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Screening of EU Aquatic Watch List Compounds 2017



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Title - Norwegian and English

Screening av stoffer på obs-listen under EUs vannrammedirektiv 2017 Screening of EU Aquatic Watch List Compounds 2018

Summary - sammendrag

30 freshwater and seawater samples were collected from different parts of Norway in November 2017, and analysed for substances on the watch list under the EU Water Framework Directive. Estrone (E1) was detected at four sites, and Ibuprofen was detected at two sites. The rest of the analysis results were below LOQ (limits of quantification).

30 vannprøver ble i november 2017 hentet inn fra ferskvann og sjøvann fra forskjellige deler av Norge, og analysert for stoffer på obs-listen under EUs vannrammedirektiv. Estron (E1) ble detektert ved fire prøvetakingssteder, og Ibuprofen ble detektert ved to prøvetakingssteder. Resten av analyseresultatene var lavere enn kvantifiseringsgrensen.

4 emneord

Screening, miljøgifter, obs-liste, EUs vannrammedirektiv

4 subject words

Screening, pollutants, watch list, Water Framework Directive

Front page photo

Rekvika, Troms (69°N) in November light. Photo: John Ingar Jenssen, COWI

Content

1. Background and introduction	4
2. Materials and methods	4
2.1 Sampling	4
2.1.1 Sampling sites	4
2.1.2 Collection, handling and shipment of samples	10
2.2 Analysis	10
2.2.1 General	10
2.2.2 Hormone analysis	10
2.2.3 Alkylphenol and cinnamate analysis	10
2.2.4 Polar pesticides and pharmaceuticals analyses	11
3. Results	11
4. References	14

Attachments:

1. Analysis certificates

1. Background and introduction

The watch list under the EU Water Framework Directive includes 17 different substances (Commission implementing decision (EU) 2015/495, Table 2). These are potential priority substances, including pesticides, pharmaceuticals and personal care products that need to be monitored to determine their environmental risk (Science for Environment Policy, 2016). The first watch list was adopted in 2015. According to EU regulations, the substances on the watch list require temporary monitoring in order to decide if the substances represent a possible risk to or via the environment. Thus, after a period of time, a substance on the watch list can be transferred to the EU list of priority environmental contaminants, if that is found to be necessary.

The aim of this project has been to examine the presence of watch list substances in Norwegian lakes, rivers and coastal areas, by collecting and analysing water samples. Emphasis has been placed on achieving a widespread spatial distribution of sampling sites across the entire country within the given resources for the project. Furthermore, the sampling sites have been selected to represent lakes, rivers and coastal waters/seawater, and to represent both non-affected and affected water bodies. Interpretation of the results was not a goal of the project.

The results from this survey will be included in EU risk assessments for the watch list substances.

2. Materials and methods

2.1 Sampling

2.1.1 Sampling sites

The water samples were collected at 30 sites located in five different regions of Norway: Oslo (eastern region, site 1-6), Haugesund (southern/western region, 7-12), Trondheim (middle region, 13-18), Bodø (southern region of Northern Norway, 19-24) and Tromsø (northern region of Northern Norway, 25-30) (Figure 1-6). The sites consisted of both rivers, lakes and coastal areas, and the sites were to some degree influenced by local discharge from human activity (Table 1). All the sampling sites were however outside of the primary dilution zones of sanitary or industrial discharge. The sampling included one sample per site.



Figure 1. Map of Norway showing the five sampling regions, with six sampling sites in each region. See Figure 2-6 and Table 1 for detailed information about each sampling site. Map basis: © Kartverket.



Figure 2. Map showing sampling sites at eastern region. Map basis: © Kartverket.



Figure 3. Map showing sampling sites at southern/western region. Map basis: © Kartverket.



Figure 4. Map showing sampling sites at middle region. Map basis: © Kartverket.



Figure 5. Map showing sampling sites at southern region of Northern Norway. Map basis: $\ensuremath{\mathbb{C}}$ Kartverket.



Figure 6. Map showing sampling sites at northern region of Northern Norway. Map basis: $\ensuremath{\mathbb{C}}$ Kartverket.

Table 1. Sampling sites in the Norwegian watch list project 2017.

