NORWEGIAN ENVIRONMENT AGENCY

COWI

ENVIRONMENTAL MONITORING

M-1063 | 2018

Screening programme 2017

Suspected PBT compounds

COLOPHON

Executive institution

COWI AS

Project manager for the contractor

Håkon Dalen

Contact person in the Norwegian Environment Agency

Bård Nordbø

M-no	Year	Pages	Contract number
1063	2018	118	17078038

Publisher

The Norwegian Environment Agency

The project is funded by

The Norwegian Environment Agency

Author(s)

Roger M. Konieczny, Liv Bruås Henninge, Håkon Dalen, Roman Grabic, Martin Ferenčík, Per-Anders Bergqvist, Elisabeth Lyngstad, Janne Berger, Signe Haukelidsæter and Scott Randall

Title - Norwegian and English

Screeningprogram 2017: Mistenkte PBT-forbindelser
Screening programme 2017: Suspected PBT compounds

Summary - sammendrag

This report summarizes the findings of a screening study into the occurrence of selected PBT compounds in wastewater treatment plant effluent and sludge, landfill run-off, sediments, biota and indoor dust.

Denne rapporten oppsummerer resultatene av en screeningundersøkelse for forekomst av utvalgte PBT-stoffer i avløpsvann, avløpsslam, sigevann fra deponi, sedimenter, biota og husstøv.

4 emneord

Screening, miljøgifter, Oslofjorden, Mjøsa

4 subject words

Screening, pollutants, Oslo fjord, Lake Mjøsa

Front page photo

Electrofishing in Lake Mjøsa, June 2017, with Roger M. Konieczny and Johnny Håll from COWI. The "Viking ship" in the background. Photo: COWI AS, Håkon Dalen

Content

Attachments:

Attachment 1:
Results from the screening programme 2017 Suspected PBT compounds, 44 pages.

Summary

In the Norwegian Environment Agency screening programme for 2017, the occurrence of 27 suspected PBT-compounds, and 137 additional compounds, were targeted in various matrices throughout the environment. Several of the targeted compounds were detected in wastewater, sludge, landfill run-off, sediment, land based and aquatic biota as well as indoor dust. Samples were collected from locations within the Oslofjord area, Lake Mjøsa and in the vicinity of the City of Oslo.

Out of the 27 suspected PBT compounds that were analysed with an internal standard, 17 out of 20 were detected.

The process of entering the WWTP and thereby depositing in the treatment sludge appears to be the main pathway for possible environmental impact for 10 of the substances. Passive sampling in the WWTP effluent and landfill runoff show more results above LOD than with traditional water sampling. Examples of this are the synthetic musks tonalide and galaxolide.

The following substances tebukonazol and 4-tert-butylphenol, appear to end up in landfills and may affect the environment through runoff.

In general, the targeted substances show limited presence in both land-based and aquatic biota. Exceptions were e.g. p-(1,1-dimethylpropyl)phenol in cod liver. Aquatic invertebrates yield key results and represent documented pathways into the food chain e.g. for the substance O,O,O-triphenyl phosphorothioate.

Juvenile (young-of-the-year) fish samples from Lake Mjøsa appear to be an useful indicator for recent exposure of p-(1,1-dimethylpropyl)phenol, 1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE) and galaxolide.

Cod liver contained notable high concentrations of p-(1,1-dimethylpropyl)phenol, tonalide and galaxolide.

Exposure to household dust is another important pathway for unwanted expose of most of the substances, especially bis(2-ethylhexyl) terephthalate.

Sammendrag

I Miljødirektoratets screeningprogram for 2017 ble forekomster av 27 mistenkte PBT-stoffer, og 137 tilleggsstoffer, målt i prøvemateriale fra mange forskjellige steder utendørs og innendørs. Flere av disse stoffene ble funnet i kommunalt avløpsvann og avløpsslam, avrenningsvann fra deponi, sediment, terrestrisk og akvatisk biota og i innendørs støv, hentet fra steder i og ved Oslofjorden, Mjøsa og i og i nærheten av Oslo by.

Av de mistenkte PBT stoffene som ble analysert med intern standard ble 17 av 20 stoffer påvist.

For 10 av stoffene som tilføres renseanleggene ender opp i slammet og antas å være den viktigste spredningsveien til omgivelsene. Passive prøvetakere i renseanleggene og sigevann, synes ofte å gi bedre resultater enn tradisjonelle vannprøver. Eksempler på dette er de syntetiske muskstoffene tonalid og galaxolid. Forbindelsene tebukonazol and 4-tert-butylphenol, synes å ende opp i avfallsfyllinger og kan påvirke omgivelsene via avrenning av sigevann.

Generelt viste målsubstansene lave forekomster i både landbasert og akvatisk biota. Unntakelse var f. eks. p-(1,1-dimetylpropyl) fenol i torskelever. Akvatiske evertebrater ga resultater som indikerer spredningsveier inn i næringskjedene som f. eks. O,O,O-trifenylfosforothioat.

Juvenil (*young-of-the-year*) fisk fra Mjøsa synes å være en god matriks og indikator for nåtidig eksponering av blant annet p-(1,1-dimetylpropyl) fenol, 1,2,3,4,5,6,7,8-oktahydro-2,3,8,8-tetrametylnaftalen-2yl]etan-1-one (OTNE) og galaxolid.

Torskelever inneholdt markant høye konsentrasjoner p-(1,1-dimetylpropyl) fenol, tonalid and galaxolid (i tillegg til andre forbindelser).

Eksponering overfor husstøv er en annen viktig spredningsvei for uønsket påvirkning av de fleste forbindelsene, spesielt bis(2-etylheksyl) tereftalate.

1. Background and introduction

1.1 General

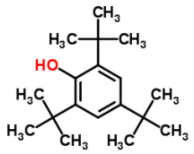
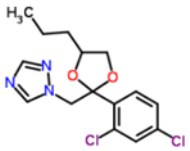
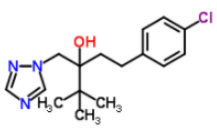
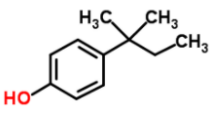
The Norwegian Environment Agency selected several groups of compounds for target analysis for the PBT screening programme in 2017. The compounds included 27 prioritized substances suspected as PBT candidates. Added to the screening were 137 additional substances, traditionally known PBTs and POPs, including various synthetic musks, bisphenols, siloxanes, chlorinated pesticides, VOC/SVOCs, C3-aromatics, PBDEs, PCBs and pharmaceuticals.

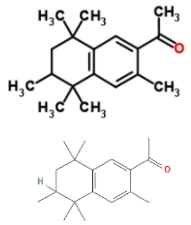
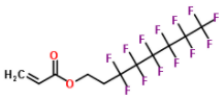
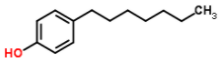
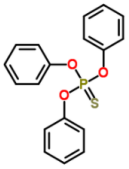
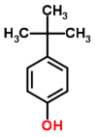
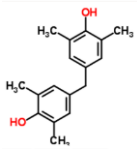
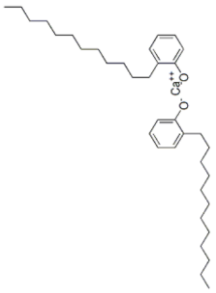
The objective of the project was to screen the presence and potential sources of these substances in the Norwegian marine and freshwater environments, as well as in ambient air. The results from this report will contribute to future national or international legislation on an EU (REACH) or global level (UNEP).

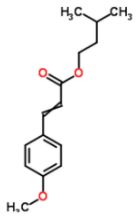
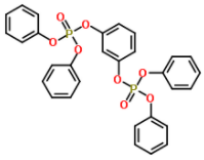
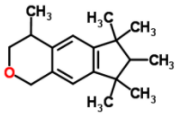
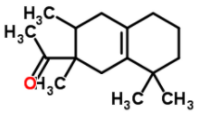
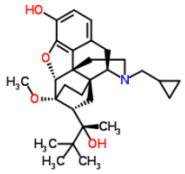
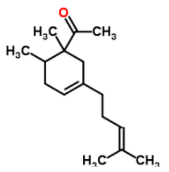
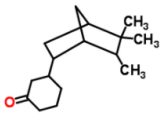
1.2 Compounds of interest

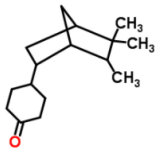
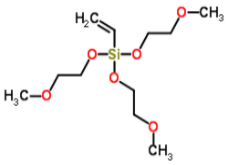
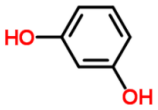
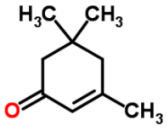
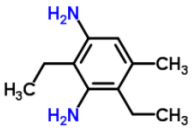
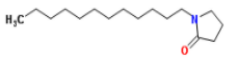
Summarized in Table 1 is the chemical and physical information for the 27 prioritized substances. The table shows alternative names and acronyms for each substance, along with their application and use.

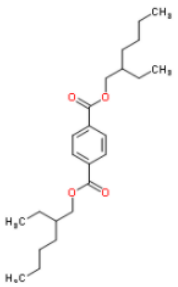
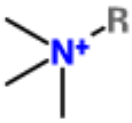
Table 1 Chemical and physical background data of the PBT substances selected for the PBT Screening programme 2017.

ID	Compound name/acronyms	CAS no.	Molecular structure	Class/group	Function/use/occurrence[1]	Log K_{ow}
1	2,4,6-tri-*tert*-butylphenol Dodecyl-phenol 2,4,6-TTB-phenol TTB-phenol TTBP	732-26-3		Phenol	Stabilizer or free-radical scavenger in technical applications, antioxidant additive in fuel, gasoline, oil, lubricant oils, in elastomeric and thermos-plastic polymers. Cosmetics.	5.44-6.55
2	Propiconazole 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	60207-90-1		Triazole derivative	Systemic fungicide, antibacterial drug, wood preservation	3.88
3	Tebuconazole	107534-96-3		Triazole derivative	Antibacterial drug, pesticide/fungicide	3.58
4	p-(1,1-dimethylpropyl)phenol 4-(1,1-dimethylpropyl)phenol 4-tert-pentylphenol PTAP	80-46-6		Alkyl phenol	Bactericide, disinfectant	3.7

5	Tonalide with metabolites 6-acetyl-1,1,2,4,4,7-hexamethyltetralin Acetylhexamethyltetralin Acetylmethyltetramethyltetralin Fixolide AHTN	1506-02-1 21145-77-7 (2 stereo isomers)		Synthetic musk	Cosmetics, personal care products, Biocidal products (e.g. disinfectants, pest control), Washing and cleaning products (including solvent-based products), hair care products.	6.37
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tri-deca-fluoro-n-octylacrylate 1H,1H,2H,2H-Perfluorooctyl acrylate TFOA	17527-29-6		PFC Fluoro-telomer-acrylate	Use of monomer in polymerisation processes at industrial sites. In textile, upholstery, carpet, and apparel and leather industries as components of surface protecting coatings	6.16
7	3,3,4,4,5,5,6,6,7,7,8,8,8-tri-deca-fluoro-octyl-meth-acrylate 1H,1H,2H,2H-Tridecafluoro-n-octyl methacrylate 6:2 MA	2144-53-8		PFC fluoro-telomer-meth-acrylate	Use of monomer in polymerisation processes at industrial sites. In textile, upholstery, carpet, and apparel and leather industries as components of surface protecting coatings	6.71
8	Phenol, heptyl derivs. Heptylphenol (e.g. 4-heptylphenol) HPbl	72624-02-3		Alkyl phenols	Lubricants, greases, release products. Plastics, paints and varnish products for alkyl phenols in general.	5.13
9	O,O,O-triphenyl phosphorothioate TPPT	597-82-0		Tri-phenyl ester	Industrial lubricants and adhesives in hydraulic pressure oil and fluid, aviation grease, gear oil, automotive engine oil, compressor oil, turbine oil, sealant, coating, food lubricant, oil film bearing oil, paint, thinner and paint removers. Colour stabilizer, inks and plasticizer	5.45
10	4-tert-butylphenol p-tert-butylphenol	98-54-4		Alkyl phenols	Intermediate, manufacture of fine chemicals, vulcanization agents, monomer for polycarbonates. Synthetic resins, phenolic and epoxy.	3.17 3.29 (OECD)
11	4,4'-methylenedi-2,6-xylenol 4,4'-methyleenbis-(2,6-dimethylphenol)	5384-21-4		Bis phenol	Flame retardant. Hydraulic fluids, Lubricants, greases, release products.	4.57
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8		Phenol	UV-B filter used in sunscreen products	

13	Isopentyl p-methoxycinnamate Isoamyl 4-p-methoxycinnamate Amiloxate	71617-10-2			Lubricants, greases, release products. Cosmetics, skin care, sun block UV-A and UV-B filter	4.06
14	Tetraphenyl m-phenylene bis(phosphate) Tetraphenyl resorcinol bis(diphenyl phosphate)	57583-54-7		Phenyl ester	Polymer preparations and compounds, as textile dyes/ pigment dispersions, paints and coating/impregnating products, in manufacture of textiles, leather and fur. Phosphorous flame retardant for PPE, ABS and PET resins, engineering of thermos-plastics/ styrenic polymers, PVC, polyurethanes.	5.97
15	Galaxolide with metabolites 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-γ-2-Benzopyran HHCB	1222-05-5			Hair care, polish and wax blends, washing and cleaning. Adhesives, sealants, adsorbents, anti-freeze and de-icing. Biocidal products (e.g. disinfectants, pest control). Coatings and paints, thinners, paint removes, fillers, putties, plasters, modelling clay. Fertilisers, fuels, perfumes, fragrances, photo-chemicals. Cosmetics, personal care products.	6.23
16	1-[1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethanone 1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one Octahydrotetramethyl acetophenone OTNE	54464-57-2		Synthetic ketone/ Terpenoid	Hair care, biocides, (pest control, disinfectants,), perfume and fragrance, washing and cleaning, cosmetics and personal care. Indoor/outdoor use as processing aid, indoor long-life materials (low release rate flooring, furniture, toys, curtains, construction materials, foot-wear, leather, paper and cardboard, electronic equipment) and indoor use long-life/high release rate (release from fabrics, textiles during washing, removal of paints).	5.28
17	Buprenorphine	52485-79-7		Pharma-ceutical opioid analgesic	Medical drug	3.43
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9		Synthetic ketone	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations.	5.43
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-yl)cyclohexanone	3918-33-0		Synthetic ketone		4.69

20	4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone	16618-85-2		Synthetic ketone		4.69
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4		Organo-silicon	Adhesives, sealants polymer preparations and compounds. Manufacture of textiles, leather, fur, wood and wood products, pulp, paper and paper products, rubber products, plastics products, fabricated metal products, computer, electronic and optical products, electrical equipment	3.15
22	Resorcinol Resorcin Benzenediol/ m-dihydroxybenzene	108-46-3		Phenol	Dermatologic drug, skin care cosmetics, tabletting, compression, extrusion, palletisation, granulation, laboratory reagent. Formulation in chemical industry, treatment of articles by dipping and pouring. Manufacture of tires and rubber products, light stabilization in plastics, tanning, photography, resins, resin adhesives, explosives, dyeing and printing textiles, pesticide, antifungal and antibacterial.	0.76
23	3,5,5-trimethylcyclohex-2-enone isophorone	78-59-1		Cyclic ketone	Herbicide, plant growth retardant, pesticide in fishing/aqua culture. Precursor to fragrances, plastics adhesives, vinyl chloride/acetate-based coating systems for metal paints, nitrocellulose finishes and printing inks for plastics. Additional use as solvent, polymers precursor (polycarbonates, polyamides, polystyrene, etc.) and bisphenol A analogues	2.07
24	Di-ethylmethylbenzene-diamine Di-ethyl-toluene-diamine DETDA	68479-98-1		Di-amine	Treatment of articles by dipping and pouring. Manufacture of textiles, leather, fur, furniture, building and construction work.	2.14
25	1-lauryl-2-pyrrolidone 1-Dodecyl-2-pyrrolidinone N-(n-dodecyl)pyrrolidinone Surfadone	2687-96-9		Cyclic amid	Wetting agent, Plant protection products, Cosmetics, personal care products.	4.97-5.45

26	Bis(2-ethylhexyl)-terephthalate	6422-86-2			Coatings and paints, thinners, paint removes, Use as laboratory reagent. Product: Polymer preparations and compounds	9.55
27	Behentrimonium chloride Quaternary ammonium compounds (QACs) Alkyl-trimethyl ammonium compound ATAC-C20: R=n-C20 ATAC-C22: R=n-C22	17301-53-0			Antistatic agent and disinfectant. Commonly found in cosmetics such as conditioners, hair dye and mousse, detergents.	5.15 6.13

1) Information mostly taken from ECHA [*15*].

2. Materials and methods

2.1 Sampling

2.1.1 General

The sampling for the screening programme was carried out at five different areas/locations, in the period from June to September 2017:

1) **Vestfjorden Avløpsselskap (VEAS)** wastewater treatment plant and its adjacent recipient Oslofjorden (approximately 18 km southwest of city of Oslo). Sampling occurred relatively close to the WWTP discharge point.

2) **Hedmarken Interkommunale VAR-selskap (HIAS)** wastewater treatment plant and adjacent recipient Lake Mjøsa. Sampling occurred relatively close to the WWTP discharge point.

3) **Romerike Avfallsforedling IKS (ROAF)** landfill and waste treatment, approximately 21 km northeast of Oslo.

4) **LINDUM** landfill and waste treatment, approximately 45 km southwest of Oslo.

5) Three different buildings in the city of Oslo for dust and indoor air samples.

The maps and coordinates for the sampling points are given below, in Figure 1, Figure 2 and Table 2. The sampling was performed by COWI personnel, if not specifically indicated otherwise.

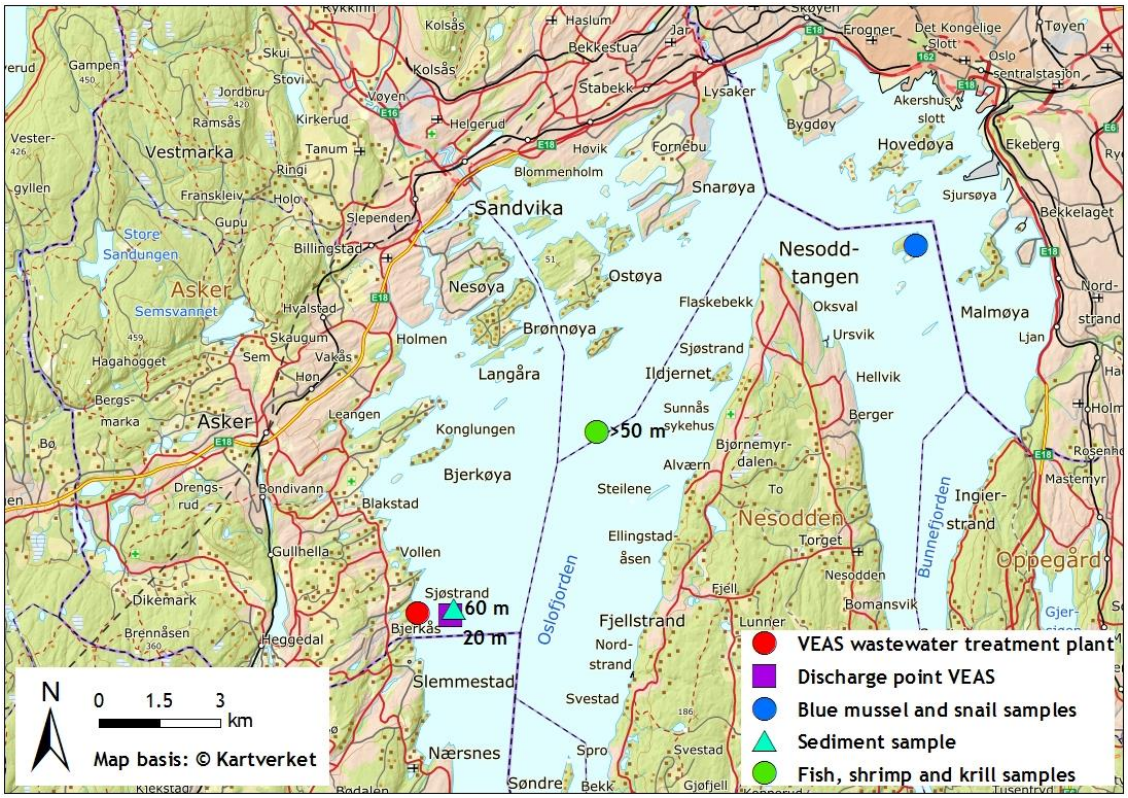


Figure 1 Map showing sampling sites for wastewater, sludge, blue mussels, snails, sediment and fish in or nearby Oslofjorden. The water depth (m) is shown for discharge point, sediment and fish.

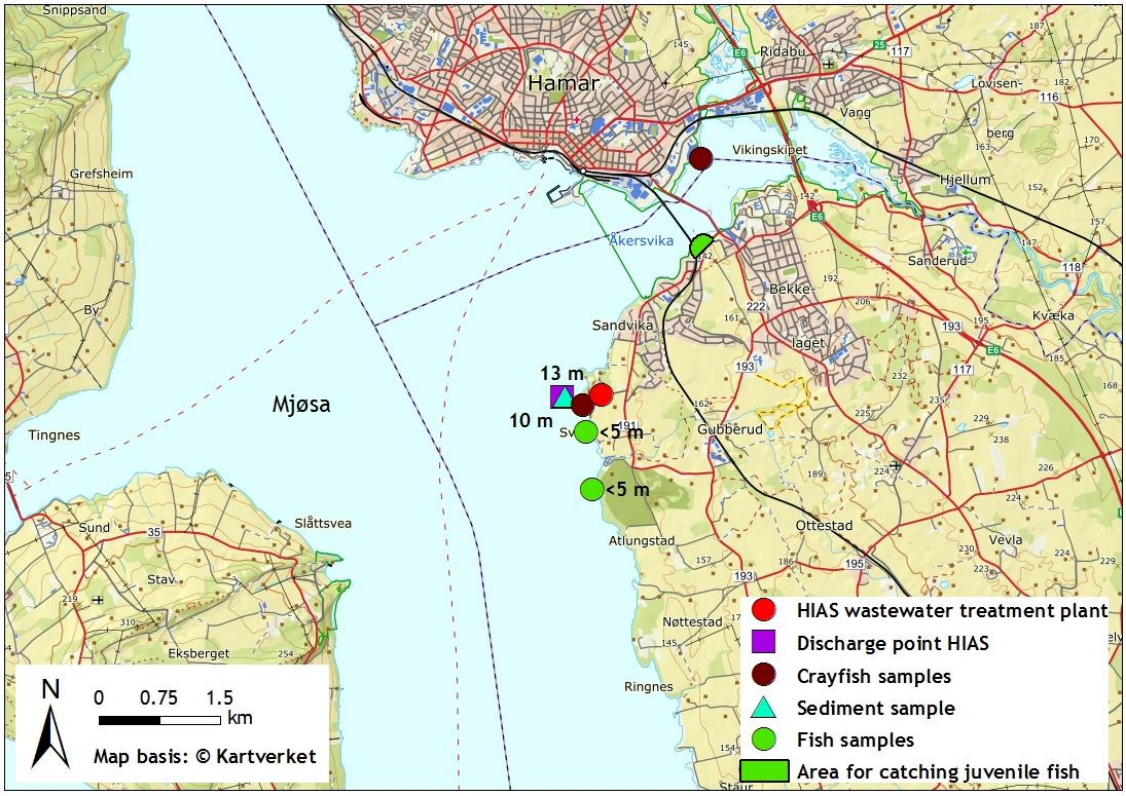


Figure 2 Map showing sampling sites for wastewater, sludge, crayfish, sediment and fish in or nearby Lake Mjøsa. The water depth (m) is shown for discharge point, sediment and fish (13 m for discharge point and 10 m for sediment).

Table 2 Map coordinates for the various sampling sites, including water depth (m) for select sites.

Site	UTM32 Euref89 east	UTM32 Euref89 north	Depth (m)
Fish Oslofjorden	588592	6633835	>50
Fish Lake Mjøsa 1	613048	6738124	<5
Fish Lake Mjøsa 2	613124	6737411	<5
Blue mussels and snails, Oslofjorden	596481	6638427	-
Crayfish Lake Mjøsa 1	614469	6741500	-
Crayfish Lake Mjøsa 2	613004	6738455	-
VEAS wastewater treatment plant	584178	6629364	-
Discharge point VEAS	584995	6629299	40
HIAS wastewater treatment plant	613232	6738578	-
Discharge point HIAS	612758	6738552	13
ROAF landfill and waste treatment plant	615143	6654091	-
Lindum landfill	570801	6617290	-
Sediment Lake Mjøsa	612794	6738554	10
Sediment Oslofjorden	585069	6629468	60
Air and dust 1,2 and 3	-	-	-

2.1.2 Municipal wastewater and runoff water from landfill

Municipal wastewater was collected from the inlet and outlet of VEAS and HIAS wastewater treatment plants, over two sampling periods. The inlet samples were collected only during the second sampling period. The outlet water from VEAS was taken from the outlet of one of the eight process halls. At HIAS the sample was taken from the outlet just before the wastewater leaves the plant.

VEAS is the largest wastewater treatment plant in Norway and is situated at Bjerkås in Asker municipality. The plant receives water from more than 600 000 residents in Bærum, Asker, Oslo, Røyken and Nesodden municipalities. Wastewater is treated mechanically, chemically and biologically (nitrogen removal) before being discharged to the Oslofjord at a depth of 20 m at a distance of around 650 m from the shore. The annual water treatment and discharge from VEAS is 100-110 million m^3.

HIAS receives wastewater from approximately 52 000 people from the municipalities of Hamar, Løten, Ringsaker, and Stange. The plant is located at Ottestad by Lake Mjøsa with the discharge point at a depth of 13 m into Lake Mjøsa, approximately 225 m from the shore. Wastewater is treated mechanically, biologically (not N removal) and chemically.

Flow proportional samples of the inlet and outlet water from VEAS and HIAS were collected over a period of 24 hours pooled samples using the plants existing automatic sampling equipment. This means that sub-samples are collected at intervals depending on the flow rate at the sampling point. The sampling procedure was the same procedure that the plants use for their accredited sampling (ISO17025 and NA Dok 30). The sampling points, equipment, and procedures are approved by *Norsk Akkreditering* to ensure representative samples. At VEAS,

water from the day-mix sample was transferred to sampling bottles by personnel from VEAS and collected by COWI. At HIAS it was personnel from COWI that transferred water from the day mix-sample to the bottles.

The samples were stored at a temperature between 1–5°C during and after sampling. The samples were shipped to the laboratory within 24 hours.

The mix samples were taken during the following periods:

- Outlet water: 26 to 27 June and 4 to 5 September 2017
- Inlet water: 4 to 5 September 2017

Run-off water from a landfill was collected from ROAF, a landfill site that began operation in 1991. On 1 July 2009, the Ministry of the Environment decided to ban the disposal of biodegradable waste, which led to major changes in material that could be deposited at the landfill. Today the landfill receives asbestos, solids and sand from wastewater treatment plants, in addition to concrete contaminated soil, ash/slag from combustion, etc.

The total landfill area at ROAF waste disposal is approx. 2 100 000 m^3. Residual volume is approximately 800 000 m^3.

ROAF pre-treats the run-off water in two ABR-reactors before it discharges to the municipal sewer system. The water samples were taken from the suckback tank after the reactors.

The samples were taken as mix samples taken during a period of 24 hours using the plants automatic sampling equipment. Personnel from COWI transferred water from the day-mix sample to the bottles and sent them to the laboratory within 24 hours after sampling.

The samples were stored at a temperature between 1–5°C during and after sampling.

The samples were taken the following days:

- 27 June and 5 September 2017

Passive sampling

Passive samplers were placed in the outlet water of VEAS and HIAS wastewater treatment plants. The samplers at VEAS were placed at the outlet of the denitrification step in process hall 2 (after the biological treatment process). At HIAS the samplers were placed at a location just before the wastewater leaves the plant. In addition, passive samplers were placed in the outlet water from ROAF landfill, in the suckback tank after the reactors. The samplers were placed for two periods of 21 days each.

In order to be able to detect all desired substances, two passive samplers were placed at each location, one with SPMD (*Semi Permeable Membrane Device*) and one with POCIS (*Polar Organic Chemical Integrative Sampler*) membrane [*1*]. The SPMD were spiked with substances (internal standards) for the lab to calculate the average concentration of the desired substances at the sampling point during the exposure period. In addition, blind tests were done at each location

for each of the sampling periods. The blind test served as a reference at the lab for calibration of the results. During placement of the samplers, the blind test samplers were opened at the sampling sites and exposed to air for 5–10 minutes. The same procedure was followed during collection of the samplers.

The samples were taken during the following periods:

- VEAS: 7 to 28 June 2017, and 14 August to 4 September 2017
- HIAS: 6 to 27 June 2017, and 15 August to 5 September 2017
- ROAF: 6 to 27 June 2017, and 15 August to 5 September 2017

After each sampling period, the membranes were put back in their original metal containers, and were stored at <-18°C until analysis.

2.1.3 Sludge from municipal wastewater

Sludge samples were collected as mixed samples during five consecutive weekdays, Monday to Friday. The sampling was carried out by personnel from VEAS and HIAS using the same procedure as Norwegian Water BA (Norsk Vann BA) uses for their national screening for organic pollutions in sludge. The full sampling procedure is described in [***2***]. The personnel was instructed not to use strongly perfumed hygiene products for 12 hours prior to sampling. The mixed samples were stored in Rilsan bags at <-18°C during the sampling period.

The samples were taken from the treated sludge before it left the plant to be used as fertilizer, etc.

The sludge from VEAS has undergone anaerobic stabilization (including the addition of lime), hygienization and drying to over 45% dry matter.

The sludge from HIAS is treated by thermal hydrolysis (Cambiprocess at 160°C) prior to anaerobic digestion at 38°C.

Sampling periods for VEAS were:

Week 25 (Monday 19 June to Friday 23 June 2017)

Week 33 (Monday 14 August to Friday 18 August 2017)

Week 35 (Monday 28 August to Friday 1 September 2017)

Sampling periods for HIAS were:

Week 25 (Tuesday 20 June to Friday 23 June 2017)

Week 34 (Monday 21 August to Friday 25 August 2017)

Week 35 (Monday 28 August to Friday 1 September 2017)

2.1.4 Sediment

At Lake Mjøsa, sediment was collected at a single sampling site using a sediment trap, delivered from ExposMeter AB, Sweden. The sediment trap had holes for water flow on two of the vertical sides, and had no holes at the top or bottom of the trap. Thus, the sediment collected in the trap was transported by horizontal water currents in the lake. The sediment trap was placed on 31 May 2017 and collected 8 August (69 consecutive days). The sediment was instantly removed from the trap and put in Rilsan bags, stored at 0-4°C for less than four hours, and then stored at <-18 °C until analysis.

We also placed a sediment trap in the Oslofjord, but this trap was lost. Thus, the sediment sample from the Oslofjord was collected with a Van Veen sediment grab sampler. The sampling was performed on 30 August 2017 from the ship F/F Trygve Braarud by personnel from the University of Oslo. The sample was placed in a Rilsan bag less than four hours after sampling, and stored at <-18°C until analysis.

2.1.5 Biota I – fish, crustaceans and molluscs

The sampling of biota and preparation of samples followed the OSPAR guidelines (1997) as closely as possible, however, in a slightly adapted version, with a change in number of specimens and size ranges of the samples. A summary of biota sampling methods followed can be found in the OSPAR submissions [*3*].

The seawater fish species sampled in this screening programme is cod (*Gadus morhua*). The cod were caught in the Oslofjord 19 June 2017 by trawling from the ship F/F Trygve Braarud, owned and operated by the University of Oslo. After the fish were captured, it was killed by a blow to the head. The weight and length of each individual was measured, sex determined, and the liver removed and placed in a Rilsan bag.

The weight of the captured cod ranged from 0.7 to 3.6 kg (Table 3). The Rilsan bags were first stored for some hours on ice in insulated boxes, and then frozen at <-18 °C until analyses. The equipment that came in contact with the fish at the dissection was rinsed with acetone prior to the dissection, and the personnel performed the dissection with emphasis on avoiding contamination of the liver.

Two different freshwater fish species were sampled from Lake Mjøsa: perch (*Perca fluviatilis*) (280–600 g, Table 3) and roach (*Rutilus rutilus*) (220–320 g). The fish were caught by gillnets placed in the water on the evening 31 May 2017, and collected in the morning 1 June.

Most of the fish were alive when collected from the gillnets, and this fish were instantly killed by a blow to the head. Some of the sampled fish were already dead in the gillnets. The fish were first put in an insulated box with ice, and then transferred to Rilsan bags and frozen. Later, the fish were thawed, measured for length and weight, and filleted at COWI's lab in Oslo (Table 3). The fillets were placed in Rilsan bags, sealed and stored at <-18 °C until analysis. We followed the same procedure as when the cod were dissected in order to avoid contamination.

At Lake Mjøsa we also sampled juvenile fish (approximately 5–10 g, about 20 fish per sample). This fish were caught by electrofishing in shallow water along the shoreline. Fish which were not killed by the electricity were killed with a blow to the head. The fish were stored in Rilsan bags, first cooled at 0–4°C, and within 12 hours frozen at <-18°C. The species in the juvenile fish samples were perch, ruffe (*Acerina cernua*) and minnow (*Phoxinus phoxinus*).

The sample material included batch samples of blue mussel (*Mytilus edulis*) and winkle (snail, *Littorina* Spp.) These invertebrates were caught along the shoreline of the Oslofjord on 11 July 2017 (Figure 1). Furthermore, we collected shrimp (*Pandalus borealis*) and krill (*Meganyctiphanes norvegica*) by trawling in the Oslofjord 19 June 2017. The specimens were placed in Rilsan bags, put on ice in insulated boxes and within two to three hours frozen at <-18°C until analysis. The sample material also included one mixed sample with 4 crayfish (*Astacus astacus*) from Lake Mjøsa. The crayfish were caught in crayfish traps by personnel from Hamar naturskole, packed in aluminium foil and frozen at <-18°C.

Table 3 Length, weight and sex of the sampled fish. The length was measured from the tip of the head to the middle of the caudal fin. Weight is live weight.

Species	Sample no.	Length (cm)	Weight (g)	Sex (Female/Male)
Cod	1	69.4	3610	F
	2	61.2	2610	F
	3	47.9	2200	F
	4	48.5	1020	F
	5	72.6	3080	F
	6	53.1	3430	M
	7	52.2	1450	F
	8	44.6	830	F
	9	43.3	790	F
	10	44.0	800	F
	11	54.6	1730	F
	12	43.4	710	F
	13	40.5	700	F
	14	42.7	690	F
	15	43.7	780	F
Perch	1	26.5	278	F
	2	29.3	534	F
	3	33.0	517	F
	4	33.1	605	F
	5	30.9	479	F
Roach	1	28.2	285	F
	2	25.9	271	F
	3	26.8	323	F
	4	24.6	219	M
	5	24.8	247	F

2.1.6 Biota II – rats

Rats were captured from the sewage system of Oslo, from the streets of Oslo, from indoor areas at the ROAF waste treatment plant, and outdoor areas at Lindum landfill. The rats were caught by traps, then sealed in Rilsan bags, and stored at <-18°C prior to dissection. The liver was dissected from the rats at COWI's lab in Oslo, using the same procedure to avoid contamination as was performed for the fish. Then the livers were placed in Rilsan bags, sealed and stored at <-18°C until analysis.

2.1.7 Ambient indoor dust

Indoor dust sampling was performed at three locations in Oslo during 25-27 September 2017. The locations included an office building, a hospital and a school. 12 dust samples and 12 ambient air samples were collected in total at the three locations. In addition, three field blanks for air (3 sorbent tubes in total) were prepared for each sample site used as background consideration in the chemical analysis.

Samples for ambient air were collected on SKC Sorbent Tubes Anasorb CSC, Coconut Charcoal no. 226-01, designed specifically for solvent extraction specified in many OSHA, NIOSH, ASTM, and non-agency methods. Two automatic aspirators types ASP 2IIP, no. 030043 and no. 020007 were used. Each new sampling real flow was controlled with Bios International Corp. calibrator type Defender 520-M, no. B/N 116250.

Samples for ambient dust were collected on polypropylene small membrane filters type Fipro-25 using individual dosimetry technique with a head containing seven holes for testing total dust. Two sample pumps (automatic aspirators) types Casella Cel. Apex I.S. no. 0591451 and Casella Cel. Apex Lite no. 4081054 were used. Each new sampling of real flow through the membrane was controlled with Bios International Corp. calibrator type Defender 520-M, no. B/N 116250.

In order to collect sufficient quantities of dust (4 grams according to Czech analytical laboratory requirements), samples were also collected on Whatman QM-A high-purity quartz (SiO_2) microfiber large membranes (filters, ϕ 150 mm), applied for the EPA PM_{10} method. Whatman's filters were used for high efficiency dust collector P-10ZA no. 30015. The set of P-10ZA equipped with a central computerized unit is typically used in air monitoring where there is a need to collect high flows of air aspirations (chimneys, dust collector systems, etc.)

In addition, vacuum cleaner bags were collected from the sampling locations at the hospital and the school, as only one large filter dust sample was collected from each of these sites. Two large filter samples (microfiber large membranes) were collected from the office building; hence, it was not necessary to collect vacuum cleaner bags from this site. In Table 4 the amounts (mass) of collected dust are presented [*51*].

Table 4 Mass of dust samples.	
Sample no.	**Mass of dust (mg)**
2509 Office 1D	6406 (+/- 205)
2509 Office 2D	4080 (+/- 131)
2609 HOSP 3D	6100 (+/- 195)
2609 HOSP VAC.CLEAN BAG	-
2609 SKOL 4D	9250 (+/- 296)
2609 SKOL VAC.CLEAN BAG	-

Sampling was performed by the environmental monitoring team "BALMAR" according to Polish and European standards Table 5 [*51*]. COWI personnel monitored all sampling performed by BALMAR. The small dust samples were conditioned in an exicator at about 5% humidity after all measurements and transported to BALMAR laboratory, before they were shipped to the Czech laboratory for further analysis. The large filter dust samples and ambient air samples with sorbent tubes were sealed in proper storage bags in a refrigerator (4 °C) and a freezer (-18 °C) at the COWI laboratory, before they were shipped to the Czech laboratory for further analysis.

Table 5 Standards for air and dust sampling.	
Standard	**Description**
PN-91/Z-04030/05	Air purity protection. Dust fraction determination using the gravimetric method.
PN-Z-04008-7:2002	Sampling methods. Principles of air sampling in work places and interpretation of results.
PN-EN-482	Workplace atmospheres. General requirements and test methods of chemical agents.
PN-EN-689:2002	Workplace atmospheres. Guidance for the assessment of exposure by inhalation to chemical agent for comparison with limit values and measurement strategy.
BS EN 838:1995	Workplace atmospheres. Diffusive samplers for determination of gases and vapours. Requirements and test methods.
BS EN 1076:1997	Workplace atmospheres. Pumped sorbent tubes for the determination of gases and vapours. Requirements and test methods.
BS EN 1231:1997	Workplace atmospheres. Short term detector tube measurement systems. Requirements and test methods.
BS EN 1232:1997	Workplace atmospheres. Pumps for personal sampling of chemical agents. Requirements and test methods.
BS EN 12919:1999	Workplace atmospheres. Pumps for the sampling of chemical agents with a volume flow rate of over 51/min. Requirements and test methods.
PB-01	Laboratory. Developed methods. Issue 2 (01.08.2011).

2.1.8 Transport to the lab

All the samples were shipped from COWI Oslo to the labs in the Czech Republic by car, cooled in insulated boxes. The transport time did not exceed 24 hours. The only exception was the air samples which were shipped with a courier service to the lab.

2.2 Analysis

2.2.1 General

Samples were analysed at the Laboratory of Environmental Chemistry and Biochemistry (LECHB), Faculty of Fisheries and Protection of Waters (FFPW), University of South Bohemia, *České Budějovice* (USB CB) and the water laboratory *Povodí Labe, státní podnik*, in the Czech Republic. The latter laboratory provides complex laboratory and expert advisory services, both nationally and to the European Union (EU). *Povodi labe* additionally has the status and qualification as the reference laboratory for ring testing of substances in water within the EU. The laboratory chief analyst is also an advisory member of the EU PBT screening programme.

The laboratory follows the quality system in accordance with ČSN EN ISO / IEC 17025 and is accredited by certificate issued by the Czech Accreditation Institute (testing, sampling). The lab also holds a permit for measurement and evaluation of natural radionuclides content.

2.2.2 Definitions

In this report the three following screening methods have been used:

- **Target screening** – also called known knowns. A predefined list of the chemical individuals (targets) with available standards or MS/MS spectra and retention time are looked for. Known are the ionization, fragmentation and/or retention time.
- **Non-target screening** – method using high resolution full scan or high resolution full scan combined with tandem mass spectrometry (DIA – data independent acquisition). Those methods cover signals of all compounds, ionized in used ion source, in defined m/z range.
- **Suspect screening** – compounds which can suspected to be in the samples e.g. parent compound are known to be in the sample and their metabolites are looked for without having standards.

Full scan analysis is using mass spectrometry in full scan mode – acquisition of all signals in defined range of m/z typically 150-1000. In data mining the processing and reprocessing of already acquired data sets with new hypothesis or request are performed.

Target analytes are separated in three groups according to their physicochemical properties; volatile compounds, semi-volatile nonpolar and polar compounds respectively. Different extraction and instrumental techniques were applied for analysis of compounds belonging to the mentioned categories above. Polar compounds with low or no response in electrospray ionization (ESI) were analysed using atmospheric pressure chemical ionization and photoionization (APCI/APPI).

2.2.3 Water samples

VOCs in water samples were analysed by dynamic stripping of 25 ml sample in Purge&Trap (Tekmar 3000 with autosampler AquaTek 70) followed with GC-MS detection (Hewlett Packard 5890 with MSD 5971). Target compounds were separated using GC column (HP-VOC 30m x

0.20 mm ID and 1.12 µm film thickness) and detected in Scan mode. LOD and LOQ of individual analytes were calculated as 3 x S/N ratio and 9 x S/N ratio respectively.

