

## **Oskarshamn site investigation**

### **Chemical characterisation of deposits and biota**

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December 2006

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**Keywords:** Chemical characterisation, Elements, Macroelements, Organic, Pollutants, Sediments, Soil, Peat, Wetland, Leaching, Biota, Flora, Fauna, Aquatic, Limnic, marine, litter, ICP, AP PS 400-04-113, AP PS 400-04-050, AP PS 400-06-008, AP PS 400-06-009, AP PS 400-05-029.

This report concerns a study which was conducted for SKB. The conclusions and viewpoints presented in the report are those of the authors and do not necessarily coincide with those of the client.

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## **Abstract**

In order to characterise deposits and biota with respect to chemical composition in the Oskarshamn area, a number of different samples were analysed for elements with ICP (Inductively Coupled Plasma). Most of the analysed samples have been collected during other activities within the site investigation, whereas some samples, e.g. aquatic biota, were collected specifically for this purpose. In total, 213 samples from both terrestrial and aquatic environments were analysed. Besides the content of the macronutrients carbon, nitrogen and phosphorus, 61 other elements were determined in the samples.

Analyses of organic environmental pollutants from peat/wetland and sediments from lakes and sea bays were also performed. In total, 10 samples were analysed for 80 organic substances.

This report comprises description of samples, sampling and execution of analysis. Raw data is presented, but no interpretations are made.

## **Sammanfattning**

För att kemiskt karakterisera avlagringar och biota i Oskarshamnsområdet analyserades prover med avseende på grundämnen med hjälp av ICP (Inductively Coupled Plasma). De flesta prover bestod av tidigare insamlat material från andra aktiviteter. Insamling av akvatisk biota genomfördes dock i direkt anslutning till analyserna. Totalt analyserades 213 prover från terrestra och akvatiska miljöer. Förutom innehållet av kol, kväve och fosfor analyserades proverna på 61 andra grundämnen.

Analyser av organiska miljöförroreningar genomfördes också i prover från torv/våtmark, sjöar och fjärilar. Totalt 10 prover analyserades med avseende på ca 80 organiska ämnen.

Denna rapport omfattar beskrivning av provtagning, prover och analysers utförande. Resultatet från analyserna redovisas i form av rådata, medan någon utvärdering av resultaten ej utförs.

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# 1 Introduction

This document reports the data gained by the activities “Analyses of elements and isotopes in deposits and terrestrial vegetation”, “Chemical composition of terrestrial biota”, “Chemical composition of aquatic biota”, “Measurement of benthic production and respiration” and “Analyses of organic environmental pollutants”. These are some of the activities performed within the site investigation at Oskarshamn. The work was carried out in accordance with five different activity plans. In Table 1-1, controlling documents for performing these activities are listed. Activity plans are SKB’s internal controlling documents. In Figure 1-1, a summary of activity plans and SKB P-reports are presented, showing the connections between sampling and analysis for the different parts of this activity.

In order to characterise both deposits and biota with respect to the chemical composition, a number of different samples from the Oskarshamn area were analysed for elements. The initial intention was also that some specific isotopes should be determined on the same samples but this was not accomplished. Isotopes will instead be determined on other samples and reported in another report.

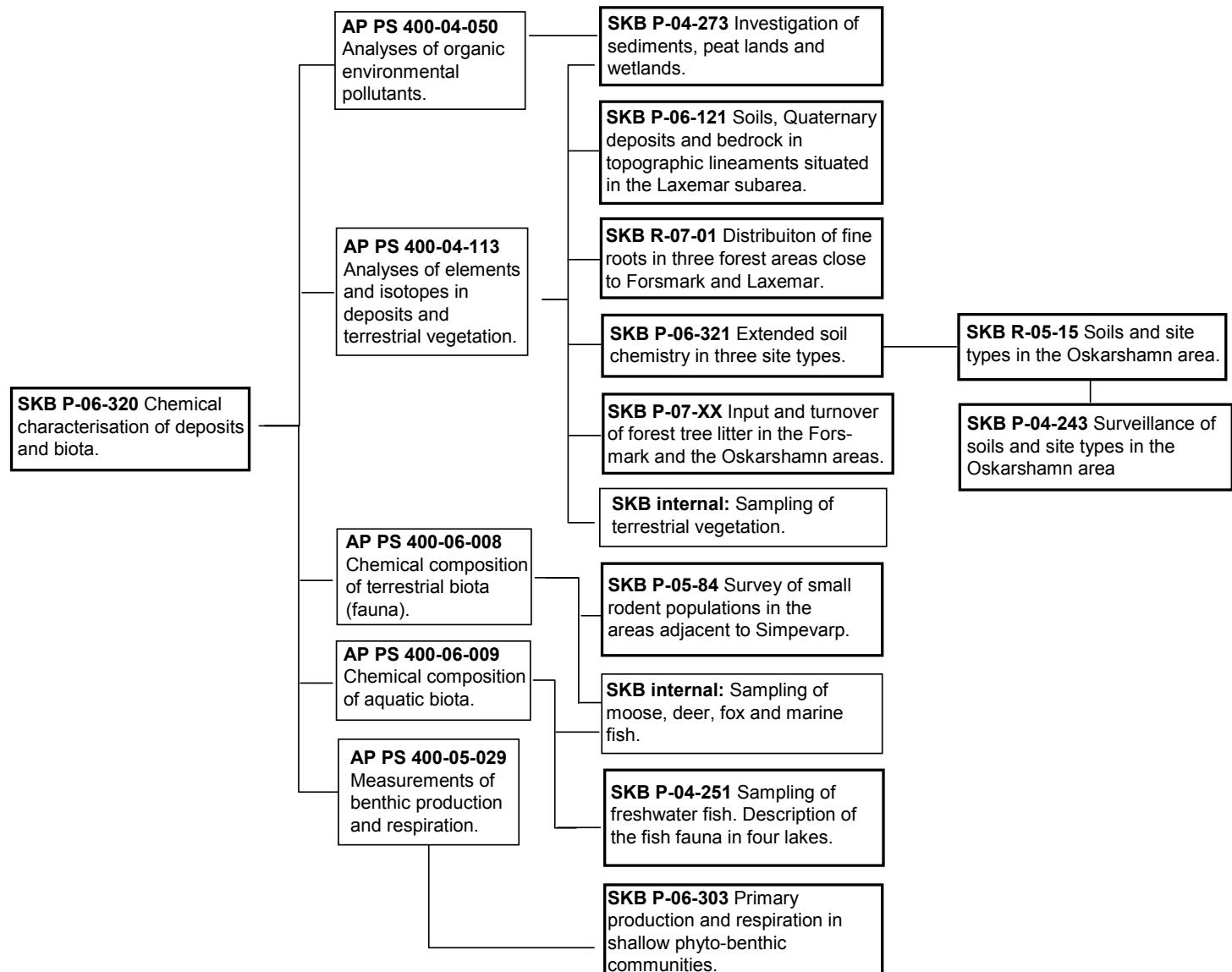
The samples were taken from both terrestrial and aquatic environments. Most of the analysed samples had been collected during other activities within the site investigation, whereas some samples were collected specifically for this investigation. A description of the samples is available in Chapter 3 whereas the equipment used and the procedures for the analyses are described in Chapters 4 and 5. The analyses were performed during the time period March 2006 –December 2006. Analyses of organic environmental pollutants were performed during autumn 2004.

All chemical analysis was performed by Analytica AB, Luleå (see Chapter 4–5), except for elements in samples of litter, performed by ACME Analytical Laboratories Ltd, Vancouver.

The original results are stored in the primary databases (SICADA) and are traceable by the activity plan numbers listed in Table 1-1.

**Table 1-1. Controlling documents for the performance of the activities.**

Activity plan	Number	Version
Analyses of organic environmental pollutants	AP PS 400-04-050	1.0
Analyses of elements (and isotopes) in deposits and terrestrial vegetation (and litter)	AP PS 400-04-113	1.0
Chemical composition of terrestrial biota (fauna)	AP PS 400-06-008	1.0
Chemical composition of aquatic biota	AP PS 400-06-009	1.0
Measurement of benthic production and respiration	AP PS 400-05-029	1.0



**Figure 1-1.** Summary of activity plans and SKB reports, showing the connections between sampling and analysis for the different parts of this activity. Reports in this figure are listed in References.

## **2      Objective and scope**

Chemical analyses of elements and organic environmental pollutants were performed on samples of deposits and biota. The purpose was to generate information which will be used in different models of the surface (eco)systems at Oskarshamn. The information may also be used in an EIA (Environmental Impact Assessment) for a future repository for spent nuclear fuel.

The elements determined are shown in Table 2-1 and the organic environmental pollutants in Table 2-2.

**Table 2-1. Elements and oxides determined in this study.**

Oxides (in deposits samples except leachings)	Unit	Elements (in non-deposit samples and leachings)	Unit
Al <sub>2</sub> O <sub>3</sub>	%	Al	mg/kg dw
CaO	%	Ca	mg/kg dw
Fe <sub>2</sub> O <sub>3</sub>	%	Fe	mg/kg dw
K <sub>2</sub> O	%	K	mg/kg dw
MgO	%	Mg	mg/kg dw
MnO	%	Mn	mg/kg dw
Na <sub>2</sub> O	%	Na	mg/kg dw
P <sub>2</sub> O <sub>5</sub>	%	P	mg/kg dw
SiO <sub>2</sub>	%	Si	mg/kg dw
TiO <sub>2</sub>	%	Ti	mg/kg dw
Sum oxides	%		
LOI (Loss on ignition)	%		

In all samples			
Macroelements <sup>1</sup>	Unit	Elements	Unit
Total carbon	mg/kg dw	Dy	mg/kg dw
Total organic carbon	mg/kg dw	Er	mg/kg dw
Total nitrogen	mg/kg dw	Eu	mg/kg dw
Total organic nitrogen	mg/kg dw	Ga	mg/kg dw
Phosphate (PO <sub>4</sub> )	mg/kg dw	Gd	mg/kg dw
		Hf	mg/kg dw
Elements	Unit	Hg	mg/kg dw
Ag	mg/kg dw	Ho	mg/kg dw
As	mg/kg dw	I	mg/kg dw
B	mg/kg dw	La	mg/kg dw
Ba	mg/kg dw	Li	mg/kg dw
Be	mg/kg dw	Lu	mg/kg dw
Br	mg/kg dw	Mo	mg/kg dw
Cd	mg/kg dw	Nb	mg/kg dw
Ce	mg/kg dw	Nd	mg/kg dw
Cl	mg/kg dw	Ni	mg/kg dw
Co	mg/kg dw	Pb	mg/kg dw
Cr	mg/kg dw	Pr	mg/kg dw
Cs	mg/kg dw	Rb	mg/kg dw
Cu	mg/kg dw	S	mg/kg dw
Sb	mg/kg dw	Tm	mg/kg dw
Sc	mg/kg dw	U	mg/kg dw
Se	mg/kg dw	V	mg/kg dw
Sm	mg/kg dw	W	mg/kg dw
Sn	mg/kg dw	Y	mg/kg dw
Sr	mg/kg dw	Yb	mg/kg dw
Ta	mg/kg dw	Zn	mg/kg dw
Tb	mg/kg dw	Zr	mg/kg dw
Th	mg/kg dw	Dry substance (105°C)	%
Tl	mg/kg dw	Ash substance (550°C) <sup>2</sup>	%

<sup>1</sup> For biota samples it was assumed that all carbon and nitrogen are part of organic matter, and therefore only organic or total carbon/nitrogen are reported for most of these samples (except for wood and fine roots). Phosphate was not measured for terrestrial fauna and aquatic biota. For the leachings, carbon, nitrogen and phosphate were not analysed.

<sup>2</sup> Peat only (17 samples).

**Table 2-2. Organic environmental pollutants determined in this study.**

Substance	Unit	Substance	Unit
<b>Dry substance (105°C)</b>	%	pcb 138	mg/kg dw
<b>EOX – Total extractable carbon compounds</b>	mg/kg dw	pcb 153	mg/kg dw
<b>Chlorobenzenes</b>		pcb 180	mg/kg dw
1,2,3-trichlorobenzene	mg/kg dw	sum 7 PCBs	mg/kg dw
1,2,4-trichlorobenzene	mg/kg dw	<b>Dioxins</b>	
1,3,5-trichlorobenzene	mg/kg dw	2,3,7,8-tetraCDD	ng/kg dw
1,2,3,4-tetrachlorobenzene	mg/kg dw	1,2,3,7,8-pentaCDD	ng/kg dw
1,2,4,5/1,2,3,5-tetrachlorobenzene	mg/kg dw	1,2,3,4,7,8-hexaCDD	ng/kg dw
pentachlorobenzene	mg/kg dw	1,2,3,6,7,8-hexaCDD	ng/kg dw
hexachlorobenzene	mg/kg dw	1,2,3,7,8,9-hexaCDD	ng/kg dw
sum chlorobenzenes	mg/kg dw	1,2,3,4,6,7,8-heptaCDD	ng/kg dw
<b>Aliphatics</b>		octachlorodibenzodioxin	ng/kg dw
aliphatics > C5–C8	mg/kg dw	2,3,7,8-tetraCDF	ng/kg dw
aliphatics > C8–C10	mg/kg dw	1,2,3,7,8-pentaCDF	ng/kg dw
aliphatics > C10–C12	mg/kg dw	2,3,4,7,8-pentaCDF	ng/kg dw
aliphatics > C12–C16	mg/kg dw	1,2,3,4,7,8-hexaCDF	ng/kg dw
aliphatics > C5–C16	mg/kg dw	1,2,3,6,7,8-hexaCDF	ng/kg dw
aliphatics > C16–C35	mg/kg dw	1,2,3,7,8,9-hexaCDF	ng/kg dw
<b>Aromatics</b>		2,3,4,6,7,8-hexaCDF	ng/kg dw
aromatics > C8–C10	mg/kg dw	1,2,3,4,6,7,8-heptaCDF	ng/kg dw
aromatics > C10–C35	mg/kg dw	1,2,3,4,7,8,9-heptaCDF	ng/kg dw
benzene	mg/kg dw	octachlorodibenzofuran	ng/kg dw
toluene	mg/kg dw	sum PCDD/PCDF I-TEQ	ng/kg dw
ethylbenzene	mg/kg dw	<b>Brominated flame retardants</b>	
sum xylenes	mg/kg dw	tetraBDE	µg/kg dw
sum TEX	mg/kg dw	BDE 47	µg/kg dw
<b>Polycyclic aromatic hydrocarbons</b>		pentaBDE	µg/kg dw
naphthalene	mg/kg dw	BDE 99	µg/kg dw
acenaphthylene	mg/kg dw	BDE 100	µg/kg dw
acenaphthene	mg/kg dw	hexaBDE	µg/kg dw
fluorene	mg/kg dw	heptaBDE	µg/kg dw
phenanthrene	mg/kg dw	octaBDE	µg/kg dw
anthracene	mg/kg dw	nonaBDE	µg/kg dw
fluoranthene	mg/kg dw	decaBDE	µg/kg dw
pyrene	mg/kg dw	<b>Nitrotoluenes</b>	
*benzo[a]anthracene	mg/kg dw	2,4,6-trinitrotoluene	mg/kg dw
*chrysene	mg/kg dw	2,3-dinitrotoluene	mg/kg dw
*benzo[b]fluoranthene	mg/kg dw	2,4-dinitrotoluene	mg/kg dw
*benzo[k]fluoranthene	mg/kg dw	2,6-dinitrotoluene	mg/kg dw
*benzo[a]pyrene	mg/kg dw	3,4-dinitrotoluene	mg/kg dw
*dibenzo[ah]anthracene	mg/kg dw	2-nitrotoluene	mg/kg dw
benzo[ghi]perylene	mg/kg dw	3-nitrotoluene	mg/kg dw
*indeno[1,2,3-cd]pyrene	mg/kg dw	4-nitrotoluene	mg/kg dw
sum 16 EPA-PAHs	mg/kg dw	<b>Phthalate</b>	
*carcinogenic PAHs	mg/kg dw	di-(2-ethylhexyl)ftalat	mg/kg dw
other PAHs	mg/kg dw	<b>Phenols</b>	
MTBE	mg/kg dw	4-n-nonylphenol	mg/kg dw
1, 2-dichloroethane	mg/kg dw	4-nonylphenol	mg/kg dw
dichloromethane	mg/kg dw		
<b>PCB</b>			
pcb 28	mg/kg dw		
pcb 52	mg/kg dw		
pcb 101	mg/kg dw		
pcb 118	mg/kg dw		

### 3 Samples

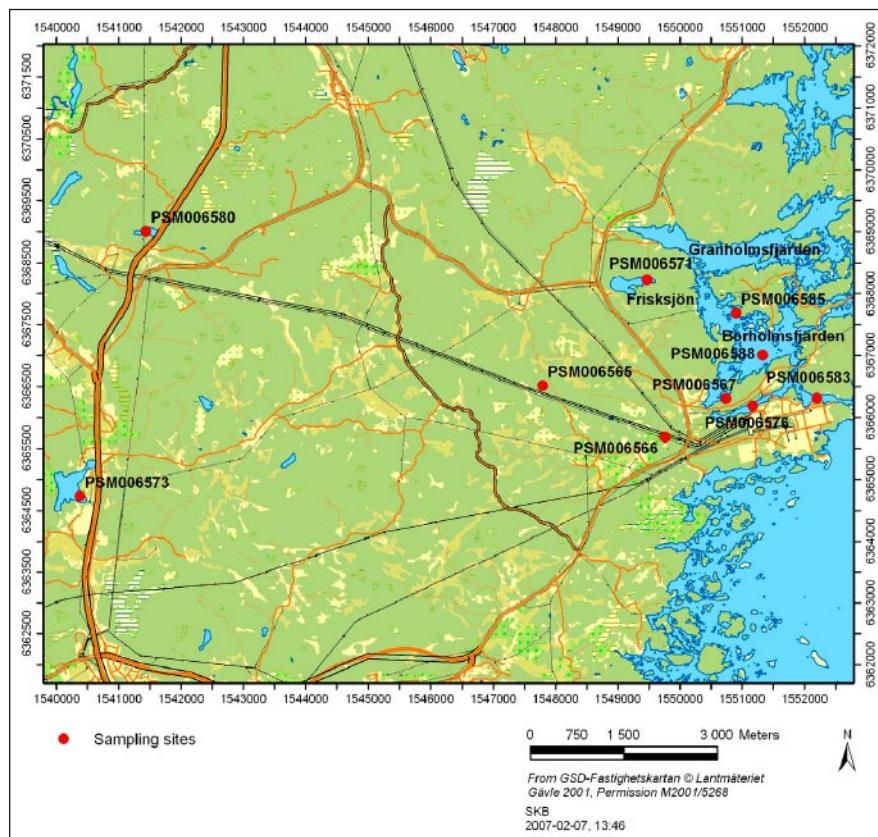
#### 3.1 General

The sample descriptions in this chapter consist of a short presentation of each group of samples or type of analysis. For aquatic biota the presentation is more extensive, since aquatic organisms were collected specifically for this activity (Section 3.5). Medins Biologi AB performed sampling of all analysed aquatic biota except for two marine fish species (Flounder and Herring), which were caught by a local fisherman.

In Table 3-1 sampled aquatic biota are listed. In Table 3-2 all samples are listed, including information of sampling sites, sampling dates or periods, and further descriptions of the different samples.

#### 3.2 Analyses of organic environmental pollutants

Ten samples, consisting of peat, lake- and sea sediment (Figure 3-1), were sampled /Nilsson 2004/ and sent to Analytica AB during autumn 2004. The samples were analysed for organic environmental pollutants in accordance with activity plan AP PS 400-04-050 (Table 2-2).



**Figure 3-1.** Sampling sites for peat/wetland-, lake- and sea sediment samples analysed for organic environmental pollutants.

**Table 3-1. Sample description for samples of aquatic biota analysed for elemental composition. The samples are shown by area. The Swedish names are given in brackets. For species names in Latin, Swedish and English, see Appendix 1. All samples were put in double plastic bags and stored in a freezer (-20°C).**

Sample/species	Sampling site ID-code	Sample (wet)weight (g)	Sampling method
<b>Coastal area Simpevarp</b>			
<i>Fucus vesiculosus</i> (blåstäng)	ASM000100	210	Plastic rake and hand
Filamentous green algae (trädförmlig grönalg)	ASM000100	155	Plastic rake and hand
<i>Mytilus edulis</i> (blåmussla)	ASM000100	724	Scuba diving
<i>Fucus vesiculosus</i> (blåstäng)	ASM000101	227	Plastic rake and hand
Filamentous green algae (trädförmlig grönalg)	ASM000101	193	Plastic rake and hand
<i>Mytilus edulis</i> (blåmussla) <sup>1</sup>	ASM000101	1,429.5	Scuba diving
<i>Fucus vesiculosus</i> (blåstäng)	ASM000102	294	Plastic rake and hand
Filamentous green algae (trädförmlig grönalg)	ASM000102	233	Plastic rake and hand
<i>Mytilus edulis</i> (blåmussla)	ASM000102	600	Snorkeling
<b>Lake Frisksjön</b>			
<i>Phragmites australis</i> (blad, vass)	ASM000110	130	Spade
<i>Phragmites australis</i> rhizome (rot, vass)	ASM000110	156	Spade
Nymphaeaceae, leaf (näckros, blad)	ASM000110	240	Hand
Nymphaeaceae, root (näckros, rot)	ASM000110	223	Spade
<i>Anodonta anatina</i> (dammussla)	ASM000110	275	Landing net, Hydroscope
<i>Rutilus rutilus</i> (mört)	ASM000192	15–20 cm	Gill net 2004
<i>Perca fluviatilis</i> (abborre)	ASM000192	622	Gill net
<i>Phragmites australis</i> (blad, vass)	ASM000111	240	Spade
<i>Phragmites australis</i> rhizome (rot, vass)	ASM000111	148	Spade
Nymphaeaceae, leaf (näckros, blad)	ASM000111	241	Hand
Nymphaeaceae, root (näckros, rot)	ASM000111	266	Spade
<i>Anodonta anatina</i> (dammussla)	ASM000111	214	Landing net, Hydroscope
<i>Rutilus rutilus</i> (mört)	ASM000192	15–20 cm	Gill net 2004
<i>Perca fluviatilis</i> (abborre)	ASM000192	608	Gill net
<i>Phragmites australis</i> (blad, vass)	ASM000112	144	Hand
<i>Phragmites australis</i> rhizome (rot, vass)	ASM000112	233	Spade and hand
Nymphaeaceae, leaf (näckros, blad)	ASM000112	275	Hand
Nymphaeaceae, root (näckros, rot)	ASM000112	265	Spade and hand
<i>Anodonta anatina</i> (dammussla)	ASM000112	207	Landing net, Hydroscope
<i>Rutilus rutilus</i> (mört)	ASM000192	15–20 cm	Gill net
<i>Perca fluviatilis</i> (abborre)	ASM000192	510	Gill net
<b>Borholmsfjärden</b>			
<i>Potamogeton perfoliatus</i> (ålñate)	ASM000105	284	Plastic rake
<i>Chara</i> sp. (kransalg)	ASM000105	144	Plastic rake
<i>Alburnus alburnus</i> (löja)	ASM000202	211	Gill net
<i>Aramis brama</i> (braxen)	ASM000202	183	Gill net
<i>Perca fluviatilis</i> (abborre)	ASM000202	1,277	Gill net
<i>Potamogeton perfoliatus</i> (ålñate)	ASM000106	525	Plastic rake
<i>Chara</i> sp. (kransalg)	ASM000106	400	Plastic rake
<i>Alburnus alburnus</i> (löja)	ASM000202	220	Gill net
<i>Aramis brama</i> (braxen)	ASM000202	366	Gill net
<i>Perca fluviatilis</i> (abborre)	ASM000202	1,045	Gill net
<i>Potamogeton perfoliatus</i> (ålñate)	ASM000107	371	Plastic rake
<i>Chara</i> sp. (kransalg)	ASM000107	513	Plastic rake
<i>Alburnus alburnus</i> (löja)	ASM000202	224	Gill net
<i>Aramis brama</i> (braxen) <sup>2</sup>	ASM000202	—	Gill net
<i>Perca fluviatilis</i> (abborre)	ASM000202	1,045	Gill net

<sup>1</sup> Used for isotope analysis.