No.	Name water body	Kind of	Code	Coordinate	s sampling	Comments
		water	http://vann	sites (UTM	33, Euref89)	
			<u>miljo.miljodi</u>	N	E	
			<u>rektoratet.n</u>			
			<u>o/</u>			
1	Inner Oslofjorden	Sea	01.01-85460	6648935	256694	Receives discharge from municipal wastewater, agriculture and
						industry.
2	Inner Drammensfjorden	Brackish	01.01-85461	6630622	233456	Receives discharge from municipal wastewater, agriculture and
						industry.
3	Outer Drammensfjorden	Sea	01.01-85462	6614836	241412	More exposed and less affected than Indre Oslofjorden and
						Indre Drammensfjorden.
4	Drammenselva, by the	River	012-28212	6632349	230499	Receives discharge from municipal wastewater, agriculture and
	outlet					industry. Fishery, e.g. salmon.
5	Lake Maridalsvannet	Lake	006-85463	6655933	264800	Drinking water supply. Drainage from agriculture.
		· · ·				
6	Lake Damtjern	Lake	011-56365	6638834	235467	Small lake. Drainage from industry and roads. Popular
-		-	00.40.05.44.4	((00)	500.40	swimming site.
/	Røværsfjorden	Sea	02.42-85464	6629172	-52349	Moderate exposed. Low degree of discharge from e.g.
_						municipal wastewater, agriculture and industry.
8	Karmsundet	Sea	02.42-85465	6620140	-51116	Receives discharge from municipal wastewater, agriculture and
		-	00.40.05.444	((0070)	20074	industry.
9	Inner Førlandsfjorden	Sea	02.42-85466	6622724	-39871	Shielded oxygen-poor fjord. Considerably load of organic
10			000 05 4/7		105.05	matter.
10	Raglamyrbekken	River	039-85467	6624198	-48505	Heavily influenced by industry.
11	Laba Finin davata at	Laba	020 05 4/ 0	((2(001	4002.4	Curimenta de la
11	Lake Elvindsvätnet	Lake	039-85468	6626901	-49034	Swimming lake.
12	Lako Toskatiorn	Lako	020 54202	6625605	44550	Mederate drainage from reads /infrastructure
12	Lake Toskatjelli	Lake	039-30392	0023003	-40330	
13	Tautra	Sea	03 20-85/69	7058311	282750	Agricultural area, good water replacement
		Jea	03.20-03-09	7050511	2027 30	
14	Hommelvik	Brackish	03,20-85470	7040300	289124	Receives discharge from municipal wastewater, agriculture and
						industry.

15	Stjørdal harbour	Brackish	03.20-85471	7043986	294854	Influenced by industry. A larger airport nearby.
16	Lake Jonsvannet	Lake	123-85472	7035690	278746	Drinking water supply. Agricultural area.
17	Stjørdalselva upstream	River	124-85473	7041913	301325	Extensive agricultural activity.
18	Nidelven	River	123-85474	7042152	270936	River that runs through the city of Trondheim.
19	Lake Soløyvatnet	Lake	165-85475	7465050	482977	Possibly influenced by rural settlement, some cottages, and a horse centre. Swimming lake.
20	Varpodden	Sea	03.63-85476	7466231	474837	Possibly influenced by a closed landfill.
21	Landegodefjorden	Sea	03.63-85477	7469679	474662	Assumed non-affected.
22	Saltstraumen	Sea	03.63-85478	7456164	483284	Powerful tidal water.
23	Saltfjorden	Sea	03.63-85479	7459764	468352	Possibly affected by municipal wastewater.
24	Bodø harbour	Sea	03.63-85480	7462034	470890	Possibly affected by municipal wastewater and industrial discharge.
25	Lake Storvannet	Lake	197-85481	7745226	638107	Drinking water supply.
26	Sandøysundet	Sea	04.02-85482	7735568	649832	Some supply of discharge from the town of Tromsø.
27	Lake Prestvannet	Lake	197-85483	7732874	652463	Highly influenced by traffic and hiking in the town of Tromsø.
28	Tromsdalselva	River	199-85484	7731102	656063	Influenced by some degree by local activities in the town of Tromsø.
29	Rekvik	Sea	04.02-85485	7740019	628403	Low degree of influence from human activity.
30	Tromsøysundet	Sea	04.02-85486	7732073	653888	Receives discharge from population and maritime industry in the town of Tromsø.

2.1.2 Collection, handling and shipment of samples

28 of 30 samples were collected on 6 November 2017, by COWI staff. The two last samples were collected on 20 November 2017 (due to breakage of these samples in the original shipment). The samples were collected as spot tests directly into amber glass bottles, and taken 1-2 m below the water surface. The bottles were first prepared by washing with HPLC quality acetone and dried at 300°C.

The water samples were instantly cooled to $1-5^{\circ}$ C, packed in insulated boxes and sent to the lab. All the samples arrived at the lab within four days after sampling.

The sampling was conducted according to the guidelines in the Norwegian Water Regulation, and according to descriptions in Norwegian Standards (NS) for water sampling in freshwater and seawater. In addition, extra measures were made to secure sufficient sampling hygiene. For example, the sampling personnel did not use personal care products 24 hours prior to sampling. This is due to the case that some of the compounds of interest in this screening are known to be used in such products, and recent use by sampling personnel could therefore cause contamination of the samples.