Nonpolar semi-volatiles were extracted from 1 L of water by hexane; extracts were cleaned up using florisil column. Isotope labelled (13C PCB 28 and 153) and native (PCB 15) internal standards were added to the sample prior to the extraction step. Finally, the sample volume was reduced to about 500 µl. The amount of 20 µl of extract was injected (Large Volume Injector LVI) into GC column Select PAH 30 m x 0.25 mm ID and 0.15 µm film.

Target compounds were detected using Agilent GC-MS/MS 7890 with 7000C triple quadrupole mass spectrometer operated in MRM mode. LOQ were calculated from lowest calibration point of a curve, where RSD of response factor was lower than 30%. 10 ml of the samples were filtered through syringe filters (regenerated cellulose 0.2 µm pores) to auto sampler vials and fortified with mixture of internal standards ^{13}C and ^{2}D labeled pharmaceuticals (10), pesticides (4) and triclosane for polar compounds analyses.

The samples were analysed using a combination of automatized in line SPE pre-concentration (HypersilGold aQ column, 20 mm x 2.1 mm ID and 12 µm particles (Thermo Scientific), followed with separation on analytical column (HypersilGold aQ column 50 mm x 2.1 mm ID and 5 µm particles for pharmaceuticals, Hypersil Gold PFP 50 mm x 2.1 mm ID and 5 µm particles for PFCs and HypersilGold Phenyl 50 mm x 2.1 mm ID and 3 µm particles for APCI/APPI compounds). The gradient of acetonitrile in water was used for separation of ESI compounds while the gradient of methanol in water without additives was used for APCI/APPI detection.

ESI compounds were detected using QqQ tandem mass spectrometry (Quantiva, ThermoScientific) while high resolution product scan (QExactive hydride quadrupole/orbital trap mass spectrometer, ThermoScientific) was applied for detection APCI/APPI analytes. An internal standard method combined with matrix matching standards was used for quantification. LOQs were calculated from one half of the response of the lowest point in the calibration curve, where RSD of response factor was lower than 30%.

2.2.4 Sediment and sludge samples

VOC analysis of solid samples were carried out by extraction of the wet sample (1-3 grams) after spiking with an internal standard (fluorobenzene) with 6 mL methanol in an ultrasonic bath at 40°C for one hour. An aliquot of 1 mL of extract was transferred into a 10 mL headspace vial with 6 mL of water and then followed a Solid Phase Micro Extraction (SPME) with fiber Stableflex 85 µm Car/PDMS (Supelco) for 25 min at 35°C using Gerstel MPS2 autosampler and GC-MS detection on Agilent 6890N with 5973 MSD.

Target compounds were separated using a GC column (HP-VOC 30m x 0.20 mm ID and 1.12 µm film thickness) and were detected in full scan mode. LOD and LOQ of individual analytes were calculated as 3 x S/N ratio and 9 x S/N ratio respectively.

Non-polar semivolatiles were extracted from approximately 1-3 g of freeze dried samples by two step sonication in an hexane:acetone (1:1 v:v) mixture. Isotope labelled (13C PCB 28 and 153, 13C PBDEs) and native (PCB 15) internal standards were added prior to the extraction step to the sample. The extracts were cleaned using gel permeation chromatography followed with

florisil column cleaning. Finally, the sample volume was reduced to about 500 µL. 20 µL of extract was injected (Large Volume Injector LVI) into a GC column Select PAH 30m x 0.25 mm ID and 0.15 µm film.

Target compounds were detected using Agilent GC-MS/MS 7890 with 7000C triple quadrupole mass spectrometer operated in SRM mode. LOQ was calculated from the lowest calibration point of a curve, where RSD of response factor was lower than 30%.

Polar analytes were extracted using two step extraction of wet samples (2 g) with mixture water:acetonitrile:isopropanol (2 x 4 mL) after addition of IS (the same range as for water analysis). Aliquot of the sample was filtered through regenerated cellulose syringe filter (0.2 µm pore size) to a autosampler vial. 10 µL of the extract was injected into the same analytical systems as the water samples.

ESI compounds were detected using QqQ tandem mass spectrometry (Quantiva, ThermoScientific) while high resolution product scan (QExactive hydride quadrupole/orbital trap mass spectrometer, ThermoScientific) was applied for detection APCI/APPI analytes. Internal standard method combined with matrix matching standards was used for quantification. LOQs were calculated from one half of the response of the lowest point in calibration curve, where RSD of response factor was lower than 30%.

2.2.5 Biota samples

VOCs and siloxanes were analysed in fresh material after homogenisation by a laboratory blender (Waring). The following procedure was identical to the analysis of sediment. Non-polar semivolatiles were extracted from about 1-3 g of freeze dried samples by two step sonication in hexane:acetone (1:1 v:v) mixture. Isotope labelled (13C PCB 28 and 153, 13C PBDEs) and native (PCB 15) internal standards were added prior extraction step to the sample. The extracts were cleaned up using gel permeation chromatography followed with florisil column clean up. Finally, the sample volume was reduced to approximately 500 µL. 20 µL of extract was injected (Large Volume Injector LVI) into a GC column Select PAH 30m x 0.25 mm ID and 0.15 µm film.

Target compounds were detected using Agilent GC-MS/MS 7890 with 7000C triple quadrupole mass spectrometer operated in MRM mode. LOQ were calculated from the lowest calibration point of a curve, where RSD of response factor was lower than 30%.

Polar analytes were extracted using extraction of the freeze dried sample (0.5 g) with mixture water:acetonitrile:isopropanol (1x2 mL) after addition of IS (the same range as for water analysis). Aliquot of the sample was filtered through a regenerated cellulose syringe filter (0.2 µm pore size) to the autosampler vial. 10 µL of the extract was injected into the same analytical systems as the water samples.

All polar analytes were detected using high resolution product scan (QExactive hydride quadrupole/orbital trap mass spectrometer, ThermoScientific) due to higher selectivity of this method compared to QqQ. Internal standard method combined with matrix matching standards was used for quantification. LOQs were calculated from one half of the response of the lowest point in calibration curve, where RSD of response factor was lower than 30%.

2.2.6 Air and dust samples

Air samples (sorption tubes with charcoal) were analysed after elution with carbon disulfide first (for volatile analytes) and second elution with hot toluene for analysis of semivolatiles. Aliquot of carbon disulfide extracts were injected and analysed by GC-MS (Agilent 7890 with 5977) in scan mode. Toluene extracts were transferred into heptane and analysed with the same procedure as with the solid samples.

Non-polar semivolatiles were extracted from approximately 1 g of dust samples by two step sonication in a hexane:acetone (1:1 v:v) mixture. Isotope labelled (13C PCB 28 and 153, 13C PBDEs) and native (PCB 15) internal standards were added prior extraction step to the sample. Clean up and analysis steps were similar as in the case of biota or sediment samples. Polar compounds were extracted and analysed with the same procedure as biota samples using HRPS detection only.

2.2.7 Non-targeted screening analysis

Non-targeted, also called suspect screening [*52*] [*53*], analysis was performed. The screening was performed using a combination of three analyses on the same analytical column (Kinetex EVO C18, 50 mm x 2.1 mm ID 3 µm particle size) with a gradient of acetonitrile in water (buffered with 0.1% of formic acid and 5 mM ammonium acetate).

Three different ESI/HRMS methods were used to cover a broad mass range in both positive and negative ionization modes. Full scan at resolution 70 000 FWHM was combined with DIA (data independent analysis) to achieve MS/MS information (MS/MS data were acquired at 17500 FWHM resolution).

Compound discoverer 2.0 software (ThermoScientific) was used for combined target and non-targeted screening following workflow presented in Figure 3. The detected mass spectra were searched against internal libraries and pattern traces (e.g. Cl, Cl2, Cl3 ClBr presence). Calculated element compositions were searched using ChemSpider and other databases. In addition, PCA and differential analysis was performed to identify differences among sampled source and recipients.

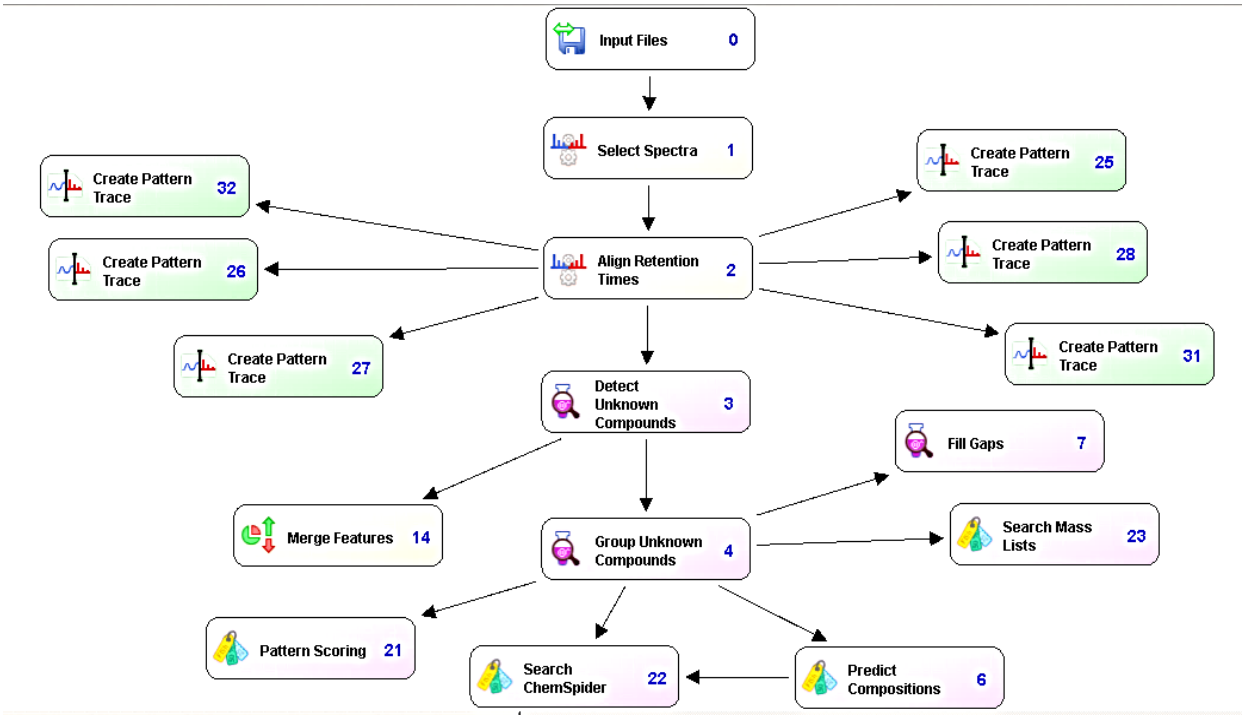


Figure 3 Screenshot from the software ThermoScientific for illustration of workflow pathways.

3. Results and discussion

The focus of the 2017 screening programme is a heterogeneous group of suspected PBT and other selected compounds, consisting of 27 prioritized and 137 supplementary compounds. Due to a lack of proper analytical standards, the number of 7 substances were surveyed by non-target screening.

The number of analysis results above limit of detection varied between the different matrixes (Table 6).

Table 6 Number of analysis results above limit of detection (LOD) for each matrix. The number in parenthesis at each matrix refers to the number of samples. na = not analysed. Green cells: at least one result above LOD. Number in parenthesis in green cells refers to the share (%) of analysis results above LOD.

Matrix → / Compound ↓		Wastewater (8)	SPMD/POCIS (6)	Sludge (6)	Sediment (2)	Biota rat (11)	Biota fish (28)	Biota invertebrates (9)	In-door air (13)	House dust (6)
1	TTBfenol	0	2 (33)	0	0	0	0	0	na	0
2	Propikonazol	8 (100)	6 (100)	6 (100)	0	1 (9)	1 (4)	0	na	6 (100)
3	Tebukonazol	8 (100)	6 (100)	6 (100)	0	1 (9)	1 (4)	0	na	6 (100)
4	p-(1,1-dimethylpropyl)phenol	7 (88)	6 (100)	3 (50)	0	0	17 (61)	0	na	6 (100)
5	Tonalide with metabolites	8 (100)	6 (100)	6 (100)	0	0	11 (39)	0	0	na
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-octylacrylate	0	na	0	0	0	0	0	0	0
7	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-octylmethacrylate	0	na	0	0	0	0	0	0	na
8	Phenol, heptyl derivs.	na	na	na	na	na	na	na	na	na
9	O,O,O-triphenyl phosphorothioate	3 (38)	2 (33)	6 (100)	2 (100)	1 (9)	15 (54)	5 (56)	na	6 (100)
10	4-tert-butylphenol	8 (100)	6 (100)	6 (100)	2 (100)	7 (64)	7 (25)	0	na	6 (100)
11	4,4'-methylenedi-2,6-xylenol	2 (25)	2 (33)	0	0	0	0	0	na	0
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	na	na	na	na	na	na	na	na	na
13	Isopentyl p-methoxycinnamate	0	0	0	0	0	0	0	na	3 (50)

14	Tetraphenyl m-phenylene bis(phosphate)	8 (100)	0	2 (33)	0	0	0	0	na	6 (100)
15	Galaxolide with metabolites	8 (100)	6 (100)	6 (100)	0	5 (45)	18 (64)	2 (22)	9 (69)	na
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetra-methylnaphthalen-2yl]ethan-1-one (OTNE)	8 (100)	6 (100)	6 (100)	0	8 (73)	17 (61)	0	12 (92)	6 (100)
17	Buprenorphin	6 (75)	3 (50)	6 (100)	0	na	na	na	na	2 (33)
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	na	na	na	na	na	na	na	na	na
19	3-(5,5,6-Trimethyl-bicyclo, [2.2.1]hept-2-yl)cyclohexanone	na	na	na	na	na	na	na	na	na
20	4- (5,5,6-trimethyl-bicyclo[2.2.1]hept-2-yl)cyclohexanone	na	na	na	na	na	na	na	na	na
21	Tris(2-methoxyethoxy) vinylsilane	na	na	na	na	na	na	na	na	na
22	Resorcinol	0	0	0	0	0	na	0	na	0
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	1 (13)	na	0	0	0	0	0	0	0
24	Diethylmethylbenzenediamine	4 (50)	6 (100)	3 (50)	0	1 (9)	0	0	na	0
25	Surfadone	2 (25)	3 (50)	6 (100)	0	0	0	0	na	3 (50)
26	Bis(2-ethylhexyl) terephthalate	7 (88)	0	6 (100)	0	0	0	0	na	6 (100)
27	Bentrimonium (ATAC-C20 and ATAC-C22)	na	na	na	na	na	na	na	na	na

The results in the report are given as dry weight (dw), and the average dry weights of the biota samples are given in Table 7.

Table 7 Average dry weight (% of ww) of biota samples.

Species	Average dry weight (% of ww)	No of samples
Rat	29	11
Cod liver	45	15
Perch	23	5
Roach	20	5
Juvenile fish	21	3
Krill	19	2
Shrimp	29	2
Blue mussel	70	2
Snails	68	2
Crayfish	32	1

3.1 Compounds of interest

The compounds of interest are presented in the following chapters by substance and not according to chemical structure and/or application. This grouping was necessary because many of the substances have overlapping applications. Where possible, we have emphasized comparisons with previous screening campaigns and international environmental research.

3.1.1 2,4,6-tri-tert-butylphenol

The phenol 2,4,6-tri-*tert*-butylphenol (CAS no. 732-26-3) with acronym TTBP has been of environmental concern and on the OSPAR priority list since 2000. TTBP is mainly used as a stabilizer or free-radical scavenger and antioxidant additive in technical applications, among others in fuels, gasoline, oil, hydraulic fluids, lubricating oils, resins and plastics. Other reported applications are in cosmetics, elastomeric and thermoplastic polymers cf. Table 1 in chapter 1.2 [*4*] [*5*].

The extent of TTBP presence in the global environment is somewhat unclear, however, TTBP is known to be rather limited in use in Norway [*6*]. To estimate potential releases of TTBP to the environment, Environment Canada developed a Mass Flow Tool and predicted that only 2% was released to soil, air and water during production, distribution and use as fuel, oil and lubricant additives. The main loss of 93.2% was through transformation under fuel/oil combustion. The remaining 4.8% was estimated to end up at landfills [*7].* A study in 4 Norwegian WWTPs in 2010 reported that TTBP was not recorded above the LOD [*8*]

Based on the above information, discharge of TTBP to water and sediments (from WWTP, disposal site runoff and to soils through spreading of wastewater sludge) is assumed to be limited. However, TTBP was one of 80 priority substances in the previous 2016 screening campaign [***9***] with a presence up to maximum of 30-50 ng/g dw in WWTP sludge, rat liver and cod liver samples.

A single occurrence of TTBP measured by POCIS in the ROAF run off were 96 ng/POCIS, which is similar to the corresponding 120 ng/POCIS at ROAF in 2016. TTPB was not detected elsewhere, which may be due to the general one magnitude higher LODs for the 2017 matrixes (Figure 4).

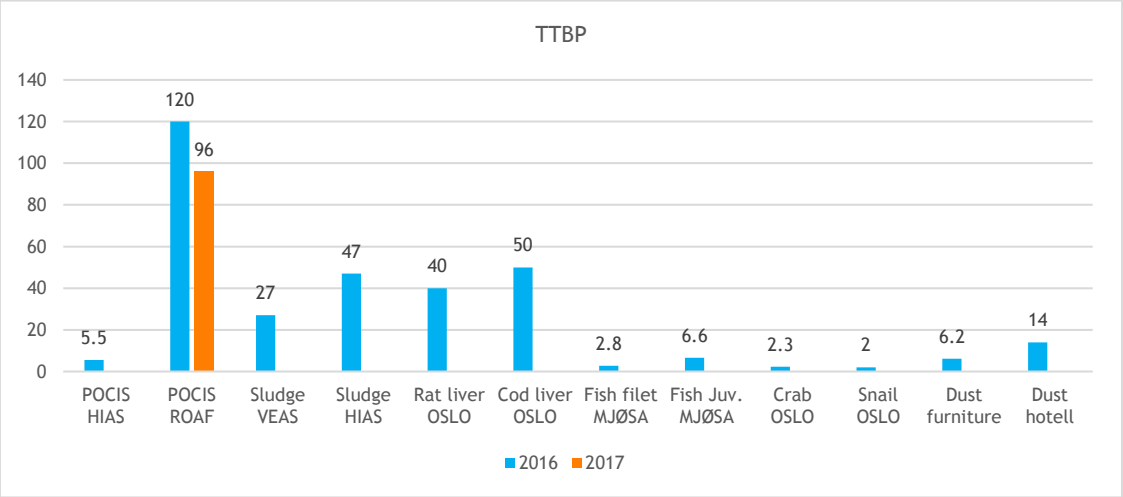


Figure 4 Comparison of the distribution of maximum concentrations of TTBP in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2016 and 2017.

3.1.2 Propiconazole

The triazole derivative propiconazole (CAS no. 60207-90-1) is a systemic broad range working fungicide within the triazole group, consisting of four isomers, all biologically active (Table 1). Propiconazole has been included in several Nordic monitoring programmes since the mid 1980's and this was summarized in 2002 [*10*].

The main use of propiconazole in Norway has been in preservation of wood and other products. It has also been used as an anti-bacterial additive and the substance is included in the Norwegian environmental watch list [*11*]. However, propiconazole has not been included in the national Screening programmes for the last 5 years.

Expected occurrence of propiconazole in the Norwegian environment was fairly high due to the number of registered biocide products that have been in legal use (application for agricultural purposes). Propiconazole is often mixed in the application products with biocide compounds of a similar systemic broad range, such as cyprodinile, trifloxystrobin and fenpropidin. In a regional groundwater survey reported in 2010, propiconazole was found at levels up to 170 ng/L which is comparable to the results given below [12].

Propiconazole presence in effluent water samples from the WWTPs show low concentrations in the range of 3.7-69.0 ng/L, HIAS having slightly higher concentrations than VEAS. There is no significant difference between influent and effluent water of the treatment plants. The runoff from the ROAF disposal site was moderate, between 300 and 680 ng/L (10x higher than the maximum found at HIAS). The concentrations measured by passive samplers were correspondingly 9.5-37.0 ng/POCIS at WWTPs and 110-150 ng/POCIS at ROAF (Figure 5).

The 6 WWTP sludge samples contained low concentrations within the interval 5.0-8.8 ng/g dw, and the substance was not found in sediments. Propiconazole was detected in all indoor dust samples, the highest detection of all of the sites was found at the school building, 24 ng/g dw (Figure 5).

Results show a lack of distribution of propiconazole in biota, except for a single occurrence in rat liver 16.0 ng/g dw and in a single juvenile fish sample from lake Mjøsa (5.5 µg/kg dw). The results for the biological matrixes suggest no real potential for accumulation.

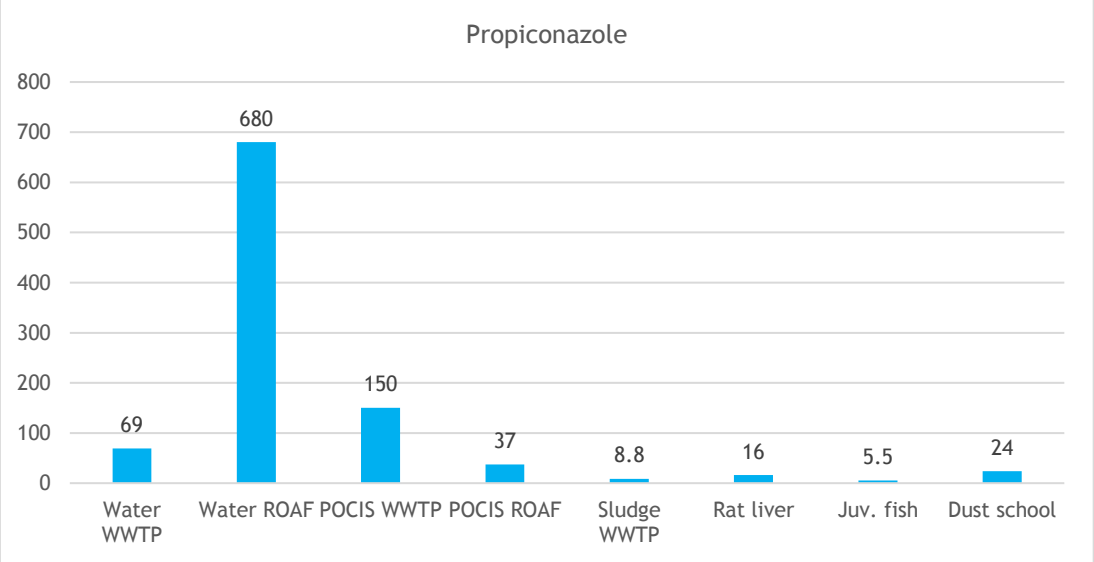


Figure 5 Distribution of the maximum concentrations of propiconazole in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2017.

In summary, WWTP sludge may be the main environmental source for the substance propiconazole and the highest accumulation in biota was seen in rat liver. Moderately high levels found in juvenile fish can indicate recent exposure to propiconazole. Indoor dust suggests the highest exposure risk for humans.

3.1.3 Tebuconazole

The substance tebuconazole (CAS-Number 107534-96-3) also belongs to the chemical triazole group which has been used as a fungicide and in anti-bacterial applications (Table 1). This compound has previously not been included in the Screening programme. However, during the extensive following up survey and monitoring of pesticides in groundwater in Norway (2007-2008), tebuconazole was found in some regions, although the substance already was banned for use in 2009 [*12*].

The monitoring of pesticide residues in food in Norway is regularly performed in order to ensure compliance of food guidelines. The results from the monitoring in 2014 support the fact that tebuconazole is still present in the environment even after the ban [*13*]. Because of this fact, we expected to find trace amounts of the substance during the screening in 2017.

Water samples from the two WWTPs effluents resulted in tebuconazole concentrations from 6.8-24.0 ng/L (influent 16.0 ng/L) and 510-900 ng/L (influent 510 ng/L) at VEAS and HIAS respectively. The ROAF landfill runoff water contained concentrations from 350-2100 ng/L (Figure 6).

Concentrations of tebuconazole from passive sampling was slightly different, indicating that the presence of particulate matter may play a part in traditional water sampling. The results from VEAS outlet water show low concentrations (11 ng/POCIS) from both sample periods. However, the HIAS samples contained 400-600 ng/POCIS or 40-60x higher than VEAS, and the ROAF runoff somewhat less (130-170 ng/L) (Figure 6).

WWTP sludge from VEAS contained tebuconazole concentrations of 4.1-6.3 ng/g dw and from HIAS concentrations of 280 ng/g dw and 390 ng/g dw. Tebuconazole was not found in biota, marine or freshwater sediment. Only a single rat liver and a single cod liver showed concentrations of tebuconazole (1.2 ng/g dw and 2.2 ng/g dw respectively) (Figure 6).

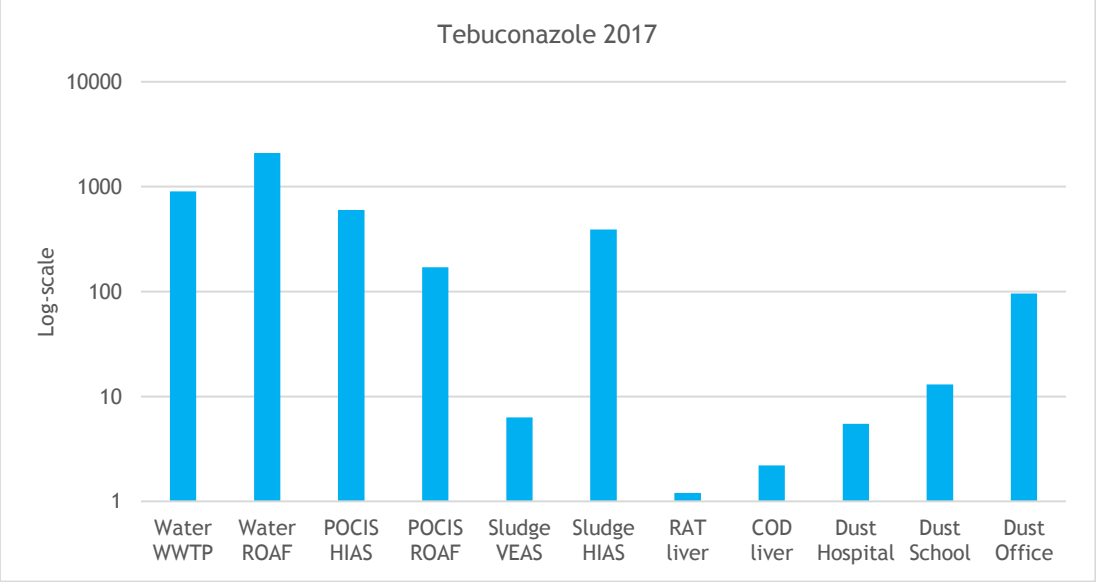


Figure 6 Distribution of the maximum concentrations of tebuconazole in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2017.

The concentration levels of tebuconazole in the dust samples was significant. Concentrations levels of 4.0-5.5 ng/g dw were found in the hospital, and similar levels were also found in the school (3.8-13.0 ng/g dw). The highest concentrations of tebuconazole in indoor dust were found in the office facilities (28.0-96.0 ng/g dw) (Figure 6).

In summary, the WWTP sludge contains the highest concentrations of tebuconazole and may be the main environmental source for this substance. Indoor dust suggests a possible exposure risk for humans.

3.1.4 p-(1,1-dimethylpropyl)phenol

The alkyl phenol compound *p*-(1,1-dimethylpropyl)phenol (CAS No. 80-46-6) with acronym PTAP (Table 1), is identified as a substance of very high concern in accordance with REACH Article 57 [*14*]. PTAP is used as a bactericide and disinfectant, but little is known about its environmental distribution [*15*] [*16*].

Internationally research on PTAP concentrations is limited to a few studies which found 0.3 ng/L in North Sea water, 0.1-0.7 ng/L in Elbe river water and 17-66 µg/kg dw in Elbe river sediment [*17*]. A survey of landfill leachate in Sweden revealed concentrations up to 660 ng/L [*18*]. The Norwegian PBT Screening programme in 2014 identified PTAP at level 3 (tentative candidates) in the Oslofjord and Mjøsa matrixes, along with rat liver for the non-target screening [*19*].

Water samples from the two WWTPs contained similar low PTAP concentrations (11.0 ng/L maximum in the influent and 4.7-9.5 ng/L in effluent). Likewise, concentrations in the runoff water from the ROAF landfill contained low levels (6.2-35.0 ng/L). The passive samplers placed in the WWTP effluents showed similar low concentrations of 7.2-13.0 ng/POCIS. However, the landfill runoff passive samplers revealed medium-high concentrations in the range of 140-700 ng/POCIS (Figure 7).

The WWTP sludge at HIAS contained PTAP concentrations of 6.9-35.0 ng/g dw. These results, in addition to the water sample results reported above, indicate that the WWTPs play a minor role in the environmental distribution of PTAP. However, the landfills may be a possible significant source for environmental presence of PTAP. Sediments did not contain PTAP (Figure 7).

The presence of PTAP in the biological matrixes was somewhat unexpected. All 15 individual cod livers contained PTAP in the concentration range of 130-1000 ng/g dw (on average 362 ng/g dw). In Lake Mjøsa, the juvenile fish samples contained concentrations between 140-160 ng/g dw. However, no other adult fresh water fish samples contained PTAP. Likewise, PTAP was not found in rats or other aquatic biota. All indoor dust samples contained PTAP in the concentration range of 11.0-35.0 ng/g dw, highest found in the school environment (Figure 7).

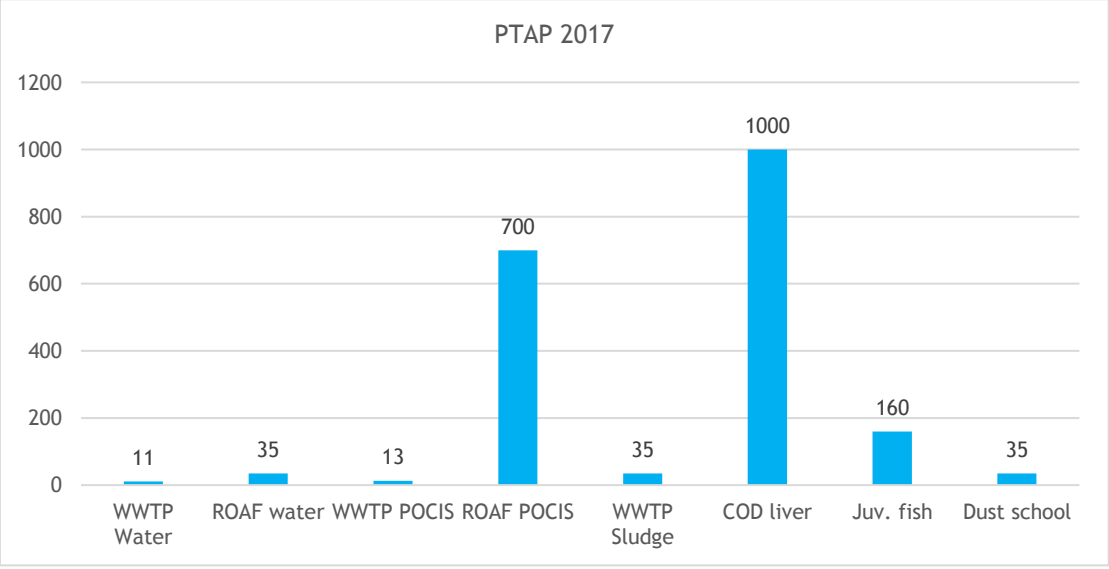


Figure 7 Distribution of the maximum concentrations of PTAP in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2017.

Disposal site run off appears to be one of the main environmental sources of PTAP, and the highest accumulation in biota was found in cod liver. The accumulation here, in juvenile fish, indicate a resent exposure to PTAP.

3.1.5 Tonalide with metabolites

The substance of interest tonalide or 6-Acetyl-1,1,2,4,4,7-hexamethyltetraline (CAS no. 1506-02-1 and 21145-77-7) with the acronym AHTN is a lipophilic member of a group of substances used in fragrances and collectively known as the polycyclic synthetic musks. AHTN is used as an ingredient in commercial preparations for fragrances and is found in a wide variety of consumer products such as perfumes, cosmetics and personal care products. AHTN is also found in household and laundry cleaning products (including solvent based), as well as in air fresheners (Table 1).

The level of AHTN in such preparations is typically at a level of a several percent. The worldwide annual production of AHTN is unknown, but e.g. The Netherlands produces an annual volume of 1000-5000 metric tonnes alone [*20*]. Other applications of AHTN may be as biocidal products such as disinfectants and pest control [*15*]. This wide range of applications and frequent use, especially for household products, indicates that AHTN is expected to be widespread in our environment [*21*].

The presence of AHTN in Norway was partly confirmed in the 2016 PBT Screening programme [*9*], since AHTN was included as an additional parameter. AHTN has also previously been confirmed by non-target screening of matrixes in the food chain from the Oslofjord (herring, krill, and northern shrimp) [*19*]. Comparisons between the overall results for 2016 and 2017 are presented below (Figure 9).

During the 2017 screening, traditional water samples from both influent and effluent water streams at the two WWTP were collected. From (Figure 8) it can be seen that considerably amounts of AHTN enter the WWTPs. At VEAS and HIAS the influent was 2100 ng/L and 3200 ng/L respectively. The concentration in the effluent was reduced about 8x at VEAS and half of that at HIAS. The contribution of AHTN from the ROAF landfill was between 350 and 2100 ng/L.

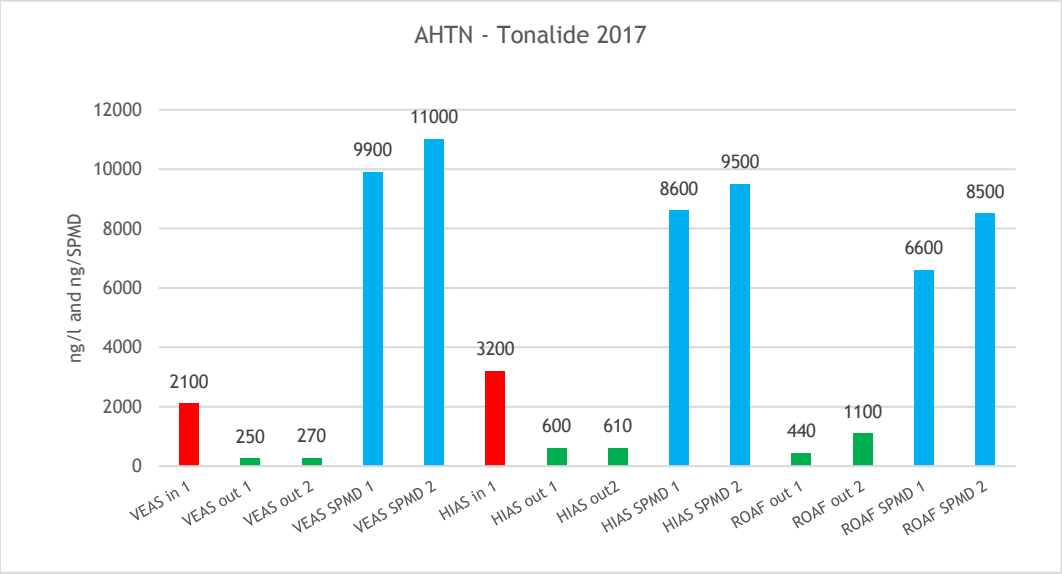


Figure 8 Fluxes of Tonalide/AHTN in ng/L or ng/SPMD in WWTPs effluent and ROAF landfill runoff from the PBT Screening programme 2017.

Comparing the water samples to the passive sampling, the concentrations of strictly dissolved AHTN was considerably higher in both effluent and runoff water. There was no significant difference between the WWTP and the landfill samples (amount range 6600-11000 ng/SPMD).

The concentrations of AHTN in WWTP sludge was high (5900-11000 ng/g dw), but lower compared to the 2016 screening (cf. Figure 9). In 2016, AHTN was found in the Lake Mjøsa sediments, but not detected above LOD in 2017.

The only recorded occurrence of AHTN in biota were in cod liver (11 of 15 individuals), between 21 µg/g dw and 130 µg/g dw. The low concentration of the AHTN as a lipophilic substance in biota is striking, since the 2016 screening showed presence in other (both land based and aquatic) biota matrixes (cf. Figure 9).

In addition, the 2014 PBT Screening programme confirmed as mentioned above, presence of AHTN in the marine food chain [*17*]. Considerable amounts of AHTN was found in the in-door dust in 2016, less in the ambient air (Figure 9). However, AHTN was not detected in neither in-door air nor dust samples in this year's screening.

Summarized, the WWTP sludge may be the main environmental source for AHTN and the generally high accumulation in most biota liver. Inhalation of in-door dust suggests the highest exposure risk for humans.

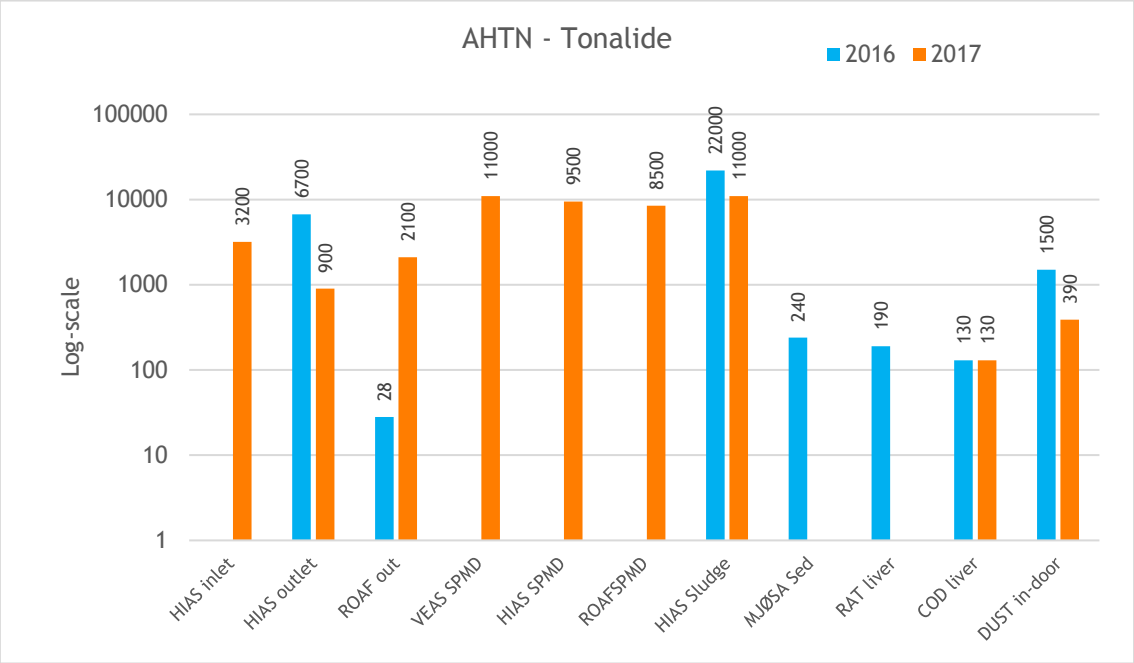


Figure 9 Comparison of maximum Tonalide/AHTN concentrations in various matrixes in ng/L, ng/SPMD or ng/g dw from the 2016 and 2017 Screening programmes.

3.1.6 Per- and poly-fluorinated substances (PFCs)

The two substances 3,3,4,4,5,5,6,6,7,7,8,8,8-tri-deca-fluoro-octylacrylate (CAS no. 17527-29-6) and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylmethacrylate (CAS no. 2144-53-8), belonging to the main chemical group PFCs as fluoro-telomer acrylate (6:2) and fluoro-telomer methacrylate (6:2) respectively, were both target compounds of interest in this 2017 PBT Screening programme (Table 1).

Used in polymerisation processes at industrial site and acrylate polymers (FT) have applications in textile, upholstery, carpet, and apparel and leather industries as components of surface protecting coatings [*22*]. There is a concern that these polymers by degradation may be a potential indirect source of perfluoro-carboxylic acids (PFCAs) in the environment.

Evidence of FT-polymer degradation was observed in the hydrolysis and wastewater studies, suggesting that FT-polymer degradation potentially contributes to the PFCA burden in the environment [*23*]. Neither of the two targeted compound were quantified above the corresponding LOD in this year's screening matrixes.

3.1.7 Heptyl phenol, derivatives

Substances of interest in the PBT screening are heptyl phenol derivatives (CAS no. 72624-02-3) e.g. 4-heptylphenol (branched and linear) with acronym 4-HPbl [*24*]. The compounds are frequently use as lubricants, in greases and release products (Table 1). Internationally, environmental occurrences of alkyl phenols (e.g. octyl-, nonyl- and dodecyl-phenols) have frequently been studied. But very few field data of the target compounds within heptyl phenols are known by ECHA [*24*].

However, 4-heptyl phenol have been documented in aquatic environments worldwide. Some alkyl phenols were found in seafood samples of prawn, crab, blood cockle, white clam, squid and fish in Singapore. The highest concentration of 4-heptyl phenol was in prawns (n = 5) between 3.5 and 16.9 µg/kg wet weight [*25*].

The general assumption is that the discharge of alkyl phenols including heptyl phenol, have increased in later years in Norway. Increased discharge of dodecyl phenol from engine oils due to increased import and use, along with poor waste oil handling, may be reasons for this. Likewise, increased discharge of 4-tert-butyl-, 4-tert-pentyl- and 4-heptyl-phenols released from plastics, paints, varnishes and lubricants products may escalate the impact. In 2015, Norwegian discharge of heptyl phenols from produced water was 88 kg [*26*].