<sup>2</sup> Replicate 3 was omitted.

**Table 3-2. Description of all samples accounted for in this report. For deposits, more than one sample means different levels in the same core (sediment, peat, soil). For species names in Latin, Swedish and English, see Appendix 1. In the left column, P-reports and R-reports refer to sampling information.**

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number
<b>Analyses of organic environmental pollutants</b>						
<b>Peat/wetland</b>	PSM006565	1	0 – 0.05 m	–	Aug/sept 2004	–
P-04-273	PSM006566	1	0 – 0.05 m	–	Aug/sept 2004	–
	PSM006567	1	0 – 0.05 m	–	Aug/sept 2004	–
<b>Lake sediment</b>	PSM006571	1	0 – 0.05 m	–	Aug/sept 2004	–
P-04-273	PSM006573	1	0 – 0.05 m	–	Aug/sept 2004	–
	PSM006576	1	0 – 0.05 m	–	Aug/sept 2004	–
	PSM006580	1	0 – 0.05 m	–	Aug/sept 2004	–
<b>Sea sediment</b>	PSM006583	1	0 – 0.05 m	–	Aug/sept 2004	–
P-04-273	PSM006585	1	0 – 0.05 m	–	Aug/sept 2004	–
	PSM006588	1	0 – 0.05 m	–	Aug/sept 2004	–
<b>Analyses of elements in deposits and biota</b>						
<b>Deposits</b>						
<b>Sediment</b>	<b>Fjärd Äspö-Laxemar</b>					
P-04-273	PSM006585	11	0 – 5 m	–	Aug/sept 2004	25–35
	<b>Frisksjön</b>					
	PSM006571	12	0 – 4.4 m	–	Aug/sept 2004	11–22
<b>Peat/wetland</b>	<b>Klarebäcksmossen</b>					
P-04-273	PSM006562	10	0.05 – 4.75 m	–	Aug/sept 2004	1–10
	<b>Gäster</b>					
	PSM006563	7	0.12 – 5 m	–	Aug/sept 2004	37–43
<b>Soil</b>	<b>Trenches</b>					
P-06-121	PSM007160	1	Gyttja clay (0.7 – 0.8 m)	–	Aug/sept 2005	58
	PSM007160	1	Sand/gravel (1.0 – 1.1 m)	–	Aug/sept 2005	59
	PSM007160	1	Glacial clay (1.25 – 1.3 m)	–	Aug/sept 2005	60

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number
	PSM007160	1	Gravelly till (2.2 m)	–	Aug/sept 2005	61
	PSM007162	1	Sandy till (1.0 – 1.2 m)	–	Aug/sept 2005	62
	PSM007163	1	Sandy till (1.3 m)	–	Aug/sept 2005	63
	PSM007170	1	Silt (1.2 m)	–	Aug/sept 2005	64
	PSM007171	1	Gyttja clay (0.5 m)	–	Aug/sept 2005	65
	PSM007171	1	Sand/gravel (1.25 m)	–	Aug/sept 2005	66
	PSM007171	1	Glacial clay (1.4 m)	–	Aug/sept 2005	67
	PSM007171	1	Glacial clay (1.8 m)	–	Aug/sept 2005	68
	PSM007171	1	Gravelly till (3.2 m)	–	Aug/sept 2005	69
	PSM007173	1	Sandy till (1.5 m)	–	Aug/sept 2005	70
	PSM007180	1	Sand (0.3 m)	–	Aug/sept 2005	71
	PSM007180	1	Glacial clay (1.4 m)	–	Aug/sept 2005	72
	PSM007180	1	Silt layer (2.3 m)	–	Aug/sept 2005	73
	PSM007180	1	Sandy till (2.5 m)	–	Aug/sept 2005	74
	PSM007190	1	Gyttja (1.1 – 1.3 m)	–	Aug/sept 2005	75
	SSM00224:1	1	Sand/gravel (12 – 13 m)	–	Aug/sept 2005	76
	SSM00225:2	1	Sand (2 – 2.8 m)	–	Aug/sept 2005	77
<b>Soil</b>	<b>Leaching from fine root sites</b>					
P-04-243	ASM001426	3	0 – 0.65 m (dithionit-citrate)	–	2003-07-07	111–113
R-05-15	ASM001440	2	0 – 0.6 m (dithionit-citrate)	–	2003-10-16	114–115
P-06-321	ASM001434	2	0 – 0.6 m (dithionit-citrate)	–	2003-07-28	116–117
	ASM001426	3	0 – 0.65 m (ammonium acetate)	–	2003-07-07	152–154
	ASM001440	2	0 – 0.6 m (ammonium acetate)	–	2003-10-16	155–156
	ASM001434	2	0 – 0.6 m (ammonium acetate)	–	2003-07-28	157–158
	ASM001426	3	0 – 0.65 m ( <i>Aqua regia</i> )	–	2003-07-07	200–202
	ASM001440	2	0 – 0.6 m ( <i>Aqua regia</i> )	–	2003-10-16	203–204
	ASM001434	2	0 – 0.6 m ( <i>Aqua regia</i> )	–	2003-07-28	205–206

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number
<b>Soil</b>						
<b>From fine root sites</b>						
R-07-01	ASM001426	2	0 – 2.5 cm and 2.5 – 10 cm (humus)	–	November 2004	233–234
	ASM001426	2	0 – 10 cm and 10 – 20 cm (mineral bulk)	–	November 2004	235–236
	ASM001426	2	0 – 10 cm and 10 – 20 cm (mineral rhizo)	–	November 2004	237–238
	ASM001434	2	0 – 2.5 cm and 2.5 – 10 cm (humus)	–	November 2004	239–240
	ASM001434	2	0 – 10 cm and 10 – 40 cm (mineral bulk)	–	November 2004	241–242
	ASM001434	2	0 – 10 cm and 10 – 40 cm (mineral rhizo)	–	November 2004	243–244
	ASM001440	2	0 – 2.5 cm and 2.5 – 10 cm (humus)	–	November 2004	245–246
	ASM001440	2	0 – 10 cm and 10 – 40 cm (mineral bulk)	–	November 2004	247–248
	ASM001440	2	0 – 10 cm and 10 – 40 cm (mineral rhizo)	–	November 2004	249–250
<b>Biota – Terrestrial environment</b>						
<b>Roots</b>						
<b>Fine root sites</b>						
R-07-01	ASM001426	1	Tree roots from humus layer 0–10 cm ( $\emptyset < 5$ mm)	–	November 2004	251
	ASM001426	1	Tree roots from mineral soil layer 0–20 cm ( $\emptyset < 5$ mm)	–	November 2004	252
	ASM001426	1	Other living roots fr. humus layer 0–10 cm ( $\emptyset < 2$ mm)	–	November 2004	253
	ASM001434	1	Tree roots from humus layer 0–10 cm ( $\emptyset < 5$ mm)	–	November 2004	254
	ASM001434	1	Tree roots from mineral soil layer 0–40 cm ( $\emptyset < 5$ mm)	–	November 2004	255
	ASM001440	1	Tree roots from humus layer 0–10 cm ( $\emptyset < 5$ mm)	–	November 2004	256
	ASM001440	1	Tree roots from mineral soil layer 0–10 cm ( $\emptyset < 5$ mm)	–	November 2004	257
	ASM001440	1	Tree roots fr. mineral soil layer 10–40 cm ( $\emptyset < 5$ mm)	–	November 2004	258
<b>Vegetation</b>						
<b>Fine root sites</b>						
SKB internal sampl.	ASM001426 (north area)	1	<i>Quercus robur</i> , leaves (sampled standing on the ground)	–	2005-07-21	44
	(named as N in Sicada)	1	<i>Q. robur</i> , <i>Juniperus communis</i> and <i>Sorbus aucuparia</i> (green parts from small bushes)	–	2005-07-21	45
SKB internal sampl.		2	Field- resp. bottom layers (green parts)	–	2005-07-21	46–47
	ASM001426 (south, west and east areas)	1	<i>Quercus robur</i> , leaves (sampled standing on the ground), only from the west and east areas	–	2005-07-21	51
		1	<i>Q. robur</i> , <i>Juniperus communis</i> (green parts from small bushes)	–	2005-07-21	48
		2	Field- resp. bottom layers (green parts)	–	2005-07-21	49–50

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number	
Litter	ASM001426	1	<i>Quercus robur</i> , phloem and xylem ( $\varnothing \approx 5$ cm)	1	2006-04-26	230	
	ASM001434	1	<i>Alnus glutinosa</i> , leaves (sampled standing on the ground)	–	2005-07-21	52	
		2	Field- resp. bottom layers (bottom layer only from the east area)		2005-07-21	53–54	
	ASM001434	1	<i>Alnus glutinosa</i> , phloem and xylem ( $\varnothing \approx 5$ cm)	1	2006-04-26	231	
	ASM001440	4	<i>Picea abies</i> , needles (sampled standing on the ground), from the north, west and east areas	–	2005-07-22	55	
			Field- resp. bottom layers	–	2005-07-22	56–57	
			<i>Picea abies</i> , phloem and xylem ( $\varnothing \approx 5$ cm)	1	2006-04-26	232	
	ASM001426	6	Litter from oak forest, analysed at ACME Analytical Laboratories Ltd, Vancouver	–	2004–2006	O1O-0, O1O-2 – O1O-6	
	P-07-XXX	ASM001428	6	Litter from pine forest, analysed at ACME Analytical Laboratories Ltd, Vancouver	–	2004–2006	O2P-0, O2P-2 – O2P-6
		ASM001440	6	Litter from spruce forest, analysed at ACME Analytical Laboratories Ltd, Vancouver	–	2004–2006	O3S-0, O3S-2 – O3S-6
Mammals	ASM000005	3	<i>Alces Alces</i> (muscle from Moose)	1	autumn/winter 2005–2006	211–213	
	P-05-84 and SKB internal	ASM000005	<i>Capreolus capreolus</i> (muscle from Roe deer)	1	autumn/winter 2005–2006	214–216	
		ASM000005	<i>Vulpes vulpes</i> (muscle from Fox)	1	autumn/winter 2005–2006	217–219	
		ASM000005	<i>Sorex araneus</i> (muscle from Shrew), pooled sample spring/autumn	40	June 2003 and October 2003	220	
		ASM000215	<i>Apodemus sylvaticus</i> (muscle from Wood mouse), sample from forest site, autumn (I1)	14	October 2003	221	
		ASM000216	<i>Apodemus sylvaticus</i> (muscle from Wood mouse), sample from meadow site, autumn (I4)	13	October 2003	222	
		ASM000213	<i>Apodemus sylvaticus</i> (muscle from Wood mouse), sample from forest site, autumn (H3)	13	October 2003	223	
		ASM000212	<i>Clethrionomys glareolus</i> (muscle from Bank vole), sample from forest site, autumn (E1)	15	October 2003	224	
		ASM000213	<i>Clethrionomys glareolus</i> (muscle from Bank vole), sample from forest site, autumn (H3)	12	October 2003	225	

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number
	ASM000214	1	<i>Clethrionomys glareolus</i> (muscle from Bank vole), sample from forest site, autumn (H7)	12	October 2003	226
	ASM000005	1	<i>Clethrionomys glareolus</i> (muscle from Bank vole), sample from meadow sites, autumn	12	October 2003	227
	ASM000005	1	<i>Clethrionomys glareolus</i> (muscle from Bank vole), sample from meadow sites, autumn	11	October 2003	228
<b>Biota – Aquatic environment</b>						
Limnic	Lake Frisksjön					
Section 3.5 and P-04-251	ASM000110	2	<i>Phragmites australis</i> (standing crop resp. rhizome from Reed)	At least 5	2006-08-30	292–293
	ASM000110	2	<i>Nymphaeaceae</i> (leaf resp. root from Water lily)	At least 3	2006-08-30	294–295
	ASM000110	1	<i>Anodonta anatina</i> (muscle from Duck mussel)	5	2006-08-30	296
	ASM000111	2	<i>Phragmites australis</i> (standing crop resp. rhizome from Reed)	At least 5	2006-08-30	299–300
	ASM000111	2	<i>Nymphaeaceae</i> (leaf resp. root from Water lily)	At least 3	2006-08-30	301–302
	ASM000111	1	<i>Anodonta anatina</i> (muscle from Duck mussel)	5	2006-08-30	303
	ASM000112	2	<i>Phragmites australis</i> (standing crop resp. rhizome from Reed)	At least 5	2006-08-30	306–307
	ASM000112	2	<i>Nymphaeaceae</i> (leaf resp. root from Water lily)	At least 3	2006-08-30	308–309
	ASM000112	1	<i>Anodonta anatina</i> (muscle from Duck mussel)	5	2006-08-30	310
	ASM000192	3	<i>Rutilus rutilus</i> (15–20 cm) (muscle from Roach)	4–5	2006-08-30 and 2004-08-19	297, 304, 311
	ASM000192	3	<i>Perca fluviatilis</i> (muscle from piscivorous Perch)	2	2006-08-30	298, 305, 312
Marine	Sketudden					
P-06-303	PSM007095	5	<i>Chara sp.</i> (algae)	–	2005-07-12	
	PSM007095	5	<i>Chara sp.</i> (algae)	–	2005-10-19	
	PSM007095	5	<i>Chara sp.</i> (algae)	–	2006-01-20	
	PSM007095	5	<i>Chara sp.</i> (algae)	–	2006-04-11	
Section 3.5	Borholmsfjärden					
	ASM000105	2	<i>Potamogeton perfoliatus</i> resp. <i>Chara</i> (algae)	–	2006-08-29	274–275
	ASM000106	2	<i>Potamogeton perfoliatus</i> resp. <i>Chara</i> (algae)	–	2006-08-29	280–281

Sample type	Sampling site	Number of samples	Description of sample/depth interval	Individuals /sample	Sampling date	Sample number
	ASM000107	1	<i>Chara</i> (algae)	–	2006-08-29	287
	ASM000108	1	<i>Potamogeton perfoliatus</i>	–	2006-08-29	286
	ASM000202	3	<i>Alburnus alburnus</i> (muscle from Bleak)	26–28	2006-08-31	277, 283, 289
	ASM000202	2	<i>Abramis brama</i> (muscle from Bream)	1–2	2006-08-31	278, 284
	ASM000202	3	<i>Perca fluviatilis</i> (muscle from piscivorous Perch)	3	2006-08-31	279, 285, 291
Section 3.5 and SKB internal	<b>Shore outside Simpevarp</b>					
	ASM000100	2	<i>Fucus vesiculosus</i> resp. filamentous green-algae	–	2006-08-29	259–260
	ASM000100	2	<i>Mytilus edulis</i> (muscle resp. shell from Common mussel)	600 resp. 100	2006-08-29	261, 266
	ASM000101	2	<i>Fucus vesiculosus</i> resp. filamentous green-algae	–	2006-08-29	264–265
	ASM000102	2	<i>Fucus vesiculosus</i> resp. filamentous green-algae	–	2006-08-29	269–270
	ASM000102	2	<i>Mytilus edulis</i> (muscle resp. shell from Common mussel)	700 resp. 100	2006-08-29	271, 276
	ASM100000	3	<i>Clupea harengus</i> (muscle from Herring)	6	August 2006	262, 267, 272
	ASM100000	3	<i>Platichthys flesus</i> (muscle from Flounder)	3–4	August 2006	263, 268, 273

### 3.3 Analysis of elements in deposits and terrestrial vegetation

Controlling document for this part was AP PS 400-04-113, which comprises analysis of peat/wetland, lake- and sea sediment (40 samples) /Nilsson 2004/ and soil from machine dug trenches (20 samples) /Sohlenius et al. 2006/ (Figure 3-3).

Fine roots, as well as the uppermost soil layers, sampled in November 2004 at three locations (26 samples) /Persson and Stadenberg 2006/, were also analysed (Figure 3-4). A steel corer, with an inner diameter of 4.5 cm, was used for the sampling. The soil samples were transferred into plastic bags and transported as soon as possible to the laboratory and stored in a cold-storage at -4°C. The roots were sorted out from the soil cores immediately after thawing, using steel tweezers. After rinsed in deionised water, the roots were dried for at least 24 hours at 65°C.

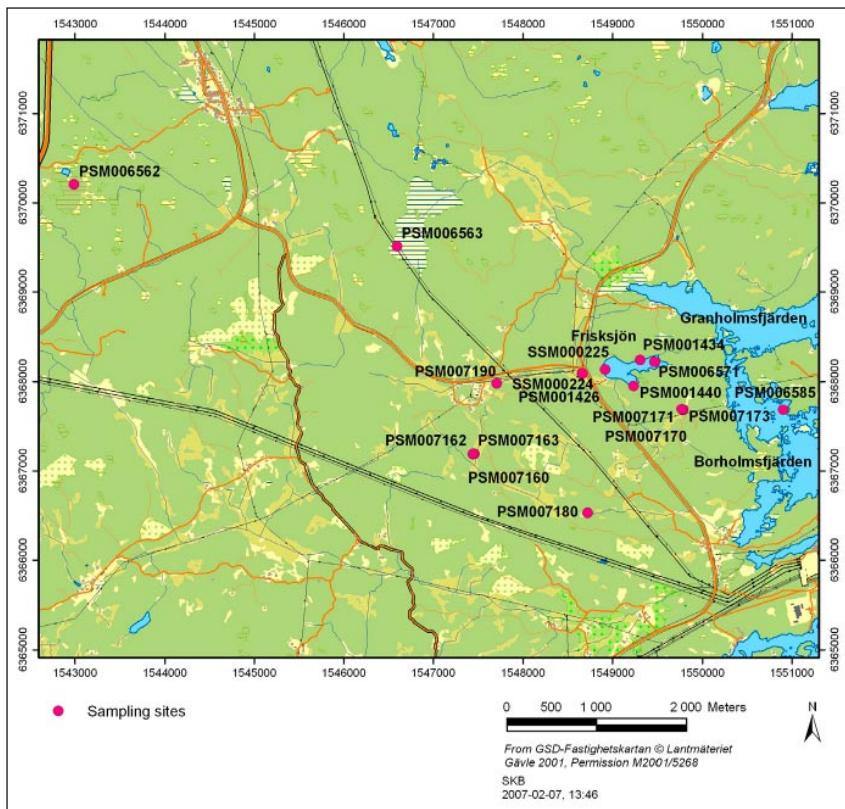
Sampling of terrestrial vegetation was performed by personnel from SKB and included in total 17 samples from tree, bush, field- and bottom layers, at the three “fine root sites” (Figure 3-2 and 3-4). Vegetation samples were collected using a pair of metal scissors (in general, sampling included sampling at four sub areas at each site, and was controlled by a supplement to activity plan AP PF 400-04-109). For the tree layers, leaves and needles were sampled. For each species of oak, alder and spruce, one wood sample was also taken, with a metal saw. At the laboratory, the bark was removed with a steel knife, and the sample was prepared from the phloem and xylem with a knife made of zirconium.

Leaching of soil from the three “fine root sites” (Figure 3-4), sampled in summer and autumn 2003 /Lundin et al. 2004/ were also analysed (21 samples). Extractions were performed by the Department of Forest Soils, SLU, and comprised extractions with dithionit citrate, ammonium acetate and *Aqua Regia* /Lundin et al. 2006/. The samples (extractions) were then sent to Analytica AB for analysis of elements. The results are stored in the database SICADA with the original unit, mg- or µg/l, and as transformed data to the unit mg/kg dw.

Sampling of litter is one of the activities performed within the site investigation at Oskarshamn /Mjöfors et al. 2007/. Christian Brun, University of Kalmar, has performed a research project where element in samples from litter fall sampling has been analysed. The results are stored in SICADA and are traceable by the activity plan AP PS 400-04-113. Analysis of elements has been performed by ACME Analytical Laboratories ltd, Vancouver, from three sites (ASM001426, ASM001428 and ASM001440) and consists of 18 samples. Sample preparation: 1.000 g sample was leached with 2 ml HNO<sub>3</sub> for one hour. Then 6 ml (2-2-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O) was added and placed at 95°C for one hour, then diluted to 20 ml.



**Figure 3-2.** Views from “Fine root sites”. From left, ASM001426 (oak), ASM001434 (alder) and ASM001440 (spruce).



**Figure 3-3.** Sampling sites for sediment, peat, wetland, and soil samples (except “fine root sites”) analysed for elemental composition.



**Figure 3-4.** “Fine root sites”. Sampling sites for fine roots, soil (and leachings) and terrestrial vegetation samples analysed for elemental composition.

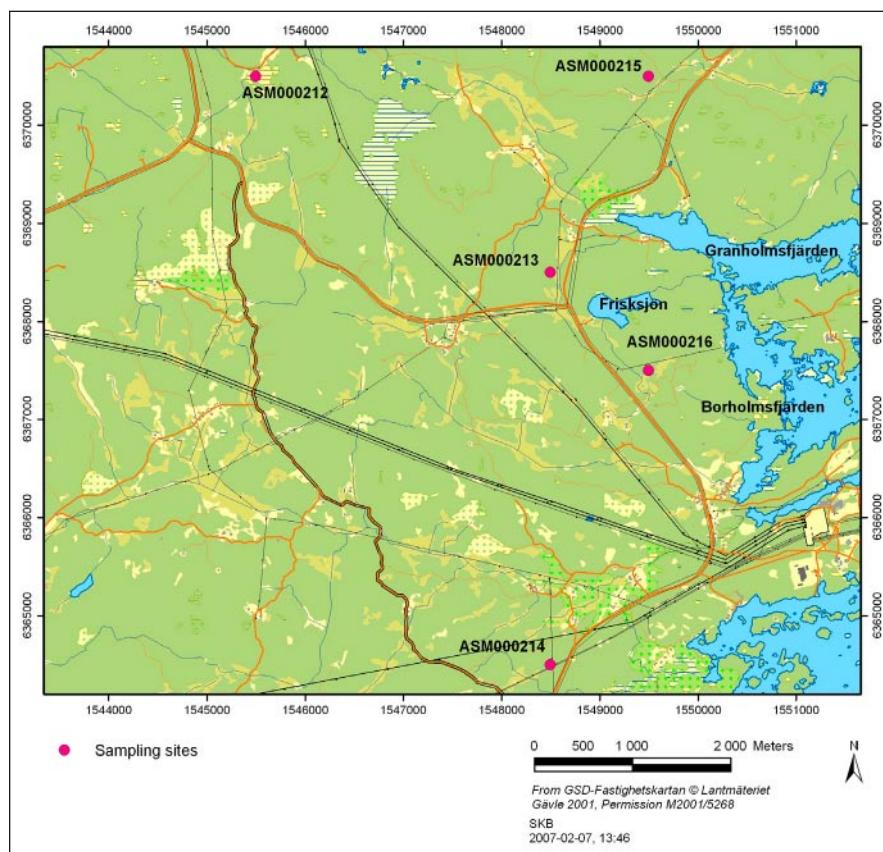
### 3.4 Chemical composition of terrestrial biota (fauna)

Controlling document for this part was AP PS 400-06-008. Small rodents were sampled mainly in October 2003 /Cederlund et al. 2005/ (Figure 3-5), whereas samples of moose, roe deer and fox were provided by local hunters during autumn/winter 2005/2006 and were considered to represent the whole investigation area at Oskarshamn. In total, 18 samples were analysed.

For all fauna, muscle tissues were prepared and analysed. In order to gain enough sample matter for the small rodents, individuals were pooled together as one sample. Mostly, all individuals in a sample were caught at the same site, but in some cases, the samples contain individuals from several sites and are also considered to represent the whole investigation area, as for moose, deer and fox.