2.2 Analysis

2.2.1 General

The samples were analysed at the Water-management laboratory *Povodí Labe, státní podnik*, in the Czech Republic, in November and December 2017. This laboratory provides complex laboratory services and expert advisory services, both nationally and to the European Union (EU). *Povodí Labe* also has the status and qualification as the reference laboratory for ring testing of substances in water within the EU. The laboratory follows the quality system in accordance with ČSN EN ISO/IEC 17025, and is accredited for all the analysis methods used in this programme.

2.2.2 Hormone analysis

Aliquots of water samples (0.8 litre) were spiked with deuterized internal standards and liquid/liquid extracted with dichloromethane. Dichloromethane was evaporated to 1 mL by a rotary vapour evaporator, diluted to 3 mL, filtered by a 0.2 μ m nylon filter and cleaned by Gel Permeation Chromatography (GPC). Relevant fraction was evaporated by flow of dry nitrogen to dryness, dissolved in a mixture of hexane:acetone (1:1) and cleaned on the Florisil by the same mixture. Eluate was again evaporated to dryness and dissolved in methanol:water (4:5). A 100 μ L aliquot was injected to UHPLC-ESI-MS/MS and two transitions per analyte were measured. A linear calibration curve with internal standard correction was used for quantitation. LOQ was determined as the lowest calibration level, or a concentration with uncertainty (Relative standard deviation, RSD) up to 30 %.

2.2.3 Alkylphenol and cinnamate analysis

Aliquots of water samples (0.8 litre) were spiked with an internal standard (PCB-203) and liquid/liquid extracted with heptane (4 mL). 20 μ L of extract was injected in solvent vent mode on GC-MS/MS and two transitions per analyte were measured. A linear calibration curve

with internal standard correction was used for quantitation. LOQ was determined as the lowest calibration level, or a concentration with uncertainty (Relative standard deviation, RSD) up to 30 %.

2.2.4 Polar pesticides and pharmaceuticals analyses

Aliquots of water samples after filtering with 0.2 µm Regenerated Cellulose filter (1 mL) were spiked with internal standards and injected directly on UHPLC-ESI-MS/MS and two transitions per analyte were measured. Two modes with different mobile phases were used for positive and negative ionization mode. A linear calibration curve with internal standard correction was used for quantitation. LOQ was determined as the lowest calibration level, or a concentration with uncertainty (Relative standard deviation, RSD) up to 30 %.

3. Results

All the watch list compounds were analysed in all the water samples. Estrone (E1) was detected at four sites, both in freshwater and in seawater, while the additional compound ibuprofen was detected at two sites, both in brackish water and seawater (Table 2). The measured values for estrone in freshwater (0.41-0.73 ng/l) were however well below the PNEC (predicted no-effect concentration) for this substance, which is 3.6 ng/l (Tavazzi *et al.*, 2016). To our knowledge, there is no PNEC established for estrone in seawater. The rest of the analysis results were below LOQ (limits of quantification) (Table 2). The results are available electronically, in the database *Vannmiljø* (http://vannmiljo.miljodirektoratet.no/).

Table 2. Results from the watch list screening. Compound 1-17 are watch list compounds, and compound 18-21 are additional compounds. LOD = limits of detection, and LOQ = limits of quantification. Yellow marked cells show results above LOQ. The rest of the results are below LOQ. The table continues on the next page.