There were no analytical standards for heptyl phenol derivatives available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.1.8 O,O,O-triphenyl phosphorothioate

The substance O,O,O-triphenyl phosphorothioate (CAS no. 597-82-0) or TPPT is a member of the chemical group triphenyl esters. TPPT has a broad range of applications and is mainly used for blending industrial lubricants such as hydraulic pressure oil, fluids, cooling liquids, and greases. These are used in a variety of process such as compressors, gears, turbines, electric heaters, automotive engine oils, food lubricants, and oil film bearing oils. TPPT can further be used as a colour stabilizer and plastic/rubber plasticizer. There is a high risk for environmental release form both indoor and outdoor systems (Table 1).

The screening results show that TPPT is found widespread in a concentration range over several orders of magnitude. Water samples from the influent of the VEAS WWTP contained 0.3 ng/L and at HIAS 4.2 ng/L. The effluent from VEAS contained a similar low concentration of 0.4 ng/L. The passive sampling in the same outlets contained 0.25 ng/POCIS and 0.59 ng/POCIS respectively (Figure 10).

The low concentrations in the WWTP water were in contrast to the concentrations found in the WWTP sludge of 410 µg/kg dw and 2900 ng/g dw respectively. In the sediment trap outside the VEAS WWTP concentrations of 7.8 ng/g was measured (Figure 10).

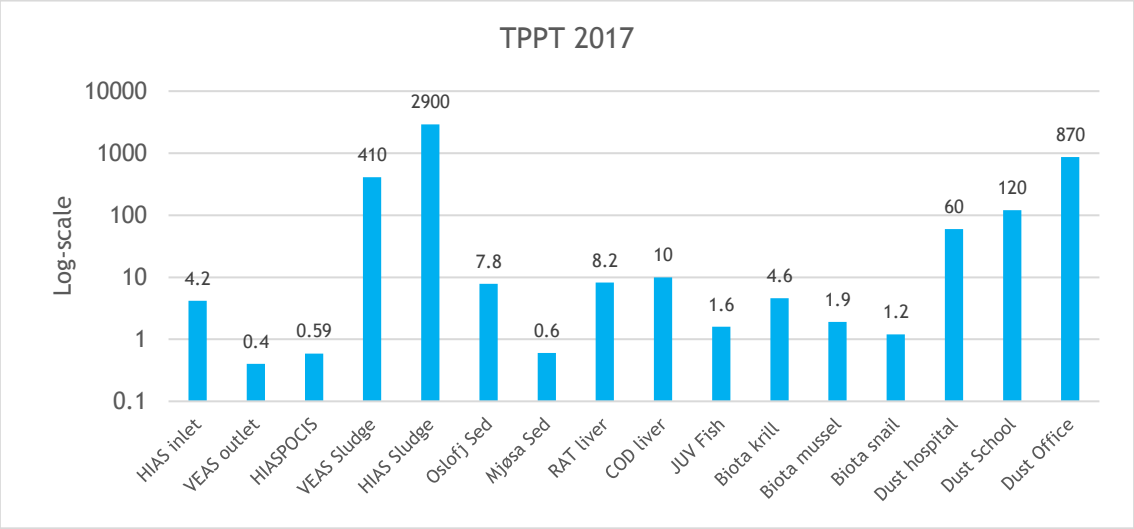


Figure 10 Distribution of the maximum concentrations of TPPT in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2017.

TPPT was found in a single rat liver from the Lindum disposal site at level of 8.2 ng/g dw. In aquatic biota, the presence and distribution indicates recent contamination. The TPPT concentration in cod livers was between 1.4 ng/g dw and 10.0 ng/g dw, with an average of 4.95 ng/g dw (n=12). TPPT was not found in adult fish species in the freshwater recipient. However, all 3 samples of juvenile fish contained between 0,96 and 1,6 ng/g dw, reflecting a good matrix for TPPT accumulation (Figure 10).

TPPT in other marine biota (invertebrates) occurred at similar concentration levels as in fish given above; i.e. the highest in krill (4.4-4.6 ng/g dw), less in blue mussels (1.4-1.9 ng/g dw), and lowest in snails (1.2 ng/g dw. Moderately high concentrations of TPPT in indoor dust from all three locations, ranging from 56-60 ng/g dw (hospital), 45-120 ng/g dw (school) and 42-870 ng/g dw (office).

In conclusion, the WWTP sludge appears to be the main environmental source for the substance TPPT and some accumulation in biota was seen on several trophic levels. The levels of TPPT found in juvenile fish indicates recent exposure. Indoor dust suggests the highest exposure risk for humans.

3.1.9 4-tert-butylphenol

Another targeted substance for the chemical group alkyl-phenols was 4-tert-butylphenol (CAS no. 98-54-4) with the acronym PTBP (Table 1). The substance is only used in industrial processes of fine chemicals, such as a monomer for the production of polycarbonates, or an intermediate for the production of vulcanization agents and synthetic resins (e.g. phenolic resins and epoxy resins) [*15*].

The potential environmental distribution of PTBP obtained from a generic fugacity model (Mackay level III) is shown in (Table 8). The results show that if PTBP is released into air, it is likely to be transported to other compartments. However, if PTBP is released into water or soil,

it is unlikely to be distributed elsewhere [*27*]. Based on these predictions, PTBP was expected to be found widespread in the Norwegian environment during the screening.

Table 8 Potential environmental release and distribution of PTBP from a generic multimedia fugacity model Mackay level III [*27*].

Compartments	Release 100% to air	Release 100% to water	Release 100% to soil
Air	39.7%	0.2%	0.0%
Water	23.3%	95.3%	0.4%
Soil	35.9%	0.2%	99.6%
Sediment	1.1%	4.4%	0.0%

Water samples from the WWTP VEAS and HIAS contained a maximum 530 ng/L and 800 ng/L respectively in the influent water and likewise slightly lower in the effluent 490 ng/l and 620 ng/l). The runoff from the landfill ROAF gave a maximum concentration of 1000 ng/L (Figure 11). These concentrations are 2-3 orders of magnitude higher than the concentrations recorded for the above discussed alkyl phenol PTAP (c.f. chapter 3.1.4).

Results for PTBP from the passive sampling was concentrations of 51-67 ng/POCIS in the VEAS wastewater, and between 210-220 ng/POCIS in the HIAS treatment plant (4x higher). These concentrations were also 5-20x higher than found for PTAP (c.f. chapter 3.1.4). The concentrations for PTBP were 840-4100 ng/POCIS in the ROAF landfill runoff (Figure 11).

Samples of sludge from the WWTPs at VEAS show concentrations of 91-150 ng/g dw and at HIAS 140-390 ng/g dw. In the sediments adjacent to the WWTPs concentrations of 13.0 ng/g dw was found in the Oslofjord and 2.7 ng/g dw in Lake Mjøsa (Figure 11).

Bioaccumulation of PTBP was seen in both land-based and aquatic biota. The maximum concentrations ranged from 10.0 ng/g dw in rat liver, 12.0 ng/g dw in adult freshwater fish filet (perch and roach) and 27 ng/g dw in cod livers (Figure 11).

PTBP in indoor ambient air was not detected, however, relatively high concentrations were recorded in dust samples from the hospital (18-33 ng/g dw), school (34-67 ng/g dw) and office (24-46 ng/g dw) (Figure 11).

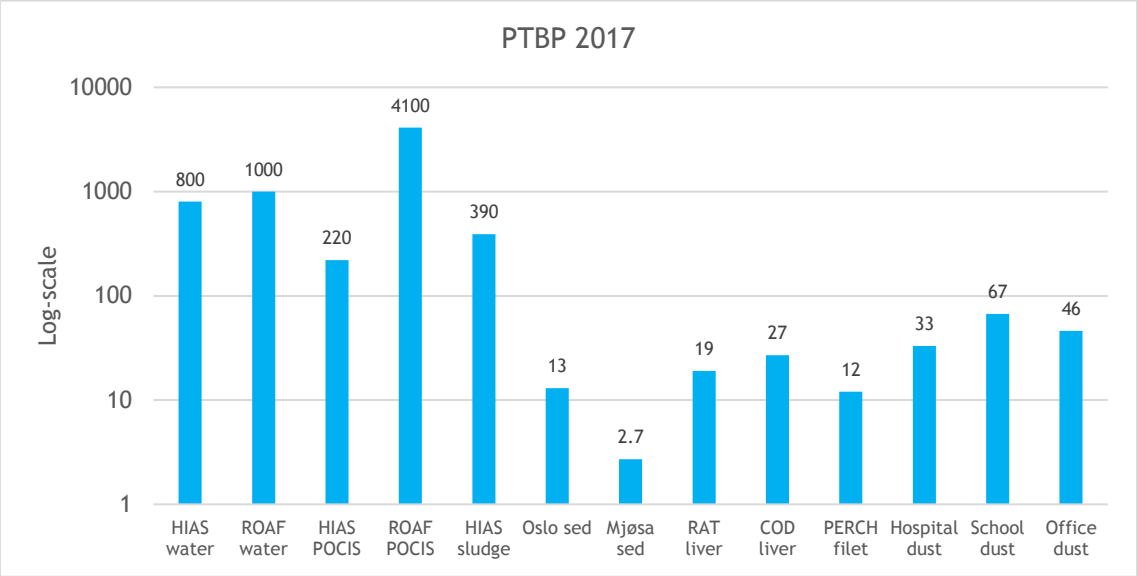


Figure 11 Distribution of the maximum concentrations of PTBP in ng/L, ng/POCIS or ng/g dw from the PBT Screening programme 2017.

In summary, the WWTP sludge appears to be the main environmental source for the substance PTBP and a significant accumulation in biota was seen throughout.

3.1.10 4,4'-methylene-di-2,6-xylenol

The substance 4,4'-methylene-di-2,6-xylenol_(CAS no. 5384-21-4) also called TMBPF (Tetra Methyl Bis Phenol F) is classified as a bis-phenol containing flame retardant (Table 1). The main use of this compound is in hydraulic fluids, lubricants, greases and surface release products [*15*].

The only record of this substance in the 2017 Screening was in water samples from the ROAF landfill runoff. The water samples contained concentrations of TMBPF from 16-62 ng/l, with accumulation in the passive samplers in concentrations of 150-500 ng/POCIS.

3.1.11 Phenol, dodecyl-, sulfurized, carbonates, calcium salts

The substance(s) named phenol, dodecyl-, sulfurized, carbonates, calcium salts (CAS no. 68784-25-8) was included in the compounds of interest in this 2017 Screening programme. The only known use of these substances is as a UV-B filter in sunscreen products (Table 1).

There were no analytical standards for phenol, dodecyl-, sulfurized, carbonates, calcium salts available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.1.12 Isopentyl p-methoxycinnamate

Targeted in the 2017 Screening programme was the substance Isopentyl p-methoxycinnamate (CAS. No. 71617-10-2), referred to as a number of different synonyms in literature, among others 3-(4-methoxyphenyl)-2-propenoic acid 3-methylbutyl ester and amiloxate **(**Table 1**)**. There is an increasing concern regarding the impact of these type of chemicals to the environment and their effects have been extensively studied in recent years [*28*] [*29*].

This compound occur naturally in cinnamon plants and is widely used as a UV-filter (both UV-A and UV-B screen) in skin care products, as a harmless ingredient. Although most of the UV-filter substances studied are frequently discovered in the environment, amiloxate was not found in the selected matrixes. The only exception was the low concentration recorded in indoor dust samples ranging within the concentrations 5.1-11.0 ng/g dw.

3.1.13 Tetraphenyl m-phenylene bis(phosphate)

The substance tetraphenyl m-phenylene bis(phosphate) or resorcinol bis(diphenyl phosphate) is a multi-constituent substance (CAS no. 57583-54-7) used in polymer preparations and compounds. It is primarily used in manufacturing of textiles, leather and fur as textile dyes and pigment dispersions for paints and coatings (impregnating products). Due to low volatile and high heat resistance this substance is mainly used in Europe as a phosphorous flame retardant and in engineering thermoplastics, styrenic polymers, PVC, polyurethanes, PPE, ABS and PET resins (Table 1) [*15*] [*30*].

Considering the production and use of this substance, it is assumed to impact the various environmental pathways. However, the risks are considered low for waste water treatment plant, air pathway, secondary impact to food chains (marine, freshwater, terrestrial) and human exposure [*31*].

The 2017 Screening confirmed the above assumption by the low concentrations found in the WWTPs influents of 2.7-3.7 ng/L and effluents 0.5-1.0 ng/l. The ROAF landfill runoff also gave low concentrations of 1.6-2.6 ng/L. The absence of this compound in the passive samples indicates a suspension load, possibly confirmed by the WWTP sludge concentrations of 2-5,6 ng/g dw.

Tetraphenyl m-phenylene bis(phosphate) was neither found above the LOD in the recipient sediments nor any of the land-based or aquatic biota samples. The only additional presence was in the indoor dust samples with ranges from 17.0-18.0 ng/g dw (hospital), 29.0-54.0 ng/g dw (school) to 26-110 ng/g dw (office).

3.1.14 Galaxolide with metabolites

The substance galaxolide (CAS. no. 1222-05-5) with the chemical name 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8,-hexamethyl-cyclopenta[*g*]benzopyran, abbreviated HHCB, is characterized within the chemical group of synthetic musk. Synthetic musks are widely used in many industries today and the increased distribution and impact of these substances are of great environmental concern. The extensive applications of galaxolide are given in detail in Table 1 above. The main applications of galaxolide include products for cleaning, disinfection, cosmetics, and adhesives in fuels, paints and anti-freeze.

There is some conflicting evidence regarding galaxolide being a PBT substance. Given its lack of bioaccumulation and toxicity, the EU determined that galaxolide does not meet the criteria for being a substance classified as PBT to the environment [*32*] [*33*]. However, the EPA's assessment of HHCB found it to be moderately persistent and bioaccumulative, as well as highly toxic to aquatic organisms [*34*]. The EPA's PBT Profiler also found HHCB to exceed the EPA's criteria as a PBT substance [*35*].

HHCB was in spite of the above contradictions one of the prioritized substances for PBT screening in 2017. The substance was also included as an additional PBT substance in the 2016 screening and comparisons of the results are found in Figure 12 below. The PBT Screening programme 2014 identified HHCB to be present in the entire marine food chain (cod, herring, krill and northern shrimp) in the Oslofjord through non-target screening, in addition to the freshwater food chain in Lake Mjøsa [*19*].

The screening of the WWTP water resulted in measured concentrations of HHCB in the VEAS influent of 8400 ng/L and HIAS influent slightly higher at 13 000 ng/L. The corresponding maximum effluents were 1000 ng/L and 2600 ng/L respectively or 5-8x lower. Concentrations in the runoff from the ROAF landfill was between 1600 ng/L and 4800 ng/L.

The passive sampling revealed somewhat higher concentrations in the effluent, 38 000-40 000 ng/L at VEAS and 33 000-37 000 ng/L at HIAS. The passive samples at ROAF showed a concentration range between 24 000 ng/L and 35 000 ng/L. Sewage sludge from the VEAS and HIAS WWTP contained HHCB in the range 6800-8100 ng/g dw and 12 000-14 000 ng/g dw respectively (Figure 12).

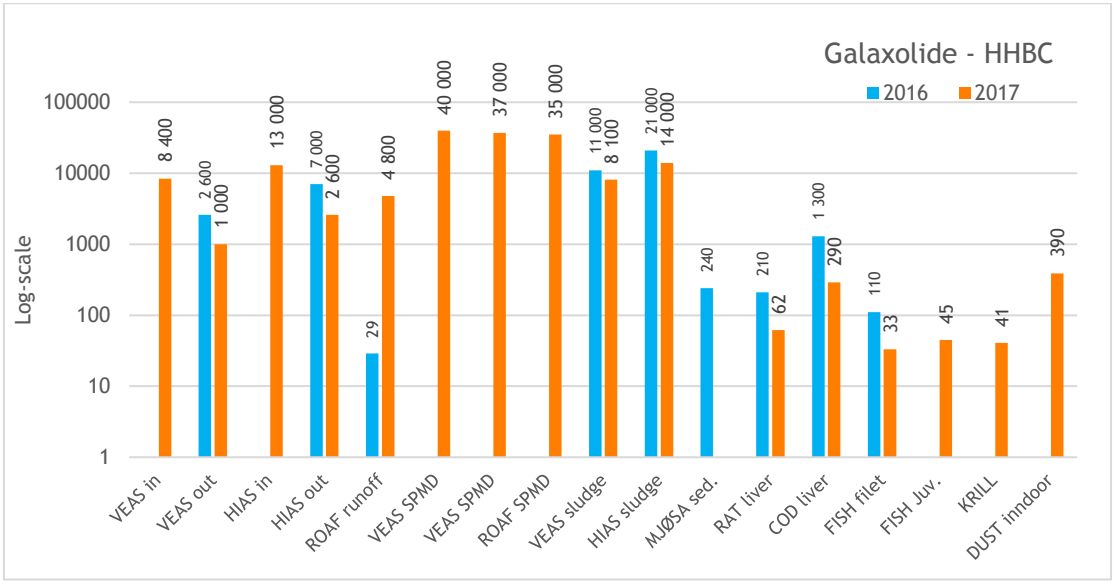


Figure 12 Comparison of maximum galaxolide/HHCB concentrations in various matrixes in ng/L, ng/SPMD or ng/g dw from the 2016 and 2017 Screening programmes.

The HHCB levels found in rat liver (n=5) were relatively low (24.0-62.0 ng/g dw). Concentrations in cod liver were modest at 56-290 ng/g dw. Somewhat lower concentration levels were found in freshwater fish filet (roach) at 22.0-33.0 ng/g dw.

However, the recorded levels of HHCB in juvenile fish in Lake Mjøsa, between 20.0 ng/g dw and 45.0 ng/g dw, illustrate the favourable use of this matrix for this substance and in general for PBT screening. Screening of indoor air and dust samples showed that ambient air contained

28-52 ng/sample and the indoor dust samples 190-390 ng/g dw, indicating exposure pathways (Figure 12).

In conclusion, the WWTP sludge appears to be the main environmental source for the substance HHCB and a significant accumulation in biota was seen throughout.

3.1.15 1-[1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethanone

The target substance named 1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethanone is a synthetic ketone (terpenoid), also known as OTNE (the chemical abbreviation for octahydrotetramethyl acetophenone). The substance additionally has a number of other commercial trade names such as; Iso-E Super, Anthamber and Amberonne. It is a synthetic woody odorant and is used as a smell ingredient e.g. in perfumes, laundry products and various cosmetics. However, the substance has a large number of other applications (Table 1).

OTNE is used in air care products, as biocides (disinfectants, pest control products), perfumes, fragrances, washing/cleaning products, cosmetics, and personal care products. Other releases to the environment of HHCB may occur from indoor/outdoor use as a processing aid, long-life/low-release materials (flooring, furniture, toys, construction materials, curtains, foot-wear, leather, paper, cardboard products, and electronic equipment) and indoor use in long-life/high-release (fabrics, textiles during washing, and indoor paint removal) [*15*].

A U.S. municipal WWTP study investigated OTNE which showed that from activated sludge and trickling filters OTNE influent concentrations were 3 470 000 µg/L and 3 250 000 µg/L. The corresponding effluent concentrations were 110 000 µg/L and 334 000 µg/L. After activated WW sludge treatment, primary removal was 59%, while secondary was 97%, indicated that the process of spreading of WWTP sludge as a possible source for OTNE [*36*].

OTNE was first identified in Norway through the non-target screening (semi quantitatively) of the food chain matrix from Lake Mjøsa in the PBT Screening programme in 2014 [*19*]. The distribution of OTNE in the 2017 PBT Screening programme revealed influent concentrations at VEAS and HIAS WWTP of 4900 ng/L and 9300 ng/L respectively. Compared to the corresponding effluents of 670-720 ng/L (approx. 30% reduction) and 1800-1900 ng/L (approx. 10% reduction). Considering these concentrations in relation to the levels found in sludge samples (11 000 ng/g dw at VEAS and 16 000-18 000 ng/g dw at HIAS), this results may support the above study (Figure 13).

The landfill runoff water samples contained concentrations between 250 ng/L and 1500 ng/L. The passive sampling showed concentrations in the WWTP effluents in the range of 58 000-63 000 ng/SPMD (at VEAS), 54 000-67 000 ng/SPMD (at HIAS) and 13 000-25 000 ng/SPMD (at the ROAF landfill) (Figure 13).

The accumulated concentrations of OTNE found in biota were 1-2 orders of magnitude higher compared to other matrixes such as WWTP water and landfill runoff. The maximum concentration in rat liver was 120 ng/g dw. Liver from cod contained similar concentration at a maximum of 160 ng/g dw, while the filet from roach was 70 ng/g dw, and juvenile fish samples ranged from 32-50 ng/g dw (Figure 13). The latter indicating a relevant matrix for screening of OTNE in freshwater recipients and continuous contamination.

The indoor air sampled at three localities showed a concentration range of 55-210 ng/sample, and highest in the school atmosphere. Likewise, the corresponding dust samples from these localities were from 120 ng/g dw and up to 630 ng/g dw in the office environment (Figure 13).

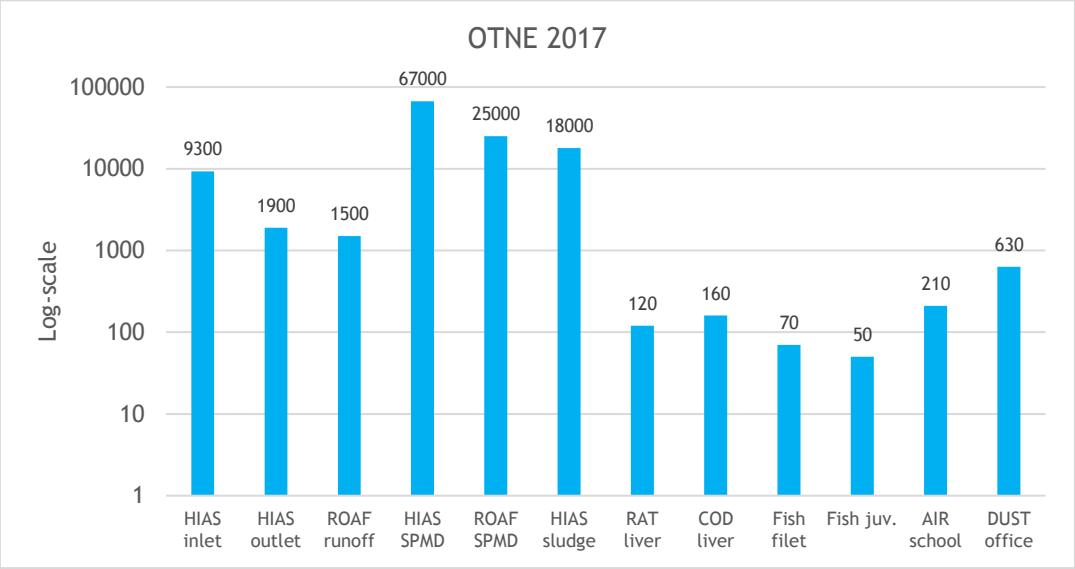


Figure 13 Distribution of the maximum concentrations of OTNE in ng/L, ng/SPMD or ng/g dw from the PBT Screening programme 2017.

In summary, the WWTP sludge appears to be the main environmental source for the substance OTNE and a significant accumulation in biota was seen throughout. Consumed cod liver, freshwater fish filet and exposure to indoor dust suggests the highest exposure risk for humans.

3.1.16 Buprenorphine

The pharmaceutical substance buprenorphine (CAS no. 52485-79-7) is chemically a synthetic opioid used in treatment of opioid addiction as well as acute and chronic pain (Table 1). Pharmaceuticals are to some extent expected to be found in municipal wastewater entering the WWTPs, in spite of their in general short half-lives within the human body.

The PBT Screening programme 2013 included suspect and non-target screening of buprenorphine. Buprenorphine was then in 2013 identified in Lake Mjøsa at all trophic levels in the food chain, except for brown trout [*19*].

A study of emerging contaminants in wastewaters and surface waters in the UK reported some relevant information regarding the presence of buprenorphine and its metabolite norbuprenorphine [*37*]. The recorded concentrations are summarized in Table 9. These results from the UK are in accordance with the results from the 2017 PBT Screening. Wastewater influents were measured in the concentration range of 4.3-8.8 ng/L, highest in the HIAS WWTP. The effluent concentrations from the same plant were 2.1-5.5 ng/L, but was not found above the LOD at VEAS.

Table 9 Emerging contaminant occurrence information for wastewaters and surface waters in the UK [*38*] [*39*] [*40*].

Substance/ compound	Total used in kg (2012)	Excretion unchanged in %	Concentration in influent in ng/L	Concentration in final effluent in ng/L	Concentration in surface water ng/L
Buprenorphine	91	1	33-47	14	<5.0-5.7
Norbuprenorphine	Metabolite	-	<1-19	<7-7.5	<5.0-12.2
Screening 2017 water	-	-	4.3-8.8	<1-2.5	8.6-11.0*
Screening 2017 POCIS	-	-	-	<0.044-7.7	-

*) ROAF runoff water

Buprenorphine was also found in the ROAF landfill runoff in the concentration range of 8.6-11.0 ng/L, twice the level found in the HIAS effluent. Similar levels were found by the passive sampling, 2.3-3.4 ng/POCIS and 7.7 ng/POCIS at VEAS and HIAS respectively. The WWTP sludge contained 1.0-1.5 ng/g dw at VEAS and 4.2-5.2 ng/g dw at HIAS.

Buprenorphine was not detected in any of the biota samples analysed. Indoor dust samples from the hospital location contained 0.37-0.72 ng/g dw, which appear naturally. This substance was however, not expected to be present in the school and office facilities. The metabolite norbuprenorphine was not included in the target screening.

3.1.17 1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one

The targeted compound 1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one (CAS no. 54464-54-9) is chemically classified as a synthetic ketone. The use of the substance is mostly in manufacturing of soaps, detergents, cleaning/polishing preparations, perfumes, and toilet preparations (Table 1) [*15*]. In the 2014 Screening programme the substance was identified within the food chain matrix in Lake Mjøsa by non-target screening [*19*].

There were no analytical standards for 1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.1.18 3-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone

The targeted compound 3-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone (CAS no. 3918-33-0) is chemically classified as a synthetic ketone. The use and environmental fate of this substance is at present unknown (Table 1). However, the substance was identified in the 2014 Screening programme within the in the food chain matrix of Lake Mjøsa, by non-target screening [*19*].

There were no analytical standards for 3-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3.

3.1.19 4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone

This targeted compound 4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone (CAS no. 16618-85-2) is chemically classified as a synthetic ketone The use and environmental fate of this substance is at present unknown (Table 1). However, the substance was identified in the 2014 Screening programme within the in the food chain matrix of Lake Mjøsa by non-target screening [*19*].

There were no analytical standards for 4-(5,5,6-trimethylbicyclo[2.2.1]hept-2-yl)cyclohexanone available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.1.20 Tris(2-methoxyethoxy)vinylsilane

The compound tris(2-methoxyethoxy)vinylsilane or vinyl tris(2-methoxyethoxy)silane (CAS no. 1067-53-4) is a organosilicon with acronym VTMOEOS. Silane (SiH4) is the silicon analogue of methane. The applications of the substance are extensive and include adhesives/sealants, polymer preparations, manufacturing of textiles, leather/fur, wood, pulp/paper products, rubber/plastics products, fabricated metal products, computer, electronic/optical products, and electrical equipment (Table 1) [*15*].

VTMOEOS is hydrolytically unstable over a range of environmentally relevant pH and temperature conditions. Level III fugacity modelling for VTMOEOS, using loading rates for air, soil, and water of 1000 kg/h for each medium, shows the respective distribution of 0.4%, 94%, 5.6% and 0% (sediment). However, VTMOEOS is unlikely to be found in the environment [*41*].

There were no analytical standards for Tris(2-methoxyethoxy)vinylsilane available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.1.21 Resorcinol

The target substance resorcinol (CAS no. 108-46-3) also called resorcin, is chemically classified as a phenol (benzenediol or m-dihydroxybenzene).

Resorcinol is one of the main natural phenols in argan oil. It is mainly used as a dermatologic drug and skin care cosmetic. The substance is also used as a laboratory reagent, in tabletting, compression, extrusion, palletisation and granulation. Application also includes formulation in the chemical industry, as well as treatment of articles by dipping and pouring. Other uses include manufacture of tires and rubber products, light stabilization in plastics, tanning, photography, resins, resin UV adhesives, explosives, dyeing/printing textiles, pesticide, antifungal, and antibacterial [*42*] [*43*].

Resorcinol is released into the environment during production and processing, along with direct releases during uses and disposal of resorcinol-containing consumer products. Furthermore, it appear as an intermediate degradation product of other anthropogenic environmental contaminants [*44*].

Resorcinol was not detected above the LOD in the 2017 PBT screening programme.

3.1.22 3,5,5-trimethylcyclohex-2-enone

The target substance 3,5,5-trimethylcyclohex-2-enone or isophorone (CAS no. 78-59-1) is chemically classified as a unsaturated cyclic ketone.

Isophorone is used in a wide range of applications, mainly as a herbicide and plant growth retardant in agriculture and forestry, along with pesticide in fishing/aquaculture. Additional applications include a broad range of precursors to fragrances, plastics adhesives, vinyl chloride/acetate-based coating systems for metal paints, nitrocellulose finishes, and printing inks for plastics. Additional reported use of isophorone is as a solvent and polymer precursor (polycarbonates, polyamides, polystyrene, etc.), and in bisphenol A-analogues [*15*] [*45*] [*46*].

Major sources of isophorone are airborne from printing and metal coating industries (inks, paints, lacquers, and adhesives) and coal-fired power plants. Isophorone has been detected in the drinking water of several cities at very low concentrations [*46*] [*47*]. Other references to the environmental occurrence and impact of isophorone are from granulated rubber sources [*48*] [*49*].

The 2017 Screening revealed only a single instance of isophorone, at the HIAS WWTP influent in a concentration of 37 ng/l. Considering the scarce environmental presence, isophorone does not appear to be a problem in Norway.

3.1.23 Di-ethylmethylbenzene-diamine

The substance di-ethylmethylbenzene-diamine (CAS no. 68479-98-1) or di-ethyl-toluene-diamine with the acronym DETDA. The substance is chemical classified as a di-amin, primarily used in fabrication of textiles, leather, fur and furniture, along with building and construction work. Additionally, DETDA is used in dipping and pounding (Table 1).

The 2017 screening only revealed low concentrations connected to the WWTP and the landfill runoff. The effluent concentrations from the VEAS and HIAS WWTP were in the range of 2.4 ng/l and 2.8-3.9 ng/l respectively. However, the ROAF runoff contained more than 150-250x higher concentrations (620 ng/l). Similar results were observed in the passive samplers (7.4-8.4 ng/POCIS in VEAS effluent and 1.4 ng/POCIS in HIAS). The passive samplers in the ROAF runoff accumulated concentrations of 51-220 ng/POCIS.

The WWTP sludge contained only 5.1-25.0 ng/g dw, indicating with respect to the results above an impact of the dissolved phase of DETDA to the environment. However, the substance was not found in the adjacent recipients, except a single record of 11.0 ng/g dw in a cod liver from the Oslofjord.

3.1.24 1-lauryl-2-pyrrolidone

The target substance Surfadone with CAS no. 2687-96-9 (Table 1) refers to the surfactant product Surfadone LP-300. The substance 1-lauryl-2-pyrrolidone also refers to the above CAS number. The compound 1-lauryl-2-pyrrolidone is primarily a surfactant, used as a wetting agent and in plant protection products. Further applications are in cosmetics and personal care products [*15*].

The presence of 1-lauryl-2-pyrrolidone was found to be limited. The concentrations at the VEAS and HIAS WWTP were 3.3 ng/L and 9.3 ng/L respectively. The passive samplers at the HIAS effluent contained 1-lauryl-2-pyrrolidone in concentrations between 4.5-4.9 ng/POCIS. The WWTP sludge revealed concentration ranges of 110-170 ng/g dw at VEAS and 60-76 ng/g dw at HIAS.

The targeted substance was neither present in sediment nor the biota matrixes. However, 1-lauryl-2-pyrrolidone was found in low concentrations in the indoor dust from the hospital location in the concentrations range of 4.3-8.5 ng/g dw and at the office site (23.0 ng/g dw).

3.1.25 Bis(2-ethylhexyl)terephthalate

The substance bis(2-ethylhexyl) terephthalate (CAS no. 6422-86-2) with synonyms dioctyl terephthalate and di(2-ethylhexyl) terephthalate, is commonly abbreviated DOTP or DEHT respectively. Chemically classified, it is a non-phthalate plasticizer with applications such as coatings/paints, thinners, paint removers, laboratory reagent, and in polymer preparations (Table 1).

The screening of water samples from the WWTP show DOTP concentrations at HIAS of 120 ng/L in the influent and between 56-96 ng/L in the effluent. Results for VEAS are unusual since the influent DOTP concentration was 57 ng/L and 1100 ng/L in the effluent. This may be due to a more or less pure particulate transport of DOTP. The ROAF landfill runoff contained likewise only 57 ng/L in both samples (Figure 14).

The above results and accompanying assumption may be supported by the fact that DOTP was not detected in any of the passive samplers and that the WWTP sludge concentrations were high at VEAS (between 1900 ng/g dw and 3300 ng/g dw) and one order of magnitude lower at HIAS (between 260-480 ng/g dw) (Figure 14). DOTP was not detected in sediment or in any biota matrix. However, the indoor dust samples from the hospital, school and office locations contained extremely high concentrations of DOTP ranging from 61 000-80 000 ng/g dw, 47 000-62 000 ng/g dw and 190 000-1 100 000 ng/g dw respectively (Figure 14).

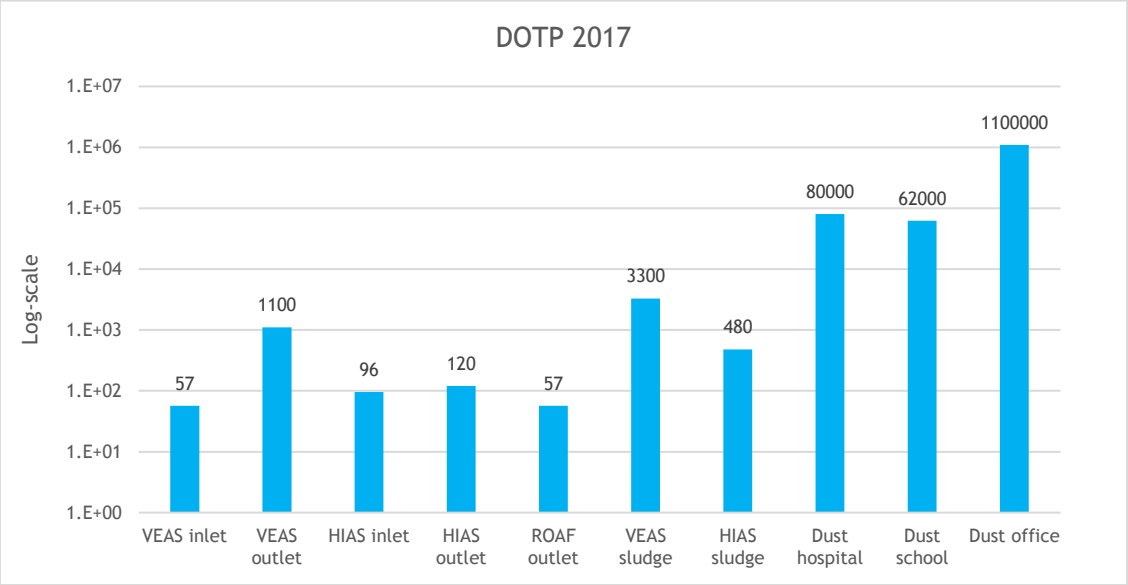


Figure 14 Distribution of the maximum concentrations of DOTP in ng/L or ng/g dw from the PBT Screening programme 2017.

3.1.26 Quaternary ammonium compounds

Two substances belonging to behentrimonium chloride (CAS no. 17301-53-0) are the compounds ATAC-C20 and ATAC-C22. These type of compounds are chemically classified within the quaternary ammonium compounds (QACs) with cations named alkyl-trimethyl ammonium (ATAC) (Table 1). ATACs (and QACs in general) are widely used in household and personal care products, such as ingredients in fabric softeners, antistatic agent, detergents, disinfectants, and preservatives [*50*].

Behentrimonium (ATAC-C20 and ATAC-C22) has recently been designated as a new emerging contaminant. A Nordic study on environmental occurrence of ATACs, investigated sediments, fish and effluents/sludge from WWTPs. The concentrations in WWTP effluents varied over a larger range than sludge and ATACs were detected in fish muscle and liver samples. However, ecotoxicological data is still lacking, especially for long chained ATACs [*50*].

There were no analytical standards for quaternary ammonium compounds available and the compounds were not identified in the non-target scanning analysis (cf. methods and results chapter 2.2.7 and chapter 3.3).

3.2 Other PBT substances

An additional 137 substances were included in the 2017 PBT Screening programme. We present results only from the substances with more than 1 ppb (ng/g, µg/kg or µg/l) concentration detected.

3.2.1 Bisphenols

Five derivatives of bisphenols were included as extra substances in the PBT screening:

- Bisphenol A (CAS no. 80-05-7) - BPA
- Bisphenol TMC (CAS no. 129188-99-4)
- Bisphenol M (CAS no. 13595-25-0)
- Bisphenol F (CAS no. 620-92-8)
- Tetrabromobisphenol A (CAS no. 79-94-7) - TBBPA

Bisphenol A (BPA) had the highest concentrations of these five bisphenol derivatives. The compound was found in high concentrations in the indoor dust samples, ranging between 1100 ng/g dw and 13 000 ng/g dw. The latter occurrence was from the school location, which also contained tetrabromobisphenol A (TBBPA) in a concentration of 15 000 ng/g dw. This indicates a high risk for human exposure of bisphenols from dust inhalation.

BPA was additionally found in elevated concentrations in the ROAF landfill runoff. Passive sampling resulted in accumulation of 10 000 ng/POCIS and a maximum of 2 300 ng/L in the effluent water sample. Further, bisphenol A occurred both in the HIAS WWTP effluent and sludge with concentrations of 1 800 ng/L and 3 400 ng/g dw respectively.

The other three bisphenols occurred scattered throughout and in relatively low concentrations (< 1 ppb) in the screened matrixes.

3.2.2 Synthetic musk compounds

Eight additional compounds classified as synthetic musks (white musks) were screened; musk ketone, musk ambrette, musk moskene, musk tibeten, cashmeran, celestolide, phantolide and traseolide. Most of these compounds were detected in low concentrations in wastewater and sludge, however, only musk ambrette exceeded the concentration level of 1 ppb. The concentration of 1 500 ng/g dw was recorded in indoor dust at the school location.

Compared to the results of the main targeted musks (tonalide in chapter 3.1.5 and galaxolide in chapter 3.1.14), these additional musk compounds do not appear to represent an actual environmental risk.

3.2.3 Siloxanes

The following five selected siloxanes were included in the additional screening in 2017:

- 1,1,1,3,5,5,5-heptamethyltrisiloxane (CAS no. 1873-88-7)
- Hexamethylcyclotrisiloxane (CAS no. 541-05-9) – D3
- Octamethylcyclotetrasiloxane (CAS no. 556-67-2) – D4
- Decamethylcyclopentasiloxane (CAS no. 541-02-6) – D5
- Dodecamethylcyclohexasiloxane (C AS no. 540-97-6) - D6

The presence of the siloxanes were mainly connected to the WWTP influent and the landfill runoff. The three highest concentrations measured were 28 000 ng/L of D5 (VEAS influent), 12 000 ng/L of D4 (HIAS influent), and 16 000 ng/L of D5 (HIAS influent).

It appears that the WWTP somehow effectively removes these compounds since the effluent concentrations in general are 2-3 orders of magnitude lower. This is supported by the average summed concentration in sludge that was approximately 300 ng/g dw. Maximum concentration in the ROAF runoff was 7 500 ng/L of D5.

The concentration range in biota was moderate, e.g. at maximum 150 ng/g dw of D5 in both rat liver and krill. In fish liver, filet, and juvenile fish the concentrations were one order of magnitude lower for most of the siloxanes.

The average concentration of summed (D3, D4, D5) was approx. 280 ng/sample in the indoor air and the maximum concentration in dust was 1 800 ng/g dw sampled in the office location.

3.2.4 Polychlorinated biphenyls (PCB-7)

The screening programme for PBT included selected PCBs as additional compounds, due to their continuous environmental abundance. The 2016 PBT screening programme found concentrations of PCB-7 in aquatic biota and the maximum concentration of PCB-7 in 2016 was 20970 µg/kg dw in cod liver from the Oslofjord. A comparison between the 2016 and 2017 screening is shown in Table 10.

Table 10 Comparison of PCB-7 concentrations in cod livers from the screening 2016 and 2017 given in µg/kg dw

Location	Samples	Average	Median	Min	Max
Oslofjord 2016	n = 15	5030	3492	1666	20970
Oslofjord 2017	n = 15	7602	6735	2177	15030

The 2017 screening results illustrates pathways for PCB-7 entering the food chain both in fresh and marine waters, exemplified with levels in freshwater juvenile fish 26-43 µg/kg dw, in marine snails 123 µg/kg dw and shrimps 116 µg/kg dw.

3.2.5 Pharmaceuticals

It is expected to recover pharmaceuticals in the WWTP water streams and sludge to some extent, however dependent on their half-life. Of the 46 extra substances (except for Caffeine) the highest concentrations detected in water and sludge are shown in Table 11.

Table 11 Occurrences of selected pharmaceuticals in wastewater and runoff water in ng/L. Unit in POCIS ng/sampler and sludge ng/kg dw.

Locality	VEAS				HIAS				ROAF	
Substance	Influent	Effluent	POCIS	Sludge	Influent	Effluent	POCIS	Sludge	Runoff	POCIS
Valsartan (Hypertension)	22 000	8 700	1 300	250 000	47 000	190	16 000	320 000	1 600	64
Metoprolol (Hypertension)	920	950	820	98 000	2 200	1 900	1 500	0	73	34
Metoprolol acid (metabolite)	2 800	3 300	170	9 300	6 300	260	210	6 300	1 400	36
Irbesartan (Hypertension)	1 700	1 900	570	20 000	4 300	2 800	2 100	31 000	53	27
Fexofenadine (antihistamine)	3 400	4 400	1 000	3 900 000	4 300	3 800	4 200	1 300 000	300	57

The hypertension drug Valsartan showed maximum concentration in the influent at both WWTPs. In sludge the antihistamine Fexofenadine was dominating.