### 3.5 Chemical composition of aquatic biota

The sampling was performed according to activity plan AP PS 400-06-009. Samples were taken in August 2006, from the eastern shoreline of the Simpevarp peninsula in south, to Kråkelund in north (Table 3-1). Sampling was also performed in Lake Frisksjön and in Borholmsfjärden (Table 3-1). The sites where the different samples were collected are shown in Figure 3-6. All fish samples were considered to represent the whole lake, bay or sea where they were sampled, and have been given the area code for that area.



**Figure 3-5.** Sampling sites for small rodents, used in the analysis of elemental composition.



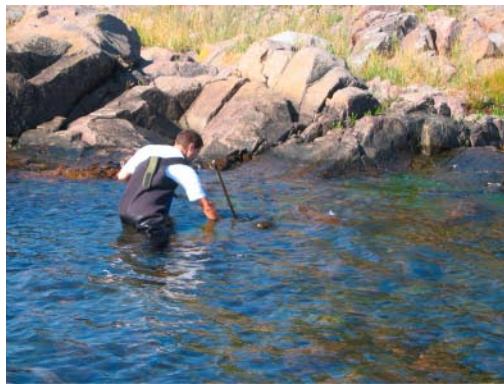
**Figure 3-6.** Sampling sites for aquatic biota, used in the analysis of elemental composition (ASM000202 Borholmsfjärden and ASM100000 Baltic sea are not marked as sampling sites in the map).

The field work was performed from August 29 to 31 2006 (Figure 3-7). On August 29 sampling took place from the eastern shoreline of the Simpevarp peninsula in south, to Kråkelund in north. *Fucus vesiculosus* and filamentous green algae were collected with a plastic rake and by hand. *Mytilus edulis* were collected in a mesh bag by snorkelling and scuba diving to a depth of about 6 m.

Sampling in Lake Frisksjön took place on the following day, August 30. Plants were collected by hand or with a plastic rake. Roots were dug up with a spade and cut clean with a plastic knife. *Anodonta anatina* were caught with a hand net and fishes were caught with gill nets.

On August 29 and 31, sampling took place in Borholmsfjärden. Fishes were caught with gill nets and *Potamogeton perfoliatus* and *Chara sp.* were collected with a plastic rake. The search for *Macoma baltica* was performed with a Van Veen grabber.

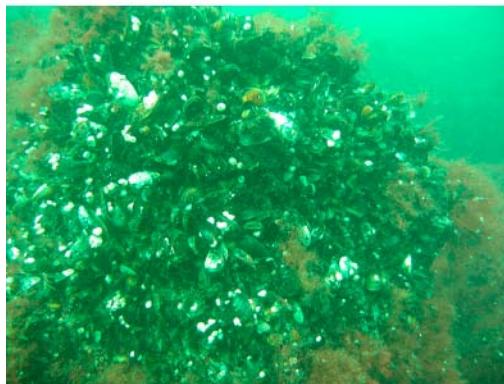
During all sampling the samples were treated very carefully and to prevent contamination plastic gloves were worn during all handling of samples. After sampling all samples were weighted and put in double plastic bags with an ID tag in between the bags, and than stored in a freezer. Material for later analysis of isotopes were handled the same way and stored in the freezer.



Sampling of *Fucus vesiculosus*



Sample ready for freezing



Collection of *Mytilus edulis*



Plastic rake for sampling of plants



Search for *Anodonta anatina*

*Figure 3-7. Sampling of aquatic biota.*

### 3.6 Analysis of elements on *Chara sp.*

Controlling document for this part was AP PS 400-05-029. In connection with measurements of benthic production and respiration /Wijnbladh and Plantman 2006/, samples of *Chara sp.* were collected from one marine site (Figure 3-8). Samples were taken at four occasions, one for each season, and in total 20 samples were later analysed for elements.



**Figure 3-8.** Sampling sites for *Chara sp.*, used in the analysis of elemental composition.

## 4 Equipment

### 4.1 Description of equipment

The analyses were performed by ICP-AES, ICP-SFMS, ICP-QMS and AFS (ICP stands for Inductively Coupled Plasma). In all techniques except AFS plasma formed by argon gas was used.

ICP-AES stands for optical emission spectrometry with inductively coupled plasma. The plasma flows through a radiofrequency field where it is kept in a state of partial ionisation, i.e. the gas consists partly of electrically charged particles. This allows it to reach very high temperatures of up to 10,000°C. At high temperature, most elements emit light of characteristic wavelengths, which can be measured and used to determine their concentrations.

In ICP-QMS (quadrupole mass spectrometry) and ICP-SFMS (sector field mass spectrometry), the plasma is of the same type as in ICP-AES, but it is used to convert elements to ions which are then separated by mass-to-charge ratio in a mass spectrometer. This allows the different elements in a sample (and their natural isotopes) to be separated and their concentrations determined.

Atomic fluorescence (AFS) was used for the determination of Se. This technique uses photon emission from atoms as in ICP-AES, although excitation is not achieved thermally, but by light of a wavelength characteristic of the element. This light is absorbed by the atom and subsequently re-emitted to generate the analytical response. Determination of Hg in leach water samples was also performed with AFS, whereas for all other sample types Hg was analysed by ICP-SFMS.

## 5 Execution of analysis

### 5.1 General

The samples were delivered by SKB and the sample preparations and elemental analyses were performed by Analytica AB. Macroelements and organic environmental toxins were determined by a subcontractor, GBA (Gesellschaft für Bioanalytik, Hamburg).

The collected samples were of different types such as soil, sediment and biological material. Extractions for determination of leaching were performed by the Department of Forest Soils, Swedish University of Agricultural Sciences, whereas the analyses of elemental composition in the leaching water were made at Analytica AB.

### 5.2 Preparations

Several digestion methods suitable for different types of samples have been used. Table 5-1 shows an overview of the analysis packages.

Description of the analysis packages:

#### MG1

- The sample was dried at 50°C. For the elements As, Cd, Hg, Cu and S, the sample was leached with 7 M nitric acid ( $\text{HNO}_3$ ) in a closed Teflon vessel in a microwave oven. Concentrations have been reported on a dry weight (105°C) basis. For Br, Cl and I, the sample was leached in highly purified water. The other elements were determined after fusion with lithium metaborate followed by dissolution in diluted nitric acid.

#### MG3

- The sample was dried at 50°C. For the elements As, Cd, Hg, Cu and S, the sample was leached in nitric acid ( $\text{HNO}_3$ )/hydrogen peroxide ( $\text{H}_2\text{O}_2$ ) in a closed Teflon vessel in a microwave oven. Concentrations have been reported on a dry weight (105°C) basis. For Br, Cl and I, the sample was leached in high purified water. The other elements were determined after ashing at 550°C followed by fusion with lithium metaborate and dissolution in diluted nitric acid.

**Table 5-1 Overview of analysis packages.**

Type of sample	Analysis package	Macroelements <sup>1</sup>
Soil, sediment	MG1, M7	TOC, C-tot, N-tot, N-org., PO <sub>4</sub>
Organic soil	MG3, M7	TOC, C-tot, N-tot, N-org., PO <sub>4</sub>
Biological material (plant)	M4	C-tot, N-tot, N-org., PO <sub>4</sub>
Biological material (animal)	M4F	C-tot, N-tot
Leach water	E2A	–
Peat, sediment	Organic environmental toxins*	–

<sup>1</sup> Subcontractor, GBA, has been used for these analyses.

#### **M4**

- The sample was dried in 50°C and then leached with nitric acid ( $\text{HNO}_3$ ) and a small amount of hydrofluoric acid (HF) in a closed Teflon vessel in a microwave oven.

#### **M4F**

- The sample was freeze dried and then leached with nitric acid ( $\text{HNO}_3$ ) and a small amount of hydrofluoric acid (HF) in a closed Teflon vessel in a microwave oven.

#### **M7**

- Sample was digested using hydrofluoric acid (HF)/ perchloric acid ( $\text{HClO}_4$ )/nitric acid ( $\text{HNO}_3$ ) on a hot plate. The elements determined by method M7 are Ag, B, Be, Co, Cs, Pb, Sb, Se, Tl, Li and Zn.

#### **E2A**

- The sample was diluted with nitric acid ( $\text{HNO}_3$ ) and then analysed.

#### **Macroelements**

- Total carbon and total organic carbon (TOC), were carried out according to standard method DIN ISO 10694, Soil quality – Determination of organic and total carbon after dry combustion (elementary analysis).
- Total nitrogen and organic nitrogen, were carried out according to standard method DIN ISO 11261, Soil quality – Determination of total nitrogen – Modified Kjeldahl method.
- Phosphate ( $\text{PO}_4$ ) was determined with standard method DIN EN ISO 15681-2, Water quality – Determination of orthophosphate and total phosphorus contents by flow analysis (FIA and CFA) – Part 2: Method by continuous flow analysis (CFA). This method is used after the sample has been extracted in calcium-lactate.

#### **Organic environmental toxins**

- Peat and sediment samples have been analysed for organic environmental toxins. The different methods that have been used will be described below.

**Table 5-2. Overview of organic analysis packages.**

Analysis package	Method
OJ-2	Determination of polychlorinated biphenyls PCB (7 congenes) according to EN DIN ISO 10382. The sample was homogenised and extracted with n-hexane/cyclohexane/acetone. Measurement was carried out with GC-MS.
EOX	Determination of extractable organic-bound halogens according to DIN 38414. The sample was extracted with n-hexane/cyclohexane/acetone and combusted. Determination was carried out with microcoulometry.
OJ-4	Determination of phthalates. The sample was homogenised and extracted with n-hexane. Measurement was carried out with GC-MS.
OJ-8	Determination of chlorinated benzenes according to method DIN EN ISO 6468 F1. The sample was homogenised and extracted with n-hexane/cyclohexane/acetone. Measurement was carried out with GC-MS.
OJ-18C	Determination of 4-nonylphenol and 4-n-nonylphenol. The sample was homogenised, soxhlet extracted with n-hexane, and derivatised with MSTFA. Measurement was carried out with GC-MS.

<b>Analysis package</b>	<b>Method</b>
OJ-21B	<p>Determination of aliphatic- and aromatic fractions. Determination of benzene, toluene, ethylbenzene and xylene (BTEX).</p> <p>Determination of MTBE, methyl-tertiary-butylether.</p> <p>Determination of 1, 2-dikloretan and 1, 2-dibrometan.</p> <p>Determination of polycyclic aromatics hydrocarbons, PAH, carcinogens and others.</p> <p>Extraction with n-hexane/cyclohexane/acetone (1:2:2) for PAH. Measurement was carried out with GC-MS.</p> <p>Measurement was carried out with head-space GC-MS for aliphatic &gt; C5-C10 and aromatic &gt; C8-C10, BTEX, MTBE and 1, 2-dichloroethane and 1,2-dibromoethane.</p>
OJ-22	<p>Determination of dioxins and furans. Soxhlet extraction with toluene and several clean-ups. The measurement was carried out by GC-MS.</p> <p>Sum PCDD/PCDF WHO-TEQ is the sum of toxic equivalents according to WHO, 1998.</p>
Brominated flame retardants	Soxhlet extraction with toluene and several clean-ups and before derivatisation. The measurement was carried out by GC-MS.
OJ-27	Determination of nitrotoluenes according to DIN 38407. The sample was homogenised and extracted with n-hexane/cyclohexane/acetone. Measurement was carried out with GC-MS.

### **5.3 Execution**

The instruments were optimised and calibrated at the start of each working day. Calibration consisted of running a sequence of synthetic blanks, sample preparation blanks, quality control samples (certified reference materials) prepared in parallel with the unknowns, and standard solutions. The calibration sequence was repeated after every 10–15 sample measurements. For measurements by ICP-AES and ICP-SFMS, the internal standard technique was employed to allow correction for instrumental drift and non-spectral interference effects during the analyses.

### **5.4 Data handling/post processing**

SICADA orders were registered under three different order numbers in the LIMS (Laboratory Information Management System). Data from LIMS were extracted to Excel-files with the laboratory standard program LMM (LabMasterMail). Using a special macro for SICADA, information was extracted from the Excel-files to the SICADA template, then the templates were saved with names corresponding to the order numbers. The macro-file constituted a database that translated the element code to SICADA element code. After the SICADA templates were delivered to SKB the activity leader included some information concerning the different samples, e.g. comments on how many individuals were used in pooled samples and information about extra samples used.

## **6 Nonconformities**

### **6.1 Sampling of aquatic biota**

In Borholmsfjärden we could not find any specimen of *Macoma baltica*, and accordingly, there are no analyses of elemental composition in *Macoma baltica*. The sample of *Mytilus edulis* (from ASM000101) was stored in freezer for later isotope analysis. In Borholmsfjärden, *Alburnus alburnus* (Bleak) was sampled instead of small *Rutilus rutilus* (Roach) and replicate number 3 of the benthivorous fish *Abramis brama* (Bream) was omitted due to too few specimens in the catches.

In Lake Frisksjön, *Rutilus rutilus* (Roach) of the size 15–20 cm was used for element analysis instead of small specimens (8–10 cm) due to poor catch. Some of the analysed specimens of Roach had been stored in a freezer since sampling of fresh water fish in 2004 /Engdahl and Ericsson 2004/. One sample, consisting of about 60 specimens of small *Perca fluviatilis* (Perch), was caught and stored for later isotope analysis.

### **6.2 Analysis of elements**

For the leaching samples extracted with dithionite citrate, sulphur was not reported, due to leaching with sodium thiosulfate,  $\text{Na}_2\text{S}_2\text{O}_4$ .

## **7      Results**

This report comprises description of samples, sampling and execution of analysis. Raw data is presented, but no interpretations are made.

The original results are stored in the primary data base (SICADA) and these will be used for further interpretation. The data are traceable in SICADA by the Activity Plan numbers (AP PS 400-04-113, AP PS 400-04-050, AP PS 400-06-008, AP PS 400-06-009 and AP PS 400-05-029).

The whole data set is presented in Appendix 2.

## References

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## Appendix 1

### Species names in Latin, English and Swedish

Latin	English	Swedish
<i>Abramis brama</i>	Bream	Braxen
<i>Alburnus alburnus</i>	Bleak	Löja
<i>Alces Alces</i>	Moose	Älg
<i>Alnus glutinosa</i>	Alder	Al
<i>Anodonta anatina</i>	Freshwater mussel	Dammussla
<i>Apodemus sylvaticus</i>	Wood mouse	Mindre skogsmus
<i>Capreolus capreolus</i>	Roe deer	Rådjur
<i>Chara sp.</i>	Charophyte	Kransalg
<i>Clethrionomys glareolus</i>	Bank vole	Ängssork
<i>Clupea harengus</i>	Herring	Strömming
<i>Fucus vesiculosus</i>	Seaweed	Blästång
<i>Juniperus communis</i>	Juniper	En
<i>Macoma baltica</i>	Baltic tellin	Östersjömussla
<i>Mytilus edulis</i>	Common mussel	Blåmussla
<i>Nymphaeaceae</i>	Water lily	Näckros
<i>Perca fluviatilis</i>	Perch	Abborre
<i>Phragmites australis</i>	Reed	Bladvass
<i>Picea abies</i>	Spruce	Gran
<i>Platichthys flesus</i>	Flounder	Skrubbskädda
<i>Potamogeton perfoliatus</i>	Pondweed	Ålnate
<i>Quercus robur</i>	Oak	Ek
<i>Rutilus rutilus</i>	Roach	Mört
<i>Sorbus aucuparia</i>	Mountain ash	Rönn
<i>Sorex araneus</i>	Shrew	Näbbmus
<i>Vulpes vulpes</i>	Fox	Räv

## **Appendix 2**

### **Results of chemical analyses**

- Organic environmental pollutants
- Elements
- Leachings
- Elements in litter

**Organic environmental pollutants.**

Substance	Unit	PSM006565	PSM006567	PSM006566	PSM006571	PSM006580	PSM006573	PSM006576	PSM006583	PSM006588	PSM006585
<b>TS_105°C</b>	%	17.7	10.2	27.3	16	10.3	41.5	18.8	25.9	12.5	10.5
<b>Total extractable carbon compounds EOX</b>	mg/kg ds	3.9	1.4	2.6	4.2	8.5	<1.0	4	5.2	3.4	1.6
<b>Chlorobenzenes</b>											
1,2,3-trichlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2,4-trichlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3,5-trichlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2,3,4-tetrachlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2,4,5/1,2,3,5-tetrachlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
pentachlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
hexachlorobenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
sum chlorobenzenes	mg/kg ds	n.d.									
<b>Aliphatics</b>											
aliphatics >C5–C8	mg/kg ds	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
aliphatics >C8–C10	mg/kg ds	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
aliphatics >C10–C12	mg/kg ds	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
aliphatics >C12–C16	mg/kg ds	8.8	<5.00	<5.00	8.9	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
aliphatics >C5–C16	mg/kg ds	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
aliphatics >C16–C35	mg/kg ds	100	<50.0	51	70	60	<50.0	80	57	<50.0	<50.0
<b>Aromatics</b>											
aromatics >C8–C10	mg/kg ds	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
aromatics >C10–C35	mg/kg ds	<1.30	<1.30	<1.30	2	1.6	<1.30	10.7	1.68	3	2.6
benzene	mg/kg ds	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
toluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
ethylbenzene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
sum xylenes	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
sum TEX	mg/kg ds	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
<b>Polycyclic aromatic hydrocarbons</b>											
naphthalene	mg/kg ds	<0.050	0.065	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.14	0.11
acenaphthylene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.061	<0.050	<0.050
acenaphthene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
fluorene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
phenanthrene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	0.085	<0.050	<0.050	0.14	<0.050	<0.050
anthracene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.1	<0.050	<0.050
fluoranthene	mg/kg ds	<0.050	0.1	<0.050	0.22	0.34	<0.050	0.17	0.84	0.14	0.096
pyrene	mg/kg ds	<0.050	0.064	<0.050	0.15	0.23	<0.050	0.12	0.75	0.1	0.065
*benzo[a]anthracene	mg/kg ds	<0.050	<0.050	<0.050	0.06	0.056	<0.050	0.065	0.64	<0.050	<0.050
*chrysene	mg/kg ds	<0.050	<0.050	<0.050	0.051	0.084	<0.050	0.056	0.56	<0.050	<0.050
*benzo[b]fluoranthene	mg/kg ds	0.11	0.13	0.066	0.25	0.21	<0.050	0.21	0.85	0.15	0.12
*benzo[k]fluoranthene	mg/kg ds	<0.050	0.054	<0.050	0.086	0.092	<0.050	0.08	0.4	0.074	0.06
*benzo[a]pyrene	mg/kg ds	<0.050	<0.050	<0.050	0.083	0.096	<0.050	0.12	0.81	0.07	<0.050
*dibenzo[ah]anthracene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.19	<0.050	<0.050
benzo[ghi]perylene	mg/kg ds	0.059	0.12	<0.050	0.22	0.13	<0.050	0.14	0.58	0.17	0.13
*indeno[1,2,3-cd]pyrene	mg/kg ds	0.088	0.079	<0.050	0.24	0.19	<0.050	0.16	0.66	0.19	0.15
sum 16 EPA-PAHs	mg/kg ds	0.3	0.6	0.07	1.4	1.5	<0.4	1.1	6.6	1	0.7
*carcinogenic PAHs	mg/kg ds	0.2	0.3	0.07	0.8	0.7	<0.2	0.7	4.1	0.5	0.3
other PAHs	mg/kg ds	0.06	0.3	<0.2	0.6	0.8	<0.2	0.4	2.5	0.5	0.4
MTBE	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1, 2-dichloroethane	mg/kg ds	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
dichloromethane	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Substance	Unit	PSM006565	PSM006567	PSM006566	PSM006571	PSM006580	PSM006573	PSM006576	PSM006583	PSM006588	PSM006585
<b>PCB</b>											
pcb 28	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.030	<0.0030	<0.0030	<0.0030
pcb 52	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.030	<0.0030	<0.0030	<0.0030
pcb 101	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0078	<0.0030	<0.0030	<0.0030
pcb 118	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0032	<0.0030	<0.0030	<0.0030
pcb 138	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.017	<0.0030	<0.0030	<0.0030
pcb 153	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.022	<0.0030	<0.0030	<0.0030
pcb 180	mg/kg ds	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.016	<0.0030	<0.0030	<0.0030
sum 7 PCBs	mg/kg ds	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.066	<0.01	<0.01	<0.01
<b>Dioxins</b>											
2,3,7,8-tetraCDD	ng/kg ds	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3,7,8-pentaCDD	ng/kg ds	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
1,2,3,4,7,8-hexaCDD	ng/kg ds	<4.0	<4.0	<4.0	<5.0	<4.0	<4.0	<5.0	<4.0	<4.0	<4.0
1,2,3,6,7,8-hexaCDD	ng/kg ds	<4.0	7.7	<4.0	<5.0	<4.0	<4.0	<5.0	<4.0	4.4	<4.0
1,2,3,7,8,9-hexaCDD	ng/kg ds	<4.0	<4.0	<4.0	<5.0	<4.0	<4.0	<5.0	<4.0	<4.0	<4.0
1,2,3,4,6,7,8-heptaCDD	ng/kg ds	<8.0	17	8	<8.0	13	<8.0	<8.0	<8.0	21	19
octachlorodibenzodioxin	ng/kg ds	48	45	26	31	51	<20	31	<20	84	74
2,3,7,8-tetraCDF	ng/kg ds	<1.5	10	<1.5	<1.5	1.6	<1.5	<1.5	<1.5	2.5	3.4
1,2,3,7,8-pentaCDF	ng/kg ds	<2.0	5.7	<2.0	<2.0	3	<2.0	<2.0	<2.0	3.1	3.8
2,3,4,7,8-pentaCDF	ng/kg ds	<2.0	6.3	<2.0	<2.0	3.4	<2.0	<2.0	<2.0	2.5	3.6
1,2,3,4,7,8-hexaCDF	ng/kg ds	<3.0	7.4	<3.0	<3.0	5.8	<3.0	<3.0	<3.0	7	6.2
1,2,3,6,7,8-hexaCDF	ng/kg ds	<3.0	5.7	<3.0	<3.0	4	<3.0	<3.0	<3.0	4.9	3.8
1,2,3,7,8,9-hexaCDF	ng/kg ds	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
2,3,4,6,7,8-hexaCDF	ng/kg ds	<3.0	7.4	<3.0	<3.0	4.5	<3.0	<3.0	<3.0	5.2	4.2
1,2,3,4,6,7,8-heptaCDF	ng/kg ds	19	41	10	15	36	7.7	20	<6.0	34	30
1,2,3,4,7,8,9-heptaCDF	ng/kg ds	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0	<6.0
octachlorodibenzofuran	ng/kg ds	32	26	<15	46	50	<15	18	<15	40	29
sum PCDD/PCDF I-TEQ	ng/kg ds	0.2	7.8	0.18	0.16	3.9	0.077	0.2	n.d.	4.4	4.3
<b>Brominated flame retardants</b>											
tetraBDE	µg/kg ds	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BDE 47	µg/kg ds	<0.050	<0.050	<0.050	<0.050	0.069	<0.050	<0.050	<0.050	<0.050	<0.050
pentaBDE	µg/kg ds	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BDE 99	µg/kg ds	<0.050	<0.050	<0.050	<0.050	0.07	<0.050	<0.050	<0.050	<0.050	<0.050
BDE 100	µg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
hexaBDE	µg/kg ds	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
heptaBDE	µg/kg ds	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
octaBDE	µg/kg ds	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
nonaBDE	µg/kg ds	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
decaBDE	µg/kg ds	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Nitrotoluenes</b>											
2,4,6-trinitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.5	<0.8	
2,3-dinitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
2,4-dinitrotoluene	mg/kg ds	<0.050	<0.050	<0.1	<0.1	<0.050	<0.050	<0.050	<0.050	<0.050	
2,6-dinitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.054	<0.050	<0.050
3,4-dinitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
2-nitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
3-nitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
4-nitrotoluene	mg/kg ds	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
<b>Phthalate</b>											
di-2-ethylhexyl phthalate	mg/kg ds	0.28	2.1	0.23	0.17	0.059	0.14	<0.050	1	0.33	0.076
<b>Phenols. persistent organic pollutants</b>											
4-n-nonylphenol	mg/kg ds	<0.0010	<0.0010	<0.0010	<0.0010	0.012	<0.0010	0.0015	<0.0010	0.0052	<0.0010
4-nonylphenol	mg/kg ds	0.035	0.023	<0.011	0.036	0.41	<0.010	0.75	<0.010	0.025	0.044