Com-	Compound name	CAS-	EC-number	Unit of	LOD	LOQ	Analysis method	Measure	Location \rightarrow	2 Indre	3 Ytre	4 Drommone	5 Lake	6 Lake
no.		number		sure				ainty	Oslofiorden	fiorden	fiorden	elva, by the	vannet	Damijem
								(%)			.,	outlet		
1	17-Alpha-ethinylestradiol (EE2)	57-63-6	200-342-2	ng/l	0.03	0.1	US EPA 539, LC-ESI-MS/MS	30	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
2	17-Beta-estradiol (E2)	50-28-2	200-023-8	ng/l	0.1	0.3	US EPA 539, LC-ESI-MS/MS	30	< 0.30	< 0.30	< 0.30	<0.30	< 0.30	<0.30
3	Estrone (E1)	53-16-7		ng/l	0.1	0.3	US EPA 539, LC-ESI-MS/MS	30	<0.30	<0.30	<0.30	<0.30	<0.30	0.41
4	Diclofenac	15307-86-5	239-348-5	ng/l	2	5	DIN 38407-36, DAI-HPLC-MS/MS	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
5	2,6-Ditert-butyl-4-methylphenol	128-37-0	204-881-4	ng/l	3	10	DIN EN ISO 18856, LLE-GC-MS	20	<10	<10	<10	<10	<10	<10
6	2-Ethylhexyl 4-methoxycinnamate	5466-77-3	226-775-7	ng/l	10	25	DIN EN ISO 18856, LLE-GC-MS	20	<25	<25	<25	<25	<25	<25
7	Erythromycin	114-07-8	204-040-1	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
8	Clarithromycin	81103-11-9		ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
9	Azithromycin	83905-01-5	617-500-5	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
10	Methiocarb	2032-65-7	217-991-2	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
11	Imidacloprid	105827-78-9	428-040-8	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
12	Thiacloprid	111988-49-9		ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
13	Thiamethoxam	153719-23-4	428-650-4	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
14	Clothianidin	210880-92-5	433-460-1	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
15	Acetamiprid	135410-20-7	160430-64-8	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
16	Oxadiazon	19666-30-9	243-215-7	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
17	Tri-allate	2303-17-5	218-962-7	ng/l	3	10	DIN EN ISO 18856, LLE-GC-MS	20	<10	<10	<10	<10	<10	<10
18	17-Alfa-estradiol	57-91-0	200-354-8	ng/l	0.1	0.3	US EPA 539, LC-ESI-MS/MS	30	< 0.30	<0.30	<0.30	< 0.30	< 0.30	< 0.30
19	Ibuprofen	15687-27-1	239-784-6	ng/l	2	5	DIN 38407-36, DAI-HPLC-MS/MS	30	5.3	5.3	<5.0	<5.0	<5.0	<5.0
20	Roxithromycin	80214-83-1	617-007-5	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10
21	Tylosin	1401-69-0	215-754-8	ng/l	3	10	DIN 38407-36, DAI-HPLC-MS/MS	30	<10	<10	<10	<10	<10	<10

Com- pound	Compound name	7 Røværs- fjorden	8 Karm- sundet	9 Forlands- fjorden	10 Raglamyr-	11 Eivinds- vatnet	12 Toskatjern	13 Tautra	14 Hommel-	15 Stjørdal	16 Jons- vannet	17 Stjørdal	18 Nidelven
no.		-		indre	bekken		-		vik	harbour		river	
1	17-Alpha-ethinylestradiol (EE2)	< 0.10	< 0.10	< 0.10	<0.10	<0.10	<0.10	<0.10	< 0.10	< 0.10	< 0.10	<0.10	< 0.10
2	17-Beta-estradiol (E2)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	< 0.30	< 0.30	< 0.30	<0.30	< 0.30
3	Estrone (E1)	<0.30	<0.30	< 0.30	0.73	<0.30	<0.30	<0.30	< 0.30	< 0.30	<0.30	<0.30	< 0.30
4	Diclofenac	<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	2,6-Ditert-butyl-4-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6	2-Ethylhexyl 4-methoxycinnamate	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
7	Erythromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8	Clarithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
9	Azithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
10	Methiocarb	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
11	Imidacloprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
12	Thiacloprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
13	Thiamethoxam	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
14	Clothianidin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
15	Acetamiprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
16	Oxadiazon	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
17	Tri-allate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
18	17-Alfa-estradiol	<0.30	<0.30	< 0.30	<0.30	<0.30	<0.30	<0.30	< 0.30	< 0.30	<0.30	<0.30	< 0.30
19	Ibuprofen	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
20	Roxithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
21	Tylosin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Com-	Compound name	19 Lake	20 Varp-	21 Lande-	22 Salt-	23 Salt-	24 Bodø	25 Lake	26 Sandøy-	27 Lake	28	29 Rekvik	30
pound		Soløy-	odden	gode-	straumen	fjorden	harbour,	Stor-	sundet	Prest-	Tromsdals		Tromsøy-
no.		vatnet		fjorden			outer	vannet		vannet	river		sundet
1	17-Alpha-ethinylestradiol (EE2)	< 0.10	<0.10	< 0.10	< 0.10	< 0.10	<0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.10	< 0.10
2	17-Beta-estradiol (E2)	< 0.30	<0.30	<0.30	< 0.30	< 0.30	<0.30	< 0.30	<0.30	<0.30	<0.30	<0.30	<0.30
3	Estrone (E1)	< 0.30	<0.30	< 0.30	< 0.30	< 0.30	0.45	< 0.30	< 0.30	0.45	<0.30	< 0.30	< 0.30
4	Diclofenac	<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	2,6-Ditert-butyl-4-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
6	2-Ethylhexyl 4-methoxycinnamate	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
7	Erythromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8	Clarithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
9	Azithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
10	Methiocarb	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
11	Imidacloprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
12	Thiacloprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
13	Thiamethoxam	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
14	Clothianidin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
15	Acetamiprid	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
16	Oxadiazon	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
17	Tri-allate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
18	17-Alfa-estradiol	< 0.30	<0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
19	Ibuprofen	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
20	Roxithromycin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
21	Tylosin	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

4. References

Commission implementing decision (EU) 2015/495, of 20 March 2015. <u>http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32015D0495</u>. 3 p.

