<0.03	<0.03	<0.03	0.087	0.25	0.057	0.08 140
Forsmark area	Soil tubes	In lake	2	0.091		0.11		0.13	0.11	0.03 27
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	26	<0.002	0.0060	0.0070	0.015	0.042	0.012	0.01 93
Simpevarp area	Soil tubes	'Higher'	6	0.0060	0.0070	0.0075	0.015	0.023	0.011	0.007 62
Simpevarp area	Soil tubes	'Lower'	20	<0.002	0.0053	0.0070	0.014	0.042	0.012	0.01 100

Ground Water

SO4		Sulphate (mg/l)							SO4		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	98	130	160	190	220	160	40	25
SFM0002	HIGH (2:1)	DS	11	17	19	20	23	47	23	9	37
SFM0003	HIGH (2:1)	DS	10	48	52	57	60	81	59	10	19
SFM0005	HIGH (Coast)	DS	6	8.1	12	15	16	20	14	4	28
SFM0006	HIGH (5:1)	DS	4	63	71	81	93	110	83	20	22
SFM0008	HIGH (5:1)	DS	7	52	74	79	90	94	79	10	18
SFM0009	HIGH (2:6)	DS	7	17	18	21	25	68	27	20	67
SFM0011	LOW (2:8)	not DS	1			220			220		
SFM0012	LOW (2:8)	Lake	9	200	210	220	230	230	220	10	5.4
SFM0013	LOW (2:3)	not DS	1			160			160		
SFM0014	HIGH (2:10)	not DS	1			14			14		
SFM0015	LOW (2:10)	Lake	8	<0.2	0.27	0.49	0.96	3.4	0.86	1	130
SFM0016	HIGH (2:10)	not DS	1			15			15		
SFM0017	LOW (2:10)	not DS	1			7.4			7.4		
SFM0018	LOW (2:10)	not DS	1			20			20		
SFM0019	HIGH (2:3)	not DS	1			30			30		
SFM0020	HIGH (2:6)	not DS	1			43			43		
SFM0022	LOW (8:1)	Lake	4	84	95	110	120	120	110	20	17
SFM0023	LOW (2:3)	Lake	7	340	350	350	360	390	360	10	4.0
SFM0024	LOW (Coast)	Sea	3	250	260	270	280	280	270	20	5.8
SFM0025	LOW (Coast)	Sea	8	160	230	240	240	270	230	30	14
SFM0026	LOW (8:1)	not DS	1			50			50		
SFM0027	LOW (8:1)	not DS	8	47	47	48	50	52	49	2	3.8
SFM0028	HIGH (4:2)	not DS	1			46			46		
SFM0029	HIGH (4:2)	not DS	6	49	50	51	54	58	52	4	6.8
SFM0030	HIGH (2:3)	not DS	1			100			100		
SFM0031	HIGH (2:3)	not DS	6	120	120	120	120	120	120	4	3.0
SFM0032	HIGH (2:3)	not DS	9	26	37	39	41	44	38	5	14
SFM0034	LOW (2:1)	not DS	1			49			49		
SFM0036	LOW (2:1)	not DS	1			110			110		
SFM0037	LOW (2:1)	not DS	7	88	110	120	140	190	130	40	28
SFM0049	HIGH (Coast)	not DS	4	0.55	0.92	2.5	4.3	5.4	2.7	2	85
SFM0051	HIGH (2:1)	DS	6	14	16	17	19	20	17	2	14
SFM0053	HIGH (4:2)	not DS	6	38	42	43	44	45	42	2	5.4
SFM0056	LOW (Coast)	not DS	6	44	250	250	260	260	220	90	39
SFM0057	LOW (2:8)	DS	6	13	19	25	26	31	23	7	28
SFM0059	HIGH (7:2)	not DS	1			280			280		
SFM0060	HIGH (Coast)	not DS	3	67	69	70	71	71	70	2	3.1
SFM0061	HIGH (7:2)	not DS	3	52	55	57	64	70	60	9	15
SFM0062	LOW (2:3)	Lake	3	33	36	39	40	42	38	5	12
SFM0063	LOW (2:3)	Lake	2	18		40		62	40	30	79
SFM0065	LOW (4:2)	Lake	1			87			87		
SFM0074	HIGH (2:3)	not DS	10	41	44	45	45	45	44	1	2.7
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	194	<0.2	27	50	120	390	92	90	99
Forsmark area	Soil tubes	'Higher'	115	0.55	22	45	73	280	58	50	84
Forsmark area	Soil tubes	'Lower'	79	<0.2	43	120	230	390	140	100	81
Forsmark area	Soil tubes	In lake	34	<0.2	21	120	230	390	150	100	89
Forsmark area	Soil tubes	At sea	11	160	230	240	260	280	240	30	14
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	20	7.0	14	58	120	280	87	90	110
Forsmark area	Private wells	drilled	30	6.0	71	120	210	360	140	100	76
Simpevarp area	Private wells	excavated	134	2.0	13	22	33	130	29	30	89
Simpevarp area	Private wells	drilled	290	3.0	14	30	46	200	40	40	100
Simpevarp area	Soil tubes	All	55	<0.2	13	22	62	180	42	40	99
Simpevarp area	Soil tubes	'Higher'	14	4.5	13	18	31	74	25	20	83
Simpevarp area	Soil tubes	'Lower'	41	<0.2	14	24	68	180	48	50	95
Laxemar pre-PLU	Soil tubes	All	22	1.8	8.2	14	110	350	70	100	140
Uppsala County	SGU well	excavated	65	7.2	16	24	34	84	27	10	54
Uppsala County	SGU well	drilled	299	<2	21	29	43	260	36	30	82
Kalmar County	SGU well	excavated	362	7.0	20	27	38	140	31	20	57
Kalmar County	SGU well	drilled	302	<2	14	23	39	430	33	40	120
Sweden	SGU well	excavated	7762	<2	10	16	25	410	20	20	95
Sweden	SGU well	drilled	8726	<2	9.2	18	32	1000	26	30	130

Ground Water

SO4-S		Sulphate as sulphur (mg/l)								SO4-S	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	10	32	46	52	59	71	52	10	24
SFM0002	HIGH (2:1)	DS	11	5.8	6.6	6.8	7.7	9.9	7.4	1	19
SFM0003	HIGH (2:1)	DS	10	17	17	18	19	26	19	3	16
SFM0005	HIGH (Coast)	DS	6	2.3	4.1	5.1	5.9	6.2	4.8	1	31
SFM0006	HIGH (5:1)	DS	5	22	24	24	29	39	28	7	24
SFM0008	HIGH (5:1)	DS	7	16	23	25	28	29	24	5	18
SFM0009	HIGH (2:6)	DS	7	5.4	5.8	7.8	8.9	22	9.2	6	63
SFM0010	HIGH (2:8)	not DS	1			2.9			2.9		
SFM0011	LOW (2:8)	not DS	1			83			83		
SFM0012	LOW (2:8)	Lake	9	68	71	71	72	80	72	3	4.8
SFM0013	LOW (2:3)	not DS	1			63			63		
SFM0014	HIGH (2:10)	not DS	1			6.0			6.0		
SFM0015	LOW (2:10)	Lake	8	0.25	0.47	0.52	0.79	1.5	0.68	0.4	59
SFM0016	HIGH (2:10)	not DS	1			5.8			5.8		
SFM0017	LOW (2:10)	not DS	1			2.8			2.8		
SFM0018	LOW (2:10)	not DS	1			7.7			7.7		
SFM0019	HIGH (2:3)	not DS	1			10			10		
SFM0020	HIGH (2:6)	not DS	1			14			14		
SFM0021	HIGH (2:3)	not DS	1			14			14		
SFM0022	LOW (8:1)	Lake	4	26	32	36	39	44	35	7	20
SFM0023	LOW (2:3)	Lake	8	110	110	110	120	120	110	3	2.6
SFM0024	LOW (Coast)	Sea	3	90	91	92	92	93	92	1	1.4
SFM0025	LOW (Coast)	Sea	8	44	75	76	76	78	72	10	16
SFM0026	LOW (8:1)	not DS	1			17			17		
SFM0027	LOW (8:1)	not DS	8	14	15	15	16	16	16	0.7	4.3
SFM0028	HIGH (4:2)	not DS	1			16			16		
SFM0029	HIGH (4:2)	not DS	6	15	15	17	18	18	17	2	9.3
SFM0030	HIGH (2:3)	not DS	1			31			31		
SFM0031	HIGH (2:3)	not DS	7	37	39	39	40	44	40	2	5.5
SFM0032	HIGH (2:3)	not DS	9	8.4	12	13	13	16	12	2	16
SFM0034	LOW (2:1)	not DS	1			16			16		
SFM0036	LOW (2:1)	not DS	1			40			40		
SFM0037	LOW (2:1)	not DS	7	29	36	44	48	59	43	10	25
SFM0049	HIGH (Coast)	not DS	4	1.1	1.1	1.2	1.6	2.4	1.5	0.6	43
SFM0051	HIGH (2:1)	DS	6	4.9	5.2	5.5	5.6	6.7	5.6	0.6	11
SFM0053	HIGH (4:2)	not DS	6	13	13	14	14	14	14	0.6	4.6
SFM0056	LOW (Coast)	not DS	6	13	80	83	84	87	71	30	40
SFM0057	LOW (2:8)	DS	6	4.4	6.2	7.3	8.0	8.4	6.9	2	22
SFM0059	HIGH (7:2)	not DS	1			84			84		
SFM0060	HIGH (Coast)	not DS	3	21	22	22	23	23	22	1	5.3
SFM0061	HIGH (7:2)	not DS	3	16	16	17	19	21	18	3	16
SFM0062	LOW (2:3)	Lake	3	9.6	11	12	13	13	12	2	16
SFM0063	LOW (2:3)	Lake	2	5.3		11		17	11	8	75
SFM0065	LOW (4:2)	Lake	1			30			30		
SFM0074	HIGH (2:3)	not DS	10	13	14	14	14	15	14	0.4	2.7
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	199	0.25	8.4	16	43	120	30	30	99
Forsmark area	Soil tubes	'Higher'	119	1.1	7.7	14	23	84	19	20	82
Forsmark area	Soil tubes	'Lower'	80	0.25	13	43	76	120	47	40	80
Forsmark area	Soil tubes	In lake	35	0.25	7.5	44	77	120	51	40	86
Forsmark area	Soil tubes	At sea	11	44	75	76	84	93	77	10	17
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	6	20	23	34	59	81	43	30	60
Forsmark area	Private wells	drilled	14	14	33	53	92	110	60	30	55
Simpevarp area	Soil tubes	All	41	0.26	5.2	8.7	20	59	14	10	100
Simpevarp area	Soil tubes	'Higher'	11	0.78	3.8	5.5	12	26	8.7	8	91
Simpevarp area	Soil tubes	'Lower'	30	0.26	5.6	8.9	21	59	17	20	97
Laxemar pre-PLU	Soil tubes	All	22	0.61	2.7	4.6	37	120	23	30	140