**Elements.**

Idcode	Start date	Stop date	Secup (m)	Seclow (m)	Sub-sample no	DNO	Sample namn	Sampling date	Sampling period	Dry subst %	Ash subst %	Total C mg/kg dw	Total organic C mg/kg dw	Total N mg/kg dw	Total organic N mg/kg dw	PO <sub>4</sub> mg/kg dw	Al mg/kg dw	Al <sub>2</sub> O <sub>3</sub> %	Ca mg/kg dw	CaO %	Fe mg/kg dw	Fe <sub>2</sub> O <sub>3</sub> %	K mg/kg dw	K <sub>2</sub> O %	Mg mg/kg dw	MgO %	Mn mg/kg dw	MnO %	Na mg/kg dw	Na <sub>2</sub> O %
PSM006562	2005-07-29	2005-08-29	0.05	0.175	8	1	Peat/wetland		Aug/sept 2004	90.8	3	440,000	420,000	7,800	6,960	94	0.295	0.114	0.258	0.0513	0.0828	0.0017	0.0501							
PSM006562	2005-07-29	2005-08-29	0.65	0.725	9	1	Peat/wetland		Aug/sept 2004	89.7	0.9	440,000	440,000	5,060	4,120	35	0.0662	0.144	0.101	0.0097	0.0462	0.0004	0.0137							
PSM006562	2005-07-29	2005-08-29	2	2.1	7	1	Peat/wetland		Aug/sept 2004	93.1	3.8	470,000	280,000	17,500	16,200	9	0.641	0.924	0.477	0.0142	0.0542	0.0027	0.0128							
PSM006562	2005-07-29	2005-08-29	3.4	3.5	6	1	Peat/wetland		Aug/sept 2004	93.2	5.1	510,000	250,000	25,600	24,500	16	0.765	1.67	0.948	0.0136	0.0832	0.013	0.0098							
PSM006562	2005-07-29	2005-08-29	3.65	3.7	10	1	Peat/wetland		Aug/sept 2004	89.5	4.4	510,000	440,000	16,600	15,200	17	0.817	1.15	0.751	0.015	0.0632	0.0104	0.009							
PSM006562	2005-07-29	2005-08-29	4	4.1	5	1	Peat/wetland		Aug/sept 2004	93.2	46.5	270,000	180,000	15,700	14,900	19	3.73	1	1.99	0.679	0.471	0.0168	0.304							
PSM006562	2005-07-29	2005-08-29	4.2	4.25	4	1	Peat/wetland		Aug/sept 2004	95.6	78.3	110,000	100,000	9,930	9,400	14	7.62	0.777	4.12	1.79	1.08	0.027	0.899							
PSM006562	2005-07-29	2005-08-29	4.35	4.4	3	1	Peat/wetland		Aug/sept 2004	96.2	86.4	65,000	64,000	6,440	5,990	14	9.45	0.785	4.33	2.29	1.38	0.0339	1.13							
PSM006562	2005-07-29	2005-08-29	4.6	4.65	1	1	Peat/wetland		Aug/sept 2004	98.3	96.6	8,500	6,300	233	-5	24	15.5	1.38	5.86	4.38	2.39	0.0637	1.78							
PSM006562	2005-07-29	2005-08-29	4.7	4.75	2	1	Peat/wetland		Aug/sept 2004	98	96.7	4,000	3,800	1,030	855	31	17.7	1.34	7.24	4.42	2.78	0.0735	1.67							
PSM006563	2005-07-29	2005-08-29	0.12	0.15	37	1	Peat/wetland		Aug/sept 2004	8.1	10.8	420,000	380,000	12,500	11,900	180	1.05	0.884	0.708	0.0956	0.142	0.0044	0.0584							
PSM006563	2005-07-29	2005-08-29	0.95	1	38	1	Peat/wetland		Aug/sept 2004	11.7	60.8	210,000	160,000	13,900	13,300	340	4.98	1.74	7.68	0.466	0.689	0.026	0.392							
PSM006563	2005-07-29	2005-08-29	1.97	2	39	1	Peat/wetland		Aug/sept 2004	16.1	59.9	180,000	170,000	22,400	21,400	270	4.07	1.68	3.02	0.756	0.95	0.0157	0.593							
PSM006563	2005-07-29	2005-08-29	2.97	3	40	1	Peat/wetland		Aug/sept 2004	17.5	70.7	150,000	130,000	17,300	16,600	300	4.49	1.4	2.3	1.1	1.02	0.0211	0.705							
PSM006563	2005-07-29	2005-08-29	4.64	4.66	41	1	Peat/wetland		Aug/sept 2004	46.8	92.4	31,000	31,000	2,940	2,780	70	8.14	1.03	1.89	2.69	0.677	0.0298	1.93							
PSM006563	2005-07-29	2005-08-29	4.66	4.7	42	1	Peat/wetland		Aug/sept 2004	75.2	98.9	6,800	6,800	1,030	851	40	12	1.61	1.72	3.72	0.552	0.035	3.25							
PSM006563	2005-07-29	2005-08-29	4.97	5	43	1	Peat/wetland		Aug/sept 2004	44	97	5,500	5,500	763	413	440	18.3	1.34	8.2	4.59	3.2	0.0721	1.52							
PSM006571	2005-07-29	2005-09-02	0	0.02	11	1	Lake sediment		Aug/sept 2004	14.6		170,000	120,000	12,700	11,000	83	5.65	1.14	4.31	0.681	0.542	0.0337	0.317							
PSM006571	2005-07-29	2005-09-02	0.02	0.04	12	1	Lake sediment		Aug/sept 2004	11.6		170,000	97,000	14,600	12,900	80	5.74	1.12	4.5	0.684	0.53	0.0368	0.308							
PSM006571	2005-07-29	2005-09-02	0.04	0.06	13	1	Lake sediment		Aug/sept 2004	10		170,000	84,000	16,500	15,000	84	5.72	1.11	4.5	0.697	0.531	0.0347	0.301							
PSM006571	2005-07-29	2005-09-02	0.06	0.08	14	1	Lake sediment		Aug/sept 2004	12.4		170,000	110,000	14,500	12,400	98	5.74	1.09	4.26	0.681	0.519	0.0329	0.291							
PSM006571	2005-07-29	2005-09-02	0.08	0.1	15	1	Lake sediment		Aug/sept 2004	13		170,000	110,000	16,400	14,300	118	5.76	1.51	4.43	0.696	0.566	0.0328	0.338							
PSM006571	2005-07-29	2005-09-02	0.25	0.28	16	1	Lake sediment		Aug/sept 2004	10.4		200,000	130,000	19,300	16,900	412	3.48	1.37	3.87	0.459	0.813	0.0335	0.66							
PSM006571	2005-07-29	2005-09-02	0.48	0.5	17	1	Lake sediment		Aug/sept 2004	10.2		240,000	130,000	19,700	17,800	800	3.92	1.5	2.45	0.5	0.791	0.0315	0.451							
PSM006571	2005-07-29	2005-09-02	0.98	1	18	1	Lake sediment		Aug/sept 2004	10.6		150,000	140,000	14,400	12,700	138	6.66	0.972	4.33	0.815	0.598	0.0304	0.346							
PSM006571	2005-07-29	2005-09-02	1.97	2	19	1	Lake sediment		Aug/sept 2004	17.1		150,000	110,000	16,700	14,900	338	3.57	0.902	2.39	0.648	0.996	0.0124	0.905							
PSM006571	2005-07-29	2005-09-02	2.97	3	20	1	Lake sediment		Aug/sept 2004	18		160,000	100,000	22,1																

Idcode	Start date	Stop date	Secup (m)	Seclow (m)	Sub- sample no	DNO	Sample namn	Sampling date	Sampling period	Dry	Ash	Total C	Total	Total N	PO <sub>4</sub>	Al	Al <sub>2</sub> O <sub>3</sub>	Ca	CaO	Fe	Fe <sub>2</sub> O <sub>3</sub>	K	K <sub>2</sub> O	Mg	MgO	Mn	MnO	Na	Na <sub>2</sub> O	
										subst %	subst %	mg/kg dw	organic C mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	%	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw		
PSM007171	2005-10-20	2005-11-11	1.25	1.25	66	1	Sand/gravel		Aug/sept 2005	88.7		2,100	2,200	590	550	129		14.7		2.19		5.19		3.74		1.77		0.0678		3.44
PSM007171	2005-10-20	2005-11-11	1.4	1.4	67	1	Glacial clay		Aug/sept 2005	73.6		1,500	1,600	310	240	81		15.2		1.33		5.42		4.09		1.77		0.0523		2.28
PSM007171	2005-10-20	2005-11-11	1.8	1.8	68	1	Glacial clay		Aug/sept 2005	70.3		2,000	2,100	580	480	64		15.6		1.63		7.05		4.13		2.39		0.0864		2.06
PSM007171	2005-10-20	2005-11-11	3.2	3.2	69	1	Gravelly till		Aug/sept 2005	93.5		-1,000	-1,000	340	300	42		12.9		2.06		3.67		3.65		1.3		0.0588		3.31
PSM007173	2005-10-20	2005-11-11	1.5	1.5	70	1	Sandy till		Aug/sept 2005	95.2		-1,000	-1,000	230	200	50		14.6		2.5		5		4.42		2.31		0.0693		3.27
PSM007180	2005-10-20	2005-11-11	0.3	0.3	71	1	Sand		Aug/sept 2005	95.3		-1,000	-1,000	470	440	41		14.3		1.49		2.82		4.38		0.493		0.0424		3.8
PSM007180	2005-10-20	2005-11-11	1.4	1.4	72	1	Glacial clay		Aug/sept 2005	80.6		3,200	3,400	300	230	40		15.5		1.48		8.19		4.25		2.27		0.0873		1.84
PSM007180	2005-10-20	2005-11-11	2.3	2.3	73	1	Silt layer (till)		Aug/sept 2005	84.7		-1,000	-1,000	490	450	59		12.6		2.08		5.44		4.01		1.04		0.0748		2.86
PSM007180	2005-10-20	2005-11-11	2.5	2.5	74	1	Sandy till		Aug/sept 2005	92.9		-1,000	-1,000	410	380	45		14.6		1.71		3.87		4.43		1.02		0.0567		3.74
PSM007190	2005-10-20	2005-11-11	1.1	1.3	75	1	Gyttja		Aug/sept 2005	24.8		170,000	180,000	13,000	13,000	178		3.29		1.77		1.92		0.818		0.576		0.0224		0.382
SSM000224	2005-10-20	2005-11-11	12	13	76	1	Sand/gravel		Aug/sept 2005	94.7		-1,000	-1,000	340	290	38		15.4		2.37		4.43		4.17		1.62		0.0908		3.85
SSM000225	2005-10-20	2005-11-11	2	2.8	77	1	Sand		Aug/sept 2005	87.6		-1,000	-1,000	200	160	53		12.7		1.62		3.48		4.08		0.544		0.0482		3.35
ASM001426	2006-07-05	2006-08-08	0	0.025	233	1	Humus		Nov 2004	50.7		227,700	220,000	12,220	10,000	220		6.92		1.44		1.82		2.18		0.517		0.082		1.61
ASM001426	2006-07-05	2006-08-08	0.025	0.1	234	1	Humus		Nov 2004	71.8		170,000	150,000	9,810	8,400	70		8.98		1.24		3.01		2.73		0.481		0.0522		2.07
ASM001426	2006-07-05	2006-08-08	0	0.1	235	1	Mineraljord bulk		Nov 2004	77.6		73,970	75,300	5,270	4,600	32		10.9		1.23		2.2		3.35		0.506		0.0325		2.61
ASM001426	2006-07-05	2006-08-08	0.1	0.2	236	1	Mineraljord bulk		Nov 2004	93.3		35,340	34,550	1,860	1,600	22		12.7		1.25		1.74		4.06		0.47		0.0284		3.18
ASM001426	2006-07-05	2006-08-08	0	0.1	237	1	Mineraljord rhizo		Nov 2004	70.6		102,300	99,070	6,600	5,500	54		9.93		1.13		2.06		3.01		0.507		0.0318		2.32
ASM001426	2006-07-05	2006-08-08	0.1	0.2	238	1	Mineraljord rhizo		Nov 2004	83.8		25,360	20,690	1,520	1,200	28		12.2		1.24		2.79		3.97		0.471		0.0388		2.99
ASM001434	2006-07-05	2006-08-08	0	0.025	239	1	Humus		Nov 2004	19.7		363,100	360,000	26,590	23,000	120		1.39		0.736		2.09		0.276		0.528		0.008		0.667
ASM001434	2006-07-05	2006-08-08	0.025	0.1	240	1	Humus		Nov 2004	20.6		353,300	330,000	27,710	25,000	160		1.88		0.635		1.22		0.316		0.546		0.0056		0.794
ASM001434	2006-07-05	2006-08-08	0	0.1	241	1	Mineraljord bulk		Nov 2004	25.7		215,300	210,000	18,340	17,000	80		3.52		0.513		1.34		0.622		0.643		0.0084		0.774
ASM001434	2006-07-05	2006-08-08	0.1	0.4	242	1	Mineraljord bulk		Nov 2004	35.3		140,400	140,000	19,210	18,000	20		4.98		0.604		1.74		1.11		0.746		0.0136		1.15
ASM001434	2006-07-05	2006-08-08	0	0.1	243	1	Mineraljord rhizo		Nov 2004	25.7		242,500	240,000	18,930	16,000	72		3.18		0.499		1.49		0.535		0.587		0.0078		0.748
ASM001434	2006-07-05	2006-08-08	0.1	0.4	244	1	Mineraljord rhizo		Nov 2004	28.6		158,900	160,000	15,970	14,000	21		4.44		0.567		1.7		0.962		0.736		0.0122		1.06
ASM001440	2006-07-05	2006-08-08	0	0.025	245	1	Humus		Nov 2004	27.9		456,300	450,000	16,130	14,000	350		0.425		0.823		0.315		0.122		0.103		0.0176		-0.05

Idcode	Start date	Stop date	Secup (m)	Seclow (m)	Sub-sample no	DNO	Sample namn	Sampling date	Sampling period	Dry subst %	Ash subst %	Total C mg/kg dw	Total organic C mg/kg dw	Total N mg/kg dw	Total organic N mg/kg dw	PO <sub>4</sub> mg/kg dw	Al mg/kg dw	Al <sub>2</sub> O <sub>3</sub> %	Ca mg/kg dw	CaO %	Fe mg/kg dw	Fe <sub>2</sub> O <sub>3</sub> %	K mg/kg dw	K <sub>2</sub> O %	Mg mg/kg dw	MgO %	Mn mg/kg dw	MnO %	Na mg/kg dw	Na <sub>2</sub> O %
ASM001440	2006-03-14	2006-03-28	0.4	0.6	204	1	Extraction Aqua regia	2003-10-16																						
ASM001426	2005-10-11	2005-10-26			44	1	N trädskikt	2005-07-21		42		520,000		16,000	15,000	1,670	28.8		8,040		102		10,100		2,030		437		45	
ASM001426	2005-10-11	2005-10-26			45	1	N buskskikt	2005-07-21		42.5		490,000		9,400	9,000	1,760	45.2		14,000		69.7		9,440		2,990		610		71.4	
ASM001426	2005-10-11	2005-10-26			46	1	N fältskikt	2005-07-21		39.4		460,000		14,000	14,000	1,820	33.5		7,020		53.4		19,300		1,880		425		47.4	
ASM001426	2005-10-11	2005-10-26			47	1	N bottenskikt	2005-07-21		31		490,000		8,900	7,900	1,530	2,280		5,430		693		5,410		1,220		364		712	
ASM001426	2005-10-11	2005-10-26			48	1	Buskskikt	2005-07-21		39.5		490,000		3,200	2,900	1,740	43.8		11,500		62.7		10,000		3,380		425		48	
ASM001426	2005-10-11	2005-10-26			49	1	Fältskikt	2005-07-21		29.6		460,000		16,000	15,000	2,420	18.7		4,910		47.7		20,300		1,860		528		-40	
ASM001426	2005-10-11	2005-10-26			50	1	Bottenskikt	2005-07-21		25.7		470,000		8,700	7,300	1,700	3,940		7,110		1,340		5,180		1,380		376		1,280	
ASM001426	2005-10-11	2005-10-26			51	1	Trädskikt	2005-07-21		40.1		510,000		9,300	8,700	2,200	25.9		10,700		94.9		11,000		2,610		532		43.8	
ASM001434	2005-10-11	2005-10-26			52	1	Trädskikt	2005-07-21		30.7		490,000		18,000	17,000	3,780	27.1		4,980		91.6		13,800		4,810		131		56.9	
ASM001434	2005-10-11	2005-10-26			53	1	Fältskikt	2005-07-21		26.1		460,000		20,000	19,000	3,410	52.4		3,390		108		17,300		2,320		347		2,950	
ASM001434	2005-10-11	2005-10-26			54	1	Bottenskikt	2005-07-21		27.3		480,000		15,000	14,000	2,620	347		6,620		553		10,400		1,720		259		1,460	
ASM001440	2005-10-11	2005-10-26			55	1	Trädskikt	2005-07-22		41.4		490,000		9,700	9,400	2,550	61.6		4,460		36.5		3,500		931		202		49.7	
ASM001440	2005-10-11	2005-10-26			56	1	Fältskikt	2005-07-22		22.8		460,000		22,000	21,000	2,830	47.9		2,770		51.3		7,980		2,330		344		2,280	
ASM001440	2005-10-11	2005-10-26			57	1	Bottenskikt	2005-07-22		33.5		480,000		5,500	3,800	960	1,130		9,520		719		1,980		1,000		228		231	
ASM001426	2006-05-17	2006-06-09			230	1	Ved av ek	2006-04-26		64.2		406,000	390,000	5,600		130	37.1		39,900		9.38		2,940		877		408		69.1	
ASM001434	2006-05-17	2006-06-09			231	1	Ved av al	2006-04-26		45.2		450,500	440,000	15,300		540	5.07		5,780		21.4		617		1,890		175		50	
ASM001440	2006-05-17	2006-06-09			232	1	Ved av gran	2006-04-26		46.2		371,000	360,000	5,050		350	23.8		40,300		6.08		1,920		663		424		-4	
ASM001426	2006-07-05	2006-08-14	0	0.1	251	1	Trädrot humus		Nov 2004	93		507,700	470,000	12,880	11,000	500	2,110		5,490		1,110		3,560		1,730		318		519	
ASM001426	2006-07-05	2006-08-14	0	0.2	252	1	Trädrot mineraljord		Nov 2004	93.8		503,800	500,000	8,590	6,400	340	2,130		5,940		1,710		2,360		1,530		144		333	
ASM001426	2006-07-05	2006-08-14	0	0.1	253	1	Övr rot humus		Nov 2004	95.9		440,100	420,000	8,960	7,300	955	3,210		3,660		2,720		2,360		1,060		419		583	
ASM001434	2006-07-05	2006-08-14	0	0.1	254	1	Trädrot humus		Nov 2004	92		465,100	500,000	10,310	8,800	350	706		1,930		10,300		926		1,340		23.8		2,490	
ASM001434	2006-07-05	2006-08-14	0	0.4	255	1	Trädrot mineraljord		Nov 2004	92.2		419,000	430,000	8,890	7,400	126	994		1,230		24,900		719		934		14		2,720	
ASM001440	2006-07-05	2006-08-14	0	0.1	256	1	Trädrot humus		Nov 2004	92.3		484,600	490,000	11,760	10,000	570	442		3,940		333		751		456		113		280	
ASM001440	2006-07-05	2006-08-14	0	0.1	257	1	Trädrot mineraljord		Nov 2004	90.9		489,000	470,000	12,350	11,000	240	1,970		2,440		2,130		335		395		35.9		127	
ASM001440	2006-07-05	2006-08-14	0.1	0.4	258	1	Trädrot mineraljord		Nov 2004	92.4		491,300	480,000	9,020	7,900	220	2,300		2,240		1,390		376		339		29.6		137	
ASM000005	2006-05-17	2006-06-02			211	1	Älg 1		Aut/wint 05/06	28.1		466,700		112,100		0.359	163		104		13,900		986		0.462		1,670			
ASM000005	2006-05-17	2006-06-02			212	1	Älg 2		Aut/wint 05/06	25.3		429,500		86,720		1.47	252		131		14,200		784		0.83		2,610			
ASM000005	2006-05-17	2006-06-02			213	1	Älg 3		Aut/wint 05/06	28.5		427,000		90,950		0.174	173		97											

Idcode	Start date	Stop date	Secup (m)	Seclow (m)	Sub- sample no	DNO	Sample namn	Sampling date	Sampling period	Dry subst %	Ash subst %	Total C mg/kg dw	Total organic C mg/kg dw	Total N mg/kg dw	Total organic N mg/kg dw	PO <sub>4</sub> mg/kg dw	Al mg/kg dw	Al <sub>2</sub> O <sub>3</sub> % %	Ca mg/kg dw	CaO % %	Fe mg/kg dw	Fe <sub>2</sub> O <sub>3</sub> % %	K mg/kg dw	K <sub>2</sub> O % %	Mg mg/kg dw	MgO % %	Mn mg/kg dw	MnO % %	Na mg/kg dw	Na <sub>2</sub> O % %
PSM007095	2006-11-07	2006-11-23			1	Chara		2006-04-11		90.6		319,500		6,880			1,920		21,300		1,800		3,890		6,710		25.1		3,970	
PSM007095	2006-11-07	2006-11-23			1	Chara		2006-04-11		91.1		353,100		19,700			1,160		18,800		1,150		4,520		5,990		19.5		3,420	
PSM007095	2006-11-07	2006-11-23			1	Chara		2006-04-11		90.7		315,400		12,650			888		20,500		893		5,530		6,780		18.8		5,190	
PSM007095	2006-11-07	2006-11-23			1	Chara		2006-04-11		90.9		333,600		9,830			617		21,800		784		5,920		6,970		25.3		5,450	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-10-19		89.2		346,100		10,410			301		37,700		233		2,970		7,310		72.3		8,070	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-10-19		90.9		302,700		10,410			952		74,400		531		3,440		6,290		116		6,650	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-10-19		89.5		296,000		8,310			402		52,600		285		7,280		7,380		99.8		13,700	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-10-19		89.8		303,000		10,550			453		53,100		340		4,070		6,690		79.1		7,930	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-10-19		90.3		320,600		10,830			402		41,000		386		3,610		6,600		70		8,630	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-07-12		94.6		253,900		10,970			750		179,000		517		3,990		5,640		97.1		7,030	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-07-12		92.5		304,800		12,470			937		124,000		563		2,780		6,420		63.6		6,200	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-07-12		94.3		256,500		9,290			637		190,000		467		1,990		5,060		91.3		4,570	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-07-12		94.2		251,400		8,490			550		193,000		344		288		4,270		63.5		1,900	
PSM007095	2006-11-07	2006-11-23			1	Chara		2005-07-12		93.9		250,200		10,610			521		170,000		416		609		4,880		96.3		2,380	
ASM000100	2006-09-19	2006-10-11	259	1	Blästång			2006-08-29		26.8		333,600		10,130			11.2		20,800		37.1		29,000		13,400		308		21,800	
ASM000100	2006-09-19	2006-10-11	260	1	Trädf.grönalg			2006-08-29		10.8		328,800		23,700			442		6,710		522		43,700		6,110		88.5		18,700	
ASM000101	2006-09-19	2006-10-11	264	1	Blästång			2006-08-29		25.7		334,500		6,630			11.4		19,700		18.6		27,300		13,300		228		20,600	
ASM000101	2006-09-19	2006-10-11	265	1	Trädf.grönalg			2006-08-29		9		327,900		26,430			52.7		7,280		140		62,900		6,860		82.3		26,400	
ASM000102	2006-09-19	2006-10-11	269	1	Blästång			2006-08-29		26.8		334,700		7,190			18.5		19,300		31.2		28,900		12,400		200		21,500	
ASM000102	2006-09-19	2006-10-11	270	1	Trädf.grönalg			2006-08-29		9.5		313,900		20,210			85.4		9,860		141		60,400		5,650		76.9		21,700	
ASM000105	2006-09-19	2006-10-11	274	1	Nate			2006-08-29		12.5		375,500		9,460			1,500		13,100		2,310		10,800		15,300		111		32,400	
ASM000105	2006-09-19	2006-10-11	275	1	Kransalg			2006-08-29		19.2		217,000		14,210			1,360		172,000		1,130		13,600		8,550		126		20,700	
ASM000106	2006-09-19	2006-10-11	280	1	Nate			2006-08-29		8.8		343,400		13,880			3,750		22,700		7,810		9,020		19,700		442		28,000	
ASM000106	2006-09-19	2006-10-11	281	1	Kransalg			2006-08-29		8.4		261,400		14,900			1,390		143,000		2,260		14,500		9,310		743		201,00	
ASM000107	2006-09-19	2006-10-11	287	1	Kransalg			2006-08-29		23.9		246,100		9,830			2,290		173,000		1,360		5,550		8,380		183		11,800	
ASM000108	2006-09-19	2006-10-11	286	1	Nate			2006-08-29		14.6		348,100		6,540			2,260		20,000		3,400		9,330		17,300		279		26,700	
ASM000110	2006-09-19	2006-10-11	292	1	Vass			2006-08-30		44.3		431,500		20,310			20.7		2,750		107		18,900		871		50.1		452	
ASM000110	2006-09-19	2006-10-11	293	1	Vass rhizom			2006-08-30		14		408,300		3,820			3,250		1,260		1,490		19,700		644		50.6		4,110	
ASM000110	2006-09-19	2006-10-11	294	1	Näckros			2006-08-30		15.5		407,500		19,340			192		25,000		485		21,700		2,410		944		9,160	