Science for Environment Policy, 2016. Issue 473.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/pollutants_eu_watch _list_occurrence_water_treatment_options_473na4_en.pdf. 2 p.

Tavazzi, S., Comero, S., Ricci, M., Paracchini, B., Mariani, G. and Gawlik, B.M. 2016. Water Framework Directive Watch List Method Analysis of 17ß-estradiol and estrone. EUR 27970 EN; doi: 10.2788/122189. 58 p.

Attachments

1. Analysis certificates, 8 p.

Attachment 1 - Analysis certificates



Analysis ordered by: Subj. ID: Z0000134 VAT ID: SE5569200578

Order No .:

POVODÍ LABE, státní podnik odbor vodohospodářských laboratoří Subj. ID: 70890

Víta Nejedlého 951, 500 03 HRADEC KRÁLOVÉ

Subj. ID: 70890005 VAT ID: CZ70890005 tel: 495 088 777



fax: 495 088 742

EXPOSMETER AB

Trehorningen 34 Sweden SE92266

TEST REPORT No: 5756/17 Issued on: 7.12.2017

Page/number of pages: 1/6

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The analysis results concern only the subject of the analyses and do not substitute other documents.

Sample No.	Place of sampling:	Material	Depth (m)
13961	A103643 Indre Oslofjorden	water sample	
13962	A103643 Indre Drammensfjorden	water sample	
13963	A103643 Ytre Drammensfjorden	water sample	
13964	A103643 Drammense Iva, vedutlopet	water sample	
13965	A103643 Maridalsvannet, Oslo	water sample	
13966	A103643 Damtjern,Lier	water sample	
13967	A103643 Rovarsfjorden	water sample	
13968	A103643 Karmsundet-Kopervik	water sample	
13969	A103643 Forlandsfjorden indre	water sample	
13970	A103643 Raglamyrbekken, Grensebekk	water sample	
13971	A103643 Eivindsvatnet	water sample	
13972	A103643 Toskatjern	water sample	
13973	A103643 Tautra	water sample	
13974	A103643 Stjordal havn	water sample	
13975	A103643 Stjordalselva oppstroms	water sample	
13976	A103643 Nidelven	water sample	
13977	A103643 Soloyvatnet	water sample	
13978	A103643 Varpodden/Bratten	water sample	
13979	A103643 Landegodefjorden	water sample	
13980	A103643 Indre Sundan/Saltstraumen	water sample	
13981	A103643 Saltfjorden	water sample	
13982	A103643 Bodohavn,ytre	water sample	
13983	A103643 Sandoysundet	water sample	
13984	A103643 Prestvannet	water sample	
13985	A103643 Tromsdalselva	water sample	
13986	A103643 Tromsoysundet	water sample	

Sample No.	Sampling-start	Sampling-end	Sampled by	Type of sampling	Registered on	Analyzing-start	Analyzing-end
13961	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13962	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13963	6.11.17		customer	spot	8.11.17	8.11.17	4,12,17
13964	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13965	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13966	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13967	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13968	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13969	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13970	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13971	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13972	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13973	6.11.17		customer	spot 15	8.11.17	8.11.17	7.12.17