Ground Water

S-34			Sulphur-34 (dev. CDT)							S-34		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	8	0.400	1.88	4.45	7.33	10.4	4.84	3.7	76	
SFM0002	HIGH (2:1)	DS	8	4.70	5.98	7.10	8.35	12.0	7.50	2.3	31	
SFM0003	HIGH (2:1)	DS	8	-7.40	-0.300	0.650	0.850	1.90	-0.550	3.0	-550	
SFM0005	HIGH (Coast)	DS	4	-1.00	-0.325	0.500	1.15	1.30	0.325	1.1	330	
SFM0006	HIGH (5:1)	DS	4	-7.50	-6.08	-5.35	-4.28	-1.80	-5.00	2.4	-47	
SFM0008	HIGH (5:1)	DS	7	-13.0	-10.9	-5.10	-3.90	0.800	-6.70	5.1	-76	
SFM0009	HIGH (2:6)	DS	6	-12.1	-9.35	-3.20	-0.800	0.300	-4.93	5.4	-110	
SFM0012	LOW (2:8)	Lake	7	15.7	28.5	29.3	29.8	30.3	27.4	5.2	19	
SFM0022	LOW (8:1)	Lake	2	17.0		18.5		19.9	18.5	2.1	11	
SFM0023	LOW (2:3)	Lake	6	9.30	24.8	27.8	28.9	40.9	26.5	10	39	
SFM0024	LOW (Coast)	Sea	2	15.1		16.4		17.6	16.4	1.8	11	
SFM0025	LOW (Coast)	Sea	6	9.20	15.9	16.7	16.9	17.2	15.4	3.1	20	
SFM0027	LOW (8:1)	not DS	6	-2.00	1.78	2.05	2.48	3.50	1.65	1.9	110	
SFM0029	HIGH (4:2)	not DS	6	-7.60	-6.78	-6.30	-5.68	-4.60	-6.20	1.1	-17	
SFM0031	HIGH (2:3)	not DS	6	-17.4	-11.4	-10.1	-9.78	-9.70	-11.5	3.0	-26	
SFM0032	HIGH (2:3)	not DS	6	-0.500	-0.275	0.750	1.10	2.20	0.633	1.1	170	
SFM0037	LOW (2:1)	not DS	6	-4.60	-2.95	-2.15	0.300	9.30	-0.283	5.1	-1800	
SFM0049	HIGH (Coast)	not DS	1			22.3			22.3			
SFM0057	LOW (2:8)	DS	5	14.5	18.4	18.8	20.0	20.3	18.4	2.3	13	
SFM0060	HIGH (Coast)	not DS	3	-7.80	-6.35	-4.90	-4.70	-4.50	-5.73	1.8	-31	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	107	-17.4	-4.50	1.10	13.3	40.9	4.81	12	250	
Forsmark area	Soil tubes	'Higher'	67	-17.4	-6.30	-0.500	1.85	22.3	-1.46	7.0	-480	
Forsmark area	Soil tubes	'Lower'	40	-4.60	3.28	16.9	24.8	40.9	15.3	12	76	
Forsmark area	Soil tubes	In lake	15	9.30	21.9	28.2	29.4	40.9	25.8	7.6	30	
Forsmark area	Soil tubes	At sea	8	9.20	15.6	16.7	17.0	17.6	15.6	2.7	17	
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	36	-14.6	-6.00	1.75	9.75	22.8	2.37	10	440	
Simpevarp area	Soil tubes	'Higher'	9	-9.30	-3.50	4.20	6.40	15.7	2.74	8.0	290	
Simpevarp area	Soil tubes	'Lower'	27	-14.6	-6.25	-0.300	10.2	22.8	2.25	11	500	

Tb			Terbium ($\mu\text{g/l}$)							Tb		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	0.03	45	
SFM0002	HIGH (2:1)	DS	6	0.048	0.052	0.063	0.072	0.085	0.064	0.01	23	
SFM0003	HIGH (2:1)	DS	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	100	
SFM0005	HIGH (Coast)	DS	3	0.044	0.050	0.055	0.058	0.061	0.053	0.009	16	
SFM0006	HIGH (5:1)	DS	3	0.070	0.075	0.081	0.10	0.13	0.092	0.03	32	
SFM0008	HIGH (5:1)	DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	66	
SFM0009	HIGH (2:6)	DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.003	13	
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05			
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005			
SFM0023	LOW (2:3)	Lake	1			<0.5			<0.5			
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05			
SFM0027	LOW (8:1)	not DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.010	110	
SFM0029	HIGH (4:2)	not DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	29	
SFM0031	HIGH (2:3)	not DS	5	0.023	0.028	0.033	0.055	0.056	0.039	0.02	40	
SFM0032	HIGH (2:3)	not DS	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.009	23	
SFM0037	LOW (2:1)	not DS	4	0.036	0.066	0.087	0.099	0.10	0.078	0.03	39	
SFM0049	HIGH (Coast)	not DS	3	0.027	0.029	0.031	0.042	0.053	0.037	0.01	38	
SFM0051	HIGH (2:1)	DS	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	46	
SFM0053	HIGH (4:2)	not DS	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.008	54	
SFM0056	LOW (Coast)	not DS	4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	140	
SFM0057	LOW (2:8)	DS	5	0.058	0.082	0.090	0.10	0.15	0.097	0.04	36	
SFM0060	HIGH (Coast)	not DS	3	0.012	0.016	0.021	0.021	0.021	0.018	0.005	29	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.04	94	
Forsmark area	Soil tubes	'Higher'	63	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.03	70	
Forsmark area	Soil tubes	'Lower'	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	120	
Forsmark area	Soil tubes	In lake	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	150	
Forsmark area	Soil tubes	At sea	1			<0.5			<0.5			
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	<0.05	0.16	0.34	0.50	1.6	0.47	0.5	100	
Simpevarp area	Soil tubes	'Higher'	3	0.31	0.36	0.41	0.82	1.2	0.65	0.5	77	
Simpevarp area	Soil tubes	'Lower'	15	<0.05	0.12	0.27	0.48	1.6	0.43	0.5	110	