Idcode	Start date	Stop date	Secup (m)	Seclow (m)	Sub- sample no	DNO	Sample namn	Sampling date	Sampling period	Dry subst %	Ash subst %	Total C mg/kg dw	Total organic C mg/kg dw	Total N mg/kg dw	Total organic N mg/kg dw	PO <sub>4</sub> mg/kg dw	Al mg/kg dw	Al <sub>2</sub> O <sub>3</sub> % dw	Ca mg/kg dw	CaO % dw	Fe mg/kg dw	Fe <sub>2</sub> O <sub>3</sub> % dw	K mg/kg dw	K <sub>2</sub> O % dw	Mg mg/kg dw	MgO % dw	Mn mg/kg dw	MnO % dw	Na mg/kg dw	Na <sub>2</sub> O % dw
ASM000202	2006-09-25	2006-12-01			291	1	Abborre 3	2006-08-31		22.3		423,400		138,700			0.135		739		-20		24,400		2,290		0.586		2,520	
ASM100000	2006-09-25	2006-12-01			262	1	Strömming 1		Aug 2006	22.9		393,600		128,700			0.0679		730		-10		23,100		1,420		0.979		2,360	
ASM100000	2006-09-25	2006-12-01			263	1	Flundra 1			20.1		437,000		144,800			0.306		404		-10		19,000		1,380		0.4		2,980	
ASM100000	2006-09-25	2006-12-01			267	1	Strömming 2			22.7		435,500		126,400			0.185		1,470		-10		20,300		1,670		1.42		2,410	
ASM100000	2006-09-25	2006-12-01			268	1	Flundra 2			19.6		414,500		134,400			1.03		919		-10		21,200		1,580		0.599		3,260	
ASM100000	2006-09-25	2006-12-01			272	1	Strömming 3			20.7		762,900		98,990			0.173		1,570		-20		20,300		1,580		1.58		2,460	
ASM100000	2006-09-25	2006-12-01			273	1	Flundra 3			19.7		419,000		113,200			0.628		427		-10		21,800		1,480		0.462		3,650	
ASM000192	2006-09-26	2006-12-01			297	1	Mörт 1	2006-08-30		19.5		420,700		136,900			0.797		2,720		-20		20,300		1,940		1.95		2,210	
ASM000192	2006-09-26	2006-12-01			298	1	Abborre 1	2006-08-30		21.1		415,400		100,600			0.381		575		-10		22,200		1,690		0.367		2,940	
ASM000192	2006-09-26	2006-12-01			304	1	Mörт 2	2006-08-30	and aug 2004	20.5		430,200		139,100			0.232		2,730		-10		21,700		2,110		1.66		2,200	
ASM000192	2006-09-26	2006-12-01			305	1	Abborre 2	2006-08-30		21.1		428,700		141,900			1.77		3,450		-10		19,800		1,710		0.912		2,030	
ASM000192	2006-09-26	2006-12-01			311	1	Mörт 3	2004-08-19		20.1		425,600		142,400			0.512		2,540		-10		19,900		1,930		1.49		2,450	
ASM000192	2006-09-26	2006-12-01			312	1	Abborre 3	2006-08-30		21.2		422,900		140,600			0.541		1,660		-20		20,800		1,630		0.551		1,970	
ASM000100	2006-11-16	2006-12-01			266	1	Blåmussla skal	2006-08-29		70.2		119,800		2,470			8.34		412,000		10.2		525		1,710		73.5		3,040	
ASM000102	2006-11-16	2006-12-01			276	1	Blåmussla skal	2006-08-29		70.9		121,100		841			49.7		402,000		55.1		566		1,640		34		3,660	

## Cont.

Idcode	Sub-sample no	Sample namn	P	P <sub>2</sub> O <sub>5</sub>	Si	SiO <sub>2</sub>	Ti	TiO <sub>2</sub>	Sum oxides	Loss on ignition	Ag	As	B	Ba	Be	Br	Cd	Ce	Cl	Co	Cr	Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Hg	Ho
			mg/kg dw	% dw	mg/kg dw	% dw	mg/kg dw	% dw	mg/kg dw	% dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	mg/kg dw	
PSM006562	8	Peat/wetland	0.065	1.73	0.0165	2.7	-0.02	2.19	-1	22.1	0.0835	2.35	0.409	4.56	153	0.761	6.73	0.0871	3.38	0.275	0.175	0.0696	2.16	0.331	0.1	0.103	0.0612				
PSM006562	9	Peat/wetland	0.0164	0.359	0.0033	0.8	0.217	0.791	-1	8.31	0.0558	1.69	0.0826	1.08	122	0.475	0.574	0.0732	1.81	0.0669	0.0394	0.0146	0.545	0.0737	0.0291	-0.02	0.0142				
PSM006562	7	Peat/wetland	0.0916	0.908	0.016	3.1	-0.02	0.406	-1	58.5	0.333	1.25	0.0753	21.2	53	1.15	3.75	-0.06	5.26	1.03	0.645	0.282	2.28	1.39	0.0796	0.046	0.217				
PSM006562	6	Peat/wetland	0.0791	0.459	0.0098	4.1	-0.02	0.701	-1	62.6	0.293	-1	0.2	42.3	-50	1.02	3.52	0.0726	7.44	2.07	1.16	0.551	4.38	2.76	0.123	0.0401	0.425				
PSM006562	10	Peat/wetland	0.0634	0.57	0.0138	3.5	-0.02	1.76	-1	42.1	0.388	-1	0.139	33.6	-50	1.29	4.88	-0.06	13.4	1.8	1.09	0.45	3.75	2.41	0.195	0.0243	0.368				
PSM006562	5	Peat/wetland	0.0638	35.1	0.132	43.5	-0.02	5.49	-1	176	1.12	1.48	0.458	99.4	-50	11.6	29.7	1.76	28.6	5.97	3.6	1.62	18.6	7.8	1.05	0.0251	1.22				
PSM006562	4	Peat/wetland	0.049	58.1	0.282	74.7	-0.02	10.2	-1	333	1.61	2.05	0.349	57.1	-50	8.54	44.5	3.85	42.1	3.54	2.57	0.821	36.5	3.94	1.6	-0.02	0.864				
PSM006562	3	Peat/wetland	0.0475	64.1	0.347	83.9	-0.02	9.59	-1	407	1.98	2.68	0.336	59.4	-50	9.06	55.5	4.86	46.5	4.18	2.74	0.819	29.5	4.01	2.2	-0.02	0.96				
PSM006562	1	Peat/wetland	0.174	57.1	0.69	89.3	-0.02	1.46	-1	746	3.18	-1	0.115	97.2	-50	17.6	85.9	7.72	24.8	6.29	3.52	1.01	24	5.83	4.25	-0.02	1.2				
PSM006562	2	Peat/wetland	0.181	58.3	0.789	94.5	0.441	1.71	-1	703	3.93	-1	0.228	113	-50	19.1	90.1	9.89	27	7.27	4.21	1.49	42.3	6.68	4.67	-0.02	1.43				
PSM006563	37	Peat/wetland	0.212	5.55	0.0123	8.7	-0.1	1.19	-6	28.1	3.11	2.12	0.957	45	161	3.82	4.19	-0.3	10.5	2.5	1.7	0.619	5.78	3.43	0.142	0.0616	0.557				
PSM006563	38	Peat/wetland	0.704	36.5	0.114	53.3	-0.04	3.77	-2	131	3.55	17.3	1.42	224	1,370	9.55	29.6	1.42	48.6	12.5	7.42	3.16	38.7	16.8	1.11	0.043	2.61				
PSM006563	39	Peat/wetland	0.263	42.1	0.138	53.6	-0.05	10.3	-3	120	1.95	22.8	0.612	85.1	1,490	3.23	28.9	1.71	67	6.35	3.86	1.25	34.2	7.45	0.828	0.0212	1.32				
PSM006563	40	Peat/wetland	0.186	54.5	0.193	65.9	4.86	9.47	-2	171	1.35	58.8	0.508	42.7	3,050	4.63	31	2.3	41.4	3.55	2.72	0.807	37.1	4.2	0.827	-0.02	0.814				
PSM006563	41	Peat/wetland	0.107	64.5	0.222	81.2	-0.02	2.1	-1	565	2.75	11.9	0.0877	44.3	944	3.99	23.8	2.35	7.54	2.07	1.72	0.538	58.5	2.26	1.51	-0.02	0.54				
PSM006563	42	Peat/wetland	0.143	62.9	0.403	86.3	-0.02	2.81	-1	594	3.99	3.85	0.0414	68.7	366	4.26	14.4	2.23	4.14	3.97	2.87	1.18	61.9	4.38	5.5	-0.02	0.871				
PSM006563	43	Peat/wetland	0.225	55.2	0.761	93.4	0.141	3.29	-1	509	3.94	12.4	0.0684	101	1,980	22	98.2	10	30.9	5.84	3.99	1.33	73.1	6.71	3.72	-0.02	1.28				
PSM006571	11	Lake sediment	0.357	41.2	0.179	54.4	39.7	-0.02	4.42	-1	181	8.73	8.4	3.47	222	352	22.2	36.6	2.23	66.4	11.7	8.03	3.57	67.6	16.6	0.826	0.153	2.52			
PSM006571	12	Lake sediment	0.37	42.3	0.183	55.8	40	-0.02	4.35	-1	185	8.82	7.16	3.47	240	236	21.1	43.5	2.14	64.1	13.1	8.26	3.72	60.2	17.2	0.988	0.193	2.76			
PSM006571	13	Lake sediment	0.38	41.5	0.183	55	39.8	-0.03	4.41	-1	187	9	9.56	3.53	247	260	23.3	41.7	2.19	61.7	12.1	7.23	3.69	-1	16.6	1.52	0.189	2.43			
PSM006571	14	Lake sediment	0.359	41.5	0.18	54.7	40	0.238	4.46	-1	192	9.18	9.55	3.62	254	289	21.2	38.8	2.19	64.6	11.3	6.8	3.6	-1	16.8	1.34	0.181	2.4			
PSM006571	15	Lake sediment	0.373	42.9	0.205	56.8	38.9	0.272	4.66	-1	206	9.34	8.86	3.52	250	239	23.4	41.6	2.26	63.5	11.4	6.52	3.72	6.43	15.8	1.91	0.168	2.24			
PSM006571	16	Lake sediment	0.64	38.3	0.0943	49.7	46.2	-0.05	3.51	-2	82.3	4.57	74.2	1.1	231	2,880	6.5	23.4	1.09	57	9.51	5.42	3.1	-1	13.5	0.228	0.0431	1.89			
PSM006571	17	Lake sediment	0.7	26.4	0.133	36.9	57.6	-0.04	2.24	-2	155	4.82	40.2	1.29	259	1,590	12.7	34.7	1.5	63.4	11.4	5.94	3.75	-1	16.2	0.481	0.0727	2.17			
PSM006571	18	Lake sediment	0.37	45.8	0.207	60.1	36.3	-0.05	5.46	-3	194	9.94	9.54	4.44	255	334	25.4	38.8	2.76	60.5	10.9	6.79	3.85	20.5	15.7	1.01	0.107	2.35			
PSM006571	19	Lake sediment	0.282	48.4	0.117	58.2	35.8	-0.04	8.51</td																						

Idcode	Sub-sample no	Sample namn	P mg/kg dw	P <sub>2</sub> O <sub>5</sub> % dw	Si mg/kg dw	SiO <sub>2</sub> % dw	Ti mg/kg dw	TiO <sub>2</sub> %	Sum oxides %	Loss on ignition %	Ag mg/kg dw	As mg/kg dw	B mg/kg dw	Ba mg/kg dw	Be mg/kg dw	Br mg/kg dw	Cd mg/kg dw	Ce mg/kg dw	Cl mg/kg dw	Co mg/kg dw	Cr mg/kg dw	Cs mg/kg dw	Cu mg/kg dw	Dy mg/kg dw	Er mg/kg dw	Eu mg/kg dw	Ga mg/kg dw	Gd mg/kg dw	Hf mg/kg dw	Hg mg/kg dw	Ho mg/kg dw
PSM007171	68	Glacial clay		0.181	63.8	0.689	97.6	3.4	0.106	3.22	-1	705	2.57	-0.5	0.0722	72.6	-25	15.7	89.9	6.69	29.4	4.06	2.42	0.748	14	3.57	4.34	-0.04	0.834		
PSM007171	69	Gravelly till		0.168	71.6	0.484	99.2	1.7	0.045	0.795	-1	951	2.78	0.642	0.0379	78.8	65	6.47	32.9	2.69	14.1	3.09	1.5	0.953	11.8	2.86	5.42	-0.04	0.657		
PSM007173	70	Sandy till		0.287	65.2	0.707	98.4	1.7	0.0514	0.71	1.91	1,010	3.12	0.649	0.0232	54.7	54	11.8	41.4	3.46	18.1	2.09	1.22	0.683	10.9	2.06	3.58	-0.04	0.463		
PSM007180	71	Sand	0.0903	72.4	0.203	100	0.5	-0.04	1.2	-1	945	0.72	1	0.0381	24.7	59	4.8	33.3	1.01	7.15	1.04	0.568	0.209	11	1.41	2.2	-0.04	0.266			
PSM007180	72	Glacial clay	0.187	61.5	0.694	96	3.8	0.0932	5.22	1.73	693	2.41	0.802	0.079	85.3	-25	17.4	86.2	6.8	27.4	4.86	2.89	0.836	17.4	4.87	6.43	-0.04	0.84			
PSM007180	73	Silt layer (till)	0.233	70.5	0.644	99.5	0.8	0.0531	1.17	1.8	772	1.41	-0.5	0.073	82.4	29	7.19	85.3	2.58	10.3	4.51	2.19	1.01	12.2	3.47	10.4	-0.04	0.863			
PSM007180	74	Sandy till	0.137	69.4	0.365	99.3	0.8	-0.04	0.932	-1	1,100	1.01	0.914	0.0213	50.6	63	6.07	48.8	2.22	10.5	1.64	1.01	0.42	13.5	1.42	3.34	-0.04	0.368			
PSM007190	75	Gyttja	0.19	38	0.13	47.1	38.4	0.203	6.45	1.12	131	1.38	32.3	0.877	56.3	27	2.98	28	1.5	55.2	3.09	2.06	0.77	-1	3.16	0.821	0.08	0.638			
SSM000224	76	Sand/gravel	0.17	66.6	0.491	99.2	1.3	0.0558	0.821	-1	1,040	1.9	-0.5	0.0695	55.4	53	9.29	56.9	1.57	16.5	2.27	0.905	0.389	15	2.37	3.74	-0.04	0.441			
SSM000225	77	Sand	0.107	73.9	0.459	100.3	0.7	0.0533	1.05	1.14	812	0.732	0.686	0.0588	71.6	60	3.47	29.5	0.826	20.1	3.19	1.46	0.703	9.84	3.33	5.63	-0.04	0.692			
ASM001426	233	Humus	0.194	35.2	0.232	50.2	47	0.737	2.33	1.16	430	1.67	2.8	0.311	57.7	117	3.12	43.6	1.61	17.1	2.06	1.47	0.57	14.1	0.52	1.71	0.117	0.389			
ASM001426	234	Humus	0.168	46	0.279	65	33.6	0.911	3.63	-1	530	2.18	6.45	0.264	86.4	70.5	3.87	63.5	1.98	21.9	2.91	1.88	0.971	13.6	1.36	2.35	0.119	0.629			
ASM001426	235	Mineraljord bulk	0.106	60.2	0.331	81.5	16.1	0.834	2.69	-1	653	2.39	3.51	0.156	59.9	75.9	3.01	77.2	2.07	13.6	2.09	1.69	0.686	17.6	1.34	2.25	0.093	0.443			
ASM001426	236	Mineraljord bulk	0.0741	67.8	0.326	91.6	7.1	0.758	1.97	-1	863	2.7	2.12	0.0594	45.7	55.3	2.54	85.2	1.91	7.74	1.47	1.2	0.634	15	1.1	2.21	-0.04	0.363			
ASM001426	237	Mineraljord rhizo	0.115	53.3	0.304	72.7	21.1	0.804	3.01	-1	575	2.28	3.2	0.196	72.8	68.5	3.25	56.6	2.14	14.4	2.43	1.71	0.605	17.4	1.52	1.9	0.0606	0.5			
ASM001426	238	Mineraljord rhizo	0.0732	68.2	0.336	92.3	5.5	-1	2.7	-1	715	2.63	3.72	0.0586	52.6	106	3.44	73.7	2.23	16.6	1.99	1.55	0.583	15.5	0.926	2.38	-0.04	0.441			
ASM001434	239	Humus	0.292	11.6	0.0432	17.6	77.2	0.89	4.55	-1	33.9	1.27	40.1	0.432	78.4	4,010	1.76	26.6	0.477	33.9	2.54	2.25	1.11	12.9	1.1	0.141	0.0977	0.54			
ASM001434	240	Humus	0.348	12.5	0.0566	18.3	73.4	0.886	3.92	-1	35.5	1.48	43.9	0.502	125	4,580	1.53	18.8	0.57	43.7	4.29	1.87	1.57	10.5	3.42	0.234	0.133	0.818			
ASM001434	241	Mineraljord bulk	0.256	26	0.116	33.8	47.6	0.891	4.78	-1	82.6	1.53	35.5	0.363	144	3,990	1.96	29.5	1.25	39.6	5.46	2.97	1.65	14	2.23	0.502	-0.06	0.943			
ASM001434	242	Mineraljord bulk	0.172	52.8	0.191	63.5	33.7	0.825	5.43	-1	170	1.44	25.2	0.498	111	4,430	2.9	35	1.84	55.7	4.6	3.11	1.25	13.6	2.32	1.43	-0.06	0.972			
ASM001434	243	Mineraljord rhizo	0.29	26.1	0.104	33.5	52.5	0.968	6.26	-1	69.3	1.61	43	0.384	164	4,270	1.91	25.8	1.14	39.4	5.55	3.5	1.8	12.9	3.8	0.411	0.0784	1.16			
ASM001434	244	Mineraljord rhizo	0.192	44.8	0.17	54.6	37.8	1.08	5.77	-1	132	1.45	25.3	0.597	121	4,490	2.95	35.3	1.73	60.6	4.87	3.18	1.39	13.3	1.48	0.794	-0.04	1.06			
ASM001440	245	Humus	0.191	5.65	0.0157	7.7	91	0.838	1.19	-1	40.3	0.51	4.13	0.31	18.2	181	1.18	-10	0.205	11.7	0.694	0.498	0.29	8.8	1.57	0.125	0.193	0.162			
ASM001440	246	Humus	0.15	4.38	0.0172	5.9	93.4	0.911	2.22	-1	39.4	0.517	2.97	0.474	14.5	79.7	1.51	-10	0.137	11.3	0.668	0.569	0.168	6.3	-0.4	0.184	0.231	0.129			
ASM001440	247	Mineraljord bulk	0.255	8.82	0.0379	11.3	85.9	0.887	3.04	-1	32.8	1.23	8.11	0.43	45.1	49	2.09	-10	0.196	22.8	1.48	1.11	0.437	4.42	1.2	-0.1	0.129	0.358			
ASM001440	248	Mineraljord bulk	0.282	14.5	0.0944	19.8	72.7	0.919	2.46	-1	103	2.61	6.03	0.489	102	136	2.09	19.7	0.568	46	3.12	2.08	1.05	8.15	1.79	0.264	0.0626	0.			