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Sample No.	Sampling-start	Sampling-end	Sampled by	Type of sampling	Registered on	Analyzing-start	Analyzing-end
13974	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13975	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13976	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13977	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13978	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13979	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13980	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13981	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13982	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13983	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13984	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13985	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
13986	6.11.17		customer	spot	8.11.17	8.11.17	4.12.17
	n nev a						
Sample No.	Specification (of sample					
13961	Exposmeter ID	:E1225, Location	n no. 1				
13962	Exposmeter ID	:E1226, Location	n no. 2				
13963	Exposmeter ID	:E1227, Location	n no. 3				
13964	Exposmeter ID	E1228, Location	n no. 4				
13965	Exposmeter ID	:E1229, Location	n no. 5				
13966	Exposmeter ID	:E1230, Location	1 no. 6				
13967	Exposmeter ID	:E1231, Location	n no. 7				
13968	Exposmeter ID	:E1232, Location	n no. 8				
13969	Exposmeter ID	E1233, Location	n no. 9				
13970	Exposmeter ID	E1234, Location	n no. 10				
13971	Exposmeter ID	E1235, Location	n no. 11				
13972	Exposmeter ID	E1236, Location	n no. 12				
13973	Exposmeter IL	E1237, Location	n no. 15				
13974	Exposmeter IL	E1239, Location	n no. 15				
13975	Exposmeter IL	E1241, Location	n no. 17				
13976	Exposmeter IL	E1242, Location	n no. 18				
13977	Exposmeter IL	E1243, Location	n no. 19				
13978	Exposmeter IL	E1244, Location	n no. 20				
13979	Exposmeter IL	E1245, Location	n no. 21				
13980	Exposmeter IL	E1246, Locatio	n no. 22				
13981	Exposmeter IL	E1247, Locatio	n no. 23				
13982	Exposmeter IL	E1246, Locatio	n no. 24				
13983	Exposmeter IL	E1250, Locatio	n no. 20				
13984	Exposmeter IL	E1251, Locatio	n no. 29				
13983	Exposmeter IL	E_{1252} , Locatio	n no. 30				
13980	Expositieter IL	7.E1234, LOCallo	11 110, 50				

Parameter	Unit	S. No. 13961	S. No. 13962	S. No. 13963	S. No. 13964	S. No. 13965
triallate	ng/l	<10	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10	<10
			16			



POVODÍ LABE, státní podnik odbor vodohospodářských laboratoří Víta Nejedlého 951, 500 03 HRADEC KRÁLOVÉ VAT ID: CZ70890005

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Page/number of pages: 3/6

Parameter	Unit	S. No. 13966	S. No. 13967	S. No. 13968	S. No. 13969	S. No. 13970
triallate	ng/l	<10	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13971	S. No. 13972	S. No. 13973	S. No. 13974	S. No. 13975
triallate	ng/l	<10	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13976	S. No. 13977	S. No. 13978	S. No. 13979	S. No. 13980
triallate	ng/l	<10	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13981	S. No. 13982	S. No. 13983	S. No. 13984	S. No. 13985
triallate	ng/l	<10	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13986
triallate	ng/l	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10

Parameter	Unit	S. No. 13961	S. No. 13962	S. No. 13963	S. No. 13964	S. No. 13965
4-MeO-cinnamat	ng/l	<25	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	5,3	5,3	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10	<10
erytromycin	ng/l	<10	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10	<0,10
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
klaritromycin	ng/l	<10	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10	<10
methiokarb	ng/l	<10	<10	<10	<10	<10
imidakloprid	ng/l	<10	<10	<10	<10	<10
thiakloprid	ng/l	<10	<10	<10	<10	<10
thiamethoxam	ng/l	<10	<10	<10	<10	<10
klothianidin	ng/l	<10	<10	<10	<10	<10
acetamiprid	ng/l	<10	<10	<10	<10	<10
oxadiazon	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13966	S. No. 13967	S. No. 13968	S. No. 13969	S. No. 13970
4-MeO-cinnamat	ng/l	<25	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10	<10
erytromycin	ng/l	<10	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10	<0,10



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Page/number of pages: 4/6

Parameter	Unit	S. No. 13966	S. No. 13967	S. No. 13968	S. No. 13969	S. No. 13970
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	< 0.30	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	0.41	<0,30	<0,30	<0,30	0,73
klaritromycin	ng/l	<10	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10	<10
methickarh	ng/l	<10	<10	<10	<10	<10
imidaklonrid	ng/l	<10	<10	<10	<10	<10
thickloprid	ng/l	<10	<10	<10	<10	<10
thiamothowar	ng/i	<10	<10	<10	<10	<10
Infamethoxam	ng/i	<10	<10	<10	<10	<10
Kiothianidin	ng/l	<10	<10	<10	<10	<10
ovadiazon	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13971	S. No. 13972	S. No. 13973	S. No. 13974	S. No. 13975
4-MeO-cinnamat	ng/l	<25	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10	<10
ervtromycin	ng/l	<10	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10	<0,10
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	<0.30	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
klaritromycin	ng/l	<10	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10	<10
methiokarb	ng/l	<10	<10	<10	<10	<10
imidakloprid	ng/l	<10	<10	<10	<10	<10
thiakloprid	ng/l	<10	<10	<10	<10	<10
thiamethoxam	ng/l	<10	<10	<10	<10	<10
klothianidin	ng/l	<10	<10	<10	<10	<10
acetamiprid	ng/l	<10	<10	<10	<10	<10
oxadiazon	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13976	S. No. 13977	S. No. 13978	S. No. 13979	S. No. 13980
4-MeO-cinnamat	ng/l	<25	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10	<10
ervtromycin	ng/l	<10	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10	<0,10
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	< 0.30	<0,30	<0,30	<0,30	<0,30
klaritromycin	ng/l	<10	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10	<10
methiokarb	ng/l	<10	<10	<10	<10	<10