3.3 Non-target screening results

Several “new” compounds are reported and need to be further verified by future studies. All samples were analysed using methods briefly described in Chapter 2.2.7. The sampling was primarily designed for targeted screening to investigate the presence of given analytes in matrices representing all compartments of the aquatic environment. However, this approach is difficult for performance of non-target screening of polar compounds, which do not necessarily accumulate in biota. The non-target screening would be more efficient if sampling could be designed for comparing the same matrix and preferably, abiotic samples i.e. POCIS/SPMD, sediment or maybe sludge from source vs. expected polluted sites. The absence of bioaccumulation does not necessarily imply that the compounds do not impose any adverse effects on biota. The presence in POCIS or abiotic samples might even suggest that the compounds could have had an effect on biota and metabolized.

Lake Mjøsa was selected as the most suitable locality because the lake system could reflect introduction of sewage pollution into a relatively closed system. Sludge and effluent POCIS samples are sources of potential pollution. Sediment can be defined as an abiotic recipient and biotic recipients include juvenile fish, crayfish, perch and roach. Based on this assumption we have defined following diagnostic ratios for data processing in both negative and positive ionization data sets: abiotic recipient/source (sediment/sludge, sediment/POCIS), abiotic recipient/biotic recipient (sediment/biota matrices), source/biotic recipient (POCIS/biota and sludge/biota) and water soluble source/particle associated source (POCIS/sludge). Those ratios show if given compound is present in both matrices of ratio and in which matrix is higher signal.

Based on the value of the ratio we can assume accumulation or dilution between matrices of the ratio. For example we can select only those compounds which have ratio sediment/biota > 10, which means accumulation from sediment to biota. The ratios allow to reduce total number of the signals with defined way to obtain only data we assume to be worth for further elucidation.

The signals found in the "blank" samples were removed from the tested dataset. The resulting dataset was consequently searched against existing databases available in the computer programme (EFS HRAM Compounds Database, Extractables and Leachebles HRAM Compounds database, Endogenous Metabolites Database – ThermoScientific). Molecular masses were calculated from all signals with S/N higher than 20 and peak area higher than 20 000 (not including blanks). These results were then also searched in online databases – DrugBank, EAWAG biocatalysis/biodegradation Database, EINECS, EPA DSSTox and EPA Toxcast. In addition, an option called *pattern trace* for investigation of presence of halogens in molecules (from Cl to Cl6, and from Br to Br4) was used.

Using PCA for description of the data set the plots of PC 1 and 2 were obtained which in both ionization modes show that both sludge and POCIS samples are separated from all recipient matrices as seen in Figure 15.

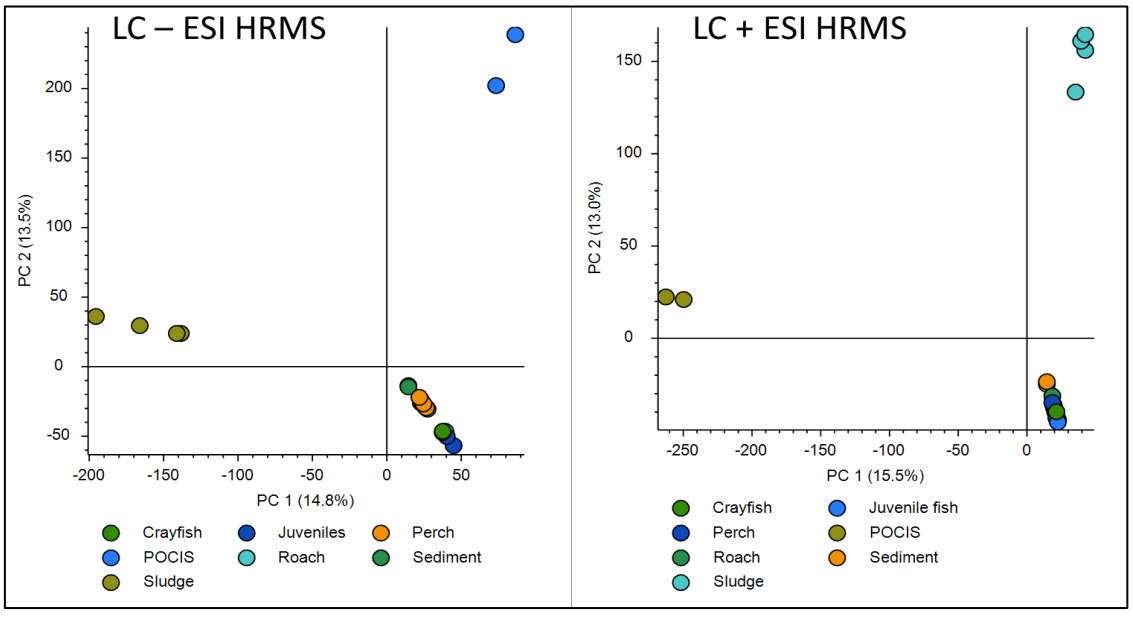


Figure 15 Principle Component Analysis (PCA) plots of PC 1 and 2 for description of the data set.

The PCA is based on all (censored from blank positive) full scan HRMS data. The number of compounds according to the generated molecular weight is shown in Figure 16 and Figure 17.

The targeted screening was compared against the three available databases:

- Environmental and pesticide database
- Endogenous metabolites database
- Leachable contaminants database (with about 6000 compounds)

The comparison resulted in numerous suspect compounds, see Figure 18 and Figure 19.

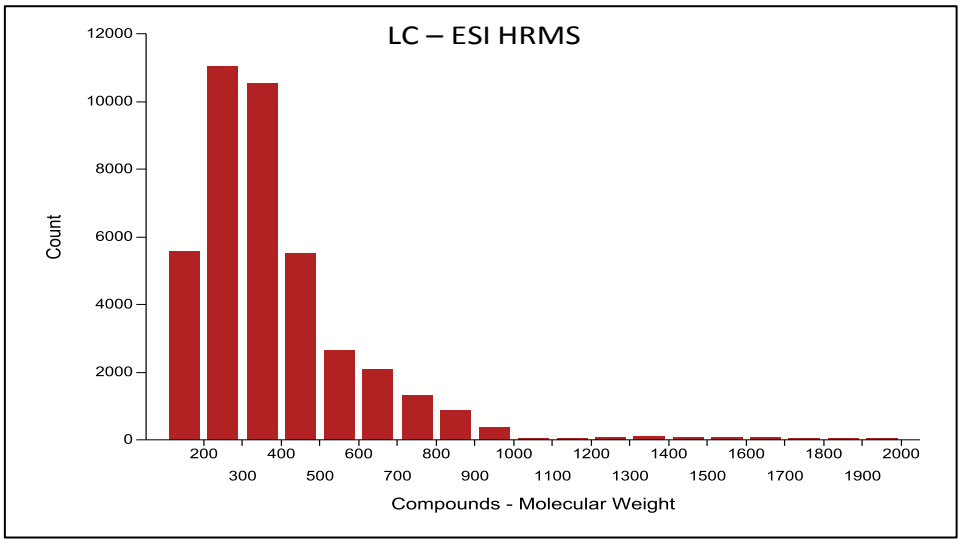


Figure 16 Distribution of negative HRMS signals according to molecular weight- total number is 40 653.

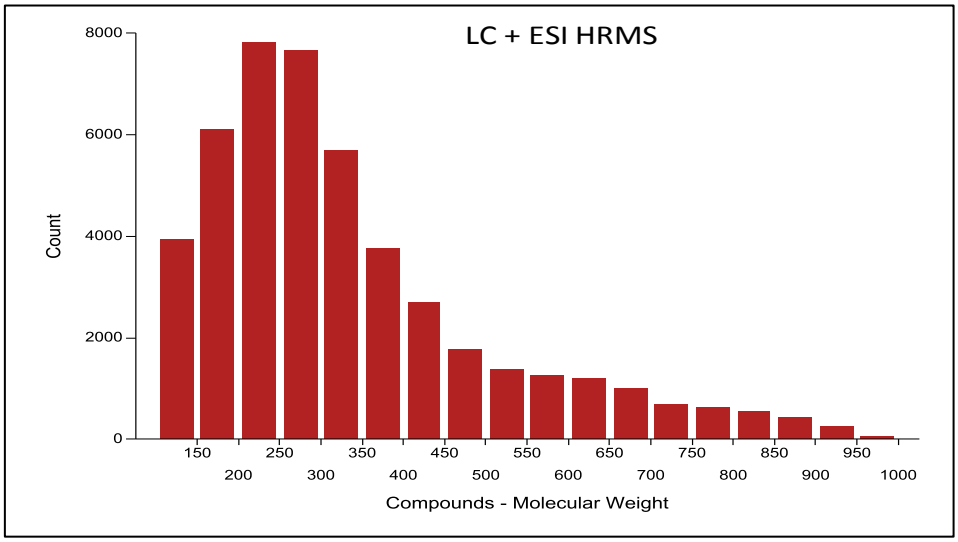


Figure 17 Distribution of positive HRMS signals according to molecular weight - total number is 46 873.

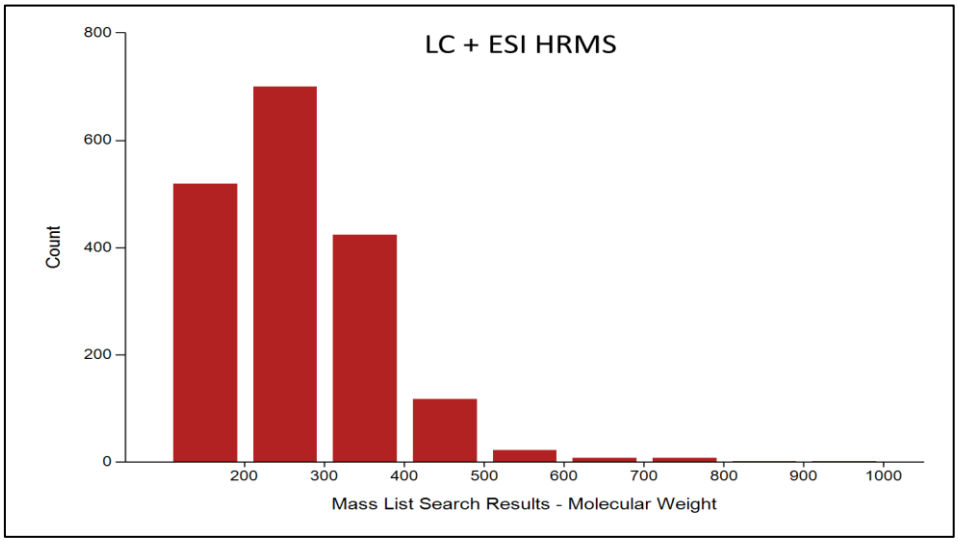


Figure 18 Distribution of positive HRMS signals found in libraries according to molecular weight.

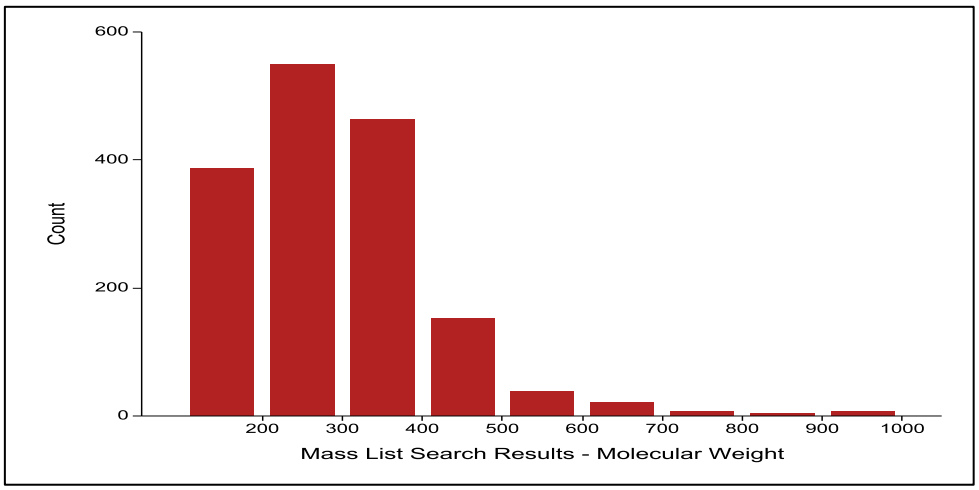


Figure 19 Distribution of negative HRMS signals found in libraries according to molecular weight.

The number of compounds matched with the libraries (including multiple matches e.g. isomers) was about 1800 and 1700 compounds for positive and negative modes, respectively. It means that less than 4% of signals present in the samples could be attributed to full scan spectra recorded in libraries. Most of the suspect compounds found in three Compound Discoverer software embedded libraries belonged to endogenous metabolites – a compound natively present in wastewater as well as in all biota samples. Here the identity level of targeted screening was difficult to increase because DIA MS^2 experiment methodology resulted to not enough specific fragmentation of suspects that in addition contains only C, H, N, O in elemental composition. According to Schymanski proposal (*54*) of identity levels all library hits stay at the level 4.

In addition to the search above, a filtered sets of suspect m/z were submitted to *ChemSpider* search within selected databases as it is mentioned above. Results from this search are shown in Figure 20.

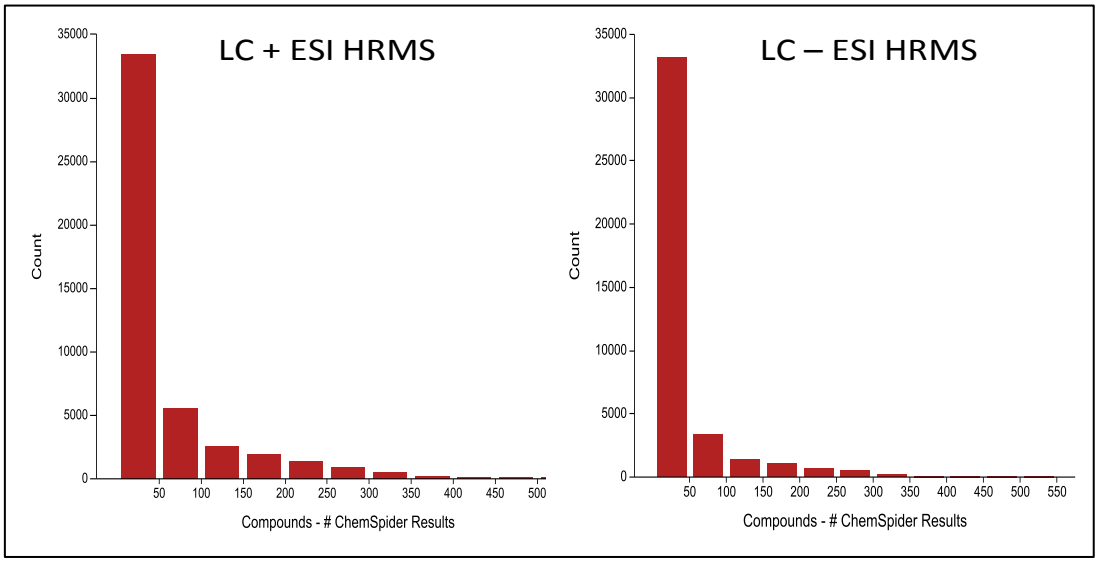


Figure 20 Histogram showing less than 50 hits found ChemSpider for most of the compounds.

Results from such online databases must be carefully cross-checked because they are solely based on molecular weight not on m/z value. An example of a typical error with ChemSpider can be seen with the pharmaceutical tramadol hydrochloride (CAS no. 27203-92-5. In water this compound immediately dissociates into tramadol and HCl. So a chlorinated compound in water with an identical elemental composition will be incorrectly identified in ChemSpider.
There are certainly others such examples that occur in these databases and it is difficult to explore all of the numerous possibilities.

Further filtration was applied using predefined diagnostic ratios defined above. The number of potential candidates was then significantly decreased (i.e. down to hundreds of m/z signals). The results are shown in Figure 21 (statistically significant signals are marked as light blue).

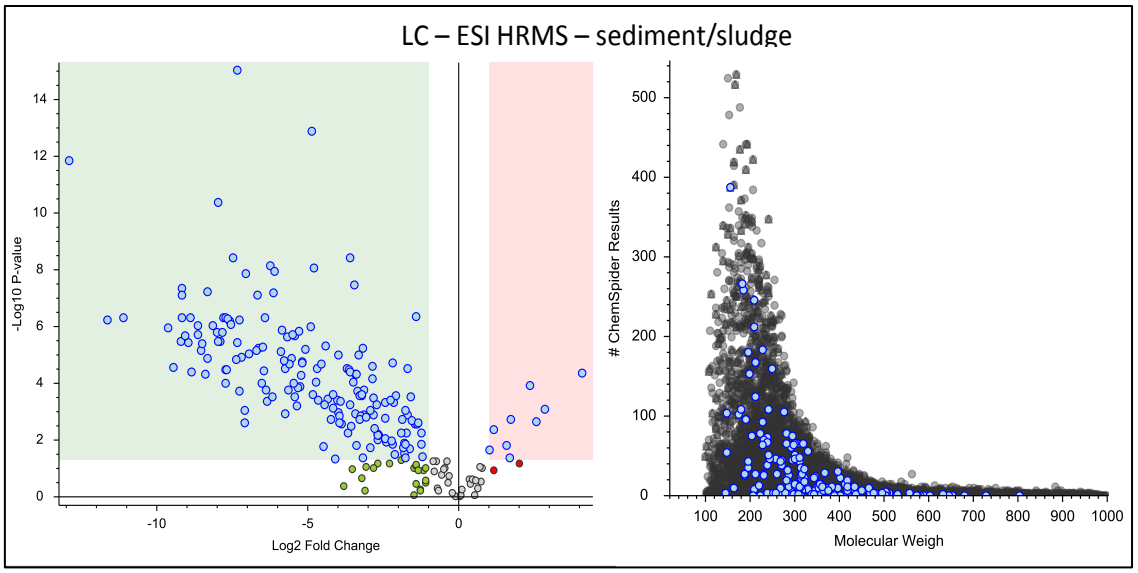


Figure 21 Graph on the left shows results from differential analysis; blue and pink areas shows signals that are significantly lower or higher respectively in sediment than in WWTP sludge. Graph on the right shows marked compounds in respect to total number of ChemSpider results - it is seen that some signals were attributed to more than 300 potential compounds.

The list of candidates was exported to an excel file and it is shown below in Table 12 .

Table 12 List of candidates.

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: mzCloud Search	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	Area (Max.)	# ChemSpider Results	Pattern Matches
4-Dodecylbenzenesulfonic acid	C18 H30 O3 S	Full match	No results	Partial match	Full match	326.19015	11.094	198544953	12	
0K1H616V7H	C18 H38 O4 S	Full match	No results	Full match	No results	350.24768	11.571	132795581	8	
	C24 H40 P2 S	Full match	No results	No match	No match	422.23283	11.034	40733945	9	
	C18 H38 O5 S	Full match	No results	No match	No results	366.24244	11.427	38731014	4	
3A46YTI174	C16 H26 O3 S	Full match	No results	Full match	No results	298.15895	10.851	32563414	9	
588KRC8J32	C16 H34 O4 S	Full match	No results	Full match	No results	322.2164	11.343	28251198	7	
Pentadecyl hydrogen sulphate	C15 H32 O4 S	Full match	No results	Not the top hit	No results	308.20089	11.153	26893424	5	
4-Hexadecylbenzene sulfonic acid	C22 H38 O3 S	Full match	No results	Not the top hit	No match	382.25242	11.355	18299233	9	
4-Methyl-2-oxo-2H-chromen-7-yl palmitate	C26 H38 O4	Full match	No results	Full match	No results	414.27596	11.297	17328517	14	
	C35 H44 Cl N4 O P S4	Full match	No results	No results	No results	730.18338	11.646	16141062	0	Cl2
	C24 H45 N8 P	Full match	No results	No match	No results	476.35194	11.631	15555164	2	
27U3CUA29X	C16 H34 O6 S	Full match	No results	Full match	No results	354.20634	10.968	14832108	1	
	C46 H25 Cl N2 O	Full match	No results	No results	No results	656.16436	11.468	14621958	0	
	C18 H35 N8 O2 P	Full match	No results	No match	No results	426.26364	11.249	14296514	2	
	C28 H61 N7 O4 S	Full match	No results	No results	No results	591.45145	11.947	13474005	0	
JPX214620K	C18 H32 O4	Full match	No results	Full match	No results	312.22935	10.594	12239803	43	
	C16 H30 N6 O S	Full match	No results	No match	No results	354.22136	11.342	11273649	7	
Dibutyl sulphate	C8 H18 O4 S	Full match	No results	Full match	No results	210.09235	9.578	10205770	7	
	C19 H23 N2 P	Full match	No results	No match	No results	310.1593	10.79	9899337	9	
	C44 H49 Cl O2 S5	Full match	No results	No results	No results	804.20236	11.827	9856421	0	
Triton X-100 reduced	C18 H36 O3	Full match	No results	Partial match	Full match	300.26551	11.113	9684560	51	
13S-hydroxyoctadeca dienoic acid	C18 H32 O3	Full match	No results	Full match	No results	296.23399	10.878	8920760	44	
Hexadecyl 4-methyl benzenesulfonate	C23 H40 O3 S	Full match	No results	Full match	No results	396.26799	11.429	8749661	3	
	C18 H38 O7 S	Full match	No results	No match	No results	398.23211	10.992	8448041	8	
4-Pentadecylbenzene sulfonic acid	C21 H36 O3 S	Full match	No results	Full match	No results	368.23706	11.266	7821078	6	
	C35 H31 Cl O2 S2	Full match	No results	No results	No results	582.14544	11.288	7334472	0	Cl
		No results	No results	No results	No results	528.65256	11.024	6826052	0	
	C20 H49 N4 P3 S	Full match	No results	No match	No results	470.28948	11.269	6619935	3	
9,10,18-Trihydroxy stearic acid	C18 H36 O5	Full match	No results	Full match	No results	332.25503	10.101	6417359	7	
Glaurin	C16 H32 O4	Full match	No results	Full match	No results	288.22914	10.186	5578282	24	
		No results	No results	No results	No results	498.65464	11.023	5515024	0	
	C15 H29 N8 O P	Full match	No results	No match	No results	368.22145	11.075	5125312	28	
3-hydroxy-2,2-bis(hydroxylmethyl) propyl myristate	C19 H38 O5	Full match	No results	Full match	No results	346.27065	11.076	4858850	5	
	C28 H52 O2 P2 S	Full match	No results	No match	No results	514.31546	11.279	4291650	2	
2-((3-(Dodecyloxy) propyl)(2-(2-hydroxy ethoxy)ethyl)amino)ethanol	C21 H45 N O4	Full match	No results	Full match	No results	375.33336	10.901	4126845	3	
	C29 H56 N9 O P	Full match	No results	No results	No results	577.43585	11.851	3774146	0	
15-Hydroxypentadecanoic acid	C15 H30 O3	Full match	No results	Full match	No results	258.21842	11.171	3503940	46	
	C4 H14 N6 O2 P2	Full match	No results	No match	No results	240.06588	11.291	3386615	72	
Cryptolepine	C16 H12 N2	Full match	No results	Full match	No results	232.09914	10.284	3347940	70	
	C15 H26 N6 O S	Full match	No results	No match	No results	338.1902	11.052	3239576	1	
	C15 H22 O S3	Full match	No results	No match	No match	314.08452	11.468	3227231	21	
	C14 H24 N6 O S	Full match	No results	Invalid mass	No results	324.17434	10.945	3176266	22	
Dibutyl phthalate	C16 H22 O4	Full match	No results	Partial match	Full match	278.15087	10.917	2992987	104	
	C15 H22 O S3	Full match	No results	No match	No match	314.08468	10.533	2956152	24	
	C20 H42 O8 S	Full match	No results	No match	No results	442.25881	11.019	2912818	4	

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: mzCloud Search	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	Area (Max.)	# ChemSpider Results	Pattern Matches
N-(6-Chloro-3-formyl-2-pyridinyl)-2,2-dimethyl propanamide	C11 H13 Cl N2 O2	No results	No results	Full match	No results	240.06623	9.971	2724136	38	
Pentonic acid	C5 H10 O6	Full match	No results	Full match	No results	166.04734	10.846	2570530	8	
	C18 H42 N6 O3 S	Full match	No results	No match	No results	422.30502	11.308	2427064	9	
	C26 H54 O10 S	Full match	No results	No match	No results	558.34158	11.287	2426590	2	
	C21 H36 N6 O4	Full match	No results	No match	No match	436.28061	10.79	2358435	6	
Tetradecyl methanesulfonate	C15 H32 O3 S	Full match	No results	Full match	No results	292.20605	11.138	2024180	5	
	C2 H6 N6 O2	Full match	No results	No match	No results	146.0554	6.678	1954124	2	
	C13 H31 N7 O2	Full match	No results	No match	No results	317.25518	10.44	1930247	5	
	C5 H8 N10 S	Full match	No results	No match	No results	240.06586	11.091	1900263	3	
	C3 H N2 P S4	Full match	No results	No results	No results	223.87576	6.077	1856749	0	
	C30 H56 N9 O P	Full match	No results	No results	No results	589.4358	11.845	1842304	0	
	C16 H32 S2	Full match	No results	No match	No results	288.19322	10.288	1654573	13	
	C24 H33 N2 P S4	Full match	No results	No match	No results	508.1265	11.089	1612305	3	Cl
N-(6-Chloro-3-formyl-2-pyridinyl)-2,2-dimethyl propanamide	C11 H13 Cl N2 O2	No results	No results	Full match	No results	240.06594	11.83	1532937	38	
Pentonic acid	C5 H10 O6	Full match	No results	Full match	No results	166.04736	11.644	1524436	8	
3,3'-(Octadecylimino) dipropane-1,2-diol	C24 H51 N O4	Full match	No results	Full match	No results	417.38045	10.89	1502661	1	
	C12 H30 N6 O S	Full match	No results	No match	No results	306.22165	11.179	1462111	6	
	C19 H30 O3 S4	Full match	No results	No match	No results	434.10829	10.846	1424845	6	
	C24 H43 N2 O6 P	Full match	No results	No match	No results	486.28471	11.031	1293571	1	
	C30 H62 N5 O5 P	Full match	No results	No results	No results	603.45126	11.955	1204948	0	
	C11 H11 N4 O11 P3 S	Full match	No results	No match	No match	499.93701	10.58	1197439	2	
	C29 H43 N2 O P	Full match	No results	No match	No results	466.31048	11.947	1181674	8	
	C8 H14 N10 S2	Full match	No results	No match	No match	314.08453	11.288	1077011	21	
	C18 H35 N O5 S	Full match	No results	No match	No results	377.22233	10.49	1076835	8	
Irgasan DP300	C12 H7 Cl3 O2	Full match	No results	Partial match	Full match	287.95041	10.742	1033311	10	Cl3;Br
Dibutyl phthalate	C16 H22 O4	Full match	No results	Partial match	Full match	278.1512	10.593	963060	104	
FL8S7F2JJQ	C14 H28 O3	No results	No results	Full match	No results	244.2028	10.896	939516	46	
	C3 H N2 P S5	Full match	No results	No match	No results	255.84807	8.486	931135	1	
	C3 H9 N4 O P	Full match	No results	No match	No match	148.05169	6.696	883082	103	
7IPP3U0F3I	C16 H32 O3	Full match	No results	Full match	No results	272.23453	10.882	876699	44	
	C18 H20 N4 S4	Full match	No results	No match	No results	420.05695	10.795	854639	1	
	C7 H21 N8 O3 P S2	Full match	No results	No match	No results	360.08988	10.533	832133	14	
GG70Y8LTBY	C12 H22 O3	Full match	No results	Full match	No results	214.15619	10.367	754841	167	
Trigonox29/40	C17 H34 O4	Full match	No results	Partial match	Full match	302.24599	11.562	745053	12	
9,10-Dihydroxystearic acid	C18 H36 O4	Full match	No results	Full match	No results	316.25993	10.803	741849	35	
	C5 H8 N10 S	Full match	No results	No match	No results	240.06588	11.472	741451	3	
	C26 H47 N2 O2 P	Full match	No results	No match	No results	450.33614	11.59	722759	6	
Elaidic acid	C18 H34 O2	Full match	No results	Partial match	Full match	282.25462	11.591	719896	77	
Pentonic acid	C5 H10 O6	Full match	No results	Full match	No results	166.04729	11.468	679968	8	
2-Ethylhexyl salicylate	C15 H22 O3	Full match	No results	Partial match	Full match	250.15622	10.382	632119	158	
I7T5V2W47R	C19 H26 O4	Full match	No results	Full match	No results	318.18272	10.346	582850	27	
	C23 H49 N O4	Full match	No results	No results	No results	403.36439	11.144	574720	0	
	C11 H28 N6 O7	Full match	No results	No match	No results	356.20182	10.964	515011	8	
	C22 H47 P3	Full match	No results	No match	No results	404.29082	11.247	493106	22	
2,3-diacetoxypropyl laurate	C19 H34 O6	Full match	No results	Not the top hit	No results	358.23518	10.585	478228	14	
	C9 H9 N2 O3 P	Full match	No results	No match	No results	224.0349	9.972	461745	78	
2,7-dihydroxy-9-fluorenone	C13 H8 O3	Full match	No results	Full match	No results	212.04677	9.493	445147	27	
GI0TV19GBN	C12 H7 N O2	Full match	No results	Full match	No results	197.04755	8.633	437001	35	
Ginkgoic acid	C22 H34 O3	Full match	No results	Full match	No results	346.24977	11.602	427480	23	
	C10 H22 N3 O4 P S	Full match	No results	No match	No results	311.10707	11.386	382958	1	
66QN3B074E	C24 H48 O3	Full match	No results	Full match	No results	384.35931	11.819	374021	10	
	C6 H10 N10 O2 S	Full match	No results	No match	No results	286.07161	9.967	372765	31	
X84XWP4TOC	C21 H42 O5	Full match	No results	Full match	No results	374.30172	11.464	343016	5	
2,4-dichlorobenzoic acid	C7 H4 Cl2 O2	Full match	No results	Partial match	Full match	189.95878	7.912	316769	25	Cl2
4-(4-hydroxy-4-methyl pentyl)cyclohex-3-ene-1-carbaldehyde	C13 H22 O2	Full match	No results	Full match	No results	210.16162	10.211	310431	212	
	C31 H61 N O6 S	Full match	No results	No results	No results	575.42038	11.779	300936	0	
RI-1(RAD51 inhibitor II)	C14 H11 Cl3 N2 O3	Full match	No results	Full match	No results	359.9822	10.772	299408	1	Cl2;Cl3;

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: mzCloud Search	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	Area (Max.)	# ChemSpider Results	Pattern Matches
										Cl4;Br
Diethyl dibutylmalonate	C15 H28 O4	Full match	No results	Full match	No results	272.19783	10.64	291500	38	
	C4 H2 Cl O P3 S3	Full match	No results	No results	No results	289.81649	1.581	287412	0	
Gemcabene	C16 H30 O5	Full match	No results	Full match	No results	302.20832	10.129	281952	14	
Pentonic acid	C5 H10 O6	Full match	No results	Full match	No results	166.04736	11.086	272915	8	
R42PUI926F	C12 H18 O5	Full match	No results	Full match	No results	242.115	8.579	269722	50	
	C18 H42 N6 O P2	Full match	No results	No match	No results	420.28893	11.299	267193	19	
	C12 H27 N4 O3 P	Full match	No results	No match	No match	306.18172	10.889	259546	64	
	C30 H53 N4 P S	Full match	No results	No match	No results	532.37469	11.962	248151	1	
Allethrin	C19 H26 O3	Full match	No results	Partial match	Full match	302.18729	10.405	246800	64	
	C23 H47 Cl O5	Full match	No results	No match	No results	438.30939	11.259	246040	1	Cl
	C17 H39 N8 O2 P	Full match	No results	No match	No results	418.29254	10.874	233452	6	
4GPC9FQG6L	C19 H18 O3	Full match	No results	Full match	No results	294.12472	9.876	225441	60	
	C36 H64 N3 O7 P	Full match	No results	No results	No results	681.44647	11.835	224451	0	
3-Decyldihydro-2,5-furandione	C14 H24 O3	Full match	No results	Full match	No results	240.17174	10.595	213378	66	
	C17 H39 N7 O3	Full match	No results	No results	No results	389.31241	11.253	212141	0	
	C2 H7 N4 O2 P	Full match	No results	No match	No results	150.03117	7.325	209742	53	
6,7-Dihydroxy-2-oxo-2H-chromene-3-carboxylic acid	C10 H6 O6	Full match	No results	Not the top hit	No results	222.01619	8.342	209148	12	
	C4 H4 N10 S	Full match	No results	No match	No results	224.03459	11.092	205100	78	
	C15 H24 P2	Full match	No results	No match	No results	266.13602	10.718	199271	2	
Hematoxylin	C16 H14 O6	Full match	No results	Not the top hit	Full match	302.07843	8.432	190539	46	
	C5 H13 Cl3 N4 O3 S	Full match	No results	No match	No match	313.97674	10.771	185677	11	Cl2;Cl3;Br
	C14 H36 N6 O P2	Full match	No results	No match	No results	366.24257	11.188	179562	6	
6XO32ZSP1D	C11 H14 O4	Full match	No results	Full match	No results	210.08858	7.137	176860	245	
Dimethyl(2-methyl-2-propanyl){[(3E)-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-3-buten-1-yl]oxy}silane	C16 H33 B O3 Si	No results	No results	Full match	No results	312.22879	10.921	175059	47	
	C15 H35 N7 O3	Full match	No results	No match	No results	361.28137	11.046	171212	1	
	C14 H33 N4 O2 P	Full match	No results	No match	No results	320.23382	10.897	169763	65	
1,1'-(1H-Imidazol-1-ylphosphoryl)dipiperidine	C13 H23 N4 O P	Full match	No results	Not the top hit	No results	282.16095	10.549	158092	64	
1,1'-(1,4-Piperazinediyldi-3,1-propanediyl)bis(3-butylurea)	C20 H42 N6 O2	Full match	No results	Not the top hit	No match	398.33817	11.746	142273	29	
	C24 H46 O9	Invalid mass	No results	No match	No results	478.31105	11.878	130692	3	
S67X93ZTKQ	C11 H20 O3	Full match	No results	Full match	No results	200.14071	9.762	128910	153	
	C28 H49 N4 P S	Full match	No results	No match	No results	504.34362	11.711	122604	4	
Artemotil	C17 H28 O5	Full match	No results	Full match	No results	312.1928	10.232	122040	10	
2-(2-(2-methoxyethoxy) ethoxy)ethyl methacrylate	C11 H20 O5	Full match	No results	Full match	No results	232.13033	8.232	114173	26	
	C14 H31 N8 O P	Full match	No results	No match	No results	358.23542	10.294	105260	14	
	C9 H12 Cl O11 P	Full match	No results	No match	No results	361.97922	10.772	102881	11	Cl
	C10 H11 N4 P3	Invalid mass	No results	No match	No results	280.02123	9.811	102368	3	
3,3'-[(4-Aminobutyl) imino]bis[N-(3-amino propyl)propan amide]	C16 H36 N6 O2	Full match	No results	Full match	No match	344.29106	11.369	96281	1	
Benzoyl peroxide	C14 H10 O4	Full match	No results	Full match	No match	242.05737	8.726	95533	107	
Hymecromone	C10 H8 O3	Full match	No results	Full match	No results	176.04684	6.311	90891	102	
Cianergoline	C19 H22 N4 O	Full match	No results	Full match	No results	322.17968	10.921	84031	17	
	C18 H40 N6 O P2	Full match	No results	No match	No results	418.27351	11.383	79308	10	
6J5LY4N0CG	C10 H7 N O4	Full match	No results	Full match	No results	205.03693	6.928	77174	74	
	C19 H39 N4 O5 P	Full match	No results	No match	No results	434.26538	10.688	75543	10	
	C15 H6 O6	Full match	No results	No match	No results	282.01633	7.017	67372	18	
GG70Y8LTBY	C12 H22 O3	Full match	No results	Full match	No results	214.15623	10.547	64611	167	
S67X93ZTKQ	C11 H20 O3	Full match	No results	Full match	No results	200.141	10.119	62198	153	
	C27 H58 N2 P2 S	Full match	No results	No results	No results	504.38163	12.009	61914	0	
	C14 H22 P2	Full match	No results	No match	No results	252.1204	10.558	58499	2	
3,3-Dimethyl-1,5-dioxa cyclo-pentadecane-6,15-dione	C15 H26 O4	Full match	No results	Partial match	Full match	270.18198	10.533	57443	42	
	C4 H9 N4 O3 P	Full match	No results	No match	No results	192.04174	8.173	51649	95	
		No results	No results	No results	No results	646.49965	10.845	48383	0	

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: mzCloud Search	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	Area (Max.)	# ChemSpider Results	Pattern Matches
	C8 H18 N2 O6 S	Full match	No results	No match	No match	270.08848	8.864	45342	9	
3-(Decyloxy)propanoic acid	C13 H26 O3	No results	No results	Full match	No results	230.18707	10.381	43535	63	
5E9SXT166N	C19 H20 O3	Full match	No results	Full match	No results	296.14025	10.04	43306	74	
	C13 H33 N4 O3 P	Full match	No results	No match	No results	324.22868	10.755	43158	33	
Caffeic acid	C9 H8 O4	Full match	No results	Not the top hit	Full match	180.04181	7.055	42104	107	
JK62J3E3Q4	C14 H28 O4	Full match	No results	Full match	No results	260.19773	10.319	41275	27	
Queen Bee Acid	C10 H18 O3	Full match	No results	Full match	No results	186.12517	10.018	41172	257	
Gemcabene	C16 H30 O5	Full match	No results	Full match	No results	302.20824	10.608	39862	13	
	C8 H15 N4 O2 P	Full match	No results	No match	No match	230.09333	10.333	35383	182	
Ethyl 2-oxocycloheptanecarboxylate	C10 H16 O3	Full match	No results	Full match	No results	184.10954	9.701	33356	265	
	C11 H15 N4 O6 P	Full match	No results	No match	No match	330.07293	9.815	31441	55	
(25-Dodecanoyl-1,4,7,10,13,19,22-heptaoxa-16,25-diazacycloheptacosan-16-yl)acetic acid	C32 H62 N2 O10	No results	No results	Full match	No results	634.44265	12.021	29488	1	
(2E)-4-Hydroxy-2-nonenal	C9 H16 O2	Full match	No results	Full match	No results	156.11476	9.884	23895	386	
	C5 H14 N2 O5 S	Full match	No results	No match	No match	214.06241	8.673	23396	124	
	C20 H49 Br N8 O	Full match	No results	No match	No results	496.32101	11.742	22720	2	Br;Br3
	C17 H32 N10	Full match	No results	No match	No results	376.28114	10.029	21805	6	
	C H2 O11 P2 S2	Full match	No results	No results	No results	315.85094	10.28	20083	0	

However, this list of candidates has relatively low level of confidence (corresponding to level 2 of Schymanski scaling) as some of proposed elemental composition has several up to several tens of possible alternatives. It is necessary to carefully check each compound using DIA MS/MS data which extremely time consuming work compare to suspect screening approach [52]) The list of compounds in the table is ordered by decreasing intensity of max peak area in sediment/sludge samples. The most intensive signal seems to be attributed to different linear alkyl benzene sulphonates. Those compounds unfortunately shows only unspecific fragmentation in DIA, which is not helpful in further structure elucidation and improving the identity level.

When the results are filtrated with more specific ratio, e.g. sediment/juvenile fish a much shorter list are obtained (cf. Table 13). However, compounds present at the list are mainly associated with fish metabolism e.g. fatty acids, sterols etc. In addition we cannot confirm the identity of this compounds without standards – as there exist many isomers.

Table 13 List of candidates.