Ground Water

TI		Thallium ($\mu\text{g/l}$)							TI	
		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Soil tube										
SFM0001	HIGH (Coast)	DS	6	<0.05	<0.05	<0.05	0.82	0.15	0.3	220
SFM0002	HIGH (2:1)	DS	6	<0.03	<0.03	<0.03	0.076	<0.03	0.03	110
SFM0003	HIGH (2:1)	DS	6	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	72
SFM0005	HIGH (Coast)	DS	3	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
SFM0006	HIGH (5:1)	DS	3	<0.03	<0.03	<0.03	<0.03	<0.03	0.006	30
SFM0008	HIGH (5:1)	DS	5	<0.03	<0.03	<0.03	<0.03	0.095	0.031	0.04
SFM0009	HIGH (2:6)	DS	5	<0.03	<0.03	<0.03	<0.03	0.080	<0.03	0.03
SFM0012	LOW (2:8)	Lake	1		<0.3			<0.3		
SFM0015	LOW (2:10)	Lake	1		<0.03			<0.03		
SFM0023	LOW (2:3)	Lake	1		<0.3			<0.3		
SFM0025	LOW (Coast)	Sea	1		<0.3			<0.3		
SFM0027	LOW (8:1)	not DS	5	<0.03	<0.03	<0.03	<0.03	0.072	<0.03	0.03
SFM0029	HIGH (4:2)	not DS	5	<0.03	<0.03	<0.03	<0.03	0.073	<0.03	0.03
SFM0031	HIGH (2:3)	not DS	5	<0.03	<0.03	<0.03	<0.03	0.049	<0.03	0.02
SFM0032	HIGH (2:3)	not DS	5	<0.03	<0.03	<0.03	<0.03	0.072	<0.03	0.03
SFM0037	LOW (2:1)	not DS	4	<0.03	<0.03	<0.03	0.030	0.076	0.030	0.03
SFM0049	HIGH (Coast)	not DS	3	<0.03	<0.03	<0.03	0.030	0.045	<0.03	0.02
SFM0051	HIGH (2:1)	DS	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.002
SFM0053	HIGH (4:2)	not DS	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.002
SFM0056	LOW (Coast)	not DS	4	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.002
SFM0057	LOW (2:8)	DS	5	<0.03	<0.03	<0.03	<0.03	0.13	0.038	0.05
SFM0060	HIGH (Coast)	not DS	3	0.040	0.044	0.048	0.098	0.15	0.079	0.06
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev
Forsmark area	Soil tubes	All	85	<0.3	<0.3	<0.3	<0.3	0.82	<0.3	0.09
Forsmark area	Soil tubes	'Higher'	63	<0.3	<0.3	<0.3	<0.3	0.82	<0.3	0.1
Forsmark area	Soil tubes	'Lower'	22	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.05
Forsmark area	Soil tubes	In lake	3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.08
Forsmark area	Soil tubes	At sea	1		<0.3			<0.3		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev
Simpevarp area	Soil tubes	All	18	<0.03	0.045	0.060	0.15	0.31	0.10	0.09
Simpevarp area	Soil tubes	'Higher'	3	0.053	0.055	0.057	0.15	0.25	0.12	0.1
Simpevarp area	Soil tubes	'Lower'	15	<0.03	0.044	0.064	0.14	0.31	0.098	0.09
Laxemar pre-PLU	Soil tubes	All	12	0.00050	0.00050	0.0025	0.0040	0.010	0.0030	0.003

Ground Water

Th	Thorium ($\mu\text{g/l}$)								Th		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	<0.1	<0.1	0.15	0.24	0.30	0.16	0.1	70
SFM0002	HIGH (2:1)	DS	6	0.067	0.094	0.12	0.17	0.25	0.14	0.07	49
SFM0003	HIGH (2:1)	DS	6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.02	85
SFM0005	HIGH (Coast)	DS	3	0.033	0.036	0.039	0.050	0.061	0.044	0.01	33
SFM0006	HIGH (5:1)	DS	3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
SFM0008	HIGH (5:1)	DS	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
SFM0009	HIGH (2:6)	DS	5	0.026	0.028	0.029	0.030	0.042	0.031	0.006	20
SFM0012	LOW (2:8)	Lake	1			<0.2			<0.2		
SFM0015	LOW (2:10)	Lake	1			<0.02			<0.02		
SFM0023	LOW (2:3)	Lake	1			<0.2			<0.2		
SFM0025	LOW (Coast)	Sea	1			<0.2			<0.2		
SFM0027	LOW (8:1)	not DS	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
SFM0029	HIGH (4:2)	not DS	5	<0.02	<0.02	<0.02	<0.02	0.021	<0.02	0.005	40
SFM0031	HIGH (2:3)	not DS	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
SFM0032	HIGH (2:3)	not DS	5	0.032	0.049	0.068	0.094	0.13	0.075	0.04	52
SFM0037	LOW (2:1)	not DS	4	0.048	0.091	0.15	0.21	0.24	0.15	0.09	59
SFM0049	HIGH (Coast)	not DS	3	0.12	0.13	0.14	0.17	0.20	0.15	0.04	28
SFM0051	HIGH (2:1)	DS	4	0.30	0.44	0.56	0.68	0.80	0.56	0.2	39
SFM0053	HIGH (4:2)	not DS	4	0.084	0.13	0.20	0.26	0.27	0.19	0.09	49
SFM0056	LOW (Coast)	not DS	4	<0.04	<0.04	<0.04	0.066	0.19	0.062	0.09	140
SFM0057	LOW (2:8)	DS	5	0.059	0.062	0.15	0.15	0.26	0.14	0.08	61
SFM0060	HIGH (Coast)	not DS	3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.2	<0.2	<0.2	<0.2	0.80	<0.2	0.1	140
Forsmark area	Soil tubes	'Higher'	63	<0.2	<0.2	<0.2	<0.2	0.80	<0.2	0.2	150
Forsmark area	Soil tubes	'Lower'	22	<0.2	<0.2	<0.2	<0.2	0.26	<0.2	0.08	95
Forsmark area	Soil tubes	In lake	3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.05	74
Forsmark area	Soil tubes	At sea	1			<0.2			<0.2		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.089	0.82	1.5	3.4	8.1	2.7	3	110
Simpevarp area	Soil tubes	'Higher'	3	0.83	1.0	1.2	4.5	7.9	3.3	4	120
Simpevarp area	Soil tubes	'Lower'	15	0.089	0.78	1.8	3.0	8.1	2.6	3	110
Laxemar pre-PLU	Soil tubes	All	12	0.030	0.069	0.100	0.17	0.71	0.16	0.2	120
Sweden	SSI well drilled		300	0.010	0.020	0.040	0.12	1.1			

Th-230	Thorium-230 (mBq/kg)								Th-230		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	2	<50		<50		<50	<50		
SFM0002	HIGH (2:1)	DS	2	<50		<50		<50	<50		
SFM0003	HIGH (2:1)	DS	2	<50		<50		<50	<50		
SFM0005	HIGH (Coast)	DS	1			<50			<50		
SFM0006	HIGH (5:1)	DS	1			<50			<50		
SFM0008	HIGH (5:1)	DS	1			<50			<50		
SFM0012	LOW (2:8)	Lake	1			<50			<50		
SFM0015	LOW (2:10)	Lake	1			<50			<50		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	11	<50	<50	<50	<50	<50	<50		
Forsmark area	Soil tubes	'Higher'	9	<50	<50	<50	<50	<50	<50		
Forsmark area	Soil tubes	'Lower'	2	<50		<50		<50	<50		
Forsmark area	Soil tubes	In lake	2	<50		<50		<50	<50		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	16	<50	<50	<50	<50	<50	<50		
Simpevarp area	Soil tubes	'Higher'	3	<50	<50	<50	<50	<50	<50		
Simpevarp area	Soil tubes	'Lower'	13	<50	<50	<50	<50	<50	<50		