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Page/number of pages: 5/6

Parameter	Unit	S. No. 13976	S. No. 13977	S. No. 13978	S. No. 13979	S. No. 13980
imidakloprid	ng/l	<10	<10	<10	<10	<10
thiakloprid	ng/l	<10	<10	<10	<10	<10
thiamethoxam	ng/l	<10	<10	<10	<10	<10
klothianidin	ng/l	<10	<10	<10	<10	<10
acetamiprid	ng/l	<10	<10	<10	<10	<10
oxadiazon	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13981	S. No. 13982	S. No. 13983	S. No. 13984	S. No. 13985
4-MeO-cinnamat	ng/l	<25	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	<5,0	<5,0	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10	<10
erytromycin	ng/l	<10	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10	<0,10
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	<0,30	<0,30	<0,30	0,45	<0,30
klaritromycin	ng/l	<10	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10	<10
methiokarb	ng/l	<10	<10	<10	<10	<10
imidakloprid	ng/l	<10	<10	<10	<10	<10
thiakloprid	ng/l	<10	<10	<10	<10	<10
thiamethoxam	ng/l	<10	<10	<10	<10	<10
klothianidin	ng/l	<10	<10	<10	<10	<10
acetamiprid	ng/l	<10	<10	<10	<10	<10
oxadiazon	ng/l	<10	<10	<10	<10	<10

Parameter	Unit	S. No. 13986
4-MeO-cinnamat	ng/l	<25
diclofenac	ng/l	<5,0
ibuprofen	ng/l	<5,0
roxitromycin	ng/l	<10
erytromycin	ng/l	<10
tylosin	ng/l	<10
a-ethinylestradiol	ng/l	<0,10
alfa-estradiol	ng/l	<0,30
beta-estradiol	ng/l	<0,30
estrone	ng/l	<0,30
klaritromycin	ng/l	<10
azitromycin	ng/l	<10
methiokarb	ng/l	<10
imidakloprid	ng/l	<10
thiakloprid	ng/l	<10
thiamethoxam	ng/l	<10
klothianidin	ng/l	<10
acetamiprid	ng/l	<10
oxadiazon	ne/l	<10



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Listed uncertainty is the expanded uncertainty which was calculated with coefficient of expansion that equals 2 which corresponds with the level of 95% reliability							
Parameter	Identifica	tion of procedure/method used	Accreditation	Uncertainty			
methiokarb	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
imidakloprid	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
klaritromycin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
azitromycin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
thiakloprid	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
acetamiprid	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
oxadiazon	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
thiamethoxam	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
klothianidin	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
estrone	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
roxitromycin	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
ervtromycin	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
diclofenac	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
ibuprofen	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
alfa-estradiol	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
beta-estradiol	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
tylosin	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
a-ethinylestradiol	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%			
4-MeO-cinnamat	AO18A	st.PCB,OCP,PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856	A	20%			
2.6-D-tBu-4-Me-feno	AO18A	st.PCB.OCP.PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856	A	20%			
triallate	AO18A	st.PCB,OCP,PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856	A	20%			

A - Accredited test SA - Subdelivery accredited N - Non-accredited test SN - Subdelivery not accredited F - Flexible scope of accreditation

F - The laboratory is allowed to include additional activities in its scope of accreditation without evaluation by the accreditation body prior to operation of the activity. It could be concerned with matrix, parameters tested, performance of the method, (measuring range, uncertainty) or the possibility of introducing new or developed methods under flexible scope does not include introduction of new measurement principles of testing.

Fevodi Labe,
statul podnik
Vita Nejedlého 951
500 03 HRADECKRALOWE
Ing. Hana Dušátková

Chemical laboratories supervisor



POVODÍ LABE, státní podnik

odbor vodohospodářských laboratoří Víta Nejedlého 951, 500 03 HRADEC KRÁLOVÉ

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The analysis results concern only the subject of the analyses and do not substitute other documents.