Idcode	Sub-sample no	Sample namn	P mg/kg dw	P <sub>2</sub> O <sub>5</sub> % dw	Si mg/kg dw	SiO <sub>2</sub> % dw	Ti mg/kg dw	TiO <sub>2</sub> %	Sum oxides %	Loss on ignition %	Ag mg/kg dw	As mg/kg dw	B mg/kg dw	Ba mg/kg dw	Be mg/kg dw	Br mg/kg dw	Cd mg/kg dw	Ce mg/kg dw	Cl mg/kg dw	Co mg/kg dw	Cr mg/kg dw	Cs mg/kg dw	Cu mg/kg dw	Dy mg/kg dw	Er mg/kg dw	Eu mg/kg dw	Ga mg/kg dw	Gd mg/kg dw	Hf mg/kg dw	Hg mg/kg dw	Ho mg/kg dw
ASM001426	46	N fältskikt	1,100	4,310	1.16			-0.03	0.543	11.4	22.1	-0.2	21	0.0527	0.351	2,260	0.0471	0.698	0.0542	5.39	0.0032	0.0015	0.0015	0.0217	0.0054	0.0012	0.0552	-0.0007			
ASM001426	47	N bottenskikt	1,150	1,790	66.3			0.0472	0.38	6.09	30.6	-0.2	26	0.223	2.38	105	0.342	1.33	0.206	5.92	0.107	0.0589	0.0365	0.652	0.123	0.0574	0.242	0.0198			
ASM001426	48	Buskskikt	1,160	1,890	2.26			-0.03	0.133	23.5	19.7	-0.2	6.7	0.0938	0.359	245	0.165	0.382	0.0344	4.84	0.007	0.0034	0.0023	0.0202	0.0112	0.0023	1.22	0.0013			
ASM001426	49	Fältskikt	1,150	5,330	0.684			-0.03	-0.2	10.6	18.5	-0.2	26	0.0516	0.104	2,970	0.049	0.4	0.039	4.98	0.0031	0.0013	0.0011	0.0154	0.0044	-0.0007	0.254	-0.0007			
ASM001426	50	Bottenskikt	1,790	6,780	133			0.07	0.471	7.12	49.1	0.189	62	0.263	7.04	230	0.697	2.65	0.274	6.93	0.285	0.152	0.0861	1.06	0.354	0.111	0.257	0.0527			
ASM001426	51	Trädskikt	1,490	1,850	1.04			-0.03	-0.1	38.3	16.4	-0.2	1	0.0445	0.496	110	0.142	0.276	0.0571	8.24	0.0081	0.0037	0.0029	-0.01	0.0152	0.0011	0.134	0.0014			
ASM001434	52	Trädskikt	1,700	398	1.28			-0.03	-0.1	47.3	2.11	-0.2	28	0.0158	0.276	445	0.173	0.179	0.0101	16.7	0.0052	0.0033	0.0016	-0.01	0.0098	0.0013	0.054	0.0012			
ASM001434	53	Fältskikt	1,500	7,570	-3			-0.03	-0.2	21.3	20.4	-0.2	97	0.318	0.12	3,590	0.142	0.34	0.159	10.1	0.005	0.0028	0.0011	-0.01	0.0065	-0.0007	0.157	0.0009			
ASM001434	54	Bottenskikt	1,060	9,870	8.65			-0.03	0.338	14.4	33.5	-0.2	93	0.191	1.53	2,250	0.252	0.676	0.131	6.86	0.0742	0.0391	0.0169	0.0881	0.0981	0.0079	0.206	0.014			
ASM001440	55	Trädskikt	807	1,890	-3			-0.03	-0.1	29	19.4	-0.2	8.3	0.0432	0.0504	379	0.183	0.395	0.355	3.68	0.0025	0.0015	0.0017	-0.01	0.0028	0.0012	0.0441	-0.0007			
ASM001440	56	Fältskikt	1,390	3,870	-3			-0.03	-0.2	14.2	31.7	-0.2	480	0.485	0.169	2,080	0.116	0.229	0.603	8.57	0.0028	0.0018	-0.001	-0.01	0.0031	-0.0007	0.0183	-0.0007			
ASM001440	57	Bottenskikt	839	14,200	25.6			0.0464	0.655	13.3	39	0.213	71	0.241	4.77	251	0.617	1.17	0.318	6.78	0.245	0.136	0.0608	0.298	0.303	0.0247	0.204	0.0472			
ASM001426	230	Ved av ek	270	349	0.48			-0.02	-0.06	24.3	109	-0.08	1.65	0.635	1.43	1,340	0.688	-0.02	0.0131	6.53	0.0165	0.0048	-0.005	-0.006	0.031	0.0055	-0.008	0.0025			
ASM001434	231	Ved av al	779	439	0.0847			-0.02	-0.06	27.4	10.9	-0.08	2.06	0.0722	0.148	1,650	0.439	-0.02	0.0061	6.04	0.0018	0.0008	-0.0005	-0.006	0.0023	0.0015	-0.008	0.0003			
ASM001440	232	Ved av gran	459	526	0.14			0.203	0.0897	17.6	145	-0.08	0.619	0.213	0.0475	938	0.147	-0.02	0.157	2.06	0.0007	-0.0003	-0.005	-0.006	0.0007	0.0017	0.0256	-0.0003			
ASM001426	251	Trädrot humus	649	6,050	53.4			0.13	0.442	22.9	34.8	0.197	5.33	0.454	18.6	503	0.998	0.983	0.146	10.9	0.528	0.231	0.147	0.395	0.668	0.0763	0.0512	0.0923			
ASM001426	252	Trädrot mineraljord	543	6,500	118			0.0883	0.705	18	29.6	0.203	7.52	0.435	29.4	344	1.28	1.42	0.164	9.78	0.787	0.337	0.216	0.433	0.968	0.0554	0.091	0.134			
ASM001426	253	Övr rot humus	772	17,700	172			0.0612	0.908	5.23	33.8	0.202	16.6	0.284	26.3	631	1.44	2.87	0.335	11.1	0.859	0.393	0.248	0.898	1.05	0.12	0.0879	0.151			
ASM001434	254	Trädrot humus	469	2,720	10.1			0.0622	4.68	14.2	6.93	0.154	52	0.581	15.8	2,040	0.685	0.703	0.0199	11.2	0.568	0.293	0.16	0.0881	0.721	0.0173	0.0302	0.108			
ASM001434	255	Trädrot mineraljord	303	5,960	27.7			0.0412	24.3	10.9	6.35	-0.2	68.8	0.27	19.5	2,410	0.377	1.66	0.0371	12.1	0.735	0.389	0.217	0.162	0.859	0.0501	-0.02	0.135			
ASM001440	256	Trädrot humus	731	3,260	8.26			0.181	0.641	7.2	32.1	-0.2	11.7	0.767	3.52	505	0.9	0.386	0.115	7.45	0.155	0.0829	0.0483	0.0868	0.193	0.0098	0.0994	0.0276			
ASM001440	257	Trädrot mineraljord	734	2,580	44.6			0.525	2.19	6.01	38.4	0.394	29.3	1.44	31.5	256	3.14	0.716	0.0503	7.93	1.11	0.573	0.365	0.297	1.43	0.0209	0.108	0.213			
ASM001440	258	Trädrot mineraljord	641	2,330	47			0.303	1.5	5.72	33.6	0.448	28.6	0.873	34.2	215	2.69	0.558	0.0435	6.69	1.25	0.641	0.384	0.186	1.56	0.0213	0.0378	0.23			
ASM000005	211	Älg 1	8,610	55.9	0.0327			-0.01	-0.04	1.11	0.0223	-0.05	10	0.0052	0.0004	1,300	0.0136	-0.02	0.235	3.29	-0.0002	-0.0002	-0.0002	-0.004	-0.0002	0.0003	0.023	-0.0002			
ASM000005	212	Älg 2	8,750	61.8	0.0687			-0.01	-0.04	1.01	0.109	-0.06	6.3	0.0241	0.0038	2,100	0.0317	-0.02	1	3.76	-0.0002	-0.0002	-0.0002	-0.004	-0.0002	-0.0002	0.0073	-0.0002			
ASM000005	213	Älg 3	9,090	53.7	0.0626			-0.01	-0.04	1.08	0.0304	-0.05	11																		

Idcode	Sub-sample no	Sample namn	P mg/kg dw	P <sub>2</sub> O <sub>5</sub> %	Si mg/kg dw	SiO <sub>2</sub> %	Ti mg/kg dw	TiO <sub>2</sub> %	Sum oxides %	Loss on ignition %	Ag mg/kg dw	As mg/kg dw	B mg/kg dw	Ba mg/kg dw	Be mg/kg dw	Br mg/kg dw	Cd mg/kg dw	Ce mg/kg dw	Cl mg/kg dw	Co mg/kg dw	Cr mg/kg dw	Cs mg/kg dw	Cu mg/kg dw	Dy mg/kg dw	Er mg/kg dw	Eu mg/kg dw	Ga mg/kg dw	Gd mg/kg dw	Hf mg/kg dw	Hg mg/kg dw	Ho mg/kg dw		
PSM007095	Chara	Chara	441	1,950	4.76						0	0.402	16.3	43.8	0	27	0.128	2.7	2,480	1.63	0.26	0.0124	2.75	0.183	0.0997	0.0732	0.0423	0.188	0.0131	0	0.0339		
PSM007095	Chara	Chara	858	5,830	14.4						0	0.795	25.4	51	0.146	47	0.183	6.11	2,960	2.99	0.646	0.0368	3.24	0.443	0.232	0.147	0.117	0.435	0.032	0	0.0774		
PSM007095	Chara	Chara	572	2,720	6.7						0	0.71	22	45.4	0	49.6	0.121	3.06	8,080	1.53	0.268	0.0156	1.48	0.202	0.114	0.0752	0.0635	0.203	0.0176	0	0.0386		
PSM007095	Chara	Chara	571	3,150	8.03						0	0.68	20.1	45.9	0.202	34.5	0.131	4.2	3,320	1.38	0.405	0.019	2.59	0.283	0.157	0.0978	0.0867	0.282	0.0231	0	0.0515		
PSM007095	Chara	Chara	486	2,930	7.98						0	0.508	17.7	42.7	0	35.6	0.117	3.85	3,590	1.15	0.326	0.0213	2.35	0.255	0.138	0.0949	0.0609	0.275	0.0184	0	0.0471		
PSM007095	Chara	Chara	988	4,800	12.3						0	0.668	21.5	62.5	0.132	38.3	0.184	4.9	12,700	1.7	0.664	0.0343	3.78	0.329	0.18	0.122	0.103	0.327	0.0289	0	0.0615		
PSM007095	Chara	Chara	653	4,860	15						0	0.436	16.9	55.4	0.162	27.7	0.172	5.68	8,910	1.45	0.618	0.0333	4.41	0.351	0.211	0.131	0.155	0.356	0.0292	0	0.0661		
PSM007095	Chara	Chara	811	3,710	9.39						0	0.601	21.2	63.3	0	31.5	0.17	4.35	8,290	1.26	0.456	0.0243	4.84	0.281	0.152	0.107	0.0635	0.283	0.0232	0	0.0528		
PSM007095	Chara	Chara	728	2,770	7.42						0	0.477	18.1	73.6	0	25	0.191	4.2	1,650	1.31	0.436	0.0197	9.88	0.275	0.159	0.11	0.056	0.29	0.0232	0	0.0531		
PSM007095	Chara	Chara	731	2,690	6.41						0	0.516	18.9	61.8	0	27.4	0.202	4.41	1,720	1.5	0.37	0.0148	6.65	0.269	0.151	0.108	0.0484	0.288	0.0216	0	0.0513		
ASM000100	259	Blästång	2,570	951	0.775						0.0186	16.9	211	155	-0.08	177	1.97	0.234	18,300	0.671	0.136	0.0228	1.66	0.0387	0.0275	0.0241	-0.007	0.0389	0.0047	-0.008	0.0086		
ASM000100	260	Trädf.grönalg	3,120	19,400	18.6						-0.02	3.28	558	4.54	-0.08	207	0.383	1.41	33,500	0.126	0.289	0.0475	2.61	0.122	0.0533	0.0272	0.173	0.144	0.0302	-0.008	0.0216		
ASM000101	264	Blästång	1,900	839	0.601						-0.02	8.02	244	163	-0.08	116	1.21	0.19	21,800	0.519	0.0642	0.0305	1.02	0.0204	0.0157	0.0154	-0.007	0.0228	0.0029	-0.008	0.0046		
ASM000101	265	Trädf.grönalg	3,610	18,500	2.36						-0.02	2.91	543	2.19	-0.08	265	0.175	0.822	66,400	0.123	0.173	0.0091	3.19	0.0556	0.0246	0.0183	0.0119	0.0846	0.0115	0.0087	0.0104		
ASM000102	269	Blästång	2,060	1,010	0.867						-0.02	12.6	209	161	-0.08	149	0.929	0.141	25,000	0.39	0.0708	0.0316	1.09	0.0181	0.014	0.0198	0.0068	0.0177	0.006	-0.008	0.0042		
ASM000102	270	Trädf.grönalg	3,250	22,700	2.43						-0.02	2.29	635	2.71	-0.08	213	0.161	0.494	52,000	0.104	0.157	0.0126	3.13	0.0412	0.0221	0.012	0.0211	0.0593	0.0114	-0.008	0.0082		
ASM000105	274	Nate	1,830	7,610	39.9						-0.02	1.36	71	15.8	0.158	179	0.307	7.98	36,300	1.73	1.2	0.0774	5.7	0.422	0.254	0.109	0.225	0.505	0.0408	0.0207	0.0857		
ASM000105	275	Kransalg	1,830	8,710	19.1						-0.02	1.32	168	68.5	0.147	130	0.29	8.4	37,300	1.76	1.04	0.0531	3.3	0.435	0.28	0.113	0.142	0.543	0.0401	0.0101	0.0887		
ASM000106	280	Nate	1,870	5,970	56.4						0.0197	2.11	102	28.8	0.42	269	0.343	25.1	42,000	4.42	2.16	0.133	8.38	1.22	0.708	0.325	0.422	1.42	0.0792	0.0237	0.247		
ASM000106	281	Kransalg	2,620	5,090	23.6						-0.02	1.7	60.7	67.5	0.18	163	0.655	14.3	41,500	5.82	1.13	0.0572	4.57	0.683	0.419	0.178	0.159	0.734	0.053	0.0111	0.141		
ASM000107	287	Kransalg	531	10,300	34.4						-0.02	1.24	81.3	80.7	0.199	80.5	0.227	11	23,800	1.44	1.65	0.102	4.09	0.564	0.357	0.159	0.253	0.608	0.065	0.0103	0.116		
ASM000108	286	Nate	1,700	7,860	39						-0.02	1.28	80	19.8	0.239	148	0.274	13	32,200	3.16	1.64	0.0914	6.87	0.656	0.384	0.174	0.29	0.768	0.0565	0.0165	0.128		
ASM000110	292	Vass	2,200	10,700	1.13						-0.02	0.0773	9.21	12.8	-0.08	81.2	-0.004	0.235	15,200	0.016	0.0492	0.0786	1.99	0.008	0.004	0.0029	-0.007	0.0104	0.0013	0.0088	0.0016		
ASM000110	293	Vass rhizom	382	13,400	30.6						-0.02	0.255	16	41.6	0.231	53.8	0.0277	8.02	8,000	0.388	0.553	0.155	2.81	0.28	0.169	0.108	0.507	0.346	0.0565	-0.008	0.0557		
ASM000110	294	Näckros	3,840	2,810	2.92						-0.02	0.56																					

Idcode	Sub-sample no	Sample namn	P mg/kg dw	P <sub>2</sub> O <sub>5</sub> % dw	Si mg/kg dw	SiO <sub>2</sub> % dw	Ti % dw	TiO <sub>2</sub> %	Sum oxides %	Loss on ignition %	Ag mg/kg dw	As mg/kg dw	B mg/kg dw	Ba mg/kg dw	Be mg/kg dw	Br mg/kg dw	Cd mg/kg dw	Ce mg/kg dw	Cl mg/kg dw	Co mg/kg dw	Cr mg/kg dw	Cs mg/kg dw	Cu mg/kg dw	Dy mg/kg dw	Er mg/kg dw	Eu mg/kg dw	Ga mg/kg dw	Gd mg/kg dw	Hf mg/kg dw	Hg mg/kg dw	Ho mg/kg dw
ASM100000	272	Strömming 3	11,800	199	0.0381						-0.02	1.04	1.07	0.0445	-0.08	9.12	-0.004	-0.0003	2,930	0.0172	-0.02	0.0278	1.69	-0.0003	-0.0003	-0.0003	-0.006	-0.0003	-0.0003	0.187	-0.0003
ASM100000	273	Flundra 3	12,300	128	0.0528						-0.01	5.65	-1	0.019	-0.06	9.53	0.0063	0.0007	3,610	0.0103	-0.02	0.0767	0.811	-0.0002	-0.0002	-0.0002	-0.005	-0.0002	-0.0002	0.39	-0.0002
ASM000192	297	Mörт 1	13,400	189	0.0473						-0.02	-0.07	0.881	1.15	-0.08	20.2	-0.004	0.0017	1,520	0.0089	-0.02	0.172	0.612	-0.0003	-0.0003	-0.0003	-0.007	-0.0003	0.0008	0.379	-0.0003
ASM000192	298	Abborre 1	12,100	86.4	0.0351						-0.01	-0.05	0.756	0.0095	-0.06	24	-0.003	0.0032	2,650	0.0119	-0.02	1.13	0.688	-0.0003	-0.0003	-0.0003	-0.005	-0.0003	-0.0003	2.51	-0.0003
ASM000192	304	Mörт 2	13,300	182	0.165						-0.01	0.0707	0.888	0.981	-0.07	17.9	-0.004	0.0017	1,220	0.0058	-0.02	0.249	0.542	-0.0003	-0.0003	-0.0003	-0.006	-0.0003	0.0006	0.507	-0.0003
ASM000192	305	Abborre 2	12,100	103	0.0596						-0.01	-0.06	0.726	0.161	-0.07	13.6	-0.003	0.0039	2,040	0.0104	0.0273	0.919	0.649	0.0014	0.0127	-0.0003	-0.006	-0.0003	-0.0003	1.85	0.0019
ASM000192	311	Mörт 3	13,100	175	0.171						-0.01	-0.06	0.87	1.24	-0.07	24.3	-0.004	0.0014	1,550	0.0089	-0.02	0.189	0.586	-0.0003	-0.0003	-0.0003	-0.006	-0.0003	0.0005	0.483	-0.0003
ASM000192	312	Abborre 3	11,300	101	0.0297						-0.02	-0.06	1.01	0.0685	-0.08	15.9	-0.004	0.0031	2,240	0.0078	-0.02	1.18	0.539	-0.0003	-0.0003	-0.0003	-0.006	-0.0003	-0.0003	2.53	-0.0003
ASM000100	266	Blämussla skal	485	350	0.277						-0.03	0.202	14.2	19.7	-0.2	108	0.0694	0.109	3,640	0.057	-0.05	-0.003	1.98	0.0114	0.0066	0.0029	-0.01	0.0175	0.0009	-0.02	0.0024
ASM000102	276	Blämussla skal	593	415	3.2						-0.03	0.22	14.3	17.3	-0.2	63.5	0.0692	0.124	4,850	0.0577	-0.05	-0.003	2.08	0.0121	0.0078	0.0024	0.021	0.0167	0.0028	-0.02	0.0026

## Cont.

Idcode	Sub-sample no	Sample name	I	La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr
			mg/kg dw																													
PSM006562 8		Peat/wetland	-1	2.29	0.692	0.0186	0.562	0.428	2.24	2.11	22.1	0.671	2.14	2,630	0.71	0.278	-2	0.417	0.622	11.1	0.0176	0.0369	0.348	-0.02	0.0259	0.351	2.88	0.129	1.71	0.127	25.2	5.4
PSM006562 9		Peat/wetland	-1	0.594	0.611	0.0041	0.145	0.071	0.542	1.2	6.97	0.16	0.437	879	0.109	0.0833	-2	0.079	0.05	9.09	0.0049	0.0088	0.0704	-0.02	0.0068	0.0785	0.6	0.0201	0.419	0.0302	5.42	0.877
PSM006562 7		Peat/wetland	-1	12.4	0.32	0.0778	0.784	0.324	10.1	1.59	1.11	2.78	0.895	2,160	0.388	1.1	-2	1.61	-0.05	45.3	0.0162	0.176	0.75	-0.02	0.0944	1.3	5.21	0.123	7.09	0.508	1.75	3.75
PSM006562 6		Peat/wetland	-1	23.6	0.295	0.148	1.21	0.193	20.1	2.78	0.457	5.58	1.22	2,590	0.0604	1.03	-2	3.32	-0.08	55.9	-0.004	0.373	1.04	-0.02	0.18	1.66	11.1	0.158	13.6	1.07	2.78	3.53
PSM006562 10		Peat/wetland	-1	18.3	0.223	0.136	1.77	0.381	16.7	5.98	0.713	4.42	0.814	3,830	0.0625	0.936	-2	2.86	-0.06	39.1	0.0201	0.328	1.24	-0.02	0.169	2.09	15.4	0.182	11.9	0.962	4.02	5.13
PSM006562 5		Peat/wetland	-1	52.4	11.6	0.467	3.35	3.29	54.1	26.4	6.09	13.9	35.6	7,680	0.191	4.65	-2	9.37	-0.6	57.2	0.119	0.904	6.61	0.335	0.548	7.91	37.6	0.659	39.1	2.98	97	40.1
PSM006562 4		Peat/wetland	-1	29.7	22.8	0.273	7.07	6.88	30.2	31.5	12.6	8.94	94.1	16,200	0.428	7.26	-2	5.61	1.07	76.8	0.336	0.316	8.2	0.612	0.408	19.1	62.9	1.48	13.8	1.94	70.3	71.3
PSM006562 3		Peat/wetland	-1	28.4	29.5	0.287	7.4	8.45	30.5	30.1	15.1	8.68	108	10,900	0.694	7.54	-2	5.8	-1	82.7	0.42	0.366	9.7	0.745	0.404	26.6	77.9	1.26	28.1	2.45	64.8	77
PSM006562 1		Peat/wetland	-1	51.5	46.7	0.43	-2	14.5	41.9	27.8	27.5	11.3	161	160	0.402	14.3	-2	6.99	2.93	168	1.18	0.589	15.3	1.28	0.476	5.74	103	2.37	17.3	3.18	92.3	188
PSM006562 2		Peat/wetland	-1	55.9	58.7	0.509	-2	14.9	50.5	32.3	29.9	13.6	210	129	0.51	16.6	-2	9.39	3.7	136	1.36	0.778	19.1	1.29	0.673	7.01	120	3.16	41.5	3.9	117	211
PSM006563 37		Peat/wetland	-1	26.1	1.15	0.219	1.72	0.454	22.8	12.9	19.9	6.07	3.27	8,910	0.194	1.07	-4	3.66	0.432	58.9	0.017	0.425	0.94	0.154	0.263	2.19	12.8	0.284	19.3	1.48	119	5.2
PSM006563 38		Peat/wetland	2.13	123	12.7	0.958	6.15	3.77	115	33.1	9.45	31.1	26.4	67,600	0.139	6.32	-2	18.6	-0.7	193	0.204	2.12	9.61	0.466	1.11	14.9	32.4	1.03	84.9	6.74	116	43.7
PSM006563 39		Peat/wetland	4.86	44.9	11.9	0.499	13.9	3.77	44.9	35.4	9.67	13.3	37.6	34,100	0.418	5.31	-2	8.08	-0.7	171	0.135	0.869	8.04	0.276	0.609	11.2	27.3	0.866	40.9	3.23	60.5	53.1
PSM006563 40		Peat/wetland	7.35	21.3	15.8	0.326	8.87	4.9	23.2	29.2	8.73	7.53	51.8	20,900	0.381	5	-2	4.12	1.02	146	0.23	0.299	6.74	0.347	0.4	10	30.2	1.21	23	2.21	54.8	61.7
PSM006563 41		Peat/wetland	1.75	16.5	20.7	0.142	3.11	7.11	15	6.26	13.2	6.17	109	5,010	0.183	4.09	-2	3.09	2.16	211	0.517	-0.1	5.51	0.744	0.334	3.32	41.3	1.96	14.3	1.27	36.7	93.7
PSM006563 42		Peat/wetland	-1	30.5	20.6	0.327	-2	13.6	31.7	5.54	15.7	10.8	146	4,960	0.232	3.96	-2	5.54	1.26	289	0.816	0.342	6.97	0.854	0.518	2.82	25.6	0.988	23.1	2.17	27.5	287
PSM006563 43		Peat/wetland	-1	44.4	73	0.436	-2	18	44.9	38.9	32.5	13.3	221	10,400	0.402	17.6	-2	7.73	2.92	167	1.07	0.638	17.5	1.25	0.579	5.49	128	1.88	37.8	2.98	120	179
PSM006571 11		Lake sediment	4.25	116	19.6	0.988	-6	-6	119	52	42.7	32.4	39.7	18,500	0.785	7.74	-2	19.3	-20	66.8	-0.06	2.02	9.9	0.605	1.18	13	42.5	-60	83.2	6.65	233	57.8
PSM006571 12		Lake sediment	3.44	118	19.4	1.04	-6	-6	127	51.9	40.7	34.8	40.7	17,500	0.615	8.44	-2	20.7	-20	66.6	-0.06	2.18	10.1	0.564	1.31	13.4	44	-60	85.4	6.98	211	68.9
PSM006571 13		Lake sediment	4.28	117	20	1.08	-6	-6	131	54.7	42.8	31.6	36.8	16,700	0.629	8.05	-2	20.6	-20	65.2	0.427	2.25	10	0.571	1.12	12.6	44.2	-60	83.4	7.48	225	59.3
PSM006571 14		Lake sediment	3.6	126	20.4	1.12	-6	-6	128	52	43.3	32.1	35.8	19,600	0.662	8.63	-2	21.6	-20	62.6	0.887	2.33	9.79	0.572	1.11	12.3	45.4	-60	84.5	7.51	224	66.9
PSM006571 15		Lake sediment	3.38	114	20.9	1.06	-6	-6	133	53.9	46.1	33.5	42.1	19,000	0.749	7.61	-2	20.9	-20	71.8	0.221	2.27	9.53	0.579	1.11	12	44.4	-60	79.7	6.79	240	83.2
PSM00																																