Ground Water

Th-232		Thorium-232 (mBq/kg)							Th-232		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001		HIGH (Coast)	DS	2	<50	<50	<50	<50	<50		
SFM0002		HIGH (2:1)	DS	2	<50	<50	<50	<50	<50		
SFM0003		HIGH (2:1)	DS	2	<50	<50	<50	<50	<50		
SFM0005		HIGH (Coast)	DS	1		<50		<50			
SFM0006		HIGH (5:1)	DS	1		<50		<50			
SFM0008		HIGH (5:1)	DS	1		<50		<50			
SFM0012		LOW (2:8)	Lake	1		<50		<50			
SFM0015		LOW (2:10)	Lake	1		<50		<50			
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	11	<50	<50	<50	<50	<50	<50		
Forsmark area	Soil tubes	'Higher'	9	<50	<50	<50	<50	<50	<50		
Forsmark area	Soil tubes	'Lower'	2	<50	<50	<50	<50	<50	<50		
Forsmark area	Soil tubes	In lake	2	<50	<50	<50	<50	<50	<50		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	16	<50	<50	<50	<50	<50	<50		
Simpevarp area	Soil tubes	'Higher'	3	<50	<50	<50	<50	<50	<50		
Simpevarp area	Soil tubes	'Lower'	13	<50	<50	<50	<50	<50	<50		
Tm		Thulium (µg/l)							Tm		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001		HIGH (Coast)	DS	6	<0.02	0.028	0.033	0.036	0.057	0.033	0.02
SFM0002		HIGH (2:1)	DS	6	0.035	0.040	0.045	0.049	0.059	0.045	0.008
SFM0003		HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	79
SFM0005		HIGH (Coast)	DS	3	0.019	0.021	0.022	0.024	0.027	0.023	0.004
SFM0006		HIGH (5:1)	DS	3	0.033	0.035	0.036	0.046	0.057	0.042	0.01
SFM0008		HIGH (5:1)	DS	5	<0.005	<0.005	0.0060	0.0080	0.011	0.0060	0.004
SFM0009		HIGH (2:6)	DS	5	0.0070	0.0080	0.010	0.014	0.016	0.011	0.004
SFM0012		LOW (2:8)	Lake	1		<0.05			<0.05		
SFM0015		LOW (2:10)	Lake	1		<0.005			<0.005		
SFM0023		LOW (2:3)	Lake	1		<0.05			<0.05		
SFM0025		LOW (Coast)	Sea	1		<0.05			<0.05		
SFM0027		LOW (8:1)	not DS	5	<0.005	<0.005	<0.005	<0.005	0.0051	<0.005	0.001
SFM0029		HIGH (4:2)	not DS	5	0.0080	0.011	0.011	0.011	0.013	0.011	0.002
SFM0031		HIGH (2:3)	not DS	5	0.013	0.015	0.021	0.026	0.028	0.021	0.006
SFM0032		HIGH (2:3)	not DS	5	0.020	0.022	0.022	0.028	0.031	0.025	0.005
SFM0037		LOW (2:1)	not DS	4	0.025	0.038	0.050	0.058	0.058	0.046	0.02
SFM0049		HIGH (Coast)	not DS	3	0.012	0.013	0.015	0.018	0.022	0.016	0.005
SFM0051		HIGH (2:1)	DS	4	0.014	0.019	0.022	0.025	0.032	0.023	0.007
SFM0053		HIGH (4:2)	not DS	4	<0.005	<0.005	<0.005	0.0069	0.0090	0.0051	0.003
SFM0056		LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	<0.005	0.0065	<0.005	0.002
SFM0057		LOW (2:8)	DS	5	0.026	0.035	0.038	0.046	0.060	0.041	0.01
SFM0060		HIGH (Coast)	not DS	3	0.0070	0.0072	0.0074	0.0087	0.010	0.0081	0.002
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.05	<0.05	<0.05	<0.05	0.060	<0.05	0.02	81
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	<0.05	<0.05	0.059	<0.05	0.01	76
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	<0.05	0.060	<0.05	0.02	92
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	<0.005	0.061	0.11	0.17	0.51	0.15	0.1	92
Simpevarp area	Soil tubes	'Higher'	3	0.12	0.13	0.14	0.24	0.35	0.20	0.1	63
Simpevarp area	Soil tubes	'Lower'	15	<0.005	0.049	0.11	0.16	0.51	0.14	0.1	100
Laxemar pre-PLU	Soil tubes	All	12	0.014	0.017	0.022	0.033	0.15	0.035	0.04	110

Ground Water

U		Uranium ($\mu\text{g/l}$)							U		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	3.0	3.6	4.1	4.9	6.1	4.3	1	26
SFM0002	HIGH (2:1)	DS	6	4.5	4.8	5.4	5.6	7.0	5.4	0.9	17
SFM0003	HIGH (2:1)	DS	6	0.42	0.46	0.48	0.50	0.55	0.48	0.05	9.5
SFM0005	HIGH (Coast)	DS	3	3.7	4.4	5.1	5.7	6.3	5.0	1	25
SFM0006	HIGH (5:1)	DS	3	20	20	20	22	24	21	2	11
SFM0008	HIGH (5:1)	DS	5	9.6	11	11	12	14	12	1	13
SFM0009	HIGH (2:6)	DS	5	7.4	7.7	7.7	7.7	10	8.1	1	15
SFM0012	LOW (2:8)	Lake	1		20			20			
SFM0015	LOW (2:10)	Lake	1		0.041			0.041			
SFM0023	LOW (2:3)	Lake	1		0.11			0.11			
SFM0025	LOW (Coast)	Sea	1		3.9			3.9			
SFM0027	LOW (8:1)	not DS	5	0.71	0.73	0.81	1.6	1.6	1.1	0.5	42
SFM0029	HIGH (4:2)	not DS	5	3.1	3.2	3.4	5.7	6.7	4.4	2	38
SFM0031	HIGH (2:3)	not DS	5	7.3	8.0	8.3	8.4	8.7	8.1	0.5	6.4
SFM0032	HIGH (2:3)	not DS	5	4.1	5.2	5.9	6.4	7.9	5.9	1	24
SFM0037	LOW (2:1)	not DS	4	8.6	9.1	9.6	10	11	9.8	1	11
SFM0049	HIGH (Coast)	not DS	3	0.17	0.18	0.20	0.25	0.30	0.22	0.07	31
SFM0051	HIGH (2:1)	DS	4	1.2	1.2	1.3	1.5	2.0	1.4	0.4	26
SFM0053	HIGH (4:2)	not DS	4	0.21	0.25	0.28	0.31	0.32	0.27	0.05	19
SFM0056	LOW (Coast)	not DS	4	0.10	0.12	0.13	0.17	0.25	0.15	0.06	42
SFM0057	LOW (2:8)	DS	5	2.8	4.4	7.2	7.2	7.4	5.8	2	36
SFM0060	HIGH (Coast)	not DS	3	30	32	34	35	36	33	3	9.3
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	0.041	0.81	5.0	7.9	36	6.3	7	110
Forsmark area	Soil tubes	'Higher'	63	0.17	1.7	5.3	7.9	36	6.9	8	110
Forsmark area	Soil tubes	'Lower'	22	0.041	0.36	2.2	7.3	20	4.5	5	120
Forsmark area	Soil tubes	In lake	3	0.041	0.076	0.11	10	20	6.7	10	170
Forsmark area	Soil tubes	At sea	1			3.9			3.9		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.024	2.0	5.2	9.5	14	6.0	4	74
Simpevarp area	Soil tubes	'Higher'	3	1.2	1.6	1.9	4.0	6.0	3.0	3	85
Simpevarp area	Soil tubes	'Lower'	15	0.024	2.6	8.0	9.9	14	6.6	5	69
Laxemar pre-PLU	Soil tubes	All	12	0.17	0.31	0.41	0.71	2.1	0.63	0.5	86
Sweden	SSI well	drilled	300	0.10	1.7	7.2	21	140			

U-234		Uranium-234 (mBq/kg)							U-234		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	2	70	85			100	85	20	25
SFM0002	HIGH (2:1)	DS	2	70	240			400	240	200	99
SFM0003	HIGH (2:1)	DS	2	<50	63			100	63	50	85
SFM0005	HIGH (Coast)	DS	1		60				60		
SFM0006	HIGH (5:1)	DS	1		150				150		
SFM0008	HIGH (5:1)	DS	1		110				110		
SFM0012	LOW (2:8)	Lake	1		180				180		
SFM0015	LOW (2:10)	Lake	1		<50				<50		
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	11	<50	65	100	130	400	120	100	90
Forsmark area	Soil tubes	'Higher'	9	<50	70	100	110	400	120	100	92
Forsmark area	Soil tubes	'Lower'	2	<50	100			180	100	100	110
Forsmark area	Soil tubes	In lake	2	<50	100			180	100	100	110
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	16	<50	<50	50	80	240	67	60	86
Simpevarp area	Soil tubes	'Higher'	3	<50	<50	<50	<50	50	<50	10	43
Simpevarp area	Soil tubes	'Lower'	13	<50	<50	80	80	240	74	60	82