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	*Area (Max.)*	*# ChemSpider Results*	*Pattern Matches*
	C24 H40 P2 S	Full match	No match	No match	422.23283	11.034	*40733945*	*9*	
	C14 H31 Cl O2 P2	Full match	No match	No results	328.14766	11.071	*9877873*	*27*	*Cl*
	C23 H42 N5 O2 P	Full match	Invalid mass	No results	451.30694	11.429	*8003232*	*1*	
2,5-furandione, 3-[(1E)-1-hexadecenyl]dihydro-	C20 H34 O3	Full match	Full match	No results	322.25085	11.038	*6817725*	*40*	
2-(Dodecyloxy) ethylhydrogen sulphate	C14 H30 O5 S	Full match	Full match	No results	310.18175	10.951	*6478810*	*3*	
1,4-Anhydro-6-O-(18-oxoabieta-	C26 H40 O6	Full match	Not the top hit	No results	448.28294	11.291	*5450015*	*6*	

Name	Formula	Annotation Source: Predicted Compositions	Annotation Source: ChemSpider Search	Annotation Source: MassList Match	Molecular Weight	RT [min]	*Area (Max.)*	*# ChemSpider Results*	*Pattern Matches*
7,13-dien-18-yl)-D-Glucitol									
Carnosic acid	C20 H28 O4	Full match	Full match	No results	332.19899	10.433	*4282429*	*47*	
59BE59JEZD	C12 H24 O4 S	Full match	Not the top hit	No results	264.13977	10.827	*3690873*	*13*	
n-Octyl-beta-D-thioglucopyranoside	C14 H28 O5 S	Full match	Full match	No results	308.16613	10.728	*3142626*	*4*	
	C14 H31 N8 P	Full match	No match	No results	342.24084	10.959	*2839037*	*8*	
	C26 H54 O10 S	Full match	No match	No results	558.34158	11.287	*2426590*	*2*	
Palmitic acid	C16 H32 O2	Full match	Full match	Full match	256.24054	11.568	*2339407*	*88*	
	C18 H26 N10	Full match	No match	No results	382.23597	10.773	*2313687*	*13*	
Methyl 9-chloro-10-(2-hydroxyethoxy) octadecanoate	C21 H41 Cl O4	Full match	Not the top hit	No results	392.26988	11.399	*2059053*	*4*	*Cl*
PALGLY	C18 H35 N O3	Full match	Full match	No results	313.26189	11.309	*1812040*	*21*	
cis-9:10-Epoxy-12-hydroxystearic acid methyl ester	C19 H36 O4	Full match	Partial match	Full match	328.26121	11.609	*1703387*	*67*	
Norethisterone enanthate	C27 H38 O3	Full match	Full match	No results	410.28049	11.469	*1493891*	*17*	
	C18 H42 N8 O2 P2	Full match	No match	No results	464.29124	11.403	*1443286*	*4*	
	C29 H53 O2 P3 S	Full match	No match	No results	558.2963	11.273	*1262264*	*2*	
	C11 H11 N4 O11 P3 S	Full match	No match	No match	499.93701	10.58	*1197439*	*2*	
Dibutyl Phthalate	C16 H22 O4	Full match	Partial match	Full match	278.1512	10.593	*963060*	*104*	
Promegestone	C22 H30 O2	Full match	Full match	No results	326.2247	10.99	*878993*	*63*	
	C17 H36 O5 S	Full match	No results	No results	352.22846	11.1	*780261*	*0*	
trigonox29/40	C17 H34 O4	Full match	Partial match	Full match	302.24599	11.562	*745053*	*12*	
5-{3-amino-4-[benzyl(methyl) amino]phenyl}-6-ethyl-2,4-pyrimidinediamine	C20 H24 N6	Full match	Not the top hit	No results	348.20692	10.601	*651392*	*8*	
PROTERGURIDE	C22 H32 N4 O	Full match	Not the top hit	No results	368.25629	10.842	*627901*	*20*	
I7T5V2W47R	C19 H26 O4	Full match	Full match	No results	318.18272	10.346	*582850*	*27*	
	C14 H34 N8 O2 S	Full match	No match	No results	378.2539	11.499	*524642*	*4*	
2,3-Diacetoxypropyl laurate	C19 H34 O6	Full match	Not the top hit	No results	358.23518	10.585	*478228*	*14*	
TSR57315NK	C17 H32 O4	Full match	Full match	No results	300.22995	10.966	*405318*	*28*	
N-Acetyl-L-leucyl-N~5~-(diaminomethylene)-L-ornithyl-N~5~-(diaminomethylene)-L-ornithyl-L-alanyl-L-threonyl-L-leucylglycine	C35 H65 N13 O10	No results	Full match	No results	827.49698	11.614	*377222*	*1*	
	C18 H42 N6 O P2	Full match	No match	No results	420.28893	11.299	*267193*	*19*	
	C26 H33 N5	Full match	No match	No match	415.27273	11.192	*234589*	*7*	
9,10-Diacetoxyoctadecanoic acid	C22 H40 O6	Full match	Full match	No results	400.28256	11.014	*144330*	*10*	
	C15 H39 N9 O2 P2	Full match	No match	No results	439.2701	11.108	*131368*	*2*	
UNII:B9Y126NY8K	C14 H26 O2	Full match	Full match	No results	226.19337	11.148	*112860*	*180*	

Using predefined hypothesis (i.e. diagnostic ratios) did not lead to identification of any suspect pollutants and we consequently used other option from data processing workflow. Assuming that compounds containing halogens are xenobiotics with potential adverse effect on biota, we applied the search for predefined isotope patterns indicating presence of halogens. This trace pattern match appear as the last column in Table 12 and Table 13 above.

It is seen that some of the proposed compounds are evident nonsense as they possess some halogens in the molecule by the isotope pattern, but non-halogen is offered as the best alternatives. The number of signals with specific chlorine of bromine patterns is not high

compare to total number of the signals as it is shown in Figure 22. Halogen containing structures are easier for interpretation of MS/MS specter due to mentioned specific isotope patterns.

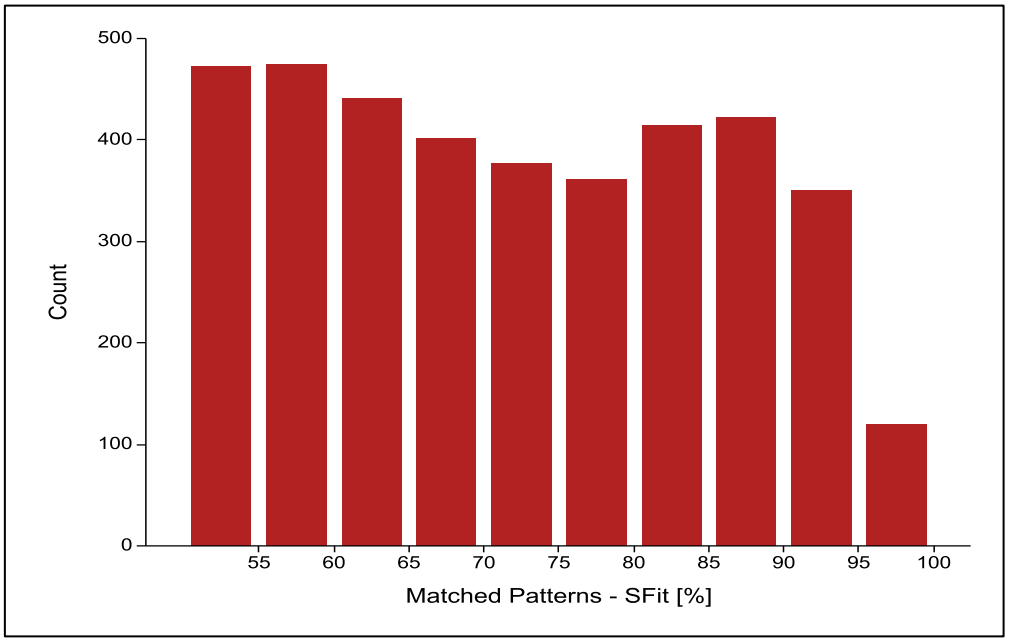


Figure 22 The number of isotope patterns with better spectral fit than 50% distribute by this confidence of measured signal matching with theoretical isotope ratio.

Compounds that were present in at least one of the recipient matrices could be selected, using the above mentioned approach and the results are shown in the Table 14. We set search of pattern matches to two the most abundant isotopes ratio with a relatively low level of the fit (50%). All results were then carefully manually cross-checked to confirm or disprove presence of chlorine atoms in the candidate molecule. If results from the online database search are present, then it must be checked over again to present tentative identification of the compound.

Table 14 Candidate molecules identified using six chlorine pattern match in at least one of the recipients.

Molecular Weight	RT [min]	Area (Max.)	ChemSpider Results	Pattern Matches	Group Area: Juveniles	Group Area: Crayfish	Group Area: Perch	Group Area: Roach	Group Area: Sediment	Group Area: Sludge	Group Area: POCIS
333.12518	6.817	485662	2	Cl6	60550	485662	16852	4990			
682.13798	11.878	249557	1	Cl6	183466		185225				
403.8486	11.165	197117	12	Cl6					187590		
330.12406	7.846	56801	2	Cl;Cl5;Cl6	56801			4248			
785.98234	11.766	50881	0	Cl3;Cl4;Cl5;Cl6;Br;Br3	44217						
680.11799	11.973	42836	0	Cl4;Cl5;Cl6;Br2;Br3					40811		
833.95441	11.736	34487	0	Cl3;Cl4;Cl5;Cl6;Br2;Br3					30930		

This evaluation process can be demonstrated with a compound with estimated molecular weight of 403.8486. A ChemSpider search for this compound led to 12 results. One of them can be immediately excluded as it contained only 5 chlorines. All other results were isomers of two structurally different compounds; either (1) hexachlorophene (hexachloromethylene bis(trichlorophenols) or (2) hexachloromethoxy(phenoxy)benzenes. The offered set of candidates could be elucidate with interpretation of DIA MS/MS data – as shown in the Figure 23. The probability that hexachlorophene ($C_{13}H_6Cl_6O_2$ with CAS No. 70-30-4) or some of its position isomers was found is high and according to level 2 of Schymanski scale.

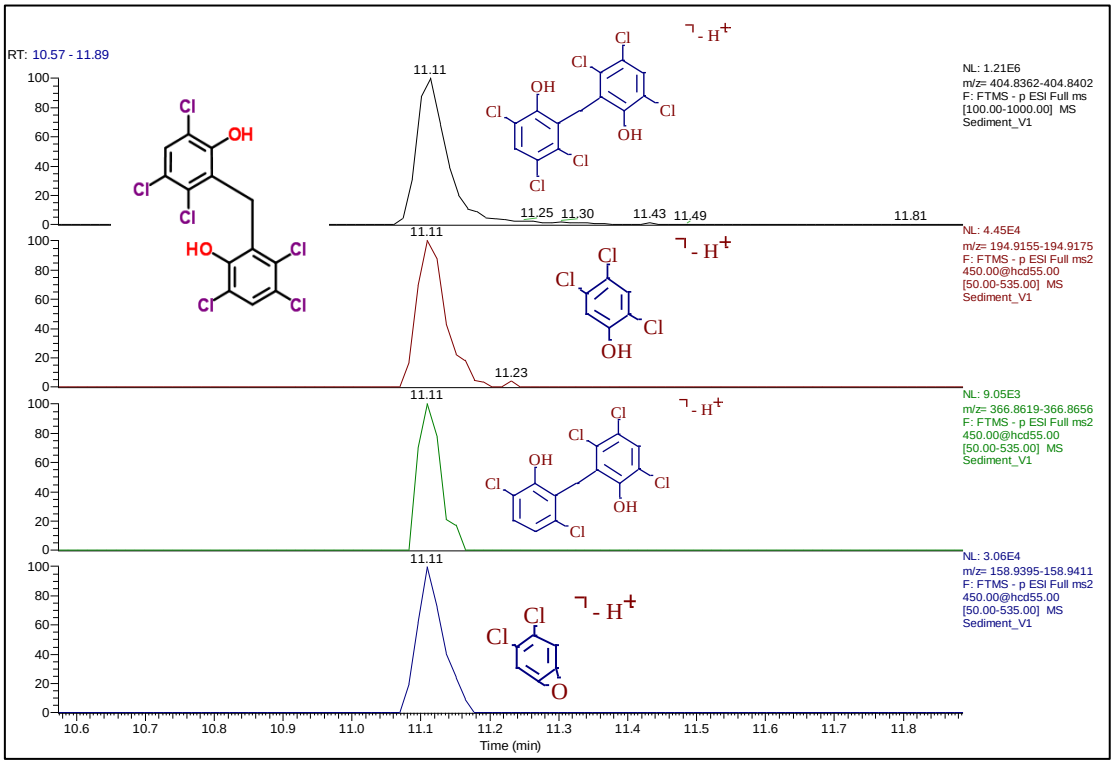


Figure 23 Full scan (upper chromatogram) with overlaid DIA fragment chromatograms of compound tentatively identified as hexachlorophene.

In other cases, we were not able to use DIA derived data due to high background results from the sample matrix and low intensity of the candidate. These samples must be re-run in regular HRPS (High-Resolution Product Scan) with narrow isolation window (1 m/z) to obtain MS^2 information and increase the identity level above level 3 according to Schymanski (*54*).

The same methodology was repeated for other chlorine patterns. Unfortunately, only a few signals could be explained up to a level of tentative identification (3). One identified compound found in sediment and in sludge contained 3 chlorines in the molecule. Surprisingly, the best matched elemental composition agreed only with a compound found in an online database - 3-chloro-1-(3,4-dichlorophenyl)-4-(4-morpholinyl)-1H-pyrrole-2,5-dione – CAS. No. 415713-60-9, also known as the compound RI-1(RAD51 inhibitor II) (Figure 24).

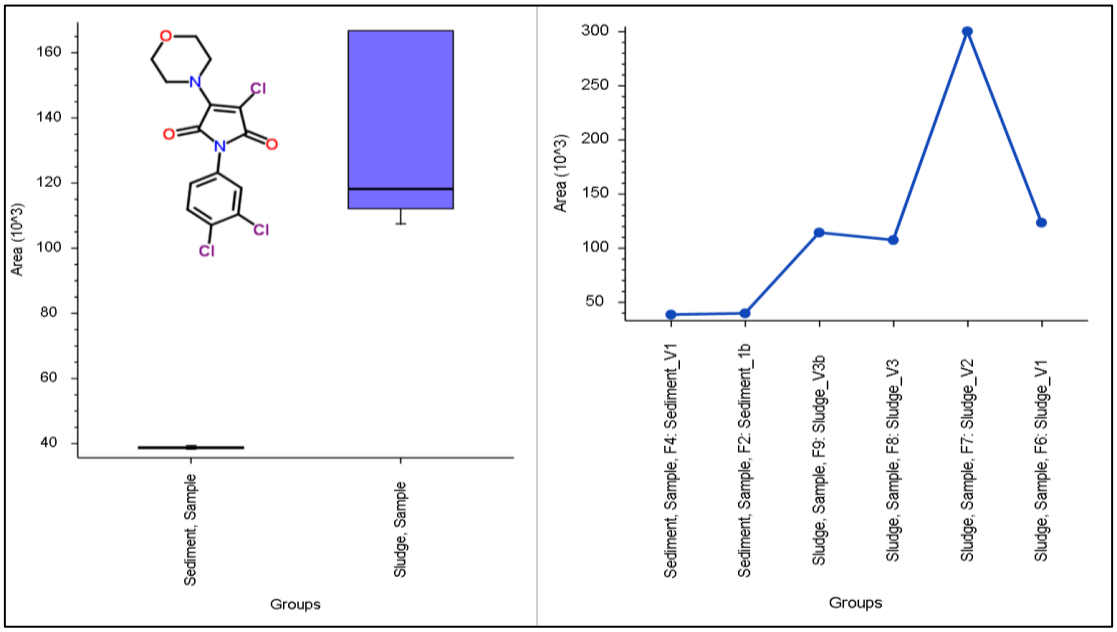


Figure 24 Identification of 3-chloro-1-(3,4-dichlorophenyl)-4-(4-morpholinyl)-1H-pyrrole-2,5-dione (CAS No. 415713-60-9) in sediment and WWTP sludge.

The DIA MS/MS spectra confirmed the presence of a fragment corresponding to a broken middle ring. This compound is used in life sciences for protein binding inhibition. The source for this compound is most likely WWTP. However, with the same retention time, the compound with molecular weight 313.9767 appears with the same fragments.

This compound matched the bactericide Triclocarban (CAS No. 101-20-2). The difference between the m/z of the deprotonated molecules corresponds to COOH, which is a formic acid used in mobile phase. A more probable explanation is that formic acid adduct was formed in an ion source during the analysis instead of the presence of RI-1 in sediment and WWTP samples.| Both compounds are commercially available and final confirmation will be relatively simple.

There was one signal found in sludge, sediment and biota samples. This compound contained two chlorine atoms in the molecule and the closest elemental composition agreed with the online search that aggregates this signal with dichlorobenzoic acid isomers (Figure 25). Unfortunately, we have not obtained MS/MS information for this compound due to high stability of the molecule under applied levels of collision energy. This finding must be explored further, again with application of HRPS with a narrow isolation window and higher collision energies. The same compound(s) were previously observed as a product of drinking water chlorination at a drinking water treatment plant in the Czech Republic.

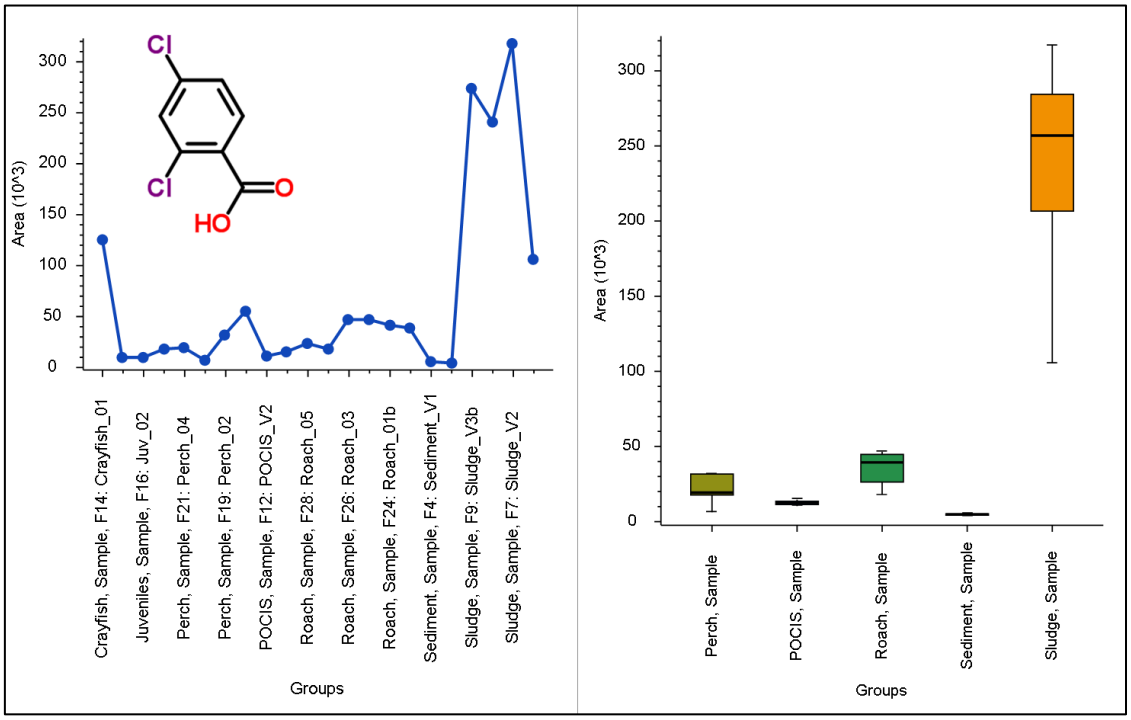


Figure 25 Relative occurrence of signal corresponding to dichlorbenzoic acid isomers in investigated matrices.

During matched pattern evaluation we revealed the presence of some interesting compounds in the juvenile fish samples. After careful examination and pattern modelling a possible hexachlorinated high molecular compound was re-evaluated to compound with nine chlorine atoms in molecule and long carbon skeleton with low number of unsaturated bonds. The results of the most probable elemental compositions are reported in Table 15 and Figure 26.However, even intensive modelling of the possible structures in MassFrontier software did not lead to successful proposal of the molecule structure and the identity level stay somewhere between level 3 and 4 of the Schymanski scale.

Table 15 Proposed elemental composition for unknown compounds in juvenile fish samples.

Elemental composition	Ring and double bond equivalent	d m/z (ppm)
C26 H38 O5 N3 Cl9 S	5	-0.807
C24 H44 O3 N2 Cl9 S3	-0.5	1.405
C27 H42 N3 Cl9 S3	4	-1.868
C30 H38 N3 Cl9 S2	9	2.248
C28 H40 O6 Cl9 S	4.5	-2.447
C23 H40 O8 N2 Cl9 S	0.5	2.465
C29 H34 O5 N3 Cl9	10	3.309
C29 H44 O Cl9 S3	3.5	-3.507
C22 H38 O10 N3 Cl9	1	-3.863
C29 H36 O2 N4 Cl9 S	9.5	-4.08

The compounds are eluted at the end of the chromatogram – which means that they will be non-polar compounds, however, with some structural moiety giving good response in negative ESI.

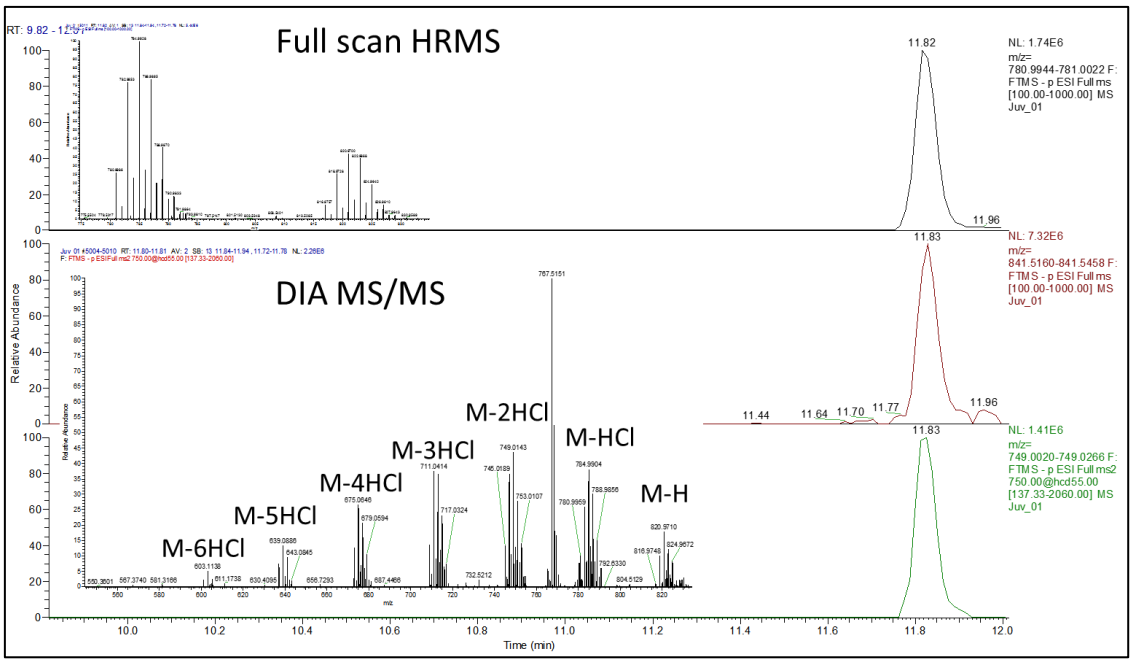


Figure 26 Chromatograms and mass spectra in full scan and DIA modes of unknown nona-chlorinated compound in juvenile fish samples.

4. Environmental risks

The environmental risk may be assessed by comparing the highest measured concentrations (MEC) of the compounds in outlet water from the WWTPs and sediment with available "Predicted No Effect Concentration" (PNEC) values (Table 16). This is performed by calculating MEC/PNEC ratios (Table 17). The PNEC values used were published PNEC values from the European Chemicals Agency (ECHA). If the MEC/PNEC ratio is greater than 1, it generally indicates an environmental risk. In cases where the measured concentrations were below the LOD, a worst-case scenario was used in the MEC/PNEC calculations in order to assess whether the LOD is sufficiently low. As PNEC values were only available for a limited number of compounds, it was not possible to perform a complete environmental risk assessment.

Of the 27 substances, there were 19 substances that were registered in the European Chemical Agency database ECHA. The MEC/PNEC relationships were calculated for 13 water and 15 sediment samples. Both freshwater and marine ratios were calculated. The log P_{ow} is also listed in Table 16. Substances with log Pow >3 may have potential for bioaccumulation.

Table 16 PNEC values from ECHA for freshwater (f), marine water (m) and sediment (s).

No	Parameter	CAS no.	$PNEC_f$ (ng/l)	$PNEC_m$ (ng/l)	$PNEC_{f.sed.}$ (µg/kg dw)	$PNEC_{m.sed.}$ (µg/kg dw)	Log P_{ow}
1	TTBfenol	732-26-3	0	0	1 368	137	6.55
4	p-(1,1-dimethylpropyl)phenol	80-46-6	10 000	1 000	1 509	151	3.7
5	Tonalide with metabolites	21145-77-7 1506-02-1	2 200	220	1 720	345	6.37
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	100 000	10 000	151 700	15 170	6.16
7	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylmethacrylate	2144-53-8	100 000	10 000	600	60	6.71
8	Phenol, heptyl derivs.	72624-02-3	360	36	90	9	5.13
9	O,O,O-triphenyl phosphorothioate	597-82-0	n.h.i.	n.h.i.	n.h.i.	n.h.i.	5.45
10	4-tert-butylphenol	98-54-4	10 000	1 000	270	27	3.17
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	0	0	51 863	51 863	4.57
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8	500 000	40 000	43 500 000	3 480 000	
13	Isopentyl p-methoxycinnamate	71617-10-2	200	20	87	9	4.06
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	420	42	520	50	5.97
15	Galaxolide with metabolites	1222-05-5	4 400	440	2 000	394	6.23
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	2 800	280	3 730	750	5.28
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4	630 000	63 000	2 300	230	3.15
22	Resorcinol	108-46-3	17 000	2 000	80	8	0.76
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	89 000	900	839	84	2.07
24	Diethylmethylbenzenediamine	68479-98-1	1 000	0	29	3	2.14
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	80	8	8 280	828	9.55

* = n.h.i. , n.h.i. = No hazard identified, n.e.e = No exposure expected, n/i.d.a. = No or insufficient data available or present

*Table 17 Calculated MEC/PNEC ratios for freshwater (f), marine water (m) and sediment (s). Ratios above 1 are indicative of environmental risk and are shown in bold. *LOD used as MEC. All PNEC values were obtained from ECHA, The MEC water concentrations are from the outlets of the WWTPs.*

No	CAS no.	Highest measured concentrations (MEC)				MEC/PNEC			
		f	m	f.s.	m.s.	f	m	f.s.	m.s.
	Unit	ng/l	ng/l	µg/kg dw	µg/kg dw				
1	732-26-3	370*	240*	40*	27*			0.029	0.197
4	80-46-6	10 000	9 500	1.1*	1.1*	1.0	9.5	0.0007	0.007
5	21145-77-7 1506-02-1	610	270	20*	20*	0.277	1.227	0.012	0.058
6	17527-29-6	0.2*	0.2*	20*	20*	0.000002	0.00002	0.0001	0.001
7	2144-53-8	0.2*	0.2*	20*	20*	0.000002	0.00002	0.033	0.333
10	98-54-4	620	490	2.7	13	0.062	0.490	0.010	0.481
11	5384-21-4	12*	13*	1.3*	1.3*			0.00003	0.00003
13	71617-10-2	2.3	1.4	0.34*	0.4*	0.012	0.070	0.004	0.044
14	57583-54-7	1	0.5	0.47*	0.79*	0.002	0.012	0.001	0.016
15	1222-05-5	2 600	1 000	20*	20*	0.591	2.273	0.010	0.051
16	54464-57-2	1 900	720	20*	20*	0.679	2.571	0.005	0.027
22	108-46-3	250*	270*	8.1*	7.1*	0.015	0.135	0.101	0.888
23	78-59-1	5*	5*	50*	50*	0.0001	0.006	0.060	0.595
24	68479-98-1	3.9	2.4	0.086*	0.087*	0.004		0.003	0.029
26	6422-86-2	96	1 100	31*	30*	1.20	137.5	0.0037	0.0362

A comparison of the LOD values and PNEC for the compounds in Table 16 and Table 17 show that the LOD was below the PNECs when both PNECs and concentrations were available. All sediment concentrations, both freshwater and marine, were below the PNECs where PNECs were available. However, five of the parameters were higher than $PNEC_{water}$.

The concentrations of **p-(1,1-dimethylpropyl)phenol** (CAS no. 80-46-6) and **bis(2-ethylhexyl) terephthalate** (CAS no. 6422-86-2) were higher than PNEC for water samples in both freshwater and marine systems. The log Pow >3 indicates that the substance has the potential for bioaccumulation. However, the concentrations in sediment were below the PNEC-concentrations.

The concentrations of **Tonalide with metabolites** (CAS no. 21145-77-7 and 1506-02-1), **Galaxolide with metabolites** (CAS no. 1222-05-5) and **1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)** (CAS no. 54464-57-2) in marine water was also higher than the PNECs. All three log P_{ow}s were also >5 indicating that the substances have potential for bioaccumulation. Also for these substances, the concentrations in sediment were below the PNEC-concentrations.

In the cases where MEC/PNEC > 1 for the water samples, it cannot be ruled out that a negative environmental effect may occur in the area near the discharge point from the waste water treatment plant.

5. Conclusion

In the Norwegian Environment Agency screening programme for 2017, the occurrence of 27 suspected PBT-compounds, and 137 additional compounds, were targeted in various matrices throughout the environment. Several of the targeted compounds were detected in wastewater, sludge, landfill run-off, sediment, land based and aquatic biota as well as indoor dust. Samples were collected from locations within the Oslofjord area, Lake Mjøsa and in the vicinity of the City of Oslo.

Out of the 27 suspected PBT compounds that were analysed with an internal standard, 17 out of 20 were detected.

The process of entering the WWTP and thereby depositing in the treatment sludge appears to be the main pathway for possible environmental impact for 10 of the substances. Passive sampling in the WWTP effluent and landfill runoff show more results above LOD than with traditional water sampling. Examples of this are the synthetic musks tonalide and galaxolide.

The following substances tebukonazol and 4-tert-butylphenol, appear to end up in landfills and may affect the environment through runoff.

In general, the targeted substances show limited presence in both land-based and aquatic biota. Exceptions were e.g. p-(1,1-dimethylpropyl)phenol in cod liver. Aquatic invertebrates yield key results and represent documented pathways into the food chain e.g. for the substance O,O,O-triphenyl phosphorothioate.

Juvenile (young-of-the-year) fish samples from Lake Mjøsa appear to be an useful indicator for recent exposure of p-(1,1-dimethylpropyl)phenol, 1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE) and galaxolide.

Cod liver contained notable high concentrations of p-(1,1-dimethylpropyl)phenol, tonalide and galaxolide.

Exposure to household dust is another important pathway for unwanted expose of most of the substances, especially bis(2-ethylhexyl) terephthalate.

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Attachments

The next 44 pages contains results from the screening programme 2017 suspected PBT compounds.

Screening programme 2017, suspected PBT compounds, Norwegian Environment Agency

Analysis results

Summary

Matrix	Number of samples	Number of quantitative analysis, main parameters	Number of quantitative analysis, additional parameters	Total number of quantitative analysis results
Wastewater	8	19	131	1 200
SPMD/POCIS	6	17	109	756
Sludge	6	20	120	840
Sediment	2	20	120	280
Biota, rat	11	19	123	1 562
Biota, fish	28	18	123	3 948
Biota, invertebrates	9	19	123	1 278
Indoor air	13	6	62	884
House dust	6	18	120	828
Total	***89***	-	-	**11 576**

Matrix: water samples of municipal wastewater and run-off water from landfill

No.	Parameter	CAS-number	Unit of measure	Site: VEAS, Slemmestad, wastewater			HIAS, Hamar, wastewater			ROAF landfill, run-off		Analysis method	Measure uncer-tainty (%)
				Sample date			Sample date			Sample date			
				27.06.17	05.09.17	05.09.17	27.06.17	05.09.17	05.09.17	27.06.17	05.09.17		
				Outlet	Inlet	Outlet	Outlet	Inlet	Outlet				
	Main parameters												
1	TTBfenol	732-26-3	ng/l	<240	<440	<450	<370	<720	<420	<180	<270	LC-APPI/HRPS	30
Wastewater	Propikonazol	60207-90-1	ng/l	3.7	13	6.5	26	24	69	680	300	LC-ESI/MS/MS	30
3	Tebukonazol	107534-96-3	ng/l	6.8	16	24	680	510	900	2100	350	LC-ESI/MS/MS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng/l	4.7	11	9.5	8.2	<3.9	10	6.2	35	LC-APPI/HRPS	
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng/l	250	2100	270	600	3200	610	440	1100	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	µg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	P&T-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	µg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	P&T-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3											
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng/l	0.4	0.3	<0.24	<0.2	4.9	<0.23	<0.098	<0.15	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng/l	87	530	490	520	800	620	560	1000	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng/l	<6.9	<12	<13	<11	<20	<12	16.0	62.0	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8											
13	Isopentyl p-methoxycinnamate	71617-10-2	ng/l	<0.82	<3.6	<1.4	<2.3	<4.2	<1.9	<7.2	<5.1	LC-ESI/MS/MS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng/l	0.5	3.7	0.5	0.5	2.7	1.0	1.6	2.6	LC-ESI/MS/MS	30
15	Galaxolide with metabolites	1222-05-5	ng/l	1000	8400	1000	2500	13000	2600	1600	4800	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng/l	670	4900	720	1900	9300	1800	250	1500	GC-MS/MS	30
17	Buprenorphin	52485-79-7	ng/l	<1	4.3	<1.2	5.5	8.8	2.1	11	8.6	LC-ESI/MS/MS	30
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9											
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0											
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2											
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4											
22	Resorcinol	108-46-3	ng/l	<150	<270	<270	<230	<440	<250	<110	<160	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng/l	<5.0	<5.0	<5.0	<5.0	37.0	<5.0	<5.0	<5.0	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng/l	2.4	<1.1	<0.51	2.8	<1.5	3.9	<3.4	620.0	LC-ESI/MS/MS	30
25	Surfadone	2687-96-9	ng/l	<0.28	3.3	<0.47	<0.77	9.3	<0.65	<2.4	<1.7	LC-ESI/MS/MS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng/l	1100	57	<43	96	120	56	57	57	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)												
	Additional parameters												
	Galaxolide	1222-05-5	ng/l	1000	8400	1000	2500	13000	2600	1600	4800	GC-MS/MS	30
	Tonalide	1506-02-1	ng/l	250	2100	270	600	3200	610	440	1100	GC-MS/MS	30
	Musk ketone	81-14-1	ng/l	11	38	15	18	22	12	<5	<5	GC-MS/MS	30
	Musk xylen	81-15-2	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30

	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng/l	23	51	40	35	94	29	<5	<5	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng/l	<5	5.6	<5	<5	9.6	<5	<5	<5	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng/l	<5	15.0	<5	<5	22.0	<5	6.2	10.0	GC-MS/MS	30
	Bisphenol A	80-05-7	ng/l	62	380	50	51	1800	67	55	2300	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng/l	<0.77	<1.4	<1.4	<1.2	<2.3	<1.3	<0.56	<0.83	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng/l	<2.1	<3.7	<3.8	<3.2	<6.1	<3.5	<1.5	<2.3	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng/l	<0.63	<1.1	<1.2	<0.96	<1.9	<1.1	<0.47	<0.69	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng/l	<9.5	<17	<17	<14	<28	<16	<7	<10	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng/l	3.7	34.0	7.7	17.0	33.0	16.0	19.0	32.0	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng/l	<6.8	<12	<12	<10	<20	<12	<5	<7.4	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng/l	<2.7	<2.5	<2.4	<5.2	<4	<4	<32	<14	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng/l	<20	44	<20	<20	820	<20	<20	<20	GC-MS/MS	30
	Hexamethylcyclotrisiloxane	541-05-9	ng/l	150	630	<20	44	1300	<20	<20	56	GC-MS/MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng/l	660	12000	52	160	9100	120	<20	4200	GC-MS/MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng/l	660	28000	96	240	16000	120	<20	7500	GC-MS/MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng/l	360	9900	145	280	6200	89	40	3700	GC-MS/MS	30
	Alfuzosin	81403-80-7	ng/l	0.5	1.7	0.7	<0.56	1.5	0.6	<2.4	1.4	LC-ESI/MS/MS	30
	Amitryptyline	50-48-6	ng/l	30	19	40	48	16	59	<3.6	8.9	LC-ESI/MS/MS	30
	Atorvastatin	134523-00-5	ng/l	82	890	130	83	2600	220	19	96	LC-ESI/MS/MS	30
	Azithromycin	83905-01-5	ng/l	88	62	140	26	27	45	5.9	5.2	LC-ESI/MS/MS	30
	Bezafibrate	41859-67-0	ng/l	16	22	6.3	13	<0.34	<0.34	<0.72	<0.64	LC-ESI/MS/MS	30
	Bisoprolol	66722-44-9	ng/l	30	28	31	23	68	35	<4.8	<2.1	LC-ESI/MS/MS	30
	Caffeine	58-08-2	ng/l	62	76000	67	11	69000	100	200	77	LC-ESI/MS/MS	30
	Carbamazepine	298-46-4	ng/l	320	270	290	460	420	450	210	840	LC-ESI/MS/MS	30
	Citalopram	59729-33-8	ng/l	120	50	70	150	22	140	<5	23	LC-ESI/MS/MS	30
	Clarithromycin	81103-11-9	ng/l	88	67	31	12	17	12	<3.4	<2.8	LC-ESI/MS/MS	30
	Clemastine	15686-51-8	ng/l	<0.45	<0.83	<0.52	<0.62	<0.91	<0.91	<1.9	<1.7	LC-ESI/MS/MS	30
	Clindamycin	81103-11-9	ng/l	84	67	81	83	50	92	9.7	3.2	LC-ESI/MS/MS	30
	Clindamycin sulfoxide	22431-46-5	ng/l	99	140	100	340	140	160	3.9	6.1	LC-ESI/MS/MS	30
	Clomipramine	303-49-1	ng/l	<3.5	<6.5	<4.1	<4.9	<7.2	<7.2	<15	<13	LC-ESI/MS/MS	30
	Clonazepam	1622-61-3	ng/l	3.6	<0.14	<0.22	<0.12	<0.11	<0.31	<0.2	<0.18	LC-ESI/MS/MS	30
	Diclofenac	15307-86-5	ng/l	810	2500	1400	2300	2400	4900	450	790	LC-ESI/MS/MS	30
	Diltiazem	42399-41-7	ng/l	50	29	32	43	19	24	<4.1	<3.6	LC-ESI/MS/MS	30
	Diphenhydramine	58-73-1	ng/l	49	36	35	11	4.2	12	<4.1	<3.6	LC-ESI/MS/MS	30
	Disopyramide	3737-09-05	ng/l	6.3	7.8	4.8	23	78	32	<3.3	<1.6	LC-ESI/MS/MS	30
	Erythromycin	114-07-8	ng/l	140	140	92	630	280	270	<1.8	<1.5	LC-ESI/MS/MS	30
	Fenofibrate	49562-28-9	ng/l	<0.55	<1	<0.64	<0.78	<1.1	<1.1	<2.4	<2.1	LC-ESI/MS/MS	30
	Fexofenadine	83799-24-0	ng/l	4400	3400	2500	1700	4300	3800	<4.1	300	LC-ESI/MS/MS	30
	Glibenclamide	10238-21-8	ng/l	<0.054	0.2	<0.088	<0.051	<0.044	0.4	<0.083	<0.072	LC-ESI/MS/MS	30
	Glimepiride	93479-97-1	ng/l	<0.24	<0.26	0.4	0.9	0.2	2.0	<0.38	<0.33	LC-ESI/MS/MS	30

	Haloperidol	52-86-8	ng/l	<0.43	<0.46	<0.71	<0.4	<0.35	<0.99	<0.66	<0.57	LC-ESI/MS/MS	30
	Irbesartan	138402-11-6	ng/l	1900	1700	1100	1700	4300	2800	<5	53.0	LC-ESI/MS/MS	30
	Loperamide	53179-11-6	ng/l	2.4	<0.94	1.1	2.4	<1	5.5	<2.2	<1.9	LC-ESI/MS/MS	30
	Memantine	19982-08-2	ng/l	15	20	12	18	57	26	<3.5	<1.7	LC-ESI/MS/MS	30
	Metoprolol	51384-51-1	ng/l	950	920	950	1400	2200	1900	23	73	LC-ESI/MS/MS	30
	Metoprolol acid	56392-14-4	ng/l	3200	2800	3300	110	6300	260	1400	810	LC-ESI/MS/MS	30
	Mirtazapine	61337-67-5	ng/l	35	23	35	61	13	65	<3.2	3.2	LC-ESI/MS/MS	30
	N-Desmethylcitalopram	144025-14-9	ng/l	76	38	54	100	24	110	<4.6	20.0	LC-ESI/MS/MS	30
	Norsertraline	87857-41-8	ng/l	<0.95	<1.8	<1.1	<1.3	<1.9	<1.9	<4.1	<3.6	LC-ESI/MS/MS	30
	O-Desmethylvenlafaxine	93413-62-8	ng/l	380	340	340	1500	380	770	<1.6	18.0	LC-ESI/MS/MS	30
	Orphenadrine	83-98-7	ng/l	1.9	<2.1	1.3	<1.6	<2.3	<2.3	<4.8	<4.3	LC-ESI/MS/MS	30
	Oxazepam	604-75-1	ng/l	490	370	420	480	370	680	<0.74	51	LC-ESI/MS/MS	30
	Rosuvastatin	287714-41-4	ng/l	230	840	250	<0.52	2900	6.9	<1.6	55	LC-ESI/MS/MS	30
	Roxithromycin	80214-83-1	ng/l	2.8	<1.6	1.3	<1.5	<1.5	<1.4	<3.9	<2.4	LC-ESI/MS/MS	30
	Sertraline	79617-96-2	ng/l	5.7	<2.2	5.0	2.8	3.4	6.6	<5.2	<4.6	LC-ESI/MS/MS	30
	Sulfamethazine	57-68-1	ng/l	<1	<2.4	<1	<1.4	<2.7	<1.6	<2.3	<2.3	LC-ESI/MS/MS	30
	Sulfamethoxazole	723-46-6	ng/l	180	61	190	240	68	420	<12	<5.3	LC-ESI/MS/MS	30
	Sulfapyridine	144-83-2	ng/l	100	530	91	150	630	190	2.5	<2.1	LC-ESI/MS/MS	30
	Terbinafine	91161-71-6	ng/l	9.1	11	3.7	<0.91	2.0	1.5	<2.8	<2.5	LC-ESI/MS/MS	30
	Tramadol	27203-92-5	ng/l	390	420	400	730	840	870	5.7	20	LC-ESI/MS/MS	30
	Trimethoprim	738-70-5	ng/l	280	24	260	250	53	290	7.5	9.6	LC-ESI/MS/MS	30
	Valsartan	137862-53-4	ng/l	77	22000	8700	82	47000	190	90	1600	LC-ESI/MS/MS	30
	Venlafaxine	93413-69-5	ng/l	210	220	210	300	200	270	2.7	11	LC-ESI/MS/MS	30
	Verapamil	52-53-9	ng/l	35	2.3	11	11	4.1	16	<4.9	<4.3	LC-ESI/MS/MS	30
	1,1-DCE, 1,1-Dichloroethene	75-35-4	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	DCM, Dichloromethane	75-09-2	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	C-l,2-DCE, cis-1,2-dichloroethylene	156-59-2	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	T-1,2-DCE, trans-1,2-dichloroethylene	156-60-5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	TCM, Chloroform	67-66-3	µg/l	0.27	0.37	0.24	0.34	0.43	0.38	<0.20	<0.20	P&T-GC-MS	30
	1,2-DCEt, 1,2-Dichloroethane	107-06-2	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	TTCM, Tetrachloromethane	56-23-5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	TCE, Trichloroethylene	79-01-6	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	Benzen	71-43-2	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	Toluen	108-88-3	µg/l	<0.20	0.20	<0.20	<0.20	2.9	<0.20	<0.20	<0.20	P&T-GC-MS	30
	Xylen, sum of xylens	1330-20-7	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	1,4-X, 1,4-xylen + 1,3-xylen	106-42-3, 108-38-3	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	1,2-X, 1,2-xylene	95-47-6	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	EtB, Ethylbenzene	100-41-4	µg/l	<0.20	<0.20	<0.20	<0.20	0.84	<0.20	<0.20	<0.20	P&T-GC-MS	30
	Styren	100-42-5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	TTCE, Tetrachloroethene	127-18-4	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	CB, Chlorobenzene	108-90-7	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	1,3-DCB, 1,3-Dichlorobenzene	541-73-1	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	1,4-DCB	106-46-7	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	1,2-DCB	95-50-1	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30
	MTBE, Methyl tert-butyl ether	1634-04-4	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	48.0	75.0	P&T-GC-MS	30
	Izopropylbenzen	98-82-8	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	P&T-GC-MS	30