Idcode	Sub-sample no	Sample namn	I	La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr
			mg/kg dw																													
PSM007171	67	Glacial clay	-0.5	32.2	32.3	0.298	0.434	13.5	29.2	21.8	16	8.03	133	2,060	-0.04	11.4	-1	5	0.822	221	1.13	0.679	17.3	0.538	0.263	3.23	82.3	2.61	29.3	2.65	83.9	255
PSM007171	68	Glacial clay	-0.5	31.7	40.3	0.27	0.648	14.8	31.9	27.6	19.1	7.73	123	199	-0.04	12.9	-1	4.83	1.24	200	3.62	0.776	19.1	0.713	0.308	3.2	91.6	1.52	35.4	2.94	94	237
PSM007171	69	Gravelly till	-0.5	39	25.1	0.311	0.806	10.7	38.8	9.93	6.83	9.6	129	297	-0.04	5.25	-1	4.36	1.07	358	0.994	0.709	13	0.273	0.301	5.03	47.7	3.28	21	1.43	58.6	214
PSM007173	70	Sandy till	-0.5	26.6	35.2	0.189	0.756	7.05	27.7	15.7	7.29	5.96	123	409	-0.04	8.73	-1	4.14	0.951	504	0.633	0.488	8.53	0.286	0.198	2.21	73.9	2.4	18.1	1.68	76.4	152
PSM007180	71	Sand	-0.5	13.5	16.3	0.142	1.68	4.76	11.3	9.5	5.67	2.39	140	90.4	-0.04	2.95	-1	1.47	0.537	418	0.502	0.222	4.98	0.155	0.173	1.07	20.7	0.874	8.53	0.831	27	88.5
PSM007180	72	Glacial clay	-0.5	37.7	43.1	0.48	0.637	15.6	40.9	28.5	20.4	10.3	142	125	-0.04	13.1	-1	6.5	1.21	173	1.47	0.873	19.4	0.669	0.442	3.09	94.7	1.76	37.7	3.32	96.9	276
PSM007180	73	Silt layer (till)	-0.5	38.4	24.4	0.486	1.36	16.9	41.9	12.7	13	9.69	117	334	0.0422	7.14	-1	6.09	1.36	290	1.12	0.777	18	0.226	0.426	4.1	59	2.43	34.9	3.26	47.8	474
PSM007190	74	Sandy till	-0.5	25.7	20.5	0.17	0.982	7.79	21	9.27	8.35	5.37	114	92.4	-0.04	4.56	-1	2.73	0.831	515	0.616	0.397	9.27	0.149	0.144	2.12	38.9	1.14	14.5	1.17	44.3	163
PSM007190	75	Gyttja	4.56	28.5	9.18	0.34	8.65	0.417	32.3	26.1	6.83	7.05	26.7	19,700	0.0454	4.04	1.2	4.3	0.428	90.1	0.183	0.642	6.6	0.195	0.308	6.82	19.4	1.59	24.7	1.99	47.6	33.5
SSM000224	76	Sand/gravel	-0.5	25.3	28.7	0.185	1.04	8.31	26.2	15.5	8.54	6.33	125	188	-0.04	6.28	-1	3.86	0.936	576	0.675	0.441	10.6	0.198	0.181	3.01	51.3	1.7	16.5	1.01	90	181
SSM000225	77	Sand	-0.5	32.1	12.3	0.372	1.58	13.6	31.2	8.26	8.03	8.56	114	77.1	0.0491	4.08	-1	4.58	1.39	315	0.958	0.657	11.8	0.164	0.348	2.57	37.2	1.97	24.9	2.2	29.6	242
ASM001426	233	Humus	1.14	27.2	7.45	0.208	2.82	5.78	21.6	7.97	29.6	6.59	67.1	1,620	0.47	2.78	1.41	3.84	-1	207	0.532	0.386	3.56	0.549	0.208	1.95	22.1	1.12	14.8	1.7	44.8	111
ASM001426	234	Humus	1.95	38.1	7.92	0.232	4.17	6.66	33.2	10.4	40.1	10.3	81.5	1,320	0.611	3.55	-1	5.25	-1	243	0.591	0.688	4.73	0.681	0.287	2.87	27.9	1.04	22.7	1.58	39.9	159
ASM001426	235	Mineraljord bulk	1.42	27	9.35	0.173	4.86	8.57	21.3	10.8	27.9	6.88	100	623	0.372	4.4	-1	3.05	-1	285	0.721	0.454	4.26	0.761	0.26	2.37	29.7	1.28	17.4	0.937	28.3	136
ASM001426	236	Mineraljord bulk	0.592	21.5	9.8	0.214	4.99	8.72	16.2	5.73	22	5.92	119	252	0.243	3.35	-1	3.27	-1	324	0.717	0.362	4.75	0.862	0.258	1.96	20.3	1.06	16.4	1.49	20.2	130
ASM001426	237	Mineraljord rhizo	0.995	36.9	9.22	0.234	4.01	5.85	27.1	8.2	31.7	8.46	90.4	864	0.409	4.07	-1	5.18	-1	258	0.594	0.513	3.92	0.762	0.353	2.87	28	1.25	18.8	1.44	31.7	105
ASM001426	238	Mineraljord rhizo	1.21	28.4	10.6	0.18	3.4	8.71	19.9	10	23.1	6.7	119	224	0.498	3.81	-1	2.69	-1	293	0.785	0.406	5.15	0.977	0.381	2.54	23.9	1.34	17.3	1.63	25.7	128
ASM001434	239	Humus	8.9	40.5	3.11	0.319	4.19	0.598	34.9	20.7	21.9	10.4	6.89	8,280	0.388	1.59	-1	5.74	-1	91.4	0.16	0.578	0.617	0.138	0.31	4.47	15.6	0.728	23.2	1.76	25.9	8.17
ASM001434	240	Humus	5.97	60.9	3.72	0.395	4.63	0.602	56.7	23.9	30.3	16.2	8.91	10,800	0.574	1.74	1.05	9.35	-1	78.3	0.243	0.901	1.13	0.145	0.373	7.45	18.2	1.11	36.8	2.87	22	8.44
ASM001434	241	Mineraljord bulk	3.73	71.8	9.51	0.473	6.26	0.5	66	23.3	25.3	18.7	21.3	9,400	0.441	3.97	-1	10.2	-1	64.6	0.231	1.18	3.18	0.201	0.511	1.64	2.81	0.524	6.07	0.332	32.5	-2
ASM001434	242	Mineraljord bulk	1.77	54.2	9.79	0.474	9.18	3.63	45.8	25.4	17.3	14.1	35.4	12,800	0.356	5.18	-1	8.21	-1	87.6	0.374	0.974	5.1	0.377	0.529	7.83	28.6	1.15	39.3	2.87	30.1	85.2
ASM001434	243	Mineraljord rhizo	4.3	80.6	8.22	0.495	7.63	0.758	71.3	22.8	31.7	19.3	18.3	9,410	0.613	3.74	-1	10.9	-1	62.3	0.263	1.34	3.7	0.187	0.569	10.9	27	0.823	46.6	2.97	22.8	28.4
ASM001434	244	Mineraljord rhizo</td																														

Idcode	Sub-sample no	Sample namn	I	La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Rb	S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	
			mg/kg dw																													
ASM001426	45	N buskskikt	0.85	0.408	0.412	-0.0007	0.239	0.0086	0.158	1.27	0.348	0.0498	10.3	1,060	0.0231	0.0046	-0.2	0.0192	0.0333	32.9	0.0651	0.0019	-0.01	-0.03	-0.0007	0.0046	0.134	-0.01	0.071	0.003	25	0.0745
ASM001426	46	N fältskikt	0.53	0.254	0.407	-0.0007	0.497	0.0041	0.0898	0.721	0.241	0.0314	24.9	1,330	0.0111	0.0048	-0.2	0.0086	-8	15.8	0.0331	-0.0007	-0.01	-0.03	-0.0007	0.002	0.0436	-0.01	0.0205	0.0012	34.1	0.0491
ASM001426	47	N bottenskikt	2.8	1.31	0.502	0.0084	0.257	0.245	0.966	1.8	8.68	0.266	14.4	1,310	0.247	0.215	-0.2	0.157	0.301	22	0.0553	0.0184	0.264	0.0495	0.0084	0.281	2.7	0.11	0.545	0.0566	34.8	2.58
ASM001426	48	Buskskikt	3.2	0.292	0.4	-0.0007	0.275	0.0128	0.115	1.12	0.394	0.0344	12.6	1,050	0.022	0.0096	-0.2	0.0142	0.0373	26.2	0.0777	0.0015	-0.01	-0.03	-0.0007	0.0061	0.124	-0.01	0.0524	0.0027	30.1	0.114
ASM001426	49	Fältskikt	0.83	0.0786	0.417	-0.0007	0.62	0.0034	0.0328	0.658	0.302	0.0097	26.1	1,380	0.0086	0.002	-0.2	0.005	-0.03	11.7	0.0069	-0.0007	-0.01	-0.03	-0.0007	0.0014	-0.03	-0.01	0.0196	0.0011	30.2	0.0284
ASM001426	50	Bottenskikt	4.1	3.69	0.831	0.0203	0.446	0.543	3.01	2.9	14.7	0.81	14.1	1,450	0.366	0.402	0.287	0.465	-8	30.5	0.0405	0.0488	0.667	0.0748	0.0209	0.428	4.49	0.142	1.39	0.14	37.4	5.07
ASM001426	51	Trädskikt	0.85	0.361	0.319	-0.0007	0.0836	0.0083	0.147	0.883	0.104	0.0451	14.9	1,570	0.0067	0.0043	-0.2	0.018	-0.03	22.1	0.0064	0.0015	-0.01	-0.03	-0.0007	0.0046	0.0459	-0.01	0.0576	0.0019	23	0.0653
ASM001434	52	Trädskikt	0.63	0.217	0.569	-0.0007	1.58	0.0065	0.0851	2.87	0.0929	0.0261	9.94	1,820	0.0078	0.0032	-0.7	0.01	-0.03	51.2	0.0567	0.0012	0.0143	-0.03	-0.0007	0.0026	0.0603	-0.01	0.0501	0.0017	44.7	0.0712
ASM001434	53	Fältskikt	3.1	0.078	0.284	-0.0007	1.25	0.0033	0.0484	1.12	0.229	0.0134	9.39	2,740	0.0091	0.0036	-0.2	0.0073	-0.03	24.5	0.0112	0.0008	-0.01	0.0376	-0.0007	0.0064	0.111	-0.01	0.0363	0.0025	40.3	0.0316
ASM001434	54	Bottenskikt	3.4	0.844	0.309	0.0054	0.994	0.0357	0.726	1.72	3.6	0.19	8.87	1,920	0.107	0.0468	-0.7	0.116	0.118	44.3	0.0093	0.0128	0.0624	0.0573	0.0055	0.175	0.974	0.03	0.442	0.0334	34.7	0.392
ASM001440	55	Trädskikt	0.7	0.0299	0.173	-0.0007	0.101	0.0074	0.0209	1.43	0.695	0.0057	19.3	729	0.0172	0.0044	-0.2	0.0035	-0.03	22.7	0.0107	-0.0007	-0.01	0.102	-0.0007	0.004	0.123	-0.01	0.0157	0.0012	30	0.0578
ASM001440	56	Fältskikt	4.6	0.121	0.239	-0.0007	1.61	0.0021	0.0464	1.4	0.336	0.016	29.6	1,930	0.0101	0.0013	-0.2	0.0048	-0.03	12.3	0.0124	-0.0007	-0.01	0.0363	-0.0007	0.0026	0.115	-0.01	0.022	0.0015	43.9	0.0188
ASM001440	57	Bottenskikt	5.3	2.49	0.321	0.0196	0.982	0.0983	2.23	2.73	10.3	0.59	8.87	1,590	0.252	0.196	0.34	0.361	0.308	45.9	0.0147	0.0409	0.211	0.184	0.0195	0.406	2.6	0.0949	1.52	0.13	48.7	1.02
ASM001426	230	Ved av ek	-0.3	1.17	0.152	-0.0003	0.0339	0.0041	0.339	1.3	0.309	0.118	4.45	691	0.0041	0.006	-0.2	0.0421	-0.02	114	0.0103	0.0037	-0.006	-0.02	0.0005	0.0029	0.0619	-0.006	0.137	0.0021	3.28	0.259
ASM001434	231	Ved av al	-0.3	0.182	0.0601	-0.0003	0.0839	0.0018	0.0277	2	0.0743	0.0103	4.29	1,500	0.0056	0.0009	-0.2	0.0027	0.0209	103	0.0158	0.0003	-0.006	0.0159	-0.0003	0.0002	0.0419	-0.006	0.0303	0.0005	121	0.0727
ASM001440	232	Ved av gran	-0.3	0.0493	-0.04	-0.0003	0.0915	0.0018	0.0107	0.38	0.239	0.0036	7	416	0.0042	0.0059	-0.2	0.0016	-0.02	176	0.0114	-0.0003	-0.006	0.112	-0.0003	0.0005	0.0701	-0.006	0.0146	-0.0003	139	0.0921
ASM001426	251	Trädrot humus	2.06	9.75	0.568	0.0223	0.566	0.205	6.36	2.01	7.04	1.85	8.65	1,200	0.106	0.202	0.392	1.01	0.227	35.6	0.0158	0.0974	0.491	0.103	0.0296	0.471	1.67	0.0436	2.96	0.178	49.1	2.62
ASM001426	252	Trädrot mineraljord	2.31	16.6	0.67	0.0295	0.523	0.384	10.1	2.48	9.6	3.01	5.26	938	0.18	0.355	0.353	1.56	0.495	37.6	0.0309	0.142	0.893	0.0909	0.0424	0.674	2.28	0.0517	4.47	0.246	27	2.1
ASM001426	253	Övr rot humus	4.65	13.1	1.4	0.039	1.76	0.728	10.3	3.14	9.73	2.94	9.03	1,230	0.178	0.586	0.556	1.68	0.614	23.1	0.0486	0.159	1.31	0.126	0.0508	0.969	5.05	0.11	4.5	0.301	39.9	4.9
ASM001434	254	Trädrot humus	16.4	7.85	0.179	0.0374	2.79	0.0528	7.25	2.57	7.9	2	0.833	1,900	0.074	0.143	0.528	1.15	0.113	40.7	0.0077	0.101	0.254	0.08	0.0415	0.974	6.13	0.0531	3.92	0.261	27.4	0.835
ASM001434	255	Trädrot mineraljord	50.8	9.78	0.275	0.04																										

Idcode	Sub-sample no	Sample namn	I	La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Rb	S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	
			mg/kg dw																													
PSM007095	Chara		68.9	6.19	2.82	0.045	0.894	0.142	5.84	4.54	1.93	1.45	1.81	8,440	0.0406	0.155	0.347	1.16	0.0866	305	0.0146	0.0903	0.407	0.0231	0.0451	0.553	2.38	0.0569	3.13	0.283	51.8	4.38
PSM007095	Chara		31.2	1.41	0.929	0.0153	0.297	0.0471	1.44	2.8	0.529	0.357	0.62	4,720	0.0193	0.0569	0.187	0.304	0.0467	568	0.0083	0.0247	0.101	0.0071	0.014	0.284	0.709	0.0242	1	0.0957	23.4	1.58
PSM007095	Chara		42.3	3.65	1.4	0.0367	0.359	0.114	3.34	3.14	1.16	0.804	1.39	5,040	0.0257	0.167	0.244	0.679	0.078	1,150	0.01	0.0572	0.299	0.0159	0.0329	0.493	1.26	0.0601	2.38	0.215	23.9	3.22
PSM007095	Chara		34.5	1.62	2.03	0.0221	0.143	0.054	1.54	2.74	0.589	0.37	1.04	7,360	0.0152	0.0664	0.272	0.318	0.0519	807	0.0096	0.0277	0.143	0.0088	0.0175	0.271	0.523	0.0264	1.19	0.111	22.1	1.93
PSM007095	Chara		34.9	2.24	0.929	0.0267	0.354	0.0754	2.19	2.81	0.737	0.549	0.752	5,250	0.0218	0.1	0.143	0.455	0.056	798	0.0088	0.0394	0.161	0.0095	0.0228	0.396	0.848	0.0296	1.59	0.148	21.7	2.36
PSM007095	Chara		31.4	2.04	1.09	0.0227	0.313	0.0588	2.11	2.16	0.831	0.51	0.821	4,770	0.0212	0.0574	0.219	0.442	0.0488	615	0.0111	0.0355	0.165	0.0092	0.0196	0.336	0.902	0.0254	1.41	0.126	25.2	2.02
PSM007095	Chara		37.8	2.81	1.38	0.028	0.251	0.0945	2.63	2.44	0.901	0.632	0.961	3,390	0.0279	0.21	0.185	0.561	0.0618	2,800	0.0126	0.0443	0.266	0.0103	0.0256	0.715	1.26	0.0425	1.92	0.178	22.4	2.94
PSM007095	Chara		25.8	3.12	1.18	0.0301	0.239	0.105	2.89	2.47	1.11	0.739	1.22	3,620	0.0349	0.173	0.255	0.595	0.0645	1,980	0.0092	0.0471	0.258	0.0146	0.0279	0.667	1.08	0.034	1.98	0.178	25.6	3.02
PSM007095	Chara		37.9	2.45	0.941	0.0243	0.274	0.0768	2.46	2.11	0.739	0.581	0.721	3,040	0.0195	0.169	0.279	0.464	0.0524	2,930	0.0069	0.039	0.201	0.0069	0.0219	0.706	0.906	0.0333	1.66	0.141	28.4	2.33
PSM007095	Chara		43.1	2.47	0.612	0.0256	0.211	0.0675	2.22	2.21	0.775	0.567	0.487	2,430	0.0239	0.19	0.146	0.464	0.0468	2,970	0.0065	0.0378	0.176	0.0063	0.0225	0.873	0.809	0.0278	1.71	0.144	43.8	2.64
PSM007095	Chara		48.7	2.6	0.646	0.0243	0.235	0.079	2.27	2.26	0.718	0.564	0.386	2,940	0.0271	0.147	0.153	0.46	0.047	2,610	0.0077	0.0361	0.15	0.0061	0.0222	0.868	0.909	0.0391	1.57	0.141	42.8	2.26
ASM000100 259	Blåstäng		103	0.27	0.357	0.0045	0.193	0.0132	0.258	16	0.178	0.0596	11.5	35,400	0.0282	0.0094	0.37	0.047	0.0289	1,020	0.0046	0.0062	0.0067	-0.02	0.0041	1.01	0.35	0.0148	0.4	0.0278	86.3	0.402
ASM000100 260	Trädf.grönalg		66.2	1.37	0.455	0.005	0.157	0.118	1.25	2.41	0.881	0.315	9.72	33,500	0.0297	0.0849	0.491	0.199	0.0644	59.4	0.0057	0.021	0.0516	0.0271	0.0061	0.185	0.24	0.0461	0.634	0.0362	12.3	1.9
ASM000101 264	Blåstäng		64.1	0.23	0.291	0.0023	0.149	0.0056	0.175	10.9	0.14	0.0421	10.7	38,000	0.0284	0.0064	0.356	0.0281	0.0319	1,080	0.0037	0.0032	-0.007	-0.02	0.0021	1.14	0.287	0.0115	0.266	0.0157	52.3	0.18
ASM000101 265	Trädf.grönalg		27.5	1.05	0.481	0.0023	0.136	0.0139	0.801	1.94	1.78	0.19	14.3	35,900	0.0316	0.0158	0.376	0.108	0.0386	87.5	0.0021	0.0094	0.0235	-0.02	0.0027	0.0543	0.0843	0.0154	0.347	0.0148	17.7	0.766
ASM000102 269	Blåstäng		107	0.131	0.326	0.0025	0.163	0.0101	0.113	6.35	0.126	0.0279	12.1	29,300	0.0203	0.0105	0.206	0.0216	0.0227	1,060	0.0036	0.0029	0.0081	-0.02	0.002	0.757	0.293	0.0158	0.206	0.014	42.5	0.545
ASM000102 270	Trädf.grönalg		25.8	0.934	0.3	0.0024	0.136	0.0133	0.566	2.1	0.163	0.156	11.7	34,500	0.0102	0.0246	0.421	0.0747	-0.02	93.3	-0.002	0.0071	0.0153	-0.02	0.0025	0.0828	0.142	0.0256	0.321	0.0152	9.4	0.932
ASM000105 274	Nate		10.6	4.53	1.54	0.036	1.29	0.185	3.99	3.07	1.37	1.07	5.51	9,350	0.0306	0.24	0.342	0.656	0.127	226	0.0133	0.0725	0.351	0.044	0.035	0.56	3.35	0.0477	3.23	0.234	22.2	1.67
ASM000105 275	Kransalg		34.5	4.41	2.06	0.0433	0.251	0.121	4.1	3.38	1.35	1.03	2.24	9,350	0.024	0.258	0.306	0.652	0.117	2,420	0.0107	0.0693	0.28	0.0559	0.0389	0.685	1.73	0.0495	3.8	0.266	23.6	1.67
ASM000106 280	Nate		48.3	13.3	3.05	0.0979	1.31	0.313	11.7	5.62	2.04	3.03	5.68	12,400	0.0607	0.544	0.312	1.89	0.184	332	0.0175	0.211	0.674	0.078	0.1	1.34	5.98	0.122	9.7	0.659	41.1	3.45
ASM000106 281	Kransalg		103	7.24	1.96	0.0561	0.242	0.142	6.37																							