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U-235		Uranium-235 (mBq/kg)								U-235	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001		HIGH (Coast)	DS	2	<50	<50	<50	<50	7	35	
SFM0002		HIGH (2:1)	DS	2	<50	<50	<50	<50	7	35	
SFM0003		HIGH (2:1)	DS	2	<50	<50	<50	<50	7	35	
SFM0005		HIGH (Coast)	DS	1		<50		<50			
SFM0006		HIGH (5:1)	DS	1		<50		<50			
SFM0008		HIGH (5:1)	DS	1		<50		<50			
SFM0012		LOW (2:8)	Lake	1		<50		<50			
SFM0015		LOW (2:10)	Lake	1		<50		<50			
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	11	<50	<50	<50	<50	<50	5	21	
Forsmark area	Soil tubes	'Higher'	9	<50	<50	<50	<50	<50	5	23	
Forsmark area	Soil tubes	'Lower'	2	<50	<50	<50	<50	<50			
Forsmark area	Soil tubes	In lake	2	<50	<50	<50	<50	<50			
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	16	<50	<50	<50	<50	<50			
Simpevarp area	Soil tubes	'Higher'	3	<50	<50	<50	<50	<50			
Simpevarp area	Soil tubes	'Lower'	13	<50	<50	<50	<50	<50			
U-238		Uranium-238 (mBq/kg)								U-238	
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001		HIGH (Coast)	DS	2	70	85	100	85	20	25	
SFM0002		HIGH (2:1)	DS	2	70	240	400	240	200	99	
SFM0003		HIGH (2:1)	DS	2	<50	63	100	63	50	85	
SFM0005		HIGH (Coast)	DS	1		60		60			
SFM0006		HIGH (5:1)	DS	1		150		150			
SFM0008		HIGH (5:1)	DS	1		110		110			
SFM0012		LOW (2:8)	Lake	1		180		180			
SFM0015		LOW (2:10)	Lake	1		<50		<50			
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	11	<50	65	100	130	400	120	90	
Forsmark area	Soil tubes	'Higher'	9	<50	70	100	110	400	120	92	
Forsmark area	Soil tubes	'Lower'	2	<50		100		180	100	110	
Forsmark area	Soil tubes	In lake	2	<50		100		180	100	110	
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	16	<50	<50	<50	68	130	<50	40	
Simpevarp area	Soil tubes	'Higher'	3	<50	<50	<50	<50	<50	<50	74	
Simpevarp area	Soil tubes	'Lower'	13	<50	<50	<50	90	130	54	40	
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Ground Water

V	Vanadium (µg/l)								V		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	8	1.4	1.8	1.9	2.0	3.0	2.0	0.5	25
SFM0002	HIGH (2:1)	DS	8	1.6	1.8	2.1	2.5	3.7	2.3	0.7	31
SFM0003	HIGH (2:1)	DS	7	0.28	0.30	0.31	0.34	0.37	0.32	0.04	11
SFM0005	HIGH (Coast)	DS	4	0.31	0.33	0.34	0.42	0.65	0.41	0.2	38
SFM0006	HIGH (5:1)	DS	3	0.28	0.30	0.33	0.51	0.70	0.44	0.2	52
SFM0008	HIGH (5:1)	DS	5	0.089	0.095	0.14	0.17	0.36	0.17	0.1	65
SFM0009	HIGH (2:6)	DS	5	0.22	0.26	0.30	0.40	0.43	0.32	0.09	28
SFM0012	LOW (2:8)	Lake	1			0.11			0.11		
SFM0015	LOW (2:10)	Lake	1			0.19			0.19		
SFM0023	LOW (2:3)	Lake	1			0.050			0.050		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.33	0.40	0.43	0.47	0.67	0.46	0.1	28
SFM0029	HIGH (4:2)	not DS	5	0.41	0.48	0.50	0.52	0.61	0.50	0.07	14
SFM0031	HIGH (2:3)	not DS	5	0.23	0.24	0.26	0.27	0.29	0.26	0.02	9.4
SFM0032	HIGH (2:3)	not DS	5	1.4	1.4	1.6	1.7	2.3	1.7	0.3	20
SFM0037	LOW (2:1)	not DS	4	2.0	2.1	2.3	2.5	2.7	2.3	0.3	14
SFM0049	HIGH (Coast)	not DS	3	0.91	0.94	0.97	1.3	1.6	1.2	0.4	34
SFM0051	HIGH (2:1)	DS	4	1.6	1.9	2.4	3.5	5.4	2.9	2	58
SFM0053	HIGH (4:2)	not DS	4	1.2	1.2	1.2	1.3	1.5	1.3	0.2	13
SFM0056	LOW (Coast)	not DS	4	0.24	0.28	0.30	0.55	1.3	0.52	0.5	94
SFM0057	LOW (2:8)	DS	5	0.58	0.59	0.62	0.98	1.1	0.78	0.3	33
SFM0060	HIGH (Coast)	not DS	3	0.13	0.14	0.16	0.17	0.18	0.16	0.03	18
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	91	<0.05	0.30	0.58	1.6	5.4	1.0	1.0	95
Forsmark area	Soil tubes	'Higher'	69	0.089	0.30	0.61	1.7	5.4	1.1	1	94
Forsmark area	Soil tubes	'Lower'	22	<0.05	0.29	0.53	1.1	2.7	0.82	0.8	99
Forsmark area	Soil tubes	In lake	3	0.050	0.080	0.11	0.15	0.19	0.12	0.07	60
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.63	4.5	7.8	19	55	13	10	100
Simpevarp area	Soil tubes	'Higher'	3	4.3	5.7	7.1	18	29	13	10	99
Simpevarp area	Soil tubes	'Lower'	15	0.63	4.5	8.4	19	55	13	10	110

Yb	Ytterbium (µg/l)								Yb		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	0.13	0.17	0.20	0.23	0.37	0.22	0.08	38
SFM0002	HIGH (2:1)	DS	6	0.24	0.27	0.29	0.31	0.40	0.30	0.05	18
SFM0003	HIGH (2:1)	DS	6	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.003	27
SFM0005	HIGH (Coast)	DS	3	0.12	0.13	0.13	0.15	0.16	0.14	0.02	14
SFM0006	HIGH (5:1)	DS	3	0.19	0.19	0.20	0.23	0.27	0.22	0.04	19
SFM0008	HIGH (5:1)	DS	5	0.018	0.024	0.031	0.050	0.068	0.038	0.02	54
SFM0009	HIGH (2:6)	DS	5	0.048	0.049	0.059	0.086	0.10	0.068	0.02	34
SFM0012	LOW (2:8)	Lake	1			<0.05			<0.05		
SFM0015	LOW (2:10)	Lake	1			<0.005			<0.005		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.018	0.021	0.023	0.025	0.033	0.024	0.006	24
SFM0029	HIGH (4:2)	not DS	5	0.046	0.062	0.062	0.063	0.078	0.062	0.01	18
SFM0031	HIGH (2:3)	not DS	5	0.077	0.089	0.13	0.14	0.15	0.12	0.03	28
SFM0032	HIGH (2:3)	not DS	5	0.13	0.15	0.15	0.16	0.19	0.16	0.02	15
SFM0037	LOW (2:1)	not DS	4	0.15	0.22	0.31	0.37	0.38	0.29	0.1	38
SFM0049	HIGH (Coast)	not DS	3	0.074	0.080	0.086	0.11	0.14	0.10	0.04	35
SFM0051	HIGH (2:1)	DS	4	0.091	0.14	0.15	0.17	0.22	0.15	0.05	34
SFM0053	HIGH (4:2)	not DS	4	0.023	0.025	0.034	0.047	0.063	0.038	0.02	47
SFM0056	LOW (Coast)	not DS	4	<0.005	<0.005	<0.005	0.012	0.039	0.012	0.02	160
SFM0057	LOW (2:8)	DS	5	0.16	0.21	0.21	0.26	0.35	0.24	0.07	30
SFM0060	HIGH (Coast)	not DS	3	0.043	0.044	0.046	0.050	0.055	0.048	0.006	14
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.05	<0.05	0.086	0.18	0.40	0.12	0.1	87
Forsmark area	Soil tubes	'Higher'	63	<0.05	<0.05	0.091	0.17	0.40	0.12	0.09	77
Forsmark area	Soil tubes	'Lower'	22	<0.05	<0.05	<0.05	0.21	0.38	0.12	0.1	110
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	74
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	0.030	0.43	0.74	1.1	3.4	0.97	0.9	90
Simpevarp area	Soil tubes	'Higher'	3	0.79	0.85	0.91	1.5	2.2	1.3	0.8	60
Simpevarp area	Soil tubes	'Lower'	15	0.030	0.34	0.70	1.1	3.4	0.91	0.9	100
Laxemar pre-PLU	Soil tubes	All	12	0.097	0.12	0.14	0.23	1.0	0.24	0.3	110