	BTEX	-	µg/l	<0.20	0.2	<0.20	<0.20	3.7	<0.20	<0.20	<0.20	P&T-GC-MS	30
	PCB 28	7012-37-5	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	1.4	GC-MS/MS	30
	PCB 52	35693-99-3	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	GC-MS/MS	30
	PCB 101	37680-73-2	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PCB 118	31508-00-6	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PCB 138	35065-28-2	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PCB 153	35065-27-1	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PCB 180	35065-29-3	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PCB 194	35694-08-7	ng/l	<1	<1	<1	<1	<1	<1	<1	<1	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	HCB	118-74-1	ng/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	PentaCB	608-93-5	ng/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Beta-HCH	319-85-7	ng/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	Gamma-HCH	58-89-9	ng/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	Delta-HCH	319-86-8	ng/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	p,p-DDE	72-55-9	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	o,p-DDD	53-19-0	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	p,p-DDD	72-54-8	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	o,p-DDT	789-02-6	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	p,p-DDT	50-29-3	ng/l	<3	<3	<3	<3	<3	<3	<3	<3	GC-MS/MS	30
	MethoxyCl	72-43-5	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Aldrin	309-00-2	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Dieldrin	60-57-1	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Endrin	72-20-8	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Isodrin	465-73-6	ng/l	<5	<5	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng/l	<10	<10	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	PBDE28	41318-75-6	ng/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE47	5436-43-1	ng/l	0.48	1.0	<0.20	1.6	1.4	<0.20	0.7	0.7	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng/l	0.24	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE 99	60348-60-9	ng/l	1.5	0.7	<0.20	0.3	0.7	<0.20	0.5	0.5	GC-MS/MS	30
	PBDE154	207122-15-4	ng/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE153	68631-49-2	ng/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE183	207122-16-5	ng/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	DecaMeTetrasiloxan	141-62-8	ng/l	<20	130.0	<20	<20	90	<20	<20	35.0	GC-MS/MS	30
	DodecaMePentasiloxan	141-63-9	ng/l	30.0	370.0	<20	<20	320	<20	<20	49.0	GC-MS/MS	30
	OcMeTrisiloxan	107-51-7	ng/l	<20	56.0	<20	<20	105	<20	<20	<20	GC-MS/MS	30

Matrix: passive sampling POCIS in municipal wastewater and in runoff water from landfill

No.	Parameter	CAS-number	Unit of measure	Site: VEAS, Slemmestad, waste water			Site: HIAS, Hamar, waste water			Site: ROAF landfill, Romerike, run-off water			Analysis method	Measure uncer-tainty (%)
				Sample period			Sample period			Sample period				
				07.06.-26.06.17		14.08.-04.09.17	06.06.-27.06.17		15.08.-05.09.17	06.06.-27.06.17	15.08.-05.09.17	15.08.-05.09.17		
				Outlet	Control	Outlet	Outlet	Control	Outlet	Outlet	Outlet	Control		
	Main parameters													
1	TTBfenol	732-26-3	ng/POCIS	<24	<17	<20	<19	<16	<18	89	96		LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng/POCIS	9.5	<0.088	9.8	18	<0.087	37	150	110		LC-ESI/MS/MS	30
3	Tebukonazol	107534-96-3	ng/POCIS	11	<0.097	11	650	<0.12	400	170	130		LC-ESI/MS/MS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng/POCIS	8.6	<1.1	7.2	11	<2.1	13	700	140		LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng/SPMD	9900	230	11000	8600		9500	6600	8500	26	GC-MS/MS	50
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6												
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8												
8	Phenol, heptyl derivs.	72624-02-3												
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng/POCIS	0.25	<0.15	<0.17	0.59	<0.13	<0.19	<0.36	<0.22		LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng/POCIS	67	4.9	51	220	6.2	210	4100	840		LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng/POCIS	<31	<22	<26	<30	<25	<29	500	150		LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8												
13	Isopentyl p-methoxycinnamate	71617-10-2	ng/POCIS	<0.53	<0.39	<0.52	<0.57	<0.35	<0.57	<0.79	<0.56		LC-ESI/MS/MS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng/POCIS	<28	<20	<27	<31	<16	<31	<37	<26		LC-ESI/MS/MS	30
15	Galaxolide with metabolites	1222-05-5	ng/SPMD	38000	1100	40000	33000		37000	24000	35000	120	GC-MS/MS	50
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE, Iso E	54464-57-2	ng/SPMD	63000	7300	58000	54000		67000	13000	25000	230	GC-MS/MS	50
17	Buprenorphin	52485-79-7	ng/POCIS	2.6	<0.044	3.4	7.7	<0.064	<0.6	<0.66	<0.37		LC-ESI/MS/MS	30
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9												
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0												
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2												
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4												
22	Resorcinol	108-46-3	ng/POCIS	<34	<25	<28	<30	<35	<30	<93	<57		LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1												
24	Diethylmethylbenzenediamine	68479-98-1	ng/POCIS	8.4	<0.11	7.4	0.87	<0.16	1.4	51	220		LC-ESI/MS/MS	30
25	Surfadone	2687-96-9	ng/POCIS	<0.21	0.46	<0.21	4.9	0.24	4.5	0.23	<0.13		LC-ESI/MS/MS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng/POCIS	<17	<12	<14	<15	<12	<15	<31	<19		LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)													
	Additional parameters													
	Galaxolide	1222-05-5	ng/SPMD	38000	1100	40000	33000		37000	24000	35000	120	GC-MS/MS	50
	Tonalide	1506-02-1	ng/SPMD	9900	230	11000	8600		9500	6600	8500	26	GC-MS/MS	50
	Musk ketone	81-14-1	ng/SPMD	89	<20	110	62		55	<20	<20	<20	GC-MS/MS	50
	Musk xylen	81-15-2	ng/SPMD	<20	<20	<20	<20		<20	<20	<20	<20	GC-MS/MS	50
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Am	83-66-9	ng/SPMD	<20	<20	<20	<20		<20	<20	<20	<20	GC-MS/MS	50
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk Moskene	116-66-5	ng/SPMD	<20	<20	<20	<20		<20	<20	<20	<20	GC-MS/MS	50
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, M	145-39-1	ng/SPMD	<20	<20	<20	<20		<20	<20	<20	<20	GC-MS/MS	50
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, C	33704-61-9	ng/SPMD	280	250	550	180		650	42	120	<20	GC-MS/MS	50
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)etha	88401-65-4/13171-00-1	ng/SPMD	38	<20	49	39		42	62	45	<20	GC-MS/MS	50
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Pha	15323-35-0	ng/SPMD	24	<20	24	20		<20	<20	<20	<20	GC-MS/MS	50
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan, Traseoli	68140-48-7	ng/SPMD	160	<20	160	76		100	200	120	<20	GC-MS/MS	50
	Bisphenol A	80-05-7	ng/POCIS	280	<0.78	110	2100	<0.39	1200	10000	1100		LC-APPI/HRPS	30

	Bisphenol BP	1844-01-5	ng/POCIS	<1.5	<1.1	<1.3	<1.5	<1.7	<1.5	<4.6	<2.9		LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng/POCIS	<0.6	<0.44	<0.51	<0.58	<0.64	<0.56	<1.7	<1.1		LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng/POCIS	<1.3	<0.94	<1.1	<1.3	<1.4	<1.3	<3.6	<2.2		LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng/POCIS	<0.86	<0.63	<0.73	<0.82	<0.68	<0.79	8.2	<1.1		LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng/POCIS	<25	<18	<21	48	<11	42	54	<19		LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng/POCIS	<8	<5.8	<6.7	<9.7	<8.6	<9.4	<23	<14		LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng/POCIS	<20	<15	<17	<18	<14	<17	<39	<24		LC-APPI/HRPS	30
	Alfuzosin	81403-80-7	ng/POCIS	0.54	<0.18	0.83	<0.57	<0.21	<0.59	<0.37	1.4		LC-ESI/MS/MS	30
	Amitryptyline	50-48-6	ng/POCIS	66	<0.29	69	84	<0.17	120	9.1	8.7		LC-ESI/MS/MS	30
	Atorvastatin	134523-00-5	ng/POCIS	52	<0.16	110	370	<0.15	360	7	13		LC-ESI/MS/MS	30
	Azithromycin	83905-01-5	ng/POCIS	170	0.17	140	73	0.38	65	9.9	12		LC-ESI/MS/MS	30
	Bezafibrate	41859-67-0	ng/POCIS	4.1	<0.096	5	7.7	<0.15	3.6	<1	<0.85		LC-ESI/MS/MS	30
	Bisoprolol	66722-44-9	ng/POCIS	31	<0.13	40	63	<0.16	63	0.38	0.41		LC-ESI/MS/MS	30
	Caffeine	58-08-2	ng/POCIS	2400	23	3200	3600	8.8	3200	56	40		LC-ESI/MS/MS	30
	Carbamazepine	298-46-4	ng/POCIS	250	<0.11	290	530	<0.12	510	130	230		LC-ESI/MS/MS	30
	Citalopram	59729-33-8	ng/POCIS	120	<0.053	150	210	<0.079	230	11	23		LC-ESI/MS/MS	30
	Clarithromycin	81103-11-9	ng/POCIS	120	0.29	120	33	<0.21	34	<1.3	<0.89		LC-ESI/MS/MS	30
	Clemastine	15686-51-8	ng/POCIS	<0.092	<0.024	<0.1	<0.14	<0.023	<0.14	<0.16	<0.13		LC-ESI/MS/MS	30
	Clindamycin	81103-11-9	ng/POCIS	79	<0.16	95	56	<0.19	62	7.3	8.6		LC-ESI/MS/MS	30
	Clindamycin sulfoxide	22431-46-5	ng/POCIS	54	<0.41	61	84	<0.47	69	0.92	0.73		LC-ESI/MS/MS	30
	Clomipramine	303-49-1	ng/POCIS	0.78	<0.045	1.2	1.1	<0.055	1.7	<0.37	<0.31		LC-ESI/MS/MS	30
	Clonazepam	1622-61-3	ng/POCIS	<0.24	<0.16	<0.25	<0.24	<0.2	<0.28	<0.43	<0.36		LC-ESI/MS/MS	30
	Diclofenac	15307-86-5	ng/POCIS	310	<0.31	460	770	<0.5	780	64	83		LC-ESI/MS/MS	30
	Diltiazem	42399-41-7	ng/POCIS	43	<0.051	54	57	<0.053	44	<0.36	<0.31		LC-ESI/MS/MS	30
	Diphenhydramine	58-73-1	ng/POCIS	34	<0.042	44	10	<0.049	12	<0.33	1.1		LC-ESI/MS/MS	30
	Disopyramide	3737-09-05	ng/POCIS	3.6	<0.064	4.5	22	<0.068	25	<0.12	<0.11		LC-ESI/MS/MS	30
	Erythromycin	114-07-8	ng/POCIS	410	<0.19	130	220	<0.49	160	6.5	6.2		LC-ESI/MS/MS	30
	Fenofibrate	49562-28-9	ng/POCIS	<0.42	<0.11	<0.46	<0.6	<0.098	<0.6	<0.66	<0.56		LC-ESI/MS/MS	30
	Fexofenadine	83799-24-0	ng/POCIS	1000	<0.12	870	4200	<0.17	3500	24	57		LC-ESI/MS/MS	30
	Glibenclamide	10238-21-8	ng/POCIS	0.13	<0.02	<0.084	<0.1	<0.029	<0.1	<0.19	<0.16		LC-ESI/MS/MS	30
	Glimepiride	93479-97-1	ng/POCIS	0.14	<0.035	0.24	0.78	<0.05	0.39	<0.34	<0.29		LC-ESI/MS/MS	30
	Haloperidol	52-86-8	ng/POCIS	<0.3	<0.078	<0.33	<0.49	<0.085	<0.49	<0.57	<0.49		LC-ESI/MS/MS	30
	Irbesartan	138402-11-6	ng/POCIS	460	<0.061	570	2100	<0.078	2000	14	27		LC-ESI/MS/MS	30
	Loperamide	53179-11-6	ng/POCIS	2.4	<0.032	2.7	4.9	<0.028	5	5	4.8		LC-ESI/MS/MS	30
	Memantine	19982-08-2	ng/POCIS	9.8	<0.11	11	27	<0.17	24	0.3	0.26		LC-ESI/MS/MS	30
	Metoprolol	51384-51-1	ng/POCIS	670	<0.24	820	1500	<0.29	1500	30	34		LC-ESI/MS/MS	30
	Metoprolol acid	56392-14-4	ng/POCIS	160	<0.18	170	210	<0.14	210	36	21		LC-ESI/MS/MS	30
	Mirtazapine	61337-67-5	ng/POCIS	84	<0.21	88	140	<0.25	170	66	81		LC-ESI/MS/MS	30
	N-Desmethylcitalopram	144025-14-9	ng/POCIS	65	<0.061	87	130	<0.079	130	6.8	13		LC-ESI/MS/MS	30
	Norsertraline	87857-41-8	ng/POCIS	37	<0.063	41	53	<0.088	68	65	45		LC-ESI/MS/MS	30
	O-Desmethylvenlafaxine	93413-62-8	ng/POCIS	260	<0.23	300	490	<0.26	610	5.2	42		LC-ESI/MS/MS	30
	Orphenadrine	83-98-7	ng/POCIS	1.3	<0.047	1.8	0.68	<0.052	1.4	<0.35	<0.3		LC-ESI/MS/MS	30
	Oxazepam	604-75-1	ng/POCIS	660	<0.19	810	1400	<0.15	1500	23	75		LC-ESI/MS/MS	30
	Rosuvastatin	287714-41-4	ng/POCIS	<0.14	<0.021	<0.23	<0.19	<0.008	<0.17	<0.072	<0.096		LC-ESI/MS/MS	30
	Roxithromycin	80214-83-1	ng/POCIS	2	<0.13	2.2	1.1	<0.14	<0.81	<0.85	<0.58		LC-ESI/MS/MS	30
	Sertraline	79617-96-2	ng/POCIS	21	<0.052	24	26	<0.074	40	35	38		LC-ESI/MS/MS	30
	Sulfamethazine	57-68-1	ng/POCIS	<0.75	<0.32	<0.75	<1.1	<0.28	<1.1	2.1	0.92		LC-ESI/MS/MS	30
	Sulfamethoxazole	723-46-6	ng/POCIS	130	<0.25	160	180	<0.3	160	<0.98	<0.98		LC-ESI/MS/MS	30
	Sulfapyridine	144-83-2	ng/POCIS	120	10	130	180	5.4	160	6.6	3.3		LC-ESI/MS/MS	30
	Terbinafine	91161-71-6	ng/POCIS	9.2	<0.039	9.8	9.9	<0.043	8.3	4.9	3.0		LC-ESI/MS/MS	30
	Tramadol	27203-92-5	ng/POCIS	290	<0.17	340	860	0.26	810	5.8	7.6		LC-ESI/MS/MS	30
	Trimethoprim	738-70-5	ng/POCIS	210	<0.17	280	260	<0.19	290	7.7	11		LC-ESI/MS/MS	30
	Valsartan	137862-53-4	ng/POCIS	1100	<0.12	1300	16000	<0.19	16000	77	64		LC-ESI/MS/MS	30

	Venlafaxine	93413-69-5	ng/POCIS	180	<0.075	210	350	<0.092	360	6.0	16	LC-ESI/MS/MS	30
	Verapamil	52-53-9	ng/POCIS	26	<0.23	29	12	<0.11	17	0.64	0.95	LC-ESI/MS/MS	30
	PCB 28	7012-37-5	ng/SPMD	1.4	<0.5	1.7	0.5		0.6	32.0	28.0	<0.5 GC-MS/MS	50
	PCB 52	35693-99-3	ng/SPMD	1.0	<0.5	1.4	<0.5		<0.5	14.0	11.0	<0.5 GC-MS/MS	50
	PCB 101	37680-73-2	ng/SPMD	0.7	<0.5	0.9	<0.5		<0.5	3.3	2.5	<0.5 GC-MS/MS	50
	PCB 118	31508-00-6	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	1.7	1.4	<0.5 GC-MS/MS	50
	PCB 138	35065-28-2	ng/SPMD	<0.5	<0.5	0.8	0.6		0.5	1.4	1.2	<0.5 GC-MS/MS	50
	PCB 153	35065-27-1	ng/SPMD	0.6	<0.5	1.0	0.7		<0.5	1.8	1.8	<0.5 GC-MS/MS	50
	PCB 180	35065-29-3	ng/SPMD	<0.5	<0.5	0.5	0.6		<0.5	0.6	0.7	<0.5 GC-MS/MS	50
	PCB 194	35694-08-7	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5 GC-MS/MS	50
	Alfa-HCH	319-84-6	ng/SPMD	0.5	<0.5	<0.5	<0.5		<0.5	0.8	0.7	<0.5 GC-MS/MS	50
	HCB	118-74-1	ng/SPMD	3.5	0.6	3.7	1.4		1.6	2.8	3.0	<0.5 GC-MS/MS	50
	PentaCB	608-93-5	ng/SPMD	1.4	<0.5	1.5	0.9		0.9	4.8	4.8	<0.5 GC-MS/MS	50
	Beta-HCH	319-85-7	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5 GC-MS/MS	50
	Gama-HCH	58-89-9	ng/SPMD	1.3	<0.5	1.7	1.8		1.0	4.6	3.6	<0.5 GC-MS/MS	50
	Delta-HCH	319-86-8	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5 GC-MS/MS	50
	o,p-DDE	3424-82-6	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5 GC-MS/MS	50
	p,p-DDE	72-55-9	ng/SPMD	1.9	1.3	2.5	0.8		1.0	1.5	1.7	0.6 GC-MS/MS	50
	o,p-DDD	53-19-0	ng/SPMD	8.5	<0.5	4.2	<0.5		<0.5	1.8	2.1	<0.5 GC-MS/MS	50
	p,p-DDD	72-54-8	ng/SPMD	0.6	<0.5	0.8	<0.5		<0.5	1.9	1.8	<0.5 GC-MS/MS	50
	o,p-DDT	789-02-6	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	0.6	0.5	<0.5 GC-MS/MS	50
	p,p-DDT	50-29-3	ng/SPMD	0.9	0.6	1.3	<0.5		0.8	1.8	1.1	<0.5 GC-MS/MS	50
	MethoxyCl	72-43-5	ng/SPMD	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	<0.5 GC-MS/MS	50
	Aldrin	309-00-2	ng/SPMD	<1	<1	<1	<1		<1	<1	<1	<1 GC-MS/MS	50
	Dieldrin	60-57-1	ng/SPMD	<2	<2	<2	<2		<2	6	9	<2 GC-MS/MS	50
	Endrin	72-20-8	ng/SPMD	<2.0	<2.0	<2.0	<2.0		<2.0	<2.0	<2.0	<2.0 GC-MS/MS	50
	Isodrin	465-73-6	ng/SPMD	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0 GC-MS/MS	50
	Chlorpyrifos	2921-88-2	ng/SPMD	15.0	<0.5	15.0	5.8		5.9	4.3	4.9	<0.5 GC-MS/MS	50
	PBDE28	41318-75-6	ng/SPMD	<0.20	<0.20	<0.20	<0.20		<0.20	<0.20	0.28	<0.20 GC-MS/MS	50
	PBDE47	5436-43-1	ng/SPMD	1.30	<0.20	2.00	0.51		0.60	2.50	4.10	<0.20 GC-MS/MS	50
	PBDE 1OO	189084-64-8	ng/SPMD	<0.20	<0.20	<0.20	<0.20		<0.20	0.20	0.45	<0.20 GC-MS/MS	50
	PBDE 99	60348-60-9	ng/SPMD	<0.20	<0.20	0.72	<0.20		<0.20	1.80	2.70	<0.20 GC-MS/MS	50
	PBDE154	207122-15-4	ng/SPMD	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50 GC-MS/MS	50
	PBDE153	68631-49-2	ng/SPMD	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50 GC-MS/MS	50
	PBDE183	207122-16-5	ng/SPMD	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50 GC-MS/MS	50
	13-C12-PCB1	-	ng/SPMD	7.0	21.0	7.3	13.0		11.0	9.6	6.2	21.0 GC-MS/MS	50
	13-C12-PCB8	-	ng/SPMD	23.0	34.0	25.0	31.0		28.0	30.0	26.0	34.0 GC-MS/MS	50
	13-C12-PCB37	-	ng/SPMD	29.0	39.0	32.0	38.0		34.0	39.0	37.0	36.0 GC-MS/MS	50
	13-C12-PCB54	-	ng/SPMD	20.0	26.0	19.0	24.0		22.0	23.0	25.0	25.0 GC-MS/MS	50
	Acenaphthene D10	83-32-9	ng/SPMD	240.0	1300.0	195.0	590.0		470.0	320.0	92.0	1300.0 GC-MS/MS	50
	Fluorene D10	86-73-7	ng/SPMD	510.0	1950.0	460.0	1100.0		880.0	810.0	240.0	1890.0 GC-MS/MS	50
	Phenanthrene D10	85-01-8	ng/SPMD	630.0	1100.0	630.0	920.0		800.0	650.0	230.0	1100.0 GC-MS/MS	50
	Chrysene D12	218-01-9	ng/SPMD	1340.0	1480.0	1430.0	1490.0		1430.0	1290.0	1360.0	1350.0 GC-MS/MS	50
	Octachloronaphthalen	2234-13-1	ng/SPMD	92.0	95.0	90.0	92.0		93.0	91.0	92.0	89.0 GC-MS/MS	50

Matrix: sludge from municipal waste water

No.	Parameter	CAS-number	Unit of measure	Site: VEAS, Slemmestad			Site: HIAS, Hamar			Analysis method	Measure uncer-tainty (%)
				Sample period			Sample period				
				19.-23.06.17	14.08.-18.08.17	28.08.-01.09.17	19.-23.06.17	14.08-18.08.17	28.08-01.09.17		
	Main parameters										
1	TTBfenol	732-26-3	ng.g^{-1} dw	<45	<58	<40	<93	<77	<59	LC-APPI/HRPS	30
2	Propikonazol	60207-90-1	ng.g^{-1} dw	5.1	5.2	8.1	5	7.4	8.8	LC-ESI/MS/MS	30
Waste	Tebukonazol	107534-96-3	ng.g^{-1} dw	6.3	4.3	4.1	390	280	290	LC-ESI/MS/MS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	<1.8	<2.3	<1.6	6.9	35	14	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng.g^{-1} dw	7800	7000	5900	10000	11000	10000	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3									
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	310	410	240	2700	2900	1900	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	110	150	91	390	210	140	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<2.1	<2.7	<1.9	<3.1	<2.6	<2	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8	ng.g^{-1} dw								
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<1.4	<1.7	<1.4	<1.5	<1.2	<1.2	LC-ESI/MS/MS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<0.72	5.6	2	<0.96	<0.61	<0.78	LC-ESI/MS/MS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	8100	7400	6800	12000	14000	13000	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE), Iso E	54464-57-2	ng.g^{-1} dw	11000	11000	11000	16000	18000	17000	GC-MS/MS	30
17	Buprenorphin	52485-79-7	ng.g^{-1} dw	1.3	1.5	1	4.4	5.2	4.2	LC-ESI/MS/MS	30
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9									
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0									
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2									
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4									
22	Resorcinol	108-46-3	ng.g^{-1} dw	<12	<15	<10	<19	<16	<12	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.15	<0.18	<0.16	25	11	5.1	LC-ESI/MS/MS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	160	170	110	60	76	62	LC-ESI/MS/MS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	2500	3300	1900	310	480	260	LC-APPI/HRPS	30

27	Bentrimonium (ATAC-C20 og ATAC-C22)										
	Additional parameters										
	Galaxolide	1222-05-5	ng.g^{-1} dw	8100	7400	6800	12000	14000	13000	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	7800	7000	5900	10000	11000	10000	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylene	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk Moskene	116-66-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	270	600	720	94	560	750	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng.g^{-1} dw	<20	27	21	23	27	29	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	32	38	32	43	47	43	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	330	510	290	3400	3000	1700	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<0.95	<1.2	<0.85	<1.4	<1.2	<0.91	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	<0.26	<0.34	<0.23	<0.38	<0.32	<0.24	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<1.4	<1.9	<1.3	<2.1	<1.8	<1.3	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<3	<3.9	<2.7	<4.5	<3.8	<2.9	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	7.8	10	7.3	190	150	96	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	<17	<22	<15	<39	<33	<25	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<1.9	<2.5	<1.7	<3	<2.5	<1.9	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Hexamethylcyclotrisiloxane	541-05-9	ng.g^{-1} dw	230	200	270	340	260	350	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	43	63	38	36	22	27	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	630	560	590	530	820	590	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	305	235	245	150	125	135	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	<0.26	<0.31	<0.29	<0.41	<0.33	<0.29	LC-ESI/MS/MS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	120	140	110	280	270	230	LC-ESI/MS/MS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	1400	1300	740	94	190	160	LC-ESI/MS/MS	30

	Azithromycin	83905-01-5	ng.g^{-1} dw	140	130	170	3.6	4.9	5.4	LC-ESI/MS/MS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	<0.045	<0.057	<0.058	<0.091	<0.078	<0.088	LC-ESI/MS/MS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	<0.21	<0.24	<0.21	0.83	1.2	0.88	LC-ESI/MS/MS	30
	Caffeine	58-08-2	ng.g^{-1} dw	47	67	57	9.4	9.2	9	LC-ESI/MS/MS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	320	350	290	620	650	590	LC-ESI/MS/MS	30
	Citalopram	59729-33-8	ng.g^{-1} dw	110	130	92	690	900	800	LC-ESI/MS/MS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	8.1	4.5	2.2	2.9	5	3.8	LC-ESI/MS/MS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<2.2	<2.6	<2.4	<2.5	<2.5	<2.5	LC-ESI/MS/MS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	10	15	11	<0.28	0.26	0.23	LC-ESI/MS/MS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	1.3	1.6	1.2	<0.17	<0.12	<0.12	LC-ESI/MS/MS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	6.1	6.3	2.6	3.5	12	5.4	LC-ESI/MS/MS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	<0.066	<0.083	<0.085	<0.14	<0.11	<0.13	LC-ESI/MS/MS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	26	30	28	49	43	43	LC-ESI/MS/MS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.19	<0.22	<0.2	<0.47	<0.47	<0.48	LC-ESI/MS/MS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	11	14	10	3	4.2	4.1	LC-ESI/MS/MS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.2	<0.24	<0.22	0.32	0.43	0.34	LC-ESI/MS/MS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	<0.027	<0.029	<0.044	<0.062	<0.044	0.57	LC-ESI/MS/MS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<0.12	2.1	2.6	<0.18	<0.11	<0.15	LC-ESI/MS/MS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	3900	3700	1500	1300	1900	1200	LC-ESI/MS/MS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.15	0.2	0.27	<0.17	<0.11	<0.14	LC-ESI/MS/MS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.033	<0.037	<0.058	<0.036	<0.023	<0.029	LC-ESI/MS/MS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	0.42	0.56	0.27	<0.51	<0.51	<0.51	LC-ESI/MS/MS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	18	20	11	31	21	12	LC-ESI/MS/MS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	11	13	6.6	11	27	15	LC-ESI/MS/MS	30
	Memantine	19982-08-2	ng.g^{-1} dw	1.1	1.2	0.95	3.5	2.9	2.3	LC-ESI/MS/MS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	52	98	79	<-3.5	<-3.2	<-3	LC-ESI/MS/MS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	9.3	5.1	4.1	6.3	6.3	6.1	LC-ESI/MS/MS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	13	17	12	65	75	62	LC-ESI/MS/MS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	25	25	21	110	140	130	LC-ESI/MS/MS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<0.0084	<0.0093	<0.015	<0.023	<0.014	<0.018	LC-ESI/MS/MS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	5.8	4.9	3.3	8.8	11	12	LC-ESI/MS/MS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	0.33	0.51	0.32	<0.49	0.62	0.57	LC-ESI/MS/MS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	7.3	11	8.7	1.6	2.4	2.3	LC-ESI/MS/MS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	1.5	1.6	1.6	4.3	3.4	3	LC-ESI/MS/MS	30

	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.16	0.28	<0.27	<0.47	<0.33	<0.44	LC-ESI/MS/MS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	84	84	60	100	160	100	LC-ESI/MS/MS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<0.39	<0.44	<0.42	<1.5	<1.1	<1	LC-ESI/MS/MS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	0.78	<0.83	0.75	<0.73	0.97	0.74	LC-ESI/MS/MS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	22	19	17	60	51	46	LC-ESI/MS/MS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	640	740	670	150	190	160	LC-ESI/MS/MS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	4.4	6	4.9	11	11	8.6	LC-ESI/MS/MS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	0.58	0.84	0.8	<0.73	<0.55	<0.51	LC-ESI/MS/MS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	250	240	160	220	320	170	LC-ESI/MS/MS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	54	92	62	48	60	65	LC-ESI/MS/MS	30
	Verapamil	52-53-9	ng.g^{-1} dw	13	19	18	2	1.8	1.3	LC-ESI/MS/MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	61	38	36	27	39	46	SPME-GC-MS	30
	Xylen	1330-20-7	ng.g^{-1} dw	<20	<20	<20	25	40	40	SPME-GC-MS	30
	1,4-xylen	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	25	40	40	SPME-GC-MS	30
	1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	CB	108-90-7	ng.g^{-1} dw							SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	1.4	1.1	1.2	1.4	1.9	1.8	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	1.6	1.6	1.5	2.3	2.7	2.4	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	1.8	1.8	1.7	2.7	3.0	2.8	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	1.5	1.5	1.5	2.7	3.1	2.9	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	3.3	2.7	2.8	3.7	4.0	4.3	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	3.8	3.1	3.1	3.8	4.1	4.4	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	1.8	1.3	1.2	1.5	1.6	1.8	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	<1	<1	<1	<1	<1	<1	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	1.7	1.4	1.7	2.1	2.1	1.9	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30

	o,p-DDE	3424-82-6	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	3.1	<3.0	3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	6.7	7.5	4.3	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Isodrin	465-73-6	ng.g^{-1} dw	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<3.0	<3.0	3.7	<3.0	<3.0	<3.0	GC-MS/MS	30
	PBDE28	41318-75-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	3.3	3.4	3.6	5.2	6.4	6.1	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	0.6	0.6	0.6	1.1	1.2	1.1	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	3.6	3.1	2.9	5.0	5.4	4.5	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	62	66	76	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: sediment

No.	Parameter	CAS-number	Unit of measure	Site: Indre Oslofjorden	Site: Lake Mjøsa	Analysis method	Measure uncer-tainty (%)
				Sample date	Sample date		
				30.08.17	08.08.17		
	Main parameters						
1	TTBfenol	732-26-3	ng.g^{-1} dw	<27	<40	LC-APPI/HRPS	30
2	Propikonazol	60207-90-1	ng.g^{-1} dw	<0.29	<0.17	LC-ESI/MS/MS	30
Waste	Tebukonazol	107534-96-3	ng.g^{-1} dw	<0.16	<0.098	LC-ESI/MS/MS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	<1.1	<1.1	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-1	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3					
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	7.8	0.58	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	13	2.7	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<1.3	<1.3	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8					
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<0.4	<0.34	LC-ESI/MS/MS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<0.79	<0.47	LC-ESI/MS/MS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
17	Buprenorphin	52485-79-7	ng.g^{-1} dw	<0.11	<0.057	LC-ESI/MS/MS	30
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9					
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0					

20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2					
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4					
22	Resorcinol	108-46-3	ng.g^{-1} dw	<7.1	<8.1	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.087	<0.086	LC-ESI/MS/MS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	<0.26	<0.13	LC-ESI/MS/MS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	<30	<31	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)						
	Additional parameters						
	Galaxolide	1222-05-5	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk Moskene	116-66-5	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	6.4	1.6	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<0.58	<0.61	LC-APPI/HRPS	30

	Bisphenol TMC	129188-99-4	$ng.g^{-1}$ dw	<0.16	<0.16	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	$ng.g^{-1}$ dw	<0.87	<0.9	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	$ng.g^{-1}$ dw	<1.8	<1.9	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	$ng.g^{-1}$ dw	<0.8	<2.7	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	$ng.g^{-1}$ dw	<10	<17	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	$ng.g^{-1}$ dw	<1.2	<1.3	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	$ng.g^{-1}$ dw	<20	<20	SPME-GC-MS	30
	Hexamethylcyclotrisiloxane	541-05-9	$ng.g^{-1}$ dw	<100	<100	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	$ng.g^{-1}$ dw	<20	<20	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	$ng.g^{-1}$ dw	710	<20	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	$ng.g^{-1}$ dw	250	<20	SPME-GC-MS	30
	Alfuzosin	81403-80-7	$ng.g^{-1}$ dw	<0.13	<0.13	LC-ESI/MS/MS	30
	Amitryptyline	50-48-6	$ng.g^{-1}$ dw	0.81	0.24	LC-ESI/MS/MS	30
	Atorvastatin	134523-00-5	$ng.g^{-1}$ dw	<2.4	<1.2	LC-ESI/MS/MS	30
	Azithromycin	83905-01-5	$ng.g^{-1}$ dw	0.38	<0.085	LC-ESI/MS/MS	30
	Bezafibrate	41859-67-0	$ng.g^{-1}$ dw	<0.17	<0.074	LC-ESI/MS/MS	30
	Bisoprolol	66722-44-9	$ng.g^{-1}$ dw	<0.12	<0.11	LC-ESI/MS/MS	30
	Caffeine	58-08-2	$ng.g^{-1}$ dw	12	7.8	LC-ESI/MS/MS	30
	Carbamazepine	298-46-4	$ng.g^{-1}$ dw	1.2	2.4	LC-ESI/MS/MS	30
	Citalopram	59729-33-8	$ng.g^{-1}$ dw	0.39	0.3	LC-ESI/MS/MS	30
	Clarithromycin	81103-11-9	$ng.g^{-1}$ dw	<0.4	<0.74	LC-ESI/MS/MS	30
	Clemastine	15686-51-8	$ng.g^{-1}$ dw	<1.2	<0.58	LC-ESI/MS/MS	30
	Clindamycin	81103-11-9	$ng.g^{-1}$ dw	<0.14	<0.26	LC-ESI/MS/MS	30
	Clindamycin sulfoxide	22431-46-5	$ng.g^{-1}$ dw	<0.083	<0.15	LC-ESI/MS/MS	30
	Clomipramine	303-49-1	$ng.g^{-1}$ dw	<0.16	<0.079	LC-ESI/MS/MS	30
	Clonazepam	1622-61-3	$ng.g^{-1}$ dw	<0.25	<0.11	LC-ESI/MS/MS	30

	Diclofenac	15307-86-5	ng.g^{-1} dw	<1	<0.46	LC-ESI/MS/MS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.098	<0.049	LC-ESI/MS/MS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	<0.14	0.079	LC-ESI/MS/MS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.098	<0.098	LC-ESI/MS/MS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	0.086	0.025	LC-ESI/MS/MS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<0.13	<0.08	LC-ESI/MS/MS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	4.7	0.57	LC-ESI/MS/MS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.16	<0.096	LC-ESI/MS/MS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.036	<0.021	LC-ESI/MS/MS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	<0.12	<0.059	LC-ESI/MS/MS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	0.15	0.15	LC-ESI/MS/MS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.77	<0.34	LC-ESI/MS/MS	30
	Memantine	19982-08-2	ng.g^{-1} dw	<0.12	0.2	LC-ESI/MS/MS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	1.2	2.5	LC-ESI/MS/MS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	<0.16	1.1	LC-ESI/MS/MS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	<0.16	<0.16	LC-ESI/MS/MS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	<0.14	0.13	LC-ESI/MS/MS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<0.065	<0.039	LC-ESI/MS/MS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.25	0.58	LC-ESI/MS/MS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.093	<0.046	LC-ESI/MS/MS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	4.0	4.6	LC-ESI/MS/MS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	<0.045	<0.027	LC-ESI/MS/MS	30
	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.17	<0.09	LC-ESI/MS/MS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	7.5	1.1	LC-ESI/MS/MS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<0.2	<0.19	LC-ESI/MS/MS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	<0.2	<0.17	LC-ESI/MS/MS	30

	Sulfapyridine	144-83-2	ng.g^{-1} dw	<0.35	0.37	LC-ESI/MS/MS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	6.4	<1.4	LC-ESI/MS/MS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	<0.22	0.46	LC-ESI/MS/MS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	<0.17	0.29	LC-ESI/MS/MS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	1.5	0.1	LC-ESI/MS/MS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	<0.3	0.49	LC-ESI/MS/MS	30
	Verapamil	52-53-9	ng.g^{-1} dw	0.23	<0.095	LC-ESI/MS/MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	Xylen	1330-20-7	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	1,4-xylen	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	EtB	100-41-4	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	TTCE	127-18-4	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	CB	108-90-7	ng.g^{-1} dw			SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	<1.0	<1.0	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	<1.0	<1.0	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	1.1	<1.0	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	2.2	<1.0	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	2.9	<1.0	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	2.9	<1.0	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	<1.0	<1.0	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	<1	<1	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<1.0	<1.0	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	<1.0	<1.0	GC-MS/MS	30

	PentaCB	608-93-5	$ng.g^{-1}$ dw	<1.0	<1.0	GC-MS/MS	30
	Beta-HCH	319-85-7	$ng.g^{-1}$ dw	<1.0	<1.0	GC-MS/MS	30
	Gama-HCH	58-89-9	$ng.g^{-1}$ dw	<1.0	<1.0	GC-MS/MS	30
	Delta-HCH	319-86-8	$ng.g^{-1}$ dw	<1.0	<1.0	GC-MS/MS	30
	o,p-DDE	3424-82-6	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	p,p-DDE	72-55-9	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	o,p-DDD	53-19-0	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	p,p-DDD	72-54-8	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	o,p-DDT	789-02-6	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	p,p-DDT	50-29-3	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	MethoxyCl	72-43-5	$ng.g^{-1}$ dw	<10	<10	GC-MS/MS	30
	Aldrin	309-00-2	$ng.g^{-1}$ dw	<5	<5	GC-MS/MS	30
	Dieldrin	60-57-1	$ng.g^{-1}$ dw	<10	<10	GC-MS/MS	30
	Endrin	72-20-8	$ng.g^{-1}$ dw	<10	<10	GC-MS/MS	30
	Isodrin	465-73-6	$ng.g^{-1}$ dw	<5	<5	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	$ng.g^{-1}$ dw	<3.0	<3.0	GC-MS/MS	30
	PBDE28	41318-75-6	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE47	5436-43-1	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE 1OO	189084-64-8	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE 99	60348-60-9	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE154	207122-15-4	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE153	68631-49-2	$ng.g^{-1}$ dw	<0.5	<0.5	GC-MS/MS	30
	PBDE183	207122-16-5	$ng.g^{-1}$ dw	<2.0	<2.0	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	$ng.g^{-1}$ dw	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	$ng.g^{-1}$ dw	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	$ng.g^{-1}$ dw	<20	<20	SPME-GC-MS	30

	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	SPME-GC-MS	30

Matrix: biota, rat

No.	Parameter	CAS-number	Unit of measure	Liver from rats, from three different locations											Analysis method	Measure uncer-tainty (%)
				Lindum landfill	Oslo city									ROAF landfill		
				09.10.17	19.09.17	20.09.17	01.09.17	01.09.17	01.09.17	08.09.17	01.09.17	22.09.17	22.09.17	26.09.16		
				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10	Sample 11		
	Main parameters															
1	TTBfenol	732-26-3	ng.g^{-1} dw	<650	<670	<620	<940	<650	<660	<700	<1400	<640	<620	<730	LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng.g^{-1} dw	<4.8	<4.5	<5.3	<7.7	<5.4	<4.7	<4.9	16	<4.6	<5.1	<4.9	LC-ESI/HRPS	30
3	Tebukonazol	107534-96-3	ng.g^{-1} dw	1.2	<0.7	<0.81	<1.2	<0.83	<0.73	<0.76	<1.4	<0.71	<0.78	<0.76	LC-ESI/HRPS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	<46	<47	<44	<66	<46	<46	<49	<100	<45	<44	<51	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-[illegible]	2144-53-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3														
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	8.2	<0.48	<0.45	<0.68	<0.47	<0.47	<0.51	<1	<0.46	<0.45	<0.52	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	14	10	15	<11	12	<7.4	19	<16	<7.3	10	11	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<4.5	<4.6	<4.3	<6.5	<4.5	<4.5	<4.9	<9.9	<4.4	<4.3	<5	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8														
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<4.7	<4.5	<5.2	<7.6	<5.3	<4.7	<4.9	<8.7	<4.6	<5	<4.9	LC-ESI/HRPS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<73	<70	<81	<120	<83	<73	<76	<140	<71	<78	<76	LC-ESI/HRPS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	<20	<20	<20	38	62	31	<20	<20	24	<20	25	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	<20	45	29	110	99	120	<20	<20	41	28	32	GC-MS/MS	30
17	Buprenorphin	52485-79-7														
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9														
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0														
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2														
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4														
22	Resorcinol	108-46-3	ng.g^{-1} dw	<46	<47	<44	<66	<46	<46	<49	<100	<45	<44	<51	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.3	<0.31	<0.32	<0.41	<0.3	<0.29	<0.25	1.1	<0.25	<0.25	<0.39	LC-ESI/HRPS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	<0.38	<0.36	<0.42	<0.62	<0.43	<0.38	<0.39	<0.7	<0.37	<0.4	<0.39	LC-ESI/HRPS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	<240	<250	<230	<350	<250	<250	<260	<540	<240	<230	<270	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)															
	Additional parameters															
	Galaxolide	1222-05-5	ng.g^{-1} dw	<20	<20	<20	38	62	31	<20	<20	24	<20	25	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30