Sample No.	Place of sampling:				Material	Depth (m)		
14090	A103643 Hommelvik				water sample			
14091	A103643 Jonsvannet					water sample		
14677	A103643 Storvannet					water sample		
14678	A103643 Rekvik					water sample		
Sample No.	Sampling-start	Sampling-end	Sampled by	Type of sampling	Registered on	Analyzing-start	Analyzing-end	
14090	6.11.17		customer	spot	9.11.17	9.11.17	4.12.17	
14091	6.11.17		customer	spot	9.11.17	9.11.17	4.12.17	
14677	April Physics Control Inc.		customer	spot	22.11.17	22.11.17	7.12.17	
14000			customer	enot	22 11 17	22 11 17	7 12 17	

Specification of sample Sample No. 14090

Exposmeter ID:E1238, Location no. 14 14091 Exposmeter ID:E1240, Location no. 16

14677 Exposmeter ID:, Location no.25

Exposmeter ID:, Location no.29 14678

Parameter	Unit	S. No. 14090	S. No. 14091	S. No. 14677	S. No. 14678
triallate	ng/l	<10	<10	<10	<10
2,6-D-tBu-4-Me-fenol	ng/l	<10	<10	<10	<10
4-MeO-cinnamat	ng/l	<25	<25	<25	<25
diclofenac	ng/l	<5,0	<5,0	<5,0	<5,0
ibuprofen	ng/l	<5,0	<5,0	<5,0	<5,0
roxitromycin	ng/l	<10	<10	<10	<10
erytromycin	ng/l	<10	<10	<10	<10
tylosin	ng/l	<10	<10	<10	<10
a-ethinylestradiol	ng/l	<0,10	<0,10	<0,10	<0,10
alfa-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30
beta-estradiol	ng/l	<0,30	<0,30	<0,30	<0,30
estrone	ng/l	<0,30	<0,30	<0,30	<0,30
klaritromycin	ng/l	<10	<10	<10	<10
azitromycin	ng/l	<10	<10	<10	<10
methiokarb	ng/l	<10	<10	<10	<10
imidakloprid	ng/l	<10	<10	<10	<10
thiakloprid	ng/l	<10	<10	<10	<10
thiamethoxam	ng/l	<10	<10	<10	<10
klothianidin	ng/l	<10	<10	<10	<10
acetamiprid	ng/l	<10	<10	<10	<10



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Analysis ordered by: Subj. ID: Z0000134 VAT ID: SE5569200578 Order No.:

EXPOSMETER AB

Trehorningen 34

Sweden SE92266

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Parameter	Unit	S. No. 14090	S. No. 14091	S. No. 14677	S. No. 14678
oxadiazon	ng/l	<10	<10	<10	<10

Listed uncertainty is the expanded uncertainty which was calculated with coefficient of expansion that equals 2 which corresponds with the level of 95% reliability

Parameter	Identifica	tion of procedure/method used	Accreditation	Uncertainty
estrone	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
klaritromycin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
diclofenac	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
imidakloprid	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
klothianidin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
ervtromycin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
thiamethoxam	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
methiokarb	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
acetamiprid	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
ibuprofen	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
thiakloprid	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
tylosin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
roxitromycin	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
oxadiazon	AO17A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
beta-estradiol	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
alfa-estradiol	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
a-ethinylestradiol	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
azitromycin	A017A	Determination of pesticides and pharmaceuticals by LC/MS/MS	A	30%
4-MeQ-cinnamat	AO18A	st PCB OCP PBDE DEHP mošus, pyrethr. ch.alk.C10-13.C14-17-GC/MS/MS-ISO 6468,18856	A	20%
2 6-D-tBu-4-Me-feno	AO18A	st PCB OCP PBDF, DEHP, mošus, pyrethr. ch.alk, C10-13, C14-17-GC/MS/MS-ISO 6468, 18856	A	20%
triallate	AOI8A	st PCB OCP PBDE DEHP mošus, pyrethr., ch.alk, C10-13, C14-17-GC/MS/MS-ISO 6468, 18856	A	20%
roxitromycin oxadiazon beta-estradiol alfa-estradiol a-ethinylestradiol azitromycin 4-MeO-cinnamat 2,6-D-tBu-4-Me-feno triallate	A017A A017A A017A A017A A017A A017A A017A A017A A018A I A018A A018A	Determination of pesticides and pharmaceuticals by LC/MS/MS Determination of pesticides and pharmaceuticals by LC/MS/MS St.PCB,OCP,PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856 st.PCB,OCP,PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856 st.PCB,OCP,PBDE,DEHP,mošus.,pyrethr.,ch.alk.C10-13,C14-17-GC/MS/MS-ISO 6468,18856	A A A A A A A A	30% 30% 30% 30% 30% 20% 20% 20%

A - Accredited test

N - Non-accredited test

F - Flexible scope of accreditation

SA - Subdelivery accredited

SN - Subdelivery not accredited

F - The laboratory is allowed to include additional activities in its scope of accreditation without evaluation by the accreditation body prior to operation of the activity. It could be concerned with matrix, parameters tested, performance of the method, (measuring range, uncertainty) or the possibility of introducing new or developed methods under flexible scope does not include introduction of new measurement principles of testing.

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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.