Ground Water

Y		Yttrium ($\mu\text{g/l}$)							Y		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	6	1.7	2.3	2.8	3.1	5.6	3.1	1	44
SFM0002	HIGH (2:1)	DS	6	2.8	2.8	3.1	3.7	5.0	3.4	0.9	25
SFM0003	HIGH (2:1)	DS	6	0.16	0.18	0.20	0.25	0.40	0.23	0.09	39
SFM0005	HIGH (Coast)	DS	3	2.3	2.8	3.2	3.3	3.4	3.0	0.6	19
SFM0006	HIGH (5:1)	DS	3	5.3	5.7	6.1	6.8	7.6	6.3	1	18
SFM0008	HIGH (5:1)	DS	5	0.45	0.55	0.68	0.88	1.6	0.83	0.4	54
SFM0009	HIGH (2:6)	DS	5	0.86	0.98	1.2	1.4	2.1	1.3	0.5	37
SFM0012	LOW (2:8)	Lake	1			0.055			0.055		
SFM0015	LOW (2:10)	Lake	1			0.027			0.027		
SFM0023	LOW (2:3)	Lake	1			<0.05			<0.05		
SFM0025	LOW (Coast)	Sea	1			<0.05			<0.05		
SFM0027	LOW (8:1)	not DS	5	0.31	0.36	0.39	0.39	0.74	0.44	0.2	39
SFM0029	HIGH (4:2)	not DS	5	1.5	1.6	1.7	1.7	2.3	1.8	0.3	17
SFM0031	HIGH (2:3)	not DS	5	2.5	2.8	3.8	4.0	5.2	3.7	1	29
SFM0032	HIGH (2:3)	not DS	5	1.9	2.0	2.0	2.5	2.5	2.2	0.3	13
SFM0037	LOW (2:1)	not DS	4	1.9	2.5	3.7	4.9	5.4	3.7	2	45
SFM0049	HIGH (Coast)	not DS	3	1.1	1.1	1.1	1.6	2.1	1.4	0.6	40
SFM0051	HIGH (2:1)	DS	4	1.00	1.4	1.6	1.8	2.4	1.6	0.6	35
SFM0053	HIGH (4:2)	not DS	4	0.29	0.31	0.39	0.53	0.74	0.45	0.2	46
SFM0056	LOW (Coast)	not DS	4	0.030	0.038	0.046	0.16	0.49	0.15	0.2	150
SFM0057	LOW (2:8)	DS	5	3.2	3.4	4.2	4.7	6.4	4.4	1	30
SFM0060	HIGH (Coast)	not DS	3	0.88	0.96	1.0	1.1	1.2	1.0	0.1	14
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	85	<0.05	0.49	1.7	2.9	7.6	2.0	2	86
Forsmark area	Soil tubes	'Higher'	63	0.16	0.93	1.7	2.8	7.6	2.1	2	76
Forsmark area	Soil tubes	'Lower'	22	<0.05	0.053	0.44	3.3	6.4	1.8	2	120
Forsmark area	Soil tubes	In lake	3	<0.05	<0.05	<0.05	<0.05	0.055	<0.05	0.02	48
Forsmark area	Soil tubes	At sea	1			<0.05			<0.05		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Simpevarp area	Soil tubes	All	18	0.31	5.0	11	14	44	14	10	95
Simpevarp area	Soil tubes	'Higher'	3	9.9	11	13	24	36	19	10	72
Simpevarp area	Soil tubes	'Lower'	15	0.31	4.0	9.0	14	44	13	10	100
Laxemar pre-PLU	Soil tubes	All	12	0.87	1.4	2.4	2.8	14	3.3	4	110

Zn		Zinc ($\mu\text{g/l}$)							Zn		
Soil tube		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
SFM0001	HIGH (Coast)	DS	7	<1	<1	1.3	2.3	3.2	1.6	1	72
SFM0002	HIGH (2:1)	DS	5	0.79	1.1	1.5	2.5	3.7	1.9	1	62
SFM0003	HIGH (2:1)	DS	7	<1	<1	<1	1.1	2.6	<1	0.8	76
SFM0005	HIGH (Coast)	DS	4	0.46	0.67	0.77	0.96	1.4	0.85	0.4	48
SFM0006	HIGH (5:1)	DS	3	1.1	1.1	1.1	2.7	4.2	2.2	2	82
SFM0008	HIGH (5:1)	DS	5	0.24	0.31	0.39	0.61	0.63	0.44	0.2	41
SFM0009	HIGH (2:6)	DS	5	0.71	0.91	0.95	1.1	1.3	0.99	0.2	21
SFM0012	LOW (2:8)	Lake	1			<2			<2		
SFM0015	LOW (2:10)	Lake	1			0.25			0.25		
SFM0023	LOW (2:3)	Lake	1			<2			<2		
SFM0025	LOW (Coast)	Sea	1			<2			<2		
SFM0027	LOW (8:1)	not DS	5	0.35	0.37	0.63	0.80	1.2	0.67	0.3	51
SFM0029	HIGH (4:2)	not DS	5	0.33	0.44	0.54	0.55	0.62	0.50	0.1	23
SFM0031	HIGH (2:3)	not DS	5	0.75	0.82	1.1	1.3	1.7	1.1	0.4	33
SFM0032	HIGH (2:3)	not DS	5	0.21	0.30	0.30	0.84	3.0	0.92	1	130
SFM0037	LOW (2:1)	not DS	4	0.21	0.44	0.69	0.99	1.4	0.74	0.5	67
SFM0049	HIGH (Coast)	not DS	3	<0.2	0.25	0.40	0.49	0.57	0.36	0.2	67
SFM0051	HIGH (2:1)	DS	4	3.5	4.8	5.9	9.8	20	8.7	7	84
SFM0053	HIGH (4:2)	not DS	4	2.5	2.8	3.1	4.0	5.6	3.6	1	39
SFM0056	LOW (Coast)	not DS	4	2.8	4.5	6.5	9.1	13	7.1	4	60
SFM0057	LOW (2:8)	DS	5	0.44	0.57	0.61	1.00	2.1	0.94	0.7	72
SFM0060	HIGH (Coast)	not DS	3	1.3	1.4	1.6	1.8	2.1	1.7	0.4	25
Summary Forsmark		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Soil tubes	All	87	<2	<2	<2	20	<2	3	150	
Forsmark area	Soil tubes	'Higher'	65	<2	<2	<2	20	<2	3	150	
Forsmark area	Soil tubes	'Lower'	22	<2	<2	<2	13	<2	3	150	
Forsmark area	Soil tubes	In lake	3	<2	<2	<2	<2	<2	0.4	58	
Forsmark area	Soil tubes	At sea	1			<2			<2		
Reference		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%	
Forsmark area	Private wells	excavated	12	10	10	15	50	140	35	40	110
Forsmark area	Private wells	drilled	13	10	10	10	100	500	92	200	170