	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng.g^{-1} dw	<20	<20	<20	36	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	24	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	24	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	180	99	<14	31	24	19	<16	49	23	<14	170	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<3.7	<3.8	<3.6	<5.4	<3.7	<3.8	<4	<8.2	<3.7	<3.6	<4.2	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	<4.6	<4.7	<4.4	<6.7	<4.7	<4.7	<5	<10	<4.5	<4.4	<5.2	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<4.1	<4.2	<4	<6	<4.1	<4.2	<4.4	<9.1	<4	<3.9	<4.6	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<1.5	<1.5	<1.4	<2.2	<1.5	<1.5	<1.6	<3.3	<1.5	<1.4	<1.7	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	12	<7.4	<7	<10	<7.3	<7.3	<7.8	<16	<7.1	<6.9	<8.1	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	<17	<17	<16	<24	<17	<17	<18	<37	<16	<16	<19	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<37	<37	<35	<53	<37	<37	<39	<80	<36	<35	<41	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	<50	<50	80	<50	60	54	<50	56	<50	72	75	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	<50	<50	<50	<50	63	60	<50	<50	<50	<50	150	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	<50	<50	<20	<50	<50	<50	<50	<50	<50	<50	58	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	<0.24	<0.27	<0.27	<0.37	<0.27	<0.27	<0.24	1.2	<0.24	<0.23	<0.33	LC-ESI/HRPS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	<0.34	<0.37	<0.4	<0.56	<0.39	<0.4	<0.34	<0.78	<0.35	<0.38	<0.43	LC-ESI/HRPS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	<0.75	<0.72	<0.76	<1.1	<0.73	<0.74	<0.46	<1.7	<0.57	<0.51	<0.53	LC-ESI/HRPS	30
	Azithromycin	83905-01-5	ng.g^{-1} dw	<0.53	<0.57	<0.62	<0.75	<0.59	<0.53	<0.52	<0.73	0.51	2.1	<0.66	LC-ESI/HRPS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	<0.37	<0.35	<0.37	<0.55	<0.36	<0.36	<0.23	<0.83	<0.28	<0.25	<0.26	LC-ESI/HRPS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	<0.36	<0.39	<0.4	<0.54	<0.39	<0.4	<0.35	<0.61	<0.35	<0.34	<0.47	LC-ESI/HRPS	30
	Caffeine	58-08-2	ng.g^{-1} dw	<120	<130	<130	<190	<140	4200	<110	<230	<110	<100	840	LC-ESI/HRPS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	<1.1	<1	<1.1	<1.6	<1.1	<1.1	<0.67	<2.4	<0.81	<0.73	<0.76	LC-ESI/HRPS	30
	Citalopram	59729-33-8	ng.g^{-1} dw	<1	<0.97	<1	<1.5	<0.99	<0.99	<0.62	<2.3	<0.76	<0.68	<0.72	LC-ESI/HRPS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	<2.6	<2.7	<2.8	<4.2	<2.6	<2.6	<2.3	<10	<2.3	<2.2	<2.3	LC-ESI/HRPS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<0.52	<0.5	<0.53	<0.78	<0.51	<0.52	<0.32	<1.2	<0.4	<0.35	<0.37	LC-ESI/HRPS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	<0.25	<0.27	<0.31	<0.39	<0.25	<0.27	<0.25	<0.47	<0.22	0.82	<0.32	LC-ESI/HRPS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	<2	<2.1	<2.4	<3	<2	<2.1	<1.9	<3.7	<1.8	<1.9	<2.5	LC-ESI/HRPS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	<1	<1	<1.1	<1.6	<1	<1	<0.65	<2.4	<0.79	<0.71	<0.74	LC-ESI/HRPS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	<0.26	<0.29	<0.34	<0.45	<0.28	<0.26	<0.28	<0.43	<0.23	<0.27	<0.3	LC-ESI/HRPS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	<3.4	<3.3	<3.5	<5.2	<3.4	<3.4	<2.1	<7.8	<2.6	<2.3	<2.4	LC-ESI/HRPS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.7	<0.68	<0.72	<1.1	<0.69	<0.69	<0.44	<1.6	<0.53	<0.48	<0.5	LC-ESI/HRPS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	<0.72	<0.69	<0.73	<1.1	<0.7	<0.71	<0.45	<1.6	<0.54	<0.49	<0.51	LC-ESI/HRPS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.34	<0.37	<0.38	<0.51	<0.38	<0.38	<0.33	<0.47	<0.34	<0.32	<0.47	LC-ESI/HRPS	30

	Erythromycin	114-07-8	ng.g^{-1} dw	<1.8	<1.9	<2.2	<2.8	<1.8	<1.9	<1.8	<3.4	<1.6	<1.7	<2.3	LC-ESI/HRPS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<4.8	<4.6	<4.9	<7.2	<4.7	<4.7	<3	<11	<3.6	<3.3	<3.4	LC-ESI/HRPS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	<0.41	<0.4	<0.42	<0.62	<0.41	1.2	<0.26	<0.94	<0.31	<0.28	<0.29	LC-ESI/HRPS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.47	<0.45	<0.48	<0.71	<0.46	<0.47	<0.29	<1.1	<0.36	<0.32	<0.34	LC-ESI/HRPS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.43	<0.42	<0.44	<0.65	<0.43	<0.43	<0.27	<0.99	<0.33	<0.29	<0.31	LC-ESI/HRPS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	<1	<0.96	<1	<1.5	<0.98	<0.98	<0.62	<2.3	<0.75	<0.67	<0.71	LC-ESI/HRPS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	1.4	<0.75	<0.79	12	52	26	<0.48	350	1.2	<0.53	<0.55	LC-ESI/HRPS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.56	<0.54	<0.57	<0.84	<0.55	<0.55	<0.35	<1.3	<0.42	<0.38	<0.4	LC-ESI/HRPS	30
	Memantine	19982-08-2	ng.g^{-1} dw	<0.87	<0.95	<0.97	<1.3	<0.96	<0.96	<0.85	<1.2	<0.88	<0.82	<1.2	LC-ESI/HRPS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	<0.36	<0.39	<0.4	<0.53	<0.39	<0.4	<0.35	0.74	<0.35	<0.34	<0.47	LC-ESI/HRPS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	<0.6	<0.54	<0.65	1.1	<0.78	<0.66	<0.47	1.9	4.2	<0.72	1.1	LC-ESI/HRPS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	<0.46	<0.51	<0.52	<0.7	<0.51	<0.51	<0.45	<0.65	<0.47	<0.44	<0.64	LC-ESI/HRPS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	<0.94	<0.9	<0.95	<1.4	<0.92	<0.92	<0.58	<2.1	<0.71	<0.63	<0.66	LC-ESI/HRPS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<92	<89	<94	<140	<90	<91	<57	<210	<70	<62	<65	LC-ESI/HRPS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.47	<0.51	<0.51	<0.68	<0.48	<0.51	<0.45	<0.65	<0.44	<0.43	<0.59	LC-ESI/HRPS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.84	<0.81	<0.85	<1.3	<0.82	<0.83	<0.52	<1.9	<0.63	<0.57	<0.6	LC-ESI/HRPS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	<0.049	<0.054	<0.064	<0.083	<0.052	<0.049	<0.051	<0.079	<0.042	<0.05	<0.056	LC-ESI/HRPS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	<66	<64	<67	<99	<65	<65	<41	<150	<50	<45	<47	LC-ESI/HRPS	30
	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.22	<0.23	<0.24	<0.36	<0.22	<0.22	<0.2	<0.87	<0.2	<0.19	<0.2	LC-ESI/HRPS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	<0.83	<0.8	<0.85	<1.2	<0.82	<0.82	<0.52	<1.9	<0.63	<0.56	<0.59	LC-ESI/HRPS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<0.53	<0.59	<0.67	<0.95	<0.61	<0.55	<0.52	<1.6	<0.49	<0.51	<0.83	LC-ESI/HRPS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	<1.1	<1.2	<1.4	<2	<1.3	<1.1	<1.1	<3.3	<1	<1.1	<1.7	LC-ESI/HRPS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	<0.35	<0.39	<0.45	<0.63	<0.4	<0.36	<0.34	<1.1	<0.32	<0.34	<0.55	LC-ESI/HRPS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	<0.64	<0.61	<0.65	<0.95	<0.62	<0.63	<0.4	<1.5	<0.48	<0.43	<0.45	LC-ESI/HRPS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	<1.2	<1.3	<1.3	<1.7	<1.3	<1.3	<1.1	<1.6	<1.2	<1.1	<1.6	LC-ESI/HRPS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	<0.51	<0.53	<0.55	<0.71	<0.51	<0.5	<0.42	<1.2	<0.43	<0.42	<0.66	LC-ESI/HRPS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	<0.98	<0.94	6.4	<1.5	<0.96	<0.97	<0.61	<2.2	<0.74	<0.66	0.91	LC-ESI/HRPS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	<0.45	<0.49	<0.48	<0.66	<0.46	<0.49	<0.43	<0.62	<0.42	<0.41	<0.57	LC-ESI/HRPS	30
	Verapamil	52-53-9	ng.g^{-1} dw	<0.36	<0.4	<0.43	<0.61	<0.41	<0.43	<0.36	<0.81	<0.36	<0.4	<0.45	LC-ESI/HRPS	30
	TCM, Chloroform	67-66-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-DCEt, 1,2-Dichloroethane	107-06-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCM, Tetrachloromethane	56-23-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TCE, Trichloroethylene	79-01-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	69	<20	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	58	<20	<20	69	SPME-GC-MS	30
	Xylen, sum of xylens	1330-20-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,4-X, 1,4-xylen + 1,3-xylen	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-X, 1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB, Ethylbenzene	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE, Tetrachloroethene	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	CB, Chlorobenzene	108-90-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

	PCB 28	7012-37-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	12.0	3.2	0.7	<0.5	<0.5	<0.5	<0.5	0.6	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	<0.5	<0.5	<0.5	12.0	3.1	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	14.0	3.9	2.1	<0.5	<0.5	<0.5	<0.5	0.8	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	1.9	15.0	<0.5	13.0	4.7	1.9	<0.5	<0.5	0.8	<0.5	2.7	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	8.3	100.0	0.7	29.0	11.0	10.0	0.6	3.0	2.6	2.1	8.4	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	8.2	120.0	1.2	32.0	11.0	11.0	0.9	3.5	2.9	2.7	13.0	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	6.7	65.0	0.8	21.0	5.8	5.0	0.6	0.9	1.6	1.6	6.7	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	0.8	5.3	<0.5	9.4	2.6	1.1	<0.5	<0.5	<0.5	<0.5	0.9	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	13.0	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	3.5	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	0.6	0.7	0.6	11.0	4.4	1.5	<0.5	2.3	0.6	<0.5	4.0	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	2.7	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	<0.5	<0.5	<0.5	11.0	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.0	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	<0.5	<0.5	<0.5	10.0	3.0	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<0.5	<0.5	<0.5	11.0	3.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	11.0	2.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	1.3	23.0	0.9	25.0	8.1	7.4	0.7	6.0	5.9	2.2	10.0	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	<0.5	<0.5	<0.5	13.0	3.4	1.0	<0.5	0.6	1.3	<0.5	<0.5	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	14.0	46.0	4.5	100.0	51.0	39.0	<0.5	36.0	35.0	4.2	1.9	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	11.0	2.9	1.2	<0.5	<0.5	0.7	<0.5	<0.5	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	2.1	9.8	0.7	53.0	4.1	19.0	<0.5	1.2	26.0	4.5	4.6	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<0.5	1.2	1.6	11.0	2.2	1.8	<0.5	<0.5	1.3	<0.5	<0.5	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<1.0	<1.0	<1.0	9.5	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	<2.0	<2.0	<2.0	13.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Isodrin	465-73-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	12.0	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE28	41318-75-6	ng.g^{-1} dw	<0.20	<0.20	<0.20	0.93	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	3.00	0.85	<0.20	1.50	0.85	0.83	<0.20	<0.20	0.32	0.50	5.40	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	1.80	0.21	<0.20	1.10	0.26	<0.20	<0.20	<0.20	<0.20	<0.20	2.10	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	2.10	0.20	<0.20	0.76	0.34	0.46	<0.20	<0.20	<0.20	<0.20	3.40	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	2.50	0.62	<0.50	1.80	0.57	<0.50	<0.50	<0.50	0.52	<0.50	2.70	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: biota, fish 1

No.	Parameter	CAS-number	Unit of measure	Liver of cod, Indre Oslofjorden															Analysis method	Measure uncer-tainty (%)
				Sample date																
				19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17	19.06.17		
				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	Sample 10	Sample 11	Sample 12	Sample 13	Sample 14	Sample 15		
	Main parameters																			
1	TTBfenol	732-26-3	ng.g^{-1} dw	<2300	<2700	<2100	<2100	<1900	<2500	<3400	<2700	<2500	<2800	<1900	<2600	<2900	<2400	<2600	LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng.g^{-1} dw	<6.9	<7.9	<5.2	<5.4	<5.8	<7.9	<9.3	<5.7	<6.8	<8.3	<5	<6.3	<7	<5.8	<6.4	LC-ESI/HRPS	30
3	Tebukonazol	107534-96-3	ng.g^{-1} dw	<0.69	<0.79	<0.52	<0.55	2.2	<0.79	<0.93	<0.58	<0.68	<0.83	<0.5	<0.63	<0.7	<0.58	<0.64	LC-ESI/HRPS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	160	240	530	260	130	340	280	1000	150	270	740	400	420	200	310	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng.g^{-1} dw	<20	78	130	46	54	25	31	28	<20	21	74	<20	130	<20	24	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3																		
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	4.8	8.6	3.9	10	1.5	5.2	5.9	2.7	<0.79	5.5	1.4	6.3	<0.94	<0.76	3.6	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	16	<18	<14	<14	<13	23	27	<18	<17	<19	<13	<18	<20	26	<18	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<9.5	<11	<8.8	<8.9	<7.7	<10	<14	<11	<10	<12	<7.9	<11	<12	<9.9	<11	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8																		
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<2.7	<3.1	<2	<2.1	<2.3	<3.1	<3.6	<2.2	<2.7	<3.2	<2	<2.5	<2.7	<2.3	<2.5	LC-ESI/HRPS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<66	<76	<50	<52	<56	<76	<89	<55	<66	<79	<48	<61	<67	<56	<61	LC-ESI/HRPS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	<20	130	290	110	70	80	86	120	<20	71	190	<20	180	56	80	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	<20	160	93	64	62	90	140	<20	<20	78	53	<20	160	62	53	GC-MS/MS	30
17	Buprenorphin	52485-79-7																		
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9																		
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0																		
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2																		
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4																		
22	Resorcinol	108-46-3																		
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.86	<0.96	<0.41	<0.82	<0.67	<0.93	<0.95	<0.56	<0.84	<0.88	<0.43	<0.81	<0.94	<0.74	<0.94	LC-ESI/HRPS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	<0.83	<0.95	<0.63	<0.65	<0.7	<0.95	<1.1	<0.69	<0.82	<0.99	<0.6	<0.76	<0.84	<0.7	<0.76	LC-ESI/HRPS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	<380	<440	<350	<350	<300	<410	<560	<440	<400	<460	<310	<430	<480	<390	<430	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)																			
	Additional parameters																			
	Galaxolide	1222-05-5	ng.g^{-1} dw	<20	130	290	110	70	80	86	120	<20	71	190	<20	180	56	80	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	<20	78	130	46	54	25	31	28	<20	21	74	<20	130	<20	24	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4/13171-00-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30

	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	<27	<31	<25	<25	<22	<29	<39	<31	<29	<33	<22	<30	<34	<28	<30	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<5.8	<6.8	<5.4	<5.4	<4.7	<6.4	<8.6	<6.8	<6.3	<7.2	<4.8	<6.7	<7.4	<6.1	<6.7	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	<7.3	<8.5	<6.7	<6.7	<5.9	<8	<11	<8.5	<7.8	<8.9	<6	<8.3	<9.2	<7.5	<8.3	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<6.5	<7.5	<5.9	<6	<5.2	<7.1	<9.5	<7.6	<6.9	<7.9	<5.3	<7.4	<8.2	<6.7	<7.4	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<2.6	<3.1	<2.4	<2.4	<2.1	<2.9	<3.9	<3.1	<2.8	<3.2	<2.2	<3	<3.3	<2.7	<3	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	<16	<18	<15	<15	<13	<17	<23	<19	<17	<19	<13	<18	<20	<16	<18	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	<27	<31	<24	<25	<22	<29	<39	<31	<28	<33	<22	<30	<34	<28	<30	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<85	<100	<78	<79	<69	<93	<130	<100	<92	<100	<71	<98	<110	<89	<97	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	65	54	42	58	<20	37	23	63	78	<20	22	<20	<20	<20	<20	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	34	59	25	30	<20	23	<20	49	29	22	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	0.65	<0.38	<0.22	0.91	<0.28	<0.36	<0.37	<0.25	<0.34	<0.35	<0.23	<0.32	0.99	<0.31	<0.33	LC-ESI/HRPS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	<0.65	<0.73	<0.44	<0.59	<0.57	<0.77	<0.81	<0.54	<0.69	<0.7	<0.48	<0.66	<0.86	<0.72	<0.7	LC-ESI/HRPS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	<1	<1.2	<0.53	<1	<0.88	<1.2	<1.3	<1.1	<1.2	<1.2	<0.61	<1.1	<1.3	<1.1	<1.1	LC-ESI/HRPS	30
	Azithromycin	83905-01-5	ng.g^{-1} dw	<2.7	<3.2	<1.3	<2.9	<2.1	<2.7	<3	<1.8	<2.8	<3.4	<1.4	<2.6	<3.4	<2.2	<2.5	LC-ESI/HRPS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	<0.51	<0.61	<0.26	<0.5	<0.44	<0.59	<0.63	<0.53	<0.57	<0.58	<0.3	<0.53	<0.64	<0.52	<0.56	LC-ESI/HRPS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	<0.78	<0.83	<0.43	<0.7	<0.62	<0.79	<0.87	<0.52	<0.76	<0.78	<0.42	<0.69	<0.89	<0.7	<0.8	LC-ESI/HRPS	30
	Caffeine	58-08-2	ng.g^{-1} dw	<280	<290	<170	<240	<200	<270	<280	<190	<260	<260	<190	<210	<240	<200	<210	LC-ESI/HRPS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	<2.2	<2.6	<1.1	<2.1	<1.8	<2.5	<2.7	<2.2	<2.4	<2.4	<1.3	<2.2	<2.7	<2.2	<2.4	LC-ESI/HRPS	30
	Citalopram	59729-33-8	ng.g^{-1} dw	<1.6	<1.9	<0.81	<1.6	<1.4	<1.8	<2	<1.6	<1.8	<1.8	<0.93	<1.6	<2	<1.6	<1.7	LC-ESI/HRPS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	<9.6	<17	<3.9	<8.6	<9.4	<11	<31	<8.7	<14	<10	<3.8	<12	<28	<8.3	<14	LC-ESI/HRPS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<0.54	<0.64	<0.28	<0.53	<0.46	<0.62	<0.66	<0.55	<0.6	<0.61	<0.31	<0.55	<0.67	<0.55	<0.59	LC-ESI/HRPS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	<0.53	<0.62	<0.31	<0.51	<0.42	<0.57	<0.6	<0.38	<0.53	<0.58	<0.3	<0.5	<0.61	<0.47	<0.54	LC-ESI/HRPS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	<5.6	<6.6	<3.3	<5.4	<4.5	<6	<6.3	<4	<5.6	<6.1	<3.2	<5.3	<6.4	<4.9	<5.7	LC-ESI/HRPS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	<1.1	<1.3	<0.54	<1	<0.9	<1.2	<1.3	<1.1	<1.2	<1.2	<0.62	<1.1	<1.3	<1.1	<1.2	LC-ESI/HRPS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	<0.5	<0.6	<0.34	<0.47	<0.46	<0.56	<0.58	<0.4	<0.54	<0.5	<0.35	<0.45	<0.58	<0.47	<0.5	LC-ESI/HRPS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	<4.5	<5.4	<2.3	<4.4	<3.9	<5.2	<5.6	<4.7	<5.1	<5.1	<2.7	<4.7	<5.7	<4.6	<5	LC-ESI/HRPS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.72	<0.86	<0.37	<0.71	<0.62	<0.83	<0.89	<0.74	<0.8	<0.81	<0.42	<0.74	<0.9	<0.74	<0.79	LC-ESI/HRPS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	<0.87	<1	<0.45	<0.85	<0.75	<1	<1.1	<0.9	<0.97	<0.99	<0.51	<0.9	<1.1	<0.89	<0.96	LC-ESI/HRPS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.38	<0.43	<0.25	<0.34	<0.31	<0.4	<0.41	<0.28	<0.38	<0.39	<0.26	<0.36	<0.45	<0.35	<0.37	LC-ESI/HRPS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	<9.3	<11	<5.4	<8.9	<7.4	<10	<10	<6.6	<9.2	<10	<5.3	<8.8	<11	<8.2	<9.5	LC-ESI/HRPS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<6.6	<7.9	<3.4	<6.5	<5.7	<7.7	<8.2	<6.9	<7.4	<7.5	<3.9	<6.9	<8.3	<6.8	<7.3	LC-ESI/HRPS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	<0.5	1.3	0.51	0.86	0.51	0.67	0.63	<0.52	<0.56	<0.57	<0.3	0.82	<0.63	<0.52	1.4	LC-ESI/HRPS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.78	<0.93	<0.4	<0.77	<0.67	<0.91	<0.97	<0.81	<0.88	<0.89	<0.46	<0.81	<0.98	<0.8	<0.86	LC-ESI/HRPS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.66	<0.79	<0.34	<0.65	<0.57	<0.77	<0.82	<0.68	<0.74	<0.75	<0.39	<0.69	<0.83	<0.68	<0.73	LC-ESI/HRPS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	<1.2	<1.4	<0.6	<1.1	<1	<1.4	<1.4	<1.2	<1.3	<1.3	<0.69	<1.2	<1.5	<1.2	<1.3	LC-ESI/HRPS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	<1.6	<1.9	<0.8	<1.5	<1.3	<1.8	<1.9	<1.6	<1.7	<1.8	<0.91	<1.6	<1.9	<1.6	<1.7	LC-ESI/HRPS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.45	<0.53	<0.23	<0.44	<0.38	<0.52	<0.55	<0.46	<0.5	<0.51	<0.26	<0.46	<0.56	<0.46	<0.49	LC-ESI/HRPS	30
	Memantine	19982-08-2	ng.g^{-1} dw	<1.5	<1.7	<1	<1.4	<1.3	<1.6	<1.7	<1.1	<1.5	<1.6	<1.1	<1.5	<1.8	<1.4	<1.5	LC-ESI/HRPS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	<0.77	<0.82	<0.43	<0.7	<0.61	<0.78	<0.86	0.53	<0.76	<0.78	<0.42	<0.69	<0.89	<0.7	<0.8	LC-ESI/HRPS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	16	8	1.3	20	19	47	57	3.7	57	49	6.5	41	23	47	48	LC-ESI/HRPS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	<0.91	<1	<0.6	<0.82	<0.75	<0.96	<1	<0.67	<0.91	<0.94	<0.63	<0.87	<1.1	<0.84	<0.91	LC-ESI/HRPS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	<1.9	<2.2	<0.97	<1.8	7.8	<2.2	<2.3	<1.9	<2.1	<2.1	<1.1	<1.9	<2.3	<1.9	<2.1	LC-ESI/HRPS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<120	<140	<60	<110	<99	<130	<140	<120	<130	<130	<68	<120	<140	<120	<130	LC-ESI/HRPS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.83	<0.95	0.72	<0.77	2.1	0.95	1.3	0.72	0.84	<0.85	<0.53	<0.78	1.8	<0.76	<0.8	LC-ESI/HRPS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.78	<0.92	<0.4	<0.76	<0.67	<0.9	<0.96	<0.8	<0.87	<0.88	<0.46	<0.8	<0.97	<0.8	<0.86	LC-ESI/HRPS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	<0.08	<0.095	<0.054	<0.075	<0.074	<0.088	<0.093	<0.064	<0.086	<0.079	<0.055	<0.071	<0.092	<0.074	<0.08	LC-ESI/HRPS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	<63	<76	<33	<63	<54	<74	<79	<66	<71	<72	<37	<66	<80	<65	<70	LC-ESI/HRPS	30

	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.45	<0.8	<0.19	<0.41	<0.44	<0.52	<1.5	<0.41	<0.66	<0.5	<0.18	<0.57	<1.3	<0.39	<0.64	LC-ESI/HRPS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	<1.4	<1.6	<0.7	<1.3	<1.2	<1.6	<1.7	<1.4	<1.5	<1.6	<0.8	<1.4	<1.7	<1.4	<1.5	LC-ESI/HRPS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<1.6	<1.9	<0.75	<1.9	<1.2	<1.8	<2	<1.3	<2.1	<2.5	<0.88	<1.9	<2	<1.5	<2.1	LC-ESI/HRPS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	<5.2	<6.2	<2.4	<6.1	<3.9	<5.7	<6.5	<4.2	<6.8	<8	<2.8	<6.2	<6.4	<4.8	<6.6	LC-ESI/HRPS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	<1.3	<1.6	<0.62	<1.6	<0.99	<1.5	<1.7	<1.1	<1.8	<2.1	<0.72	<1.6	<1.6	<1.2	<1.7	LC-ESI/HRPS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	<0.77	<0.91	<0.4	<0.75	<0.66	<0.89	<0.95	<0.79	<0.86	<0.87	<0.45	<0.8	<0.96	<0.79	<0.85	LC-ESI/HRPS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	<1.6	<1.8	<1.1	<1.5	<1.3	<1.7	<1.8	<1.2	<1.6	<1.7	<1.1	<1.5	<1.9	<1.5	<1.6	LC-ESI/HRPS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	<1.5	<1.6	<0.69	<1.4	<1.2	<1.6	<1.6	<0.95	<1.4	<1.5	<0.74	<1.4	<1.6	<1.3	<1.6	LC-ESI/HRPS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	<3	<3.6	<1.5	<2.9	<2.6	<3.5	<3.7	<3.1	<3.3	<3.4	<1.8	<3.1	<3.7	<3.1	<3.3	LC-ESI/HRPS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	<0.63	<0.73	<0.4	<0.59	<0.53	<0.65	<0.72	<0.46	<0.63	<0.65	<0.41	<0.6	<0.76	<0.58	<0.61	LC-ESI/HRPS	30
	Verapamil	52-53-9	ng.g^{-1} dw	<0.54	<0.64	<0.38	<0.5	<0.48	<0.59	<0.67	<0.46	<0.52	<0.57	<0.39	<0.57	<0.69	<0.53	<0.55	LC-ESI/HRPS	30
	TCM, Chloroform	67-66-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-DCEt, 1,2-Dichloroethane	107-06-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCM, Tetrachloromethane	56-23-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TCE, Trichloroethylene	79-01-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Benzen	71-43-2	ng.g^{-1} dw	40	26	<20	44	<20	56	36	<20	60	30	<20	37	65	44	46	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Xylen, sum of xylens	1330-20-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,4-X, 1,4-xylene + 1,3-xylene	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-X, 1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB, Ethylbenzene	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE, Tetrachloroethene	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	CB, Chlorobenzene	108-90-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	11.0	30.0	24.0	9.7	4.6	12.0	8.7	41.0	7.6	11.0	13.0	7.6	5.7	3.7	8.4	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	74.0	140.0	140.0	53.0	17.0	140.0	38.0	290.0	33.0	57.0	63.0	37.0	29.0	18.0	64.0	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	440.0	760.0	440.0	180.0	150.0	890.0	300.0	480.0	230.0	280.0	310.0	210.0	150.0	95.0	350.0	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	1000.0	2100.0	980.0	490.0	1200.0	2200.0	1800.0	660.0	940.0	1000.0	630.0	590.0	730.0	270.0	1100.0	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	1800.0	3900.0	1900.0	1000.0	3200.0	4000.0	3900.0	550.0	1900.0	1700.0	1000.0	1200.0	1800.0	600.0	2200.0	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	2900.0	6400.0	2900.0	1700.0	5200.0	6100.0	6400.0	740.0	3600.0	2500.0	1900.0	1900.0	3200.0	960.0	3600.0	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	460.0	1700.0	700.0	360.0	1400.0	1300.0	1200.0	170.0	750.0	530.0	360.0	440.0	820.0	230.0	610.0	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	45.0	240.0	110.0	57.0	180.0	170.0	140.0	23.0	130.0	58.0	51.0	78.0	140.0	37.0	110.0	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	7.8	11.0	14.0	10.0	2.1	6.1	4.6	17.0	5.1	5.8	11.0	4.3	6.5	2.5	4.8	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	0.7	0.7	0.7	0.9	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	1.0	<0.5	1.0	<0.5	<0.5	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	0.9	0.6	0.6	0.7	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.6	<0.5	0.5	<0.5	0.5	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	760	1200	690	250	560	1600	510	200	350	370	190	240	330	120	500	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	5.4	10.0	13.0	6.7	2.8	5.5	2.5	7.4	2.3	7.4	4.9	4.7	4.6	2.0	5.7	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	15.0	68.0	110.0	29.0	30.0	81.0	46.0	17.0	3.1	28.0	19.0	4.2	30.0	9.4	56.0	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	1.5	1.6	1.5	1.3	<0.5	0.8	<0.5	2.0	0.5	1.0	1.0	<0.5	<0.5	<0.5	0.6	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	58.0	40.0	42.0	19.0	12.0	74.0	12.0	17.0	22.0	12.0	14.0	4.3	19.0	0.9	21.0	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<0.5	1.3	1.2	1.6	<0.5	1.2	<0.5	1.5	<0.5	<0.5	1.6	0.5	1.4	<0.5	<0.5	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	15.0	22.0	23.0	19.0	7.3	19.0	20.0	35.0	11.0	12.0	14.0	14.0	5.6	5.4	15.0	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Isodrin	465-73-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30

	PBDE28	41318-75-6	ng.g^{-1} dw	0.43	1.90	1.90	0.65	1.90	2.10	0.75	0.90	0.81	3.80	1.00	1.10	0.48	0.53	0.68	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	27.00	71.00	73.00	30.00	64.00	180.00	64.00	26.00	56.00	81.00	59.00	33.00	41.00	18.00	37.00	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	13.00	29.00	20.00	9.80	35.00	61.00	35.00	4.60	17.00	27.00	17.00	11.00	13.00	6.10	14.00	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	<0.20	0.29	1.10	1.50	<0.20	0.36	0.37	0.80	0.80	1.10	2.20	1.20	0.42	0.38	0.34	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	2.10	4.40	4.10	2.40	3.30	6.90	4.40	2.50	3.30	6.40	2.60	2.00	2.20	1.30	4.20	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	1.10	2.70	2.70	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: biota, fish 2

No.	Parameter	CAS-number	Unit of measure	Fillet of perch, lake Mjøsa					Fillet of roach, lake Mjøsa					Small fish, 5-10 g, whole, lake Mjøsa			Analysis method	Measure uncer-tainty (%)
				Sample date					Sample date					Sample date				
				01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17	01.06.17		
				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3		
	Main parameters																	
1	TTBfenol	732-26-3	ng.g^{-1} dw	<1700	<1700	<1500	<1500	<1500	<1600	<1700	<1900	<1400	<1800	<2100	<2200	<1700	LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng.g^{-1} dw	<3.8	<3.3	<3	<3.4	<3.7	<4.3	<3.6	<4.8	<3.6	<4	<3.4	5.5	<3.2	LC-ESI/HRPS	30
3	Tebukonazol	107534-96-3	ng.g^{-1} dw	<0.61	<0.53	<0.48	<0.54	<0.6	<0.7	<0.58	<0.77	<0.58	<0.65	<0.43	<0.5	<0.41	LC-ESI/HRPS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	<43	<43	<38	<38	<38	<41	<43	<47	<36	<45	160	140	<41	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3																
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	<0.44	<0.44	<0.39	<0.39	<0.39	<0.42	<0.44	<0.48	<0.37	<0.46	1.6	0.96	1.2	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	12	<6.2	<5.6	<5.5	<5.5	11	<6.3	<6.8	<5.2	9	<5.6	<6	<4.6	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<5.5	<5.5	<4.9	<4.9	<4.9	<5.2	<5.6	<6	<4.6	<5.8	<4.9	<5.2	<4	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8																
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<2.8	<2.5	<2.2	<2.5	<2.8	<3.3	<2.7	<3.6	<2.7	<3	<2.4	<2.8	<2.3	LC-ESI/HRPS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<45	<40	<36	<40	<45	<52	<43	<57	<43	<48	<45	<51	<43	LC-ESI/HRPS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	33	<20	28	22	27	45	20	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	70	<20	23	27	35	50	32	GC-MS/MS	30
17	Buprenorphin	52485-79-7																
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9																
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0																
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2																
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4																
22	Resorcinol	108-46-3																
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.21	<0.21	<0.18	<0.2	<0.19	<0.24	<0.2	<0.32	<0.23	<0.22	<0.41	<0.39	<0.32	LC-ESI/HRPS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	<0.19	<0.17	<0.15	<0.17	<0.19	<0.22	<0.18	<0.25	<0.19	<0.21	<0.2	<0.23	<0.19	LC-ESI/HRPS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	<270	<270	<240	<240	<240	<250	<270	<290	<230	<280	<230	<250	<190	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)																	
	Additional parameters																	
	Galaxolide	1222-05-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	33	<20	28	22	27	45	20	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4/13171-00-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30

	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	<16	<16	<15	<14	<14	<15	21	<18	<14	40	<12	<13	<10	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<3.5	<3.5	<3.1	<3.1	<3.1	<3.3	<3.5	<3.8	<2.9	<3.7	<4	<4.3	<3.3	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	<5.7	<5.7	<5.1	<5	<5.1	<5.4	<5.7	<6.2	<4.8	<6	<5	<5.4	<4.2	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<5.6	<5.6	<5	<5	<5	<5.3	<5.7	<6.1	<4.7	<5.9	<4.4	<4.8	<3.7	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<2	<2	<1.8	<1.8	<1.8	<1.9	<2	<2.2	<1.7	<2.1	<1.6	<1.7	<1.3	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	<11	<11	27	13	<10	<11	<11	<12	<9.6	26	<7.8	<8.4	<6.5	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	<24	<23	<21	<21	<21	<22	<24	<26	<20	<25	<17	<18	<14	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<34	<34	<31	<30	<30	<32	<35	<37	<29	<36	<39	<42	<33	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	64	<20	39	27	39	<20	<20	<20	<20	32	<20	<20	<20	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	53	23	39	31	39	26	30	30	<20	41	28	25	22	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	33	<20	22	<20	22	<20	<20	<20	<20	24	<20	<20	<20	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	<0.24	<0.22	<0.2	<0.22	<0.23	<0.25	<0.23	<0.3	<0.23	<0.24	<0.25	<0.25	<0.23	LC-ESI/HRPS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	<0.33	<0.31	<0.29	<0.31	<0.31	<0.37	<0.33	<0.39	<0.31	<0.34	<0.4	<0.47	<0.37	LC-ESI/HRPS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	<0.47	<0.42	<0.28	<0.35	<0.44	<0.34	<0.29	<0.44	<0.32	<0.3	<0.81	<0.88	<0.65	LC-ESI/HRPS	30
	Azithromycin	83905-01-5	ng.g^{-1} dw	<0.43	<0.46	<0.41	<0.45	<0.4	<0.49	<0.4	<0.56	<0.48	<0.5	1.5	1.5	1.5	LC-ESI/HRPS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	<0.24	<0.22	<0.14	<0.18	<0.23	<0.18	<0.15	<0.22	<0.16	<0.15	<0.31	<0.33	<0.25	LC-ESI/HRPS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	<0.35	<0.31	<0.28	<0.31	<0.34	<0.36	<0.33	<0.42	<0.34	<0.34	<0.45	<0.49	<0.42	LC-ESI/HRPS	30
	Caffeine	58-08-2	ng.g^{-1} dw	<100	<130	<92	<160	<100	<120	<140	<190	<110	<130	<180	<170	<140	LC-ESI/HRPS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	<0.81	<0.73	<0.48	<0.61	<0.76	<0.59	<0.5	<0.75	<0.55	<0.51	<1.4	<1.5	<1.1	LC-ESI/HRPS	30
	Citalopram	59729-33-8	ng.g^{-1} dw	<0.46	<0.42	<0.27	<0.35	<0.44	<0.34	<0.29	<0.43	<0.31	<0.29	<0.96	<1	<0.77	LC-ESI/HRPS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	<2.3	<2.1	<1.9	<2.2	<2	<2.5	<2.6	<3.2	<2.5	<2.8	<2.8	<3.3	<2.3	LC-ESI/HRPS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<0.34	<0.3	<0.2	<0.25	<0.31	<0.24	<0.21	<0.31	<0.23	<0.21	<0.49	<0.53	<0.39	LC-ESI/HRPS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	<0.25	<0.24	<0.28	<0.25	<0.25	<0.3	<0.22	<0.27	<0.23	<0.25	<0.3	<0.33	<0.28	LC-ESI/HRPS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	<2.1	<2	<2.3	<2	<2	<2.4	<1.8	<2.2	<1.9	<2.1	<2.6	<2.8	<2.4	LC-ESI/HRPS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	<0.46	<0.42	<0.27	<0.35	<0.43	<0.34	<0.29	<0.43	<0.31	<0.29	<0.83	<0.9	<0.67	LC-ESI/HRPS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	<0.2	<0.19	<0.19	<0.19	<0.19	<0.23	<0.19	<0.23	<0.19	<0.21	<0.35	<0.37	<0.3	LC-ESI/HRPS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	<2.4	<2.2	<1.4	<1.8	<2.3	<1.7	<1.5	<2.2	<1.6	<1.5	24	<4.9	<3.6	LC-ESI/HRPS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.4	<0.36	<0.23	<0.3	<0.37	<0.29	<0.25	<0.37	<0.27	<0.25	<0.6	<0.65	<0.49	LC-ESI/HRPS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	<0.43	<0.38	<0.25	<0.32	<0.4	<0.31	<0.27	<0.4	<0.29	<0.27	<0.66	<0.71	<0.53	LC-ESI/HRPS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.34	<0.3	<0.28	<0.31	<0.32	<0.36	<0.33	<0.43	<0.33	<0.34	<0.32	<0.32	<0.29	LC-ESI/HRPS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	<1.6	<1.6	<1.8	<1.6	<1.6	<2	<1.5	<1.8	<1.5	<1.7	<2.4	<2.6	<2.2	LC-ESI/HRPS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<3	<2.7	<1.7	<2.2	<2.8	<2.1	<1.8	<2.7	<2	<1.9	<5.2	<5.7	<4.2	LC-ESI/HRPS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	<0.3	<0.27	<0.18	<0.23	<0.28	<0.22	<0.19	<0.28	<0.2	<0.19	<0.36	<0.39	<0.29	LC-ESI/HRPS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.27	<0.24	<0.16	<0.2	<0.25	<0.19	<0.17	<0.25	<0.18	<0.17	<0.34	<0.37	<0.27	LC-ESI/HRPS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.27	<0.24	<0.16	<0.2	<0.25	<0.19	<0.17	<0.25	<0.18	<0.17	<0.33	<0.36	<0.27	LC-ESI/HRPS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	<0.5	<0.45	<0.29	<0.37	<0.47	<0.36	<0.31	<0.46	<0.33	<0.31	<1	<1.1	<0.81	LC-ESI/HRPS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	<0.9	<0.61	<0.3	<0.44	<0.68	<0.31	<0.27	<0.4	<0.29	<0.27	<0.63	<0.68	<0.5	LC-ESI/HRPS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.35	<0.31	<0.2	<0.26	<0.33	<0.25	<0.22	<0.32	<0.23	<0.22	<0.45	<0.49	<0.36	LC-ESI/HRPS	30
	Memantine	19982-08-2	ng.g^{-1} dw	<0.94	<0.84	<0.79	<0.86	<0.88	<0.99	<0.91	<1.2	<0.91	<0.94	<1.1	<1.1	<1	LC-ESI/HRPS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	<0.34	<0.31	<0.28	<0.31	<0.34	<0.36	<0.33	<0.42	<0.34	<0.34	<0.45	<0.49	<0.42	LC-ESI/HRPS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	<0.61	<0.73	<0.5	<0.55	<0.71	<0.64	<0.72	<0.91	<0.67	<0.67	<1.3	<1.3	<1.2	LC-ESI/HRPS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	0.62	1.9	<0.39	<0.42	<0.43	<0.49	<0.45	0.87	1.3	0.67	<0.57	0.89	<0.52	LC-ESI/HRPS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	<0.52	<0.47	<0.3	<0.39	<0.49	<0.38	<0.32	<0.48	<0.35	<0.33	<1.2	<1.3	<0.96	LC-ESI/HRPS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<50	<45	<29	<37	<47	<36	<31	<46	<34	<32	<65	<71	<52	LC-ESI/HRPS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.44	<0.4	<0.38	<0.4	<0.42	<0.48	<0.45	<0.51	<0.42	<0.45	<0.62	<0.69	<0.61	LC-ESI/HRPS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.39	<0.35	<0.23	<0.3	<0.37	<0.29	<0.24	<0.36	<0.27	<0.25	<0.58	<0.62	<0.46	LC-ESI/HRPS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	<0.053	<0.052	<0.051	<0.052	<0.053	<0.062	<0.051	<0.062	<0.053	<0.057	<0.062	<0.066	<0.054	LC-ESI/HRPS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	<43	<38	<25	<32	<40	<31	<26	<40	<29	<27	<51	<55	<41	LC-ESI/HRPS	30