Idcode	Sub-sample no	Sample namn	I	La	Li	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	S	Sb	Sc	Se	Sm	Sn	Sr	Ta	Tb	Th	Tl	Tm	U	V	W	Y	Yb	Zn	Zr
			mg/kg dw																													
ASM100000	267	Strömming 2	-0.5	-0.0003	-0.03	-0.0003	0.0105	-0.0003	-0.0003	-0.03	-0.03	-0.0003	3.74	9,150	-0.003	0.0003	0.975	-0.0003	0.0157	1.82	0.0027	-0.0003	-0.005	-0.01	-0.0003	0.0006	-0.01	0.0005	-0.0003	-0.0003	29.1	-0.007
ASM100000	268	Flundra 2	-0.5	0.0004	-0.04	-0.0003	0.0155	0.0003	-0.0003	-0.03	-0.03	-0.0003	8.59	11,100	-0.003	0.0006	1.04	-0.0003	-0.01	2.41	0.0017	-0.0003	-0.006	-0.01	-0.0003	0.0011	0.0211	0.0013	0.0004	-0.0003	20.5	0.0083
ASM100000	272	Strömming 3	-0.5	0.0003	-0.04	-0.0003	0.0111	-0.0003	-0.0003	-0.03	-0.03	-0.0003	3.35	9,740	-0.003	0.0005	0.904	-0.0003	0.0217	1.61	0.0047	-0.0003	-0.006	-0.02	-0.0003	0.0006	-0.02	0.0005	0.0003	-0.0003	36.7	-0.008
ASM100000	273	Flundra 3	-0.5	0.0005	-0.03	-0.0002	0.0179	0.0003	0.0005	0.191	0.0449	-0.0002	8.05	11,400	0.0069	0.0005	0.824	-0.0002	-0.01	0.791	0.0012	-0.0002	-0.005	-0.01	-0.0002	0.0004	-0.01	0.0011	0.0005	-0.0002	17.9	-0.006
ASM000192	297	Mörт 1	1.23	0.0012	-0.04	-0.0003	0.022	0.0005	0.0008	0.038	-0.03	-0.0003	52.6	12,800	-0.003	0.0009	0.663	-0.0003	-0.02	2.69	-0.002	-0.0003	-0.007	-0.02	-0.0003	0.0017	0.102	0.0019	0.0006	-0.0003	20.7	0.0682
ASM000192	298	Abborre 1	4.38	0.0023	-0.03	-0.0003	0.0097	0.0003	0.0011	-0.03	-0.03	0.0004	119	13,600	-0.003	0.0007	1.18	-0.0003	-0.01	0.195	0.0032	-0.0003	-0.005	0.023	-0.0003	-0.0001	-0.01	0.0003	0.0007	-0.0003	13.4	-0.006
ASM000192	304	Mörт 2	1.63	0.0012	-0.04	-0.0003	0.0137	0.001	0.0006	-0.03	-0.03	-0.0003	49.8	12,700	-0.003	0.0005	0.919	-0.0003	-0.01	2.56	-0.001	-0.0003	-0.006	-0.01	-0.0003	0.0031	0.0171	0.0011	0.0007	-0.0003	20.2	0.0455
ASM000192	305	Abborre 2	2.91	0.0028	-0.03	-0.0003	0.0059	-0.0003	0.0017	-0.03	-0.03	0.0007	83.9	11,900	-0.003	0.0007	1.2	0.0027	-0.01	3.28	0.0027	0.0028	-0.006	-0.01	0.0008	0.0002	-0.01	0.0003	0.0012	0.0018	13.3	-0.007
ASM000192	311	Mörт 3	1.34	0.001	-0.04	-0.0003	0.0118	0.0003	0.0005	-0.03	-0.03	-0.0003	44.4	12,900	-0.003	0.0005	0.801	-0.0003	-0.01	2.66	0.0018	-0.0003	-0.006	-0.01	-0.0003	0.002	0.053	0.0009	0.0006	-0.0003	19.7	0.0332
ASM000192	312	Abborre 3	3.35	0.0021	-0.04	-0.0003	0.0052	-0.0003	0.001	-0.03	-0.03	0.0004	116	12,200	-0.003	0.0007	1.15	-0.0003	-0.02	1.54	0.0051	-0.0003	-0.006	0.0273	-0.0003	-0.0002	-0.02	0.0003	0.0008	-0.0003	15.8	-0.008
ASM000100	266	Blåmussla skal	14	0.111	0.421	0.0009	0.102	0.0029	0.0766	0.681	0.119	0.0188	0.237	1,210	0.0085	0.124	-0.2	0.0139	-0.03	1,310	-0.003	0.002	-0.01	-0.03	0.0008	0.119	0.251	-0.01	0.134	0.0055	5.26	0.0795
ASM000102	276	Blåmussla skal	9.21	0.118	0.454	0.0011	0.0996	0.0034	0.0816	0.55	0.201	0.0201	0.386	1,360	0.007	0.133	-0.2	0.0132	-0.03	1,380	-0.003	0.0019	-0.01	-0.03	0.001	0.0942	0.243	-0.01	0.135	0.0067	3.99	0.168

### Leachings.

Idcode	Start date	Stop date	Secup m	Seclow m	Sub- sample no	Program	Sample preparation	Soil weight g	Dry sub- stance %	Extract. volume liter	Ca mg/l	Fe mg/l	K mg/l	Mg mg/l	Na mg/l	S mg/l	Si mg/l	Al µg/l	Ag µg/l	As µg/l	B µg/l	Ba µg/l	Be µg/l	Cd µg/l	Ce µg/l	Co µg/l	Cr µg/l
ASM001426	2006-03-14	2006-03-28	0.00	0.10	111	Leaching	Dithionit citrate	4.00	95.4	0.10	157.0	163	-40.00	26.60	48,800		18.60	25,500	-5.0	30.80	156.0	696	1.72	3.24	727	34.80	70.50
ASM001426	2006-03-14	2006-03-28	0.00	0.10	152	Leaching	Ammonium acetate	2.00	95.4	0.10	60.0	0.38	9.50	11.90	1.66	2.0	0.81	100	-1.0	2.38	-100.0	140	0.04	1.05	13.6	1.19	1.01
ASM001426	2006-03-14	2006-03-28	0.00	0.10	200	Leaching	Aqua Regia	2.00	95.4	0.20	34.5	50.70	4.00	10.50	1.10	8.0	1.70	12,900	-3.0	20.80	58.5	132	1.50	1.48	188	11.30	31.70
ASM001426	2006-03-14	2006-03-28	0.10	0.20	112	Leaching	Dithionit citrate	4.00	97.4	0.10	27.8	287	-40.00	14.80	49,500		15.00	53,700	-5.0	67.70	135.0	569	3.78	2.94	1,130	32.80	123.00
ASM001426	2006-03-14	2006-03-28	0.10	0.20	153	Leaching	Ammonium acetate	15.00	97.4	0.10	45.6	6.53	21.60	38.00	5.35	5.9	1.06	3,450	-1.0	6.44	-100.0	270	0.59	1.92	79.7	8.71	6.25
ASM001426	2006-03-14	2006-03-28	0.10	0.20	201	Leaching	Aqua Regia	3.00	97.4	0.20	14.7	123	6.71	29.80	1.08	5.9	1.49	45,800	-3.0	31.80	-50.0	139	3.45	1.20	409	34.30	89.70
ASM001426	2006-03-14	2006-03-28	0.55	0.65	113	Leaching	Dithionit citrate	4.00	99.5	0.10	-10.0	178	-40.00	-9.00	48,400		11.30	16,100	-5.0	24.90	56.6	324	3.02	0.35	1,400	14.70	84.70
ASM001426	2006-03-14	2006-03-28	0.55	0.65	154	Leaching	Ammonium acetate	15.00	99.5	0.10	14.4	1.19	5.73	7.34	3.32	1.7	0.31	487	-1.0	-1.00	-100.0	325	0.51	0.48	493	5.39	3.10
ASM001426	2006-03-14	2006-03-28	0.55	0.65	202	Leaching	Aqua Regia	6.00	99.5	0.20	53.8	316	9.86	67.70	1.63	1.4	2.20	96,400	-3.0	25.20	86.6	262	9.78	0.59	1,650	71.90	186.00
ASM001434	2006-03-14	2006-03-28	0.00	0.30	116	Leaching	Dithionit citrate	4.00	91.5	0.10	92.5	603	-40.00	59.40	48,200		41.70	150,000	-5.0	100.00	370.0	629	21.00	3.06	3,870	36.50	180.00
ASM001434	2006-03-14	2006-03-28	0.00	0.30	157	Leaching	Ammonium acetate	2.00	91.5	0.10	33.2	0.61	9.63	25.90	77.70	31.6	1.14	250	-1.0	1.95	-100.0	92	0.66	5.56	76.3	5.50	2.07
ASM001434	2006-03-14	2006-03-28	0.00	0.30	205	Leaching	Aqua Regia	2.00	91.5	0.20	17.0	117	8.48	17.40	25.80	73.2	0.74	62,000	-3.0	26.40	186.0	134	6.59	4.24	643	15.70	97.40
ASM001434	2006-03-14	2006-03-28	0.40	0.60	117	Leaching	Dithionit citrate	4.00	92.5	0.10	105.0	389	-40.00	59.80	48,200		43.30	105,000	-5.0	158.00	653.0	1,370	18.50	3.92	3,590	72.50	216.00
ASM001434	2006-03-14	2006-03-28	0.40	0.60	158	Leaching	Ammonium acetate	2.00	92.5	0.10	40.4	0	18.60	27.20	99.30	72.4	1.50	144	-1.0	4.38	174.0	215	1.10	7.83	79.1	10.00	2.43
ASM001434	2006-03-14	2006-03-28	0.40	0.60	206	Leaching	Aqua Regia	3.00	92.5	0.20	27.5	144	17.20	28.50	42.10	164.0	0.57	93,100	-3.0	69.90	265.0	359	8.89	13.30	885	29.90	177.00
ASM001440	2006-03-14	2006-03-28	0.00	0.30	114	Leaching	Dithionit citrate	4.00	89.8	0.10	97.4	124	-40.00	13.00	46,900		27.40	199,000	-5.0	34.00	93.4	1,350	33.30	6.39	2,480	62.80	111.00
ASM001440	2006-03-14	2006-03-28	0.00	0.30	155	Leaching	Ammonium acetate	2.00	89.8	0.10	21.9	0.28	4.53	5.00	4.02	3.7	1.08	661	-1.0	3.56	-100.0	245	0.55	1.47	21.1	2.85	1.19
ASM001440	2006-03-14	2006-03-28	0.00	0.30	203	Leaching	Aqua Regia	1.00	89.8	0.20	7.8	13.30	-2.00	1.41	0.97	11.7	0.92	23,200	-3.0	-20.00	-50.0	115	5.19	1.44	227	7.04	20.70
ASM001440	2006-03-14	2006-03-28	0.40	0.60	115	Leaching	Dithionit citrate	4.00	92.5	0.10	27.0	76	-40.00	-9.00	48,100		41.60	347,000	-5.0	80.40	101.0	775	64.00	8.52	3,910	34.50	562.00
ASM001440	2006-03-14	2006-03-28	0.40	0.60	156	Leaching	Ammonium acetate	2.00	92.5	0.10	7.9	0.23	-4.00	1.18	2.21	3.0	0.47	511	-1.0	2.04	-100.0	116	0.77	0.68	37.3	1.36	2.45
ASM001440	2006-03-14	2006-03-28	0.40	0.60	204	Leaching	Aqua Regia	3.00	92.5	0.20	7.1	28	3.29	3.27	1.86	31.6	0.95	119,000	-3.0	25.30	-50.0	191	17.40	3.39	894	12.10	212.00

Cont.

Idcode	Sub- sample no	Sample preparation	Cs µg/l	Cu µg/l	Dy µg/l	Er µg/l	Eu µg/l	Ga µg/l	Gd µg/l	Hf µg/l	Hg µg/l	Ho µg/l	La µg/l</th
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Cont.

Idcode	Sub-sample no	Sample preparation	Sn µg/l	Sr µg/l	Ta µg/l	Tb µg/l	Th µg/l	Ti µg/l	Tl µg/l	Tm µg/l	U µg/l	V µg/l	W µg/l	Zn µg/l	Zr µg/l
ASM001426	111	Dithionit citrate	6.48	787.0	0.9420	3.300	78.80	2,580.00	0.955	0.885	21.40	298.00	6.29	962.0	22.80
ASM001426	152	Ammonium acetate	-1.00	232.0	-0.0200	0.065	2.05	23.30	0.408	-0.020	1.14	0.92	-1.00	61.6	0.38
ASM001426	200	<i>Aqua Regia</i>	9.75	138.0	-0.0500	0.875	9.93	2,850.00	0.678	0.295	7.03	213.00	2.67	313.0	6.46
ASM001426	112	Dithionit citrate	13.00	552.0	2.8300	4.500	94.20	9,780.00	0.547	1.140	32.70	478.00	5.84	359.0	42.40
ASM001426	153	Ammonium acetate	-1.00	584.0	0.1020	0.463	8.50	265.00	0.393	0.109	5.36	2.80	-1.00	104.0	3.25
ASM001426	201	<i>Aqua Regia</i>	11.60	158.0	0.0528	1.710	52.00	7,480.00	0.977	0.651	19.90	211.00	2.67	305.0	6.46
ASM001426	113	Dithionit citrate	7.33	190.0	2.2600	6.300	53.40	7,360.00	0.266	1.520	24.30	298.00	-5.00	102.0	50.90
ASM001426	154	Ammonium acetate	-1.00	127.0	0.0239	2.050	6.32	32.40	0.112	0.369	12.50	0.32	-1.00	32.0	3.32
ASM001426	202	<i>Aqua Regia</i>	23.00	250.0	-0.0500	8.230	220.00	20,600.00	1.140	3.010	43.30	491.00	7.69	598.0	99.20
ASM001434	116	Dithionit citrate	-5.00	1,450.0	-0.1000	25.600	147.00	1,080.00	0.953	9.750	300.00	505.00	-5.00	909.0	267.00
ASM001434	157	Ammonium acetate	-1.00	430.0	-0.0200	0.594	1.22	6.24	1.740	0.179	13.60	3.21	-1.00	179.0	1.46
ASM001434	205	<i>Aqua Regia</i>	5.11	222.0	-0.0500	4.440	6.94	1,450.00	1.220	1.810	65.00	129.00	-3.00	313.0	5.44
ASM001434	117	Dithionit citrate	-5.00	1,610.0	-0.1000	26.700	153.00	600.00	0.170	10.500	390.00	464.00	26.90	1,560.0	236.00
ASM001434	158	Ammonium acetate	-1.00	501.0	-0.0200	0.738	-0.40	4.27	1.800	0.225	18.70	4.74	1.64	316.0	0.90
ASM001434	206	<i>Aqua Regia</i>	4.66	345.0	-0.0500	6.230	22.60	2,240.00	1.960	2.730	106.00	158.00	7.02	627.0	29.40
ASM001440	114	Dithionit citrate	8.01	942.0	0.3270	13.100	125.00	1,650.00	0.644	5.070	340.00	364.00	9.26	383.0	97.80
ASM001440	155	Ammonium acetate	-1.00	232.0	-0.0200	0.143	2.11	12.40	0.315	0.040	4.25	3.94	-1.00	19.4	1.11
ASM001440	203	<i>Aqua Regia</i>	3.87	78.3	-0.0500	1.280	16.50	779.00	0.303	0.509	35.90	46.10	-3.00	73.8	25.40
ASM001440	115	Dithionit citrate	8.87	466.0	0.5970	28.700	385.00	9,740.00	0.497	8.900	870.00	247.00	15.80	184.0	641.00
ASM001440	156	Ammonium acetate	-1.00	93.1	-0.0200	0.326	1.13	45.00	0.190	0.092	18.30	7.18	-1.00	8.2	1.75
ASM001440	204	<i>Aqua Regia</i>	6.05	82.8	-0.0500	6.070	6.47	1,980.00	1.030	2.120	221.00	115.00	3.71	89.9	4.71

**Elements in litter.**

ID code	Sample ID	Start date	Stop date	Time months	Ag ppb	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm	Fe %	Ga ppm	Gd ppm	Ge ppm	Hf ppm	Hg ppb	Ho ppm	In ppm
ASM001426	O1O-0	2004-06-08	2004-08-24	0	11	-0.01	-0.1	23.5	45	19.7	-0.1	-0.02	1	0.08	1.58	0.23	1.7	0.19	6.26	0.02	-0.02	-0.02	0.015	0.1	0.05	-0.01	0.003	43	-0.02	-0.02
ASM001426	O1O-2	2004-06-08	2004-11-16	5	14	0.03	0.5	15.5	37	27.3	-0.1	0.09	1.38	0.21	4.27	0.45	7.2	0.167	8.09	0.16	0.04	0.03	0.067	0.2	0.14	0.05	0.005	63	0.02	-0.02
ASM001426	O1O-3	2004-06-08	2005-06-08	12	13	0.02	-0.1	14	36	31.1	0.1	0.07	1.45	0.26	2.48	0.28	2	0.09	9.28	0.07	0.02	0.03	0.03	0.1	0.07	0.1	0.001	61	-0.02	-0.02
ASM001426	O1O-4	2004-06-08	2005-09-07	15	13	0.02	-0.1	8.7	28	38.3	0.1	0.08	1.57	0.32	3.49	0.44	3.1	0.231	10.44	0.09	-0.02	0.03	0.045	0.2	0.09	0.14	0.003	66	0.02	-0.02
ASM001426	O1O-5	2004-06-08	2005-11-16	17	17	0.03	0.2	10	29	38.6	-0.1	0.1	1.6	0.29	6.41	1.05	4.2	0.131	10.58	0.13	0.06	0.03	0.069	0.1	0.17	0.06	0.014	65	0.02	0.02
ASM001426	O1O-6	2004-06-08	2006-06-14	24	13	0.03	0.5	16.8	26	39.4	-0.1	0.05	1.65	0.34	3.86	0.53	3.9	0.086	10.44	0.08	0.05	0.02	0.052	0.1	0.12	0.1	0.004	88	-0.02	-0.02
ASM001428	O2P-0	2004-06-08	2004-08-24	0	20	0.02	0.1	11.8	23	4.3	0.1	-0.02	0.54	0.25	0.1	0.12	2.4	0.033	2.15	-0.02	-0.02	-0.02	0.008	0.1	-0.02	0.02	0.001	36	-0.02	-0.02
ASM001428	O2P-2	2004-06-08	2004-11-16	5	23	0.02	0.1	10.9	17	5.5	-0.1	-0.02	0.62	0.29	0.15	0.18	1.4	0.035	4	-0.02	-0.02	-0.02	0.008	-0.1	0.02	0.06	-0.001	8	-0.02	-0.02
ASM001428	O2P-3	2004-06-08	2005-06-08	12	23	0.02	-0.1	8	13	6.6	-0.1	-0.02	0.63	0.28	0.16	0.15	1.8	0.039	3.78	-0.02	-0.02	-0.02	0.009	-0.1	-0.02	0.07	0.003	22	-0.02	-0.02
ASM001428	O2P-4	2004-06-08	2005-09-06	15	28	0.03	-0.1	3.6	13	8.4	0.1	-0.02	0.7	0.37	0.22	0.14	1.7	0.046	4.79	-0.02	-0.02	-0.02	0.01	-0.1	0.03	0.08	0.004	38	-0.02	-0.02
ASM001428	O2P-5	2004-06-08	2005-11-16	17	30	0.03	0.3	6.4	10	9.4	-0.1	0.03	0.72	0.41	0.25	0.19	1.6	0.096	6.29	0.03	-0.02	-0.02	0.011	-0.1	-0.02	0.1	-0.001	33	-0.02	-0.02
ASM001428	O2P-6	2004-06-08	2006-06-14	24	32	0.03	1.1	9	6	15.5	-0.1	0.07	0.76	0.54	0.48	0.23	3	0.087	6.13	-0.02	-0.02	-0.02	0.021	0.2	-0.02	0.03	0.004	53	-0.02	-0.02
ASM001440	O3S-0	2004-06-08	2004-08-24	0	4	-0.01	-0.1	7.1	35	45.2	0.1	0.05	1.55	0.07	0.07	0.1	1.7	0.217	1.85	-0.02	-0.02	-0.02	0.004	-0.1	-0.02	0.08	-0.001	68	-0.02	-0.02
ASM001440	O3S-2	2004-06-08	2004-11-16	5	7	0.01	-0.1	4.6	24	48.7	0.1	0.03	2	0.16	0.23	0.18	1.3	0.097	3.25	0.02	-0.02	-0.02	0.007	0.1	-0.02	0.04	0.001	88	-0.02	-0.02
ASM001440	O3S-3	2004-06-08	2005-06-07	12	8	0.01	0.1	12.8	24	46.2	-0.1	0.02	1.85	0.17	0.43	0.26	2.7	0.103	3.42	0.04	-0.02	-0.02	0.01	-0.1	0.05	0.09	0.002	92	-0.02	-0.02
ASM001440	O3S-4	2004-06-08	2005-09-06	15	7	0.02	-0.1	2.6	20	49.3	0.1	-0.02	2.06	0.2	0.47	0.27	1.7	0.102	4.29	0.03	-0.02	-0.02	0.01	-0.1	-0.02	0.09	0.001	90	-0.02	-0.02
ASM001440	O3S-5	2004-06-08	2005-11-16	17	12	0.02	-0.1	8.8	19	51.9	-0.1	0.03	1.84	0.19	0.62	0.25	2.6	0.125	4.2	0.05	-0.02	-0.02	0.019	0.1	0.03	0.12	0.002	124	-0.02	-0.02
ASM001440	O3S-6	2004-06-08	2006-06-14	24	9	0.03	-0.1	3.7	20	50.8	-0.1	0.03	2.02	0.23	0.98	0.4	1.8	0.12	4.99	0.05	0.02	-0.02	0.017	-0.1	0.04	0.08	-0.001	126	0.02	-0.02

**Cont.**

ID code	Sample ID	K %	La ppm	Li ppm	Lu ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Nd ppm	Ni ppm	P %	Pb ppm	Pd ppb	Pr ppm	Pt ppb	Rb ppm	Re ppb	S %	Sb ppm	Sc ppm	Se ppm	Sm ppm	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Te ppm	Th ppm	Ti ppm
ASM001426	O1O-0	0.73	1.16	0.85	-0.02	0.241	798	0.08	0.01	-0.01	0.45	2.2	0.085	0.5	-2	0.17	1	9.5	1	0.1	-0.02	0.3	0.2	0.05	0.04	18.8	-0.001	0.01	-0.02	-0.01	3
ASM001426	O1O-2	0.37	2.39	0.57	-0.02	0.303	816	0.28	0.013	0.25	1.26	3.1	0.093	1.83	-2	0.41	1	6	-1	0.12	0.73	0.4	0.2	0.24	0.25	26.3	-0.001	0.03	0.05	0.32	49
ASM001426	O1O-3	0.24	1.67	0.28	-0.02	0.305	885	0.19	0.015	0.04	0.62	2.7	0.098	1.3	-2	0.21	-1	3.7	-1	0.11	0.83	0.4	0.3	0.06	0.11	29.7	-0.001	0.01	-0.02	0.05	11
ASM001426	O1O-4	0.21	2.38	0.39	-0.02	0.322	1,175	0.26	0.009	0.09	1.15	2.7	0.113	2.99	-2	0.4	-1	4.8	-1	0.13	1.15	0.3	0.6	0.15	1.88	34	-0.001	0.01	-0.02	0.18	22
ASM001426	O1O-5	0.31	4.18	0.54	-0.02	0.281	1,157	0.29	0.009																						

**Cont.**

ID code	Sample ID	Tl ppm	Tm ppm	U ppm	V ppm	W ppm	Y ppm	Yb ppm	Zn ppm	Zr ppm
ASM001426	O1O-0	-0.02	-0.01	-0.01	2	-0.1	0.213	-0.01	23.8	0.03
ASM001426	O1O-2	-0.02	0.01	0.08	-2	-0.1	0.589	0.04	109.3	0.41
ASM001426	O1O-3	-0.02	0.01	0.03	2	-0.1	0.431	0.01	111.4	0.13
ASM001426	O1O-4	-0.02	-0.01	0.06	-2	-0.1	0.49	0.05	110	0.2
ASM001426	O1O-5	-0.02	0.01	0.11	-2	0.1	0.647	0.04	147	0.31
ASM001426	O1O-6	0.02	0.01	0.06	2	-0.1	0.592	0.05	145.3	0.24
ASM001428	O2P-0	0.06	-0.01	-0.01	2	-0.1	0.027	-0.01	59.8	0.05
ASM001428	O2P-2	0.04	-0.01	-0.01	-2	-0.1	0.033	0.01	85.1	0.07
ASM001428	O2P-3	0.04	-0.01	-0.01	-2	-0.1	0.032	0.01	86.7	0.11
ASM001428	O2P-4	0.04	-0.01	-0.01	-2	-0.1	0.043	0.01	98.3	0.07
ASM001428	O2P-5	0.05	-0.01	-0.01	-2	-0.1	0.058	-0.01	107.8	0.11
ASM001428	O2P-6	0.07	-0.01	-0.01	2	0.2	0.073	0.01	131	0.11
ASM001440	O3S-0	0.34	-0.01	-0.01	-2	-0.1	0.022	-0.01	57.8	0.02
ASM001440	O3S-2	0.19	-0.01	-0.01	2	-0.1	0.073	-0.01	102.2	0.03
ASM001440	O3S-3	0.18	-0.01	0.01	-2	-0.1	0.142	0.01	99.3	0.1
ASM001440	O3S-4	0.17	-0.01	0.01	-2	-0.1	0.145	-0.01	107.8	0.06
ASM001440	O3S-5	0.2	-0.01	0.03	-2	-0.1	0.198	0.02	130.2	0.12
ASM001440	O3S-6	0.2	-0.01	0.03	-2	-0.1	0.288	0.01	147.6	0.08