Ground Water

Zr	Zirconium ($\mu\text{g/l}$)								Zr		
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	6	3.6	4.7	5.6	6.9	8.5	5.8	2	31
SFM0002	HIGH (2:1)	DS	6	4.5	5.5	7.5	8.9	11	7.5	3	35
SFM0003	HIGH (2:1)	DS	6	0.31	0.33	0.39	0.42	0.44	0.38	0.06	15
SFM0005	HIGH (Coast)	DS	3	0.78	0.85	0.91	0.93	0.96	0.88	0.09	10
SFM0006	HIGH (5:1)	DS	3	0.59	0.65	0.71	1.0	1.3	0.87	0.4	44
SFM0008	HIGH (5:1)	DS	5	0.27	0.43	0.60	1.3	1.3	0.78	0.5	63
SFM0009	HIGH (2:6)	DS	5	0.61	0.72	1.00	1.5	1.6	1.1	0.4	41
SFM0012	LOW (2:8)	Lake	1		<0.3				<0.3		
SFM0015	LOW (2:10)	Lake	1			0.63			0.63		
SFM0023	LOW (2:3)	Lake	1		<0.3				<0.3		
SFM0025	LOW (Coast)	Sea	1		<0.3				<0.3		
SFM0027	LOW (8:1)	not DS	5	0.54	0.77	0.81	0.84	1.1	0.82	0.2	25
SFM0029	HIGH (4:2)	not DS	5	0.94	0.98	1.1	1.4	1.4	1.2	0.2	19
SFM0031	HIGH (2:3)	not DS	5	0.24	0.26	0.28	0.28	0.33	0.28	0.03	12
SFM0032	HIGH (2:3)	not DS	5	3.1	3.6	3.6	3.8	4.9	3.8	0.7	18
SFM0037	LOW (2:1)	not DS	4	3.0	3.6	4.1	4.5	4.6	4.0	0.8	19
SFM0049	HIGH (Coast)	not DS	3	0.35	0.40	0.45	0.73	1.0	0.60	0.4	59
SFM0051	HIGH (2:1)	DS	4	3.4	3.9	5.1	6.6	7.6	5.3	2	36
SFM0053	HIGH (4:2)	not DS	4	1.7	1.8	1.8	2.0	2.1	1.9	0.2	9.4
SFM0056	LOW (Coast)	not DS	4	0.19	0.22	0.26	0.67	1.8	0.63	0.8	130
SFM0057	LOW (2:8)	DS	5	1.2	1.3	1.3	1.8	2.2	1.6	0.4	28
SFM0060	HIGH (Coast)	not DS	3	0.54	0.57	0.61	0.65	0.70	0.62	0.08	13
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	85	<0.3	0.54	1.1	3.6	11	2.2	2	110
Forsmark area	Soil tubes	'Higher'	63	<0.3	0.56	1.3	3.7	11	2.5	3	110
Forsmark area	Soil tubes	'Lower'	22	<0.3	0.35	0.98	1.8	4.6	1.4	1	97
Forsmark area	Soil tubes	In lake	3	<0.3	<0.3	<0.3	0.39	0.63	0.31	0.3	89
Forsmark area	Soil tubes	At sea	1		<0.3				<0.3		
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Simpevarp area	Soil tubes	All	18	<0.3	2.1	3.6	6.1	9.9	3.9	3	70
Simpevarp area	Soil tubes	'Higher'	3	2.0	3.0	4.0	6.9	9.9	5.3	4	78
Simpevarp area	Soil tubes	'Lower'	15	<0.3	2.2	3.6	5.6	7.8	3.7	3	69

Ground Water

Electrical conductivity (lab) (mS/m)											
Soil tube			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
SFM0001	HIGH (Coast)	DS	8	110	160	180	240	270	190	60	33
SFM0002	HIGH (2:1)	DS	9	62	68	71	72	92	73	9	13
SFM0003	HIGH (2:1)	DS	8	73	75	75	76	84	76	3	4.3
SFM0005	HIGH (Coast)	DS	5	55	56	63	64	64	60	5	7.5
SFM0006	HIGH (5:1)	DS	5	83	85	90	92	110	93	10	13
SFM0008	HIGH (5:1)	DS	7	81	88	100	120	140	110	20	22
SFM0009	HIGH (2:6)	DS	6	45	48	51	53	62	52	6	12
SFM0012	LOW (2:8)	Lake	8	710	730	740	750	770	740	20	2.6
SFM0014	HIGH (2:10)	not DS	1			53			53		
SFM0015	LOW (2:10)	Lake	7	190	200	200	210	220	200	10	5.6
SFM0016	HIGH (2:10)	not DS	1			68			68		
SFM0022	LOW (8:1)	Lake	4	340	400	420	440	480	420	60	13
SFM0023	LOW (2:3)	Lake	7	1100	1200	1200	1200	1200	1200	20	1.8
SFM0024	LOW (Coast)	Sea	2	580		600			620	600	20
SFM0025	LOW (Coast)	Sea	7	600	620	640	660	670	640	30	4.0
SFM0027	LOW (8:1)	not DS	7	86	88	89	90	93	89	2	2.4
SFM0029	HIGH (4:2)	not DS	6	70	71	73	77	79	74	4	5.1
SFM0031	HIGH (2:3)	not DS	7	82	87	89	89	91	88	3	3.4
SFM0032	HIGH (2:3)	not DS	9	64	65	67	68	75	67	3	5.2
SFM0037	LOW (2:1)	not DS	7	88	97	100	120	150	110	20	20
SFM0049	HIGH (Coast)	not DS	3	36	36	37	37	38	37	1	2.9
SFM0051	HIGH (2:1)	DS	6	64	67	69	70	75	69	4	5.8
SFM0053	HIGH (4:2)	not DS	6	66	68	71	72	76	71	4	5.0
SFM0056	LOW (Coast)	not DS	6	68	250	270	270	280	230	80	35
SFM0057	LOW (2:8)	DS	6	66	110	150	150	170	130	40	30
SFM0059	HIGH (7:2)	not DS	1			250			250		
SFM0060	HIGH (Coast)	not DS	3	67	68	68	73	78	71	6	8.3
SFM0061	HIGH (7:2)	not DS	3	60	60	60	61	63	61	2	2.8
SFM0062	LOW (2:3)	Lake	3	58	58	58	61	63	60	3	5.5
SFM0063	LOW (2:3)	Lake	2	48		83		120	83	50	59
SFM0065	LOW (4:2)	Lake	1			200			200		
SFM0074	HIGH (2:3)	not DS	10	68	75	76	78	100	78	9	11
Summary Forsmark			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Soil tubes	All	171	36	68	86	200	1200	210	300	130
Forsmark area	Soil tubes	'Higher'	104	36	66	73	85	270	84	40	50
Forsmark area	Soil tubes	'Lower'	67	48	100	220	660	1200	400	400	88
Forsmark area	Soil tubes	In lake	32	48	200	450	760	1200	550	400	74
Forsmark area	Soil tubes	At sea	9	580	620	620	660	670	630	30	4.7
Reference			Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Forsmark area	Private wells	excavated	18	23	47	72	120	490	120	100	110
Forsmark area	Private wells	drilled	26	14	68	120	880	1400	420	500	130
Simpevarp area	Private wells	excavated	133	2.0	11	25	43	280	36	40	120
Simpevarp area	Private wells	drilled	286	9.0	37	55	89	430	77	70	85
Simpevarp area	Soil tubes	All	63	4.0	19	29	57	120	42	30	78
Simpevarp area	Soil tubes	'Higher'	16	4.0	16	20	23	62	23	10	66
Simpevarp area	Soil tubes	'Lower'	47	6.5	22	34	65	120	48	30	72
Laxemar pre-PLU	Soil tubes	All	22	18	55	120	200	610	170	200	97

Precipitation

		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Aluminum (Al) µg/l										
PFM002457	Forsmark	6	<0.015	<0.015	0.019	0.041	0.15	0.041	0.06	130
PFM002564	Forsmark	8	<0.015	<0.015	0.021	0.028	0.043	0.022	0.01	62
Bromide (Br) mg/l										
PFM002564	Forsmark	8	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
PFM002457	Forsmark	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
PSM002170	Simpevarp	37	<0.2	<0.2	<0.2	<0.2	3.4	0.21	0.6	260
Calcium (Ca) mg/l										
PFM002564	Forsmark	8	0.070	0.088	0.16	0.32	0.46	0.21	0.1	70
PFM002457	Forsmark	6	0.090	0.19	0.37	0.50	0.83	0.39	0.3	70
PSM002170	Simpevarp	11	0.20	0.45	0.60	1.4	5.2	1.3	1	110
IVL:289	Enköping	5	0.12	0.13	0.16	0.19	0.20	0.16	0.04	22
IVL:261	Vimmerby	5	0.11	0.12	0.13	0.13	0.18	0.13	0.03	20
IVL:1554	Gotland	3	0.24	0.31	0.38	0.38	0.38	0.33	0.08	24
Dissolved organic carbon (DOC) mg/l										
PFM002457	Forsmark	6	1.3	2.0	2.5	2.7	3.3	2.4	0.7	29
PFM002564	Forsmark	8	0.60	0.90	2.5	3.0	3.4	2.1	1	55
Bicarbonate (HCO3) mg/l										
PFM002457	Forsmark	6	<1	<1	<1	<1	<1	<1		
PFM002564	Forsmark	8	<1	<1	<1	<1	<1	<1		
PSM002170	Simpevarp	15	<0.2	<0.2	<0.2	<0.2	1.0	0.20	0.3	140
Chloride (Cl) mg/l										
PFM002457	Forsmark	6	0.42	0.55	0.72	1.0	2.9	1.1	0.9	87
PFM002564	Forsmark	8	0.30	0.41	0.70	0.93	1.5	0.74	0.4	55
PSM002170	Simpevarp	37	0.40	0.80	1.2	1.8	440	13	70	530
IVL:289	Enköping	5	0.40	0.41	0.45	0.47	0.49	0.44	0.04	8.7
IVL:261	Vimmerby	5	0.26	0.29	0.36	0.42	0.49	0.36	0.09	26
IVL:1554	Gotland	5	1.2	1.3	1.4	1.5	1.8	1.4	0.2	16
Chlorine-37 (Cl-37) dev. SMOC										
PSM002170	Simpevarp	1	0.0700				0.0700	0.0700		
Deuterium (D) dev. SMOW										
PFM002564	Forsmark	7	-109	-94.3	-77.9	-76.2	-57.1	-83.5	19	-22
PSM002170	Simpevarp	14	-125	-92.1	-75.7	-65.0	-44.4	-78.7	23	-29
Fluoride (F) mg/l										
PFM002564	Forsmark	1	<0.2				<0.2	<0.2		
PSM002170	Simpevarp	37	<0.2	<0.2	<0.2	<0.2	0.68	<0.2	0.1	93
Iodide (I) mg/l										
PFM002564	Forsmark	1	<0.001				<0.001	<0.001		
Iron (total) (Fe) mg/l										
PFM002457	Forsmark	6	0.0030	0.0078	0.012	0.016	0.29	0.057	0.1	200
PFM002564	Forsmark	8	0.0010	0.0010	0.0030	0.0088	0.025	0.0076	0.01	130
PSM002170	Simpevarp	11	<0.02	<0.02	0.022	0.034	0.10	0.032	0.03	94
Lithium (Li) mg/l										
PSM002170	Simpevarp	10	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004		
Magnesium (Mg) mg/l										
PFM002457	Forsmark	6	0.046	0.065	0.078	0.082	0.17	0.086	0.04	50
PFM002564	Forsmark	8	0.020	0.065	0.078	0.090	0.14	0.078	0.03	43
PSM002170	Simpevarp	11	<0.1	0.10	0.10	0.20	0.30	0.15	0.09	59
IVL:289	Enköping	5	0.040	0.040	0.040	0.050	0.060	0.046	0.009	19
IVL:261	Vimmerby	5	0.040	0.040	0.040	0.050	0.060	0.046	0.009	19
IVL:1554	Gotland	5	0.090	0.11	0.15	0.17	0.21	0.15	0.05	33
Manganese (Mn) mg/l										
PSM002170	Simpevarp	11	0.0049	0.0067	0.014	0.037	0.070	0.024	0.02	94
Nitrogen - total (tot-N) mg/l										
PFM002564	Forsmark	1	0.25				0.25	0.25		