	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.2	<0.18	<0.17	<0.19	<0.18	<0.22	<0.23	<0.28	<0.22	<0.25	<0.19	<0.22	<0.15	LC-ESI/HRPS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	<0.48	<0.43	<0.28	<0.36	<0.45	<0.35	<0.3	<0.45	<0.32	<0.3	<1.1	<1.1	<0.85	LC-ESI/HRPS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<0.38	<0.63	<0.45	<0.41	<0.43	<0.54	<0.46	<0.75	<0.55	<0.5	<0.9	<0.81	<0.48	LC-ESI/HRPS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	<0.79	<1.3	<0.93	<0.85	<0.89	<1.1	<0.95	<1.6	<1.1	<1	<2.4	<2.1	<1.3	LC-ESI/HRPS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	<0.25	<0.42	<0.3	<0.27	<0.28	<0.36	<0.3	<0.5	<0.36	<0.33	<0.75	<0.68	<0.4	LC-ESI/HRPS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	<0.39	<0.35	<0.23	<0.29	<0.36	<0.28	<0.24	<0.36	<0.26	<0.25	<0.63	<0.69	<0.51	LC-ESI/HRPS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	<1.5	<1.3	<1.3	<1.4	<1.4	<1.6	<1.5	<1.9	<1.5	<1.5	<1.4	<1.4	<1.3	LC-ESI/HRPS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	<0.37	<0.37	<0.31	<0.35	<0.33	<0.4	<0.35	<0.55	<0.4	<0.37	<0.7	<0.66	<0.55	LC-ESI/HRPS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	<0.69	<0.62	<0.4	<0.52	<0.65	<0.5	<0.43	<0.64	<0.47	<0.44	<0.87	<0.94	<0.7	LC-ESI/HRPS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	<0.42	<0.38	<0.36	<0.38	<0.4	<0.46	<0.43	<0.49	<0.4	<0.43	<0.47	<0.52	<0.46	LC-ESI/HRPS	30
	Verapamil	52-53-9	ng.g^{-1} dw	<0.35	<0.32	<0.31	<0.33	<0.33	<0.39	<0.35	<0.41	<0.33	<0.36	<0.44	<0.5	<0.4	LC-ESI/HRPS	30
	TCM, Chloroform	67-66-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-DCEt, 1,2-Dichloroethane	107-06-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCM, Tetrachloromethane	56-23-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TCE, Trichloroethylene	79-01-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Xylen, sum of xylens	1330-20-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,4-X, 1,4-xylene + 1,3-xylene	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-X, 1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB, Ethylbenzene	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE, Tetrachloroethene	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	CB, Chlorobenzene	108-90-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	2.2	2.6	1.2	2.0	0.9	<0.5	<0.5	0.9	0.9	0.5	3.3	3.0	2.2	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	2.4	2.5	1.7	2.5	1.1	<0.5	<0.5	1.0	0.9	<0.5	4.2	3.3	2.4	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	7.2	8.1	4.4	8.5	3.0	<0.5	0.8	2.6	2.0	1.3	11.0	10.0	7.2	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	10.0	12.0	6.3	12.0	4.0	0.6	1.2	4.0	3.3	1.8	17.0	14.0	10.0	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	4.9	5.1	2.6	5.7	1.8	<0.5	<0.5	1.9	1.1	0.9	6.8	5.5	4.1	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	<0.5	0.6	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.5	<0.5	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	<0.5	0.8	<0.5	1.3	<0.5	<0.5	0.6	0.6	<0.5	<0.5	1.6	1.3	1.1	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	25.0	30.0	18.0	30.0	10.0	2.4	3.2	21.0	10.0	4.9	33.0	30.0	27.0	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	0.6	0.6	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	2.4	4.1	1.6	4.4	1.0	<0.5	<0.5	1.0	<0.5	<0.5	4.2	2.9	2.7	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	0.5	0.7	<0.5	1.3	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	1.4	0.7	0.5	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	4.4	5.1	2.8	7.9	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	4.7	3.1	2.4	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.1	0.7	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Isodrin	465-73-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30

	PBDE28	41318-75-6	ng.g^{-1} dw	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	4.30	6.50	4.60	4.60	3.70	0.21	0.33	2.40	3.50	0.93	5.70	4.30	3.60	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	1.90	2.40	1.40	2.10	1.30	<0.20	<0.20	0.66	0.90	0.22	1.80	1.30	1.20	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	1.10	1.90	1.10	2.50	0.75	<0.20	<0.20	<0.20	<0.20	<0.20	1.70	1.80	1.50	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	0.91	1.30	0.53	0.75	0.66	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	0.67	<0.50	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	<0.50	0.69	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: biota, invertebrates

No.	Parameter	CAS-number	Unit of measure	Blue mussel, Indre Oslofjorden		Snails, Indre Oslofjorden		Shrimps, Indre Oslofjorden		Krill, Indre Oslofjorden		Crayfish, Lake Mjøs	Analysis method	Measure uncer-tainty (%)
				Sample date		Sample date		Sample date		Sample date		Sample date		
				11.07.17	11.07.17	11.07.17	11.07.17	19.06.17	19.06.17	19.06.17	19.06.17	28.09.17		
				Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2			
	Main parameters													
1	TTBfenol	732-26-3	ng.g^{-1} dw	<530	<490	<540	<490	<690	<570	<640	<540	<600	LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng.g^{-1} dw	<2.7	<2.8	<2.6	<2.6	<5.6	<4.4	<4.2	<4	<4.4	LC-ESI/HRPS	30
3	Tebukonazol	107534-96-3	ng.g^{-1} dw	<0.43	<0.45	<0.41	<0.41	<0.68	<0.53	<0.5	<0.48	<0.53	LC-ESI/HRPS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	<38	<35	<38	<34	<49	<40	<45	<38	<43	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3												
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	1.9	1.4	1.2	<0.35	<0.5	<0.41	4.4	4.6	<0.44	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	<4.3	<3.9	<4.3	<3.9	<7	<5.8	<6.4	<5.5	<6.1	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<3.7	<3.4	<3.7	<3.4	<4.8	<4	<4.4	<3.7	<4.2	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8												
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	<1.5	<1.6	<1.4	<1.4	<3.6	<2.8	<2.6	<2.5	<2.8	LC-ESI/HRPS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	<32	<33	<30	<30	<120	<97	<91	<87	<97	LC-ESI/HRPS	30
15	Galaxolide with metabolites	1222-05-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	35	41	<20	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
17	Buprenorphin	52485-79-7												
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9												
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0												
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2												
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4												
22	Resorcinol	108-46-3	ng.g^{-1} dw	<32	<29	<32	<29	<38	<31	<35	<29	<33	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<0.29	<0.25	<0.28	<0.26	<0.41	<0.47	<0.52	<0.4	<0.26	LC-ESI/HRPS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	<0.15	<0.16	<0.14	<0.14	<0.33	<0.26	<0.24	<0.23	<0.26	LC-ESI/HRPS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	<230	<210	<230	<210	<240	<200	<220	<190	<210	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)													
	Additional parameters													
	Galaxolide	1222-05-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	35	41	<20	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylene	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30

	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	<9.4	<8.7	<9.5	<8.6	<12	<10	<11	60	<11	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<2.5	<2.3	<2.5	<2.3	<3.2	<2.7	<2.9	<2.5	<2.8	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	<3.1	<2.9	<3.1	<2.8	<4.9	<4.1	<4.5	<3.9	<4.3	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<3.4	<3.1	<3.4	<3.1	<4.4	<3.6	<4	<3.4	<3.8	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<1.3	<1.2	<1.3	<1.2	<1.8	<1.5	<1.6	<1.4	<1.5	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	<6	<5.5	<6	<5.5	<7.7	<6.4	<7.1	<6	<6.7	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	<14	<13	<14	<13	<18	<15	<17	<14	<16	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<30	<28	<30	<28	<39	<32	<36	<30	<34	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<50	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	<20	<20	<20	<20	25	54	150	64	<50	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	25	<20	<20	<50	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	<0.22	<0.19	<0.21	<0.21	<0.42	<0.45	0.65	0.87	<0.28	LC-ESI/HRPS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	<0.31	<0.26	<0.28	<0.29	<0.47	<0.47	<0.41	<0.41	<0.31	LC-ESI/HRPS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	<1.9	<1.7	<1.9	<1.7	<0.63	<0.66	<0.44	<0.41	<0.49	LC-ESI/HRPS	30
	Azithromycin	83905-01-5	ng.g^{-1} dw	<0.48	<0.4	<0.38	<0.34	<160	<260	<3.2	<12	<1.6	LC-ESI/HRPS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	<0.22	<0.19	<0.21	<0.19	<0.35	<0.37	<0.24	<0.23	<0.27	LC-ESI/HRPS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	<0.3	<0.26	<0.29	<0.29	<0.52	<0.51	<0.54	<0.42	<0.36	LC-ESI/HRPS	30
	Caffeine	58-08-2	ng.g^{-1} dw	<89	<75	<79	<80	<280	<320	<350	<290	<150	LC-ESI/HRPS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	<0.5	<0.43	<0.48	<0.43	<1.9	<2	<1.3	<1.2	<1.4	LC-ESI/HRPS	30
	Citalopram	59729-33-8	ng.g^{-1} dw	<0.47	<0.4	<0.45	<0.4	<1.1	<1.2	<0.8	<0.74	<0.87	LC-ESI/HRPS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	<1.7	<1.7	<1.7	<1.5	<4.9	<5.2	<3.7	<3.5	<2.1	LC-ESI/HRPS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<0.29	<0.25	<0.28	<0.25	<0.45	<0.47	<0.32	<0.29	<0.35	LC-ESI/HRPS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	<0.25	<0.21	<0.2	<0.19	<0.29	<0.28	<0.28	<0.23	<0.22	LC-ESI/HRPS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	<1.9	<1.5	<1.5	<1.4	<3.1	<3	<3	<2.4	<2.3	LC-ESI/HRPS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	<0.48	<0.42	<0.47	<0.42	<0.74	<0.77	<0.52	<0.48	<0.56	LC-ESI/HRPS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	<0.23	<0.21	<0.21	<0.21	<0.25	<0.25	<0.27	<0.24	<0.19	LC-ESI/HRPS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	<2.2	<1.9	<2.1	<1.9	<2.9	<3.1	<2	<1.9	<2.2	LC-ESI/HRPS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	<0.44	<0.38	<0.43	<0.38	<0.67	<0.7	<0.47	<0.43	<0.51	LC-ESI/HRPS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	<0.35	<0.3	<0.34	<0.3	<1	<1.1	<0.73	<0.68	<0.8	LC-ESI/HRPS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.32	<0.27	<0.29	<0.29	<0.43	<0.45	<0.52	<0.4	<0.28	LC-ESI/HRPS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	<1.2	<0.98	<0.96	<0.91	<3.7	<3.5	<3.5	<2.9	<2.7	LC-ESI/HRPS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<3	<2.6	<2.9	<2.6	<5.7	<6	<4	<3.7	<4.4	LC-ESI/HRPS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	<0.24	<0.21	<0.23	<0.21	<0.36	<0.38	<0.25	<0.24	<0.28	LC-ESI/HRPS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.27	<0.23	<0.26	<0.23	<0.36	<0.38	<0.25	<0.23	<0.28	LC-ESI/HRPS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	<0.25	<0.22	<0.24	<0.22	<0.39	<0.41	<0.27	<0.25	<0.3	LC-ESI/HRPS	30

	Haloperidol	52-86-8	ng.g^{-1} dw	<0.46	<0.4	<0.44	<0.39	<1.1	<1.2	<0.79	<0.73	<0.86	LC-ESI/HRPS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	<0.49	<0.42	<0.47	<0.42	<0.66	<0.69	<0.46	<0.43	<0.51	LC-ESI/HRPS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.3	<0.26	<0.29	<0.26	<0.44	<0.46	<0.31	<0.29	<0.34	LC-ESI/HRPS	30
	Memantine	19982-08-2	ng.g^{-1} dw	<0.79	<0.66	<0.73	<0.72	<1.2	<1.3	<1.5	<1.1	<0.81	LC-ESI/HRPS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	<0.3	<0.26	<0.29	<0.29	<0.52	<0.51	<0.54	<0.42	<0.36	LC-ESI/HRPS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	<0.59	<0.45	<0.46	<0.43	<1.1	<1.1	<1.4	<1	<0.73	LC-ESI/HRPS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	<0.43	<0.36	<0.4	<0.39	<1.1	<1.2	<1.3	<1	<0.71	LC-ESI/HRPS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	<0.43	<0.37	<0.42	<0.37	<1.7	<1.8	<1.2	<1.1	<1.3	LC-ESI/HRPS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<53	<46	<51	<46	<58	<61	<41	<38	<45	LC-ESI/HRPS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.41	<0.34	<0.37	<0.37	<1	<1	<1.1	<0.9	<0.72	LC-ESI/HRPS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.39	<0.33	<0.37	<0.33	<0.66	<0.69	<0.47	<0.43	<0.51	LC-ESI/HRPS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	<0.048	<0.044	<0.044	<0.045	<0.046	<0.045	<0.049	<0.045	<0.034	LC-ESI/HRPS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	<41	<36	<40	<35	<57	<60	<40	<37	<44	LC-ESI/HRPS	30
	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.19	<0.18	<0.18	<0.16	<0.3	<0.32	<0.23	<0.21	<0.13	LC-ESI/HRPS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	<0.83	<0.47	<0.49	<0.43	<0.95	<0.99	<0.66	<0.61	<0.72	LC-ESI/HRPS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<0.4	<0.42	<0.48	<0.37	<0.69	<0.7	<0.66	<0.66	<0.45	LC-ESI/HRPS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	<0.62	<0.65	<0.73	<0.58	<1.3	<1.4	<1.3	<1.3	<0.88	LC-ESI/HRPS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	<0.2	<0.21	<0.23	<0.18	<0.62	<0.63	<0.59	<0.59	<0.41	LC-ESI/HRPS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	<0.4	<0.35	<0.39	<0.35	<0.6	<0.63	<0.42	<0.39	<0.46	LC-ESI/HRPS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	<1.1	<0.9	<0.99	<0.98	<2	<2.1	<2.4	<1.9	<1.3	LC-ESI/HRPS	30
	Trimethoprim	738-70-5	ng.g^{-1} dw	<0.31	<0.27	<0.3	<0.28	<0.71	<0.8	<0.89	<0.69	<0.44	LC-ESI/HRPS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	<0.69	<0.59	<0.66	<0.59	<0.91	<0.96	<0.64	<0.59	<0.7	LC-ESI/HRPS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	<0.39	<0.33	<0.36	<0.35	<0.68	<0.69	<0.72	<0.6	<0.48	LC-ESI/HRPS	30
	Verapamil	52-53-9	ng.g^{-1} dw	<0.32	<0.28	<0.3	<0.29	<0.5	<0.48	<0.43	<0.43	<0.33	LC-ESI/HRPS	30
	TCM, Chloroform	67-66-3	ng.g^{-1} dw	<20	<20	<20	<20	220	200	<20	<20	<20	SPME-GC-MS	30
	1,2-DCEt, 1,2-Dichloroethane	107-06-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCM, Tetrachloromethane	56-23-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TCE, Trichloroethylene	79-01-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Xylen, sum of xylens	1330-20-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,4-X, 1,4-xylen + 1,3-xylen	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-X, 1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB, Ethylbenzene	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE, Tetrachloroethene	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	79	72	<20	<20	<20	SPME-GC-MS	30
	CB, Chlorobenzene	108-90-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	0.8	0.6	0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	0.5	0.5	<0.5	2.5	2.8	1.7	1.3	1.2	<0.5	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	0.8	2.9	0.8	20.0	11.0	6.8	2.6	2.9	<0.5	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	0.5	2.0	0.9	15.0	18.0	9.7	2.9	3.1	<0.5	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	1.2	4.0	1.2	35.0	23.0	16.0	4.0	3.8	<0.5	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	1.8	4.2	2.2	41.0	51.0	33.0	6.2	6.5	0.7	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	<0.5	0.7	0.5	9.2	9.2	5.5	1.4	1.7	0.8	GC-MS/MS	30

	PCB 194	35694-08-7	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	0.6	0.6	<0.5	<0.5	<0.5	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	0.6	<0.5	0.9	<0.5	6.1	2.9	3.2	3.3	<0.5	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	<0.5	<0.5	0.8	<0.5	0.5	<0.5	0.6	0.5	<0.5	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.5	<0.5	<0.5	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	Isodrin	465-73-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE28	41318-75-6	ng.g^{-1} dw	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	<0.20	<0.20	<0.20	<0.20	1.90	1.10	0.64	0.58	<0.20	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	<0.20	<0.20	<0.20	<0.20	0.46	0.30	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.27	0.64	<0.20	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: indoor air

No.	Parameter	CAS-number	Unit of measure	Hospital, Oslo			Scool, Oslo				Office building, Oslo						Analysis method	Measure uncer-tainty (%)
				Sample date: 25.-27.09.17			Sample date: 25.-27.09.17				Sample date: 25.-27.09.17							
				6A	7A	8A	9A	10A	11A	12A	1A	2A	3A	4A	5A	5A		
				Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3	Sample 4	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 5		
	Main parameters																	
1	TTBfenol	732-26-3																
Waste	Propikonazol	60207-90-1																
3	Tebukonazol	107534-96-3																
4	p-(1,1-dimethylpropyl)phenol	80-46-6																
5	Tonalide with metabolites	21145-77-7/1 506-02-	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
8	Phenol, heptyl derivs.	72624-02-3																
9	O,O,O-triphenyl phosphorothioate	597-82-0																
10	4-tert-butylphenol	98-54-4																
11	4,4'-methylenedi-2,6-xylenol	5384-21-4																
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8																
13	Isopentyl p-methoxycinnamate	71617-10-2																
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7																
15	Galaxolide with metabolites	1222-05-5	ng/sampler	33	28	<20	42	45	47	52	28	29	<20	<20	36	<20	GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng/sampler	120	82	65	170	190	190	210	96	89	55	61	120	<20	GC-MS/MS	30
17	Buprenorphin	52485-79-7																
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1-yl]ethan-1-one	54464-54-9																
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0																
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2																
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4																
22	Resorcinol	108-46-3																
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng/sampler	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1																
25	Surfadone	2687-96-9																
26	Bis(2-ethylhexyl) terephthalate	6422-86-2																
27	Bentrimonium (ATAC-C20 og ATAC-C22)																	
	Additional parameters																	
	Galaxolide	1222-05-5	ng/sampler	33	28	<20	42	45	47	52	28	29	<20	<20	36	<20	GC-MS/MS	30
	Tonalide	1506-02-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk ketone	81-14-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30

	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk	116-66-5	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng/sampler	720	110	120	825	73	60	58	120	160	100	84	530	<20	SPME-GC-MS	30
	Decamethylcyclopentasiloxane	541-02-6	ng/sampler	950	550	580	480	470	480	510	300	340	210	170	750	<20	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng/sampler	250	100	89	82	80	160	89	130	150	120	120	180	24	SPME-GC-MS	30
	Toluen	108-88-3	ng/sampler	190	120	140	340	300	230	280	600	440	450	420	200	16	SPME-GC-MS	30
	Xylen	1330-20-7	ng/sampler	103	64	68	72	71	66	76	260	193	184	169	107	<10	SPME-GC-MS	30
	1,4-xylen	108-38-3 /106-42-3	ng/sampler	53	34	36	37	38	35	41	160	120	110	100	56	<10	SPME-GC-MS	30
	1,2-xylen	95-47-6	ng/sampler	50	30	32	35	33	31	35	100	73	74	69	51	<10	SPME-GC-MS	30
	EtB	100-41-4	ng/sampler	43	29	31	33	30	28	32	120	86	78	74	47	<10	SPME-GC-MS	30
	Styrene	100-42-5	ng/sampler	110	43	54	37	39	33	42	140	99	120	125	130	<10	SPME-GC-MS	30
	CB	108-90-7	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PCB 28	7012-37-5	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 52	35693-99-3	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 101	37680-73-2	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 118	31508-00-6	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 138	35065-28-2	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 153	35065-27-1	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 180	35065-29-3	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PCB 194	35694-08-7	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	HCB	118-74-1	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PentaCB	608-93-5	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Beta-HCH	319-85-7	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Gama-HCH	58-89-9	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Delta-HCH	319-86-8	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDE	72-55-9	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDD	53-19-0	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDD	72-54-8	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	o,p-DDT	789-02-6	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	p,p-DDT	50-29-3	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	MethoxyCl	72-43-5	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	Aldrin	309-00-2	ng/sampler	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	GC-MS/MS	30
	Dieldrin	60-57-1	ng/sampler	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	GC-MS/MS	30
	Endrin	72-20-8	ng/sampler	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30

	Isodrin	465-73-6	ng/sampler	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng/sampler	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	GC-MS/MS	30
	PBDE28	41318-75-6	ng/sampler	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE47	5436-43-1	ng/sampler	<0.20	<0.20	0.33	<0.20	0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng/sampler	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE 99	60348-60-9	ng/sampler	<0.20	<0.20	0.66	<0.20	0.26	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	GC-MS/MS	30
	PBDE154	207122-15-4	ng/sampler	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE153	68631-49-2	ng/sampler	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	PBDE183	207122-16-5	ng/sampler	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng/sampler	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Matrix: household dust

No.	Parameter	CAS-number	Unit of measure	Hospital, Oslo		School, Oslo		Office building, Oslo		Analysis method	Measure uncer-tainty (%)
				Sample date: 25.-27.09.17		Sample date: 25.-27.09.17		Sample date: 25.-27.09.17			
				Hospital	Hospital vacuum cleaner	School	School	Big 1 - Canteen	Big 2 - 2. et.		
				Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2		
	Main parameters										
1	TTBfenol	732-26-3	ng.g^{-1} dw	<41	<35	<38	<52	<36	<62	LC-APPI/HRPS	30
Waste	Propikonazol	60207-90-1	ng.g^{-1} dw	6.9	12	24	4.2	3.8	5.7	LC-ESI/MS/MS	30
3	Tebukonazol	107534-96-3	ng.g^{-1} dw	5.5	4	3.8	13	28	96	LC-ESI/MS/MS	30
4	p-(1,1-dimethylpropyl)phenol	80-46-6	ng.g^{-1} dw	32	15	25	35	11	14	LC-APPI/HRPS	30
5	Tonalide with metabolites	21145-77-7/1 506-02-1									
6	3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctylacrylate	17527-29-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
7	3,3,4,4,5,5,6,6,7,7,8,8,8-	2144-53-8									
8	Phenol, heptyl derivs.	72624-02-3									
9	O,O,O-triphenyl phosphorothioate	597-82-0	ng.g^{-1} dw	60	56	45	120	42	870	LC-APPI/HRPS	30
10	4-tert-butylphenol	98-54-4	ng.g^{-1} dw	33	18	34	67	24	46	LC-APPI/HRPS	30
11	4,4'-methylenedi-2,6-xylenol	5384-21-4	ng.g^{-1} dw	<1.9	<1.6	<1.7	<2.4	<1.7	<2.8	LC-APPI/HRPS	30
12	Phenol, dodecyl-, sulfurized, carbonates, calcium salts	68784-25-8									
13	Isopentyl p-methoxycinnamate	71617-10-2	ng.g^{-1} dw	11	5.8	<1.7	<1.4	5.1	<4.2	LC-ESI/MS/MS	30
14	Tetraphenyl m-phenylene bis(phosphate)	57583-54-7	ng.g^{-1} dw	17	18	29	54	26	110	LC-ESI/MS/MS	30
15	Galaxolide with metabolites	1222-05-5								GC-MS/MS	30
16	1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethylnaphthalen-2yl]ethan-1-one (OTNE)	54464-57-2	ng.g^{-1} dw	530	320	250	120	500	630	GC-MS/MS	30
17	Buprenorphin	52485-79-7	ng.g^{-1} dw	0.72	0.37	<0.16	<0.17	<0.55	<0.52	LC-ESI/MS/MS	30
18	1-[1,6-dimethyl-3-(4-methylpent-3-enyl)-3-cyclohexen-1 yl]ethan-1-one	54464-54-9									
19	3-(5,5,6-Trimethylbicyclo, [2.2.1]hept-2-	3918-33-0									
20	4- (5,5,6-trimethylbicyclo[2.2.1]hept-2-	16618-85-2									
21	Tris(2-methoxyethoxy)vinylsilane	1067-53-4									
22	Resorcinol	108-46-3	ng.g^{-1} dw	<15	<13	<14	<19	<13	<22	LC-APPI/HRPS	30
23	3,5,5-trimethylcyclohex-2-enone (isophorone)	78-59-1	ng.g^{-1} dw	<50	<50	<50	<50	<50	<50	GC-MS/MS	30
24	Diethylmethylbenzenediamine	68479-98-1	ng.g^{-1} dw	<12	<6.1	<6.6	<5.4	<12	<12	LC-ESI/MS/MS	30
25	Surfadone	2687-96-9	ng.g^{-1} dw	8.5	4.3	<1	<1.1	<3.6	23	LC-ESI/MS/MS	30
26	Bis(2-ethylhexyl) terephthalate	6422-86-2	ng.g^{-1} dw	80000	61000	62000	47000	1100000	190000	LC-APPI/HRPS	30
27	Bentrimonium (ATAC-C20 og ATAC-C22)										

	Additional parameters										
	Galaxolide	1222-05-5	ng.g^{-1} dw	240	200	200	190	230	390	GC-MS/MS	30
	Tonalide	1506-02-1	ng.g^{-1} dw	220	180	190	160	230	390	GC-MS/MS	30
	Musk ketone	81-14-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Musk xylen	81-15-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	2-TERT-BUTYL-4,6-DINITRO-5-METHYLANISOLE, Musk Ambrette	83-66-9	ng.g^{-1} dw	<20	<20	26	1500	<20	<20	GC-MS/MS	30
	1,1,3,3,5-Pentamethyl-4,6-dinitroindane, Musk Moskene	116-66-5	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	5-TERT-BUTYL-4,6-DINITRO-1,2,3-TRIMETHYLBENZENE, Musk Tibeten	145-39-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,3,3-pentamethyl-2,5,6,7-tetrahydroinden-4-one, Cashmeran	33704-61-9	ng.g^{-1} dw	150	89	160	96	73	120	GC-MS/MS	30
	1-(6-tert-butyl-1,1-dimethyl-2,3-dihydroinden-4-yl)ethanone, Celestolide	88401-65-4 /13171-00-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1-(1,1,2,3,3,6-hexamethyl-2H-inden-5-yl)ethanone, Phantolide	15323-35-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	1,1,2,6-Tetramethyl-3-isopropyl-5-acetylindan,	68140-48-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	GC-MS/MS	30
	Bisphenol A	80-05-7	ng.g^{-1} dw	3500	1600	1500	13000	1100	1600	LC-APPI/HRPS	30
	Bisphenol BP	1844-01-5	ng.g^{-1} dw	<0.68	<0.58	<0.63	<0.86	<0.59	<1	LC-APPI/HRPS	30
	Bisphenol TMC	129188-99-4	ng.g^{-1} dw	3.8	<0.14	<0.15	<0.21	<0.15	<0.25	LC-APPI/HRPS	30
	Bisphenol Z	843-55-0	ng.g^{-1} dw	<1	<0.87	<0.94	<1.3	<0.89	<1.5	LC-APPI/HRPS	30
	Bisphenol M	13595-25-0	ng.g^{-1} dw	<1.9	<1.6	<1.8	<2.4	<1.7	<2.9	LC-APPI/HRPS	30
	Bisphenol F	620-92-8	ng.g^{-1} dw	97	45	350	22	57	140	LC-APPI/HRPS	30
	Tetrabromobisphenol A	79-94-7	ng.g^{-1} dw	19	<8.5	<9.1	15000	<8.6	<15	LC-APPI/HRPS	30
	Bisphenol P	2167-51-3	ng.g^{-1} dw	<1.2	<1	<1.1	<1.5	<1	<1.8	LC-APPI/HRPS	30
	1,1,1,3,5,5,5-heptamethyltrisiloxane	1873-88-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Hexamethylcyclotrisiloxane	541-05-9	ng.g^{-1} dw	470	350	605	700	490	1800	SPME-GC-MS	30
	Octamethylcyclotetrasiloxane	556-67-2	ng.g^{-1} dw	100	85	400	<20	61	290	SPME-GC-MS	30
	Dacamethylcyclopentasiloxane	541-02-6	ng.g^{-1} dw	<20	<20	32	<20	63	130	SPME-GC-MS	30
	Dodecamethylcyclohexasiloxane	540-97-6	ng.g^{-1} dw	<20	<20	37	<20	<20	<20	SPME-GC-MS	30
	Alfuzosin	81403-80-7	ng.g^{-1} dw	<0.31	<0.15	<0.16	<0.15	<0.24	<0.3	LC-ESI/MS/MS	30
	Amitryptyline	50-48-6	ng.g^{-1} dw	0.71	0.81	0.12	<0.24	<0.23	<0.44	LC-ESI/MS/MS	30
	Atorvastatin	134523-00-5	ng.g^{-1} dw	9.3	<4.5	14	<5.5	<17	<16	LC-ESI/MS/MS	30
	Azithromycin	83905-01-5	ng.g^{-1} dw	7.8	0.37	<0.067	<0.16	0.25	<0.22	LC-ESI/MS/MS	30
	Bezafibrate	41859-67-0	ng.g^{-1} dw	0.61	<0.058	<0.062	<0.071	<0.15	<0.13	LC-ESI/MS/MS	30
	Bisoprolol	66722-44-9	ng.g^{-1} dw	20	0.69	0.27	<0.15	1.3	0.34	LC-ESI/MS/MS	30
	Caffeine	58-08-2	ng.g^{-1} dw	27000	4700	1800	1300	4100	5400	LC-ESI/MS/MS	30
	Carbamazepine	298-46-4	ng.g^{-1} dw	19	15	<0.41	<0.45	<1.4	<1.4	LC-ESI/MS/MS	30

	Citalopram	59729-33-8	ng.g^{-1} dw	29	1.9	0.43	0.24	<0.65	8.8	LC-ESI/MS/MS	30
	Clarithromycin	81103-11-9	ng.g^{-1} dw	<0.39	<0.32	<0.33	<0.26	<0.44	<0.66	LC-ESI/MS/MS	30
	Clemastine	15686-51-8	ng.g^{-1} dw	<2	<1	<1.1	<1.2	<3.8	<3.6	LC-ESI/MS/MS	30
	Clindamycin	81103-11-9	ng.g^{-1} dw	3.8	0.61	0.2	260	<0.26	<0.38	LC-ESI/MS/MS	30
	Clindamycin sulfoxide	22431-46-5	ng.g^{-1} dw	4.3	0.81	<0.16	3.1	<0.22	<0.33	LC-ESI/MS/MS	30
	Clomipramine	303-49-1	ng.g^{-1} dw	0.85	0.69	<0.41	<0.45	<1.4	<1.3	LC-ESI/MS/MS	30
	Clonazepam	1622-61-3	ng.g^{-1} dw	2.7	1.1	<0.053	<0.062	<0.13	<0.11	LC-ESI/MS/MS	30
	Diclofenac	15307-86-5	ng.g^{-1} dw	310	260	18	7	69	100	LC-ESI/MS/MS	30
	Diltiazem	42399-41-7	ng.g^{-1} dw	0.58	0.2	<0.15	<0.16	<0.51	<0.49	LC-ESI/MS/MS	30
	Diphenhydramine	58-73-1	ng.g^{-1} dw	1.4	<0.16	<0.17	<0.19	<0.6	<0.56	LC-ESI/MS/MS	30
	Disopyramide	3737-09-05	ng.g^{-1} dw	<0.29	<0.15	<0.15	<0.14	<0.23	<0.28	LC-ESI/MS/MS	30
	Erythromycin	114-07-8	ng.g^{-1} dw	7.0	6.3	0.029	<0.039	<0.041	<0.052	LC-ESI/MS/MS	30
	Fenofibrate	49562-28-9	ng.g^{-1} dw	<0.15	<0.16	<0.098	1.8	<0.2	<0.38	LC-ESI/MS/MS	30
	Fexofenadine	83799-24-0	ng.g^{-1} dw	4.1	0.22	0.3	0.36	1.1	0.44	LC-ESI/MS/MS	30
	Glibenclamide	10238-21-8	ng.g^{-1} dw	<0.094	<0.1	<0.061	<0.13	<0.12	<0.24	LC-ESI/MS/MS	30
	Glimepiride	93479-97-1	ng.g^{-1} dw	0.044	0.14	<0.014	<0.029	<0.028	<0.055	LC-ESI/MS/MS	30
	Haloperidol	52-86-8	ng.g^{-1} dw	2.2	0.6	<0.17	<0.19	<0.59	<0.56	LC-ESI/MS/MS	30
	Irbesartan	138402-11-6	ng.g^{-1} dw	4.4	0.19	<0.12	<0.13	<0.42	<0.4	LC-ESI/MS/MS	30
	Loperamide	53179-11-6	ng.g^{-1} dw	<0.19	<0.14	<0.15	<0.18	<0.36	<0.32	LC-ESI/MS/MS	30
	Memantine	19982-08-2	ng.g^{-1} dw	0.85	0.32	<0.16	<0.15	<0.24	<0.3	LC-ESI/MS/MS	30
	Metoprolol	51384-51-1	ng.g^{-1} dw	28	19	1.1	0.71	1.3	2.1	LC-ESI/MS/MS	30
	Metoprolol acid	56392-14-4	ng.g^{-1} dw	28	9.5	1.1	68	<0.85	<1.4	LC-ESI/MS/MS	30
	Mirtazapine	61337-67-5	ng.g^{-1} dw	23	<0.55	<0.57	<0.52	<0.84	<1.1	LC-ESI/MS/MS	30
	N-Desmethylcitalopram	144025-14-9	ng.g^{-1} dw	2.2	<0.28	<0.31	<0.34	<1.1	<1	LC-ESI/MS/MS	30
	Norsertraline	87857-41-8	ng.g^{-1} dw	<0.016	<0.018	<0.011	<0.022	<0.022	<0.042	LC-ESI/MS/MS	30
	O-Desmethylvenlafaxine	93413-62-8	ng.g^{-1} dw	<0.54	<0.34	<0.35	<0.29	<0.63	<0.56	LC-ESI/MS/MS	30
	Orphenadrine	83-98-7	ng.g^{-1} dw	<0.22	<0.11	<0.12	<0.13	<0.42	<0.4	LC-ESI/MS/MS	30
	Oxazepam	604-75-1	ng.g^{-1} dw	17	8.4	2.8	3.4	3.7	12	LC-ESI/MS/MS	30
	Rosuvastatin	287714-41-4	ng.g^{-1} dw	1.0	1.1	<0.033	<0.069	<0.067	<0.13	LC-ESI/MS/MS	30
	Roxithromycin	80214-83-1	ng.g^{-1} dw	<0.14	<0.17	<0.093	<0.23	<0.24	<0.3	LC-ESI/MS/MS	30
	Sertraline	79617-96-2	ng.g^{-1} dw	0.64	<0.43	<0.26	<0.54	<0.52	<1	LC-ESI/MS/MS	30
	Sulfamethazine	57-68-1	ng.g^{-1} dw	<1	<0.66	<0.55	<0.48	<0.78	<1.2	LC-ESI/MS/MS	30
	Sulfamethoxazole	723-46-6	ng.g^{-1} dw	37	30	<0.42	<0.34	<0.64	<1	LC-ESI/MS/MS	30
	Sulfapyridine	144-83-2	ng.g^{-1} dw	<1.3	<0.83	<0.69	4.7	<0.98	<1.5	LC-ESI/MS/MS	30
	Terbinafine	91161-71-6	ng.g^{-1} dw	1.1	0.31	0.15	0.39	<0.24	0.86	LC-ESI/MS/MS	30
	Tramadol	27203-92-5	ng.g^{-1} dw	56	29	0.92	0.73	<0.41	1.6	LC-ESI/MS/MS	30

	Trimethoprim	738-70-5	ng.g^{-1} dw	46	20	<0.48	<0.42	<0.69	<1.1	LC-ESI/MS/MS	30
	Valsartan	137862-53-4	ng.g^{-1} dw	140	3.1	80	<0.17	<0.16	1.2	LC-ESI/MS/MS	30
	Venlafaxine	93413-69-5	ng.g^{-1} dw	4.4	2.3	<0.17	0.16	<0.31	<0.28	LC-ESI/MS/MS	30
	Verapamil	52-53-9	ng.g^{-1} dw	0.37	0.31	<0.078	<0.16	<0.16	<0.3	LC-ESI/MS/MS	30
	Benzen	71-43-2	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Toluen	108-88-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	Xylen	1330-20-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,4-xylen	108-38-3 /106-42-3	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,2-xylen	95-47-6	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	EtB	100-41-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	TTCE	127-18-4	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	CB	108-90-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PCB 28	7012-37-5	ng.g^{-1} dw	1.9	<1.0	3.6	<1.0	4.0	2.7	GC-MS/MS	30
	PCB 52	35693-99-3	ng.g^{-1} dw	3.7	<1.0	7.5	<1.0	9.1	5.4	GC-MS/MS	30
	PCB 101	37680-73-2	ng.g^{-1} dw	1.9	1.1	2.8	1.1	3.8	2.7	GC-MS/MS	30
	PCB 118	31508-00-6	ng.g^{-1} dw	2.4	<1.0	3.3	<1.0	4.5	3.2	GC-MS/MS	30
	PCB 138	35065-28-2	ng.g^{-1} dw	2.5	1.4	2.1	2.1	2.2	1.8	GC-MS/MS	30
	PCB 153	35065-27-1	ng.g^{-1} dw	2.4	1.5	1.8	2.0	1.8	1.6	GC-MS/MS	30
	PCB 180	35065-29-3	ng.g^{-1} dw	1.0	1.1	<1.0	<1.0	1.1	1.1	GC-MS/MS	30
	PCB 194	35694-08-7	ng.g^{-1} dw	<1	<1	<1	<1	<1	<1	GC-MS/MS	30
	Alfa-HCH	319-84-6	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	HCB	118-74-1	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	PentaCB	608-93-5	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Beta-HCH	319-85-7	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Gama-HCH	58-89-9	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	Delta-HCH	319-86-8	ng.g^{-1} dw	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	GC-MS/MS	30
	o,p-DDE	3424-82-6	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDE	72-55-9	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	o,p-DDD	53-19-0	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDD	72-54-8	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	o,p-DDT	789-02-6	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	GC-MS/MS	30
	p,p-DDT	50-29-3	ng.g^{-1} dw	<3.0	<3.0	<3.0	<3.0	<3.0	3.4	GC-MS/MS	30
	MethoxyCl	72-43-5	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Aldrin	309-00-2	ng.g^{-1} dw	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Dieldrin	60-57-1	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30
	Endrin	72-20-8	ng.g^{-1} dw	<10	<10	<10	<10	<10	<10	GC-MS/MS	30

	Isodrin	465-73-6	ng.g^{-1} dw	<5	<5	<5	<5	<5	<5	GC-MS/MS	30
	Chlorpyrifos	2921-88-2	ng.g^{-1} dw	<3.0	<3.0	<3.0	<1.0	<3.0	<3.0	GC-MS/MS	30
	PBDE28	41318-75-6	ng.g^{-1} dw	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	GC-MS/MS	30
	PBDE47	5436-43-1	ng.g^{-1} dw	1.1	2.4	13.0	110.0	0.8	1.0	GC-MS/MS	30
	PBDE 1OO	189084-64-8	ng.g^{-1} dw	<0.5	<0.5	2.0	17.0	<0.5	<0.5	GC-MS/MS	30
	PBDE 99	60348-60-9	ng.g^{-1} dw	0.7	2.7	7.4	61.0	1.6	2.0	GC-MS/MS	30
	PBDE154	207122-15-4	ng.g^{-1} dw	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	GC-MS/MS	30
	PBDE153	68631-49-2	ng.g^{-1} dw	<0.5	<0.5	0.6	1.4	<0.5	0.5	GC-MS/MS	30
	PBDE183	207122-16-5	ng.g^{-1} dw	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	GC-MS/MS	30
	HexaMeDisiloxan	107-46-0	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DecaMeTetrasiloxan	141-62-8	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	DodecaMePentasiloxan	141-63-9	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	OcMeTrisiloxan	107-51-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	1,3-Bis(TriFlMe)BrBe	328-70-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	HexaFl-1,2,3,4-tetra	375-45-1	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30
	PentaFlBrBenzen	344-04-7	ng.g^{-1} dw	<20	<20	<20	<20	<20	<20	SPME-GC-MS	30

Norwegian Environment Agency
Telephone: +47 73 58 05 00 | Fax: +47 73 58 05 01
E-mail: post@miljodir.no
Web: www.environmentagency.no
Postal address: Postboks 5672 Torgarden, N-7485 Trondheim
Visiting address Trondheim: Brattørkaia 15, 7010 Trondheim
Visiting address Oslo: Grensesvingen 7, 0661 Oslo

The Norwegian Environment Agency is working for a clean and diverse environment. Our primary tasks are to reduce greenhouse gas emissions, manage Norwegian nature, and prevent pollution.

We are a government agency under the Ministry of Climate and Environment and have 700 employees at our two offices in Trondheim and Oslo and at the Norwegian Nature Inspectorate's more than sixty local offices.

We implement and give advice on the development of climate and environmental policy. We are professionally independent. This means that we act independently in the individual cases that we decide and when we communicate knowledge and information or give advice.

Our principal functions include collating and communicating environmental information, exercising regulatory authority, supervising and guiding regional and local government level, giving professional and technical advice, and participating in international environmental activities.