Precipitation

		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
Nitrogen as nitrate (NO3-N) mg/l										
PFM002457	Forsmark	6	0.044	0.36	0.43	0.57	0.72	0.43	0.2	54
PFM002564	Forsmark	8	0.14	0.31	0.34	0.43	0.80	0.40	0.2	52
IVL:289	Enköping	5	0.25	0.31	0.31	0.40	0.40	0.33	0.07	19
IVL:261	Vimmerby	5	0.22	0.25	0.33	0.34	0.35	0.30	0.06	20
IVL:1554	Gotland	5	0.51	0.54	0.57	0.60	0.63	0.57	0.05	8.3
Nitrogen as ammonium (NH4-N) mg/l										
IVL:289	Enköping	5	0.25	0.28	0.31	0.34	0.42	0.32	0.07	20
IVL:261	Vimmerby	5	0.22	0.23	0.29	0.31	0.31	0.27	0.04	16
IVL:1554	Gotland	4	0.39	0.44	0.50	0.58	0.70	0.52	0.1	26
Nitrogen as Kjeldahl nitrogen (Kj-N) mg/l										
PFM002457	Forsmark	6	<0.15	0.20	0.31	0.33	0.77	0.33	0.2	73
PFM002564	Forsmark	8	0.20	0.35	0.41	1.2	1.5	0.71	0.5	76
Oxygen-18 (O-18) dev. SMOW										
PFM002564	Forsmark	7	-15.4	-13.2	-11.2	-10.7	-8.30	-11.8	2.5	-21
PSM002170	Simpevarp	14	-16.9	-12.4	-10.4	-8.75	-6.60	-10.8	3.1	-28
Phosphorus- total (tot-P) mg/l										
PFM002457	Forsmark	6	<0.002	<0.002	<0.002	0.0028	0.019	0.0045	0.007	160
PFM002564	Forsmark	8	0.0010	0.0018	0.0065	0.084	0.11	0.039	0.05	130
Potassium (K) mg/l										
PFM002457	Forsmark	6	<0.08	<0.08	<0.08	0.14	0.35	0.13	0.1	92
PFM002564	Forsmark	8	0.070	0.098	0.14	0.22	0.67	0.22	0.2	94
PSM002170	Simpevarp	11	<0.4	<0.4	0.42	0.73	1.7	0.58	0.5	89
IVL:289	Enköping	5	0.10	0.11	0.12	0.12	0.14	0.12	0.01	13
IVL:261	Vimmerby	5	0.10	0.10	0.11	0.12	0.13	0.11	0.01	12
IVL:1554	Gotland	5	0.12	0.12	0.15	0.17	0.31	0.17	0.08	45
Silicon (Si) mg/l										
PFM002564	Forsmark	1	<0.03				<0.03	<0.03		
PSM002170	Simpevarp	11	<0.03	<0.03	<0.03	0.040	0.10	0.032	0.03	82
Sodium (Na) mg/l										
PFM002457	Forsmark	6	0.26	0.44	0.53	0.66	1.1	0.59	0.3	49
PFM002564	Forsmark	8	0.22	0.31	0.44	0.58	1.0	0.49	0.3	51
PSM002170	Simpevarp	11	0.40	0.55	1.2	2.4	8.1	2.3	3	110
IVL:289	Enköping	5	0.25	0.27	0.27	0.29	0.31	0.28	0.02	8.2
IVL:261	Vimmerby	5	0.16	0.16	0.25	0.28	0.30	0.23	0.07	29
IVL:1554	Gotland	5	0.70	0.79	0.87	0.91	1.0	0.86	0.1	14
Strontium (Sr) mg/l										
PSM002170	Simpevarp	11	0.0010	0.0030	0.0050	0.025	0.067	0.018	0.02	140
Sulphate (SO4) mg/l										
PFM002564	Forsmark	1	0.52				0.52	0.52		
PSM002170	Simpevarp	37	0.44	0.87	1.7	2.3	25	2.6	4	160
Sulphate as sulphur (SO4-S) mg/l										
PFM002564	Forsmark	8	0.21	0.35	0.40	0.60	0.78	0.47	0.2	43
PFM002457	Forsmark	6	0.38	0.51	0.55	0.56	0.63	0.53	0.08	16
PSM002170	Simpevarp	11	0.35	0.49	0.67	1.0	1.3	0.74	0.4	50
IVL:289	Enköping	5	0.26	0.33	0.39	0.41	0.47	0.37	0.08	22
IVL:261	Vimmerby	5	0.26	0.30	0.38	0.38	0.41	0.35	0.06	18
IVL:1554	Gotland	5	0.53	0.59	0.62	0.69	0.72	0.63	0.08	12
Tritium (Tr) TU										
PFM002564	Forsmark	7	7.40	8.55	9.70	13.0	13.9	10.6	2.7	25
PSM002170	Simpevarp	13	9.00	10.5	12.7	14.4	18.8	12.5	2.9	23
Electrical conductivity () mS/m										
PFM002457	Forsmark	3	1.5	1.7	1.9	2.6	3.4	2.2	1	46
PFM002564	Forsmark	8	1.0	1.8	2.4	2.9	3.1	2.2	0.8	36
PSM002170	Simpevarp	37	1.2	2.2	3.2	4.9	120	6.5	20	280
IVL:289	Enköping	5	1.1	1.5	1.5	1.5	2.3	1.6	0.4	27
IVL:261	Vimmerby	5	1.1	1.2	1.6	1.6	1.6	1.4	0.2	17
IVL:1554	Gotland	5	2.1	2.1	2.7	2.8	4.0	2.7	0.8	28

Precipitation

pH (pH) pH unit		Count	Min	25-p	Median	75-p	Max	Mean	Sdev	CV%
PFM002564	Forsmark	8	4.32	4.82	5.00	5.25	6.81	5.16	0.74	14
PFM002457	Forsmark	6	4.42	4.54	4.85	5.41	6.89	5.17	0.94	18
PSM002170	Simpevarp	37	4.06	4.57	4.88	5.11	6.17	4.87	0.43	8.9
IVL:289	Enköping	5	4.64	4.74	4.79	4.83	4.92	4.78	0.10	2.2
IVL:261	Vimmerby	5	4.57	4.59	4.79	4.85	4.89	4.74	0.15	3.1
IVL:1554	Gotland	3	4.63	4.64	4.64	4.69	4.73	4.67	0.055	1.2