

Sampling person		Mati Salu	Mati Salu	Mati Salu	Mati Salu
Sample Point		JRK 15	JRK 15	JRK 15	JRK 15
Sample		Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name		V022678-06	V022679-06	V022680-06	V022681-06
Sample depth		Drilling 1507, deep 1,15-	Drilling 1516, deep 1,9-3,0m	Drilling 1524, deep 2,1-3,0m	Drilling 1528, deep 2,1-3,5m
Sampling method			A209:35	A209:34	A209:35
Sample Date		2006-08-25	2006-08-25	2006-08-25	2006-08-25
Concentrations are reported per Dry Weight					
Group 1 Volatile Organic Compounds					
	Units				
Benzene	µg/l	<0.2	<0.2	<0.2	4
Toluene	µg/l	<1	<1	<1	2
Xylene	mg/l	<0.001	<0.001	<0.001	0,008
Ethylbenzene	µg/l	<1	<1	<1	1
Sum TEX	mg/l	<0.001	<0.001	<0.001	0,011
Styrene	µg/l	<1	<1	<1	<1
MTBE	µg/l	<0.01	<0.01	<0.01	<0.01
Chloroorganic aromatics					
Chlorobenzene	µg/l	<1	<1	<1	<1
2-Chlorotoluene	µg/l	<1	<1	<1	<1
4-Chlorotoluene	µg/l	<1	<1	<1	<1
1,3-dichlorobenzene	µg/l	<1	<1	<1	<1
1,4-dichlorobenzene	µg/l	<1	<1	<1	<1
1,2-dichlorobenzene	µg/l	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/l	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/l	<1	<1	<1	<1
1,2-dichloroethane	µg/l	<1	<1	<1	1
Hexachloroethane	µg/l	<0.10	<0.10	<0.10	<0.10
Chloroform	µg/l	<1	<1	<1	<1
Auxiliary volatile organic compounds					
Isopropylbenzene	µg/l	<1	<1	<1	3
Propylbenzene	µg/l	<1	<1	<1	1
1,3,5-trimethylbenzene	µg/l	<1	<1	<1	1
Tert-butylbenzene	µg/l	<1	<1	<1	1
1,2,4-trimethylbenzene	µg/l	<1	<1	<1	2
Sec-butylbenzene	µg/l	<1	<1	<1	56
p-isopropylbenzene	µg/l	<1	<1	<1	<1
Butylbenzene	µg/l	<1	<1	<1	9
Fluorotrichloromethane	µg/l	<1	<1	<1	<1
1,1,2-trichloroethane	µg/l	<1	<1	<1	<1
1,1-dichloroethene	µg/l	<1	<1	<1	<1
1,1,1,2-Tetrachloroethane	µg/l	<1	<1	<1	<1
Tetrachloroethene	µg/l	<1	<1	<1	<1
Dichloromethane	µg/l	<1	<1	<1	<1
1,3-dichloropropane	µg/l	<1	<1	<1	<1
Trans-1,2-dichloroethene	µg/l	<1	<1	<1	<1
Dibromchloromethane	µg/l	<1	<1	<1	<1
1,1-dichloroethane	µg/l	<1	<1	<1	<1
1,2-dibromoethane	µg/l	<1	<1	<1	<1
2,2-dichloropropane	µg/l	<1	<1	<1	<1
Cis-1,2-dichloroethene	µg/l	<1	<1	<1	<1
Bromoform	µg/l	<1	<1	<1	<1
Bromobenzene	µg/l	<1	<1	<1	<1

Sampling person	Mati Salu
Sample Point	JRK 15
Sample	Piirivalvesadam
Sample name	V022682-06
Sample depth	Drilling 1533,
Sampling method	deep 2,3-2,6m
Sample Date	SS028150-2
Concentrations are reported per Dry Weight	2006-08-25
Group 1 Volatile Organic Compounds	
	Units
Benzene	µg/l 6
Toluene	µg/l <1
Xylene	mg/l 0,005
Ethylbenzene	µg/l <1
Sum TEX	mg/l 0,005
Styrene	µg/l <1
MTBE	µg/l <0.01
Chloroorganic aromatics	
Chlorobenzene	µg/l <1
2-Chlorotoluene	µg/l <1
4-Chlorotoluene	µg/l <1
1,3-dichlorobenzene	µg/l <1
1,4-dichlorobenzene	µg/l <1
1,2-dichlorobenzene	µg/l <1
1,2,4-trichlorobenzene	µg/l <1
1,2,3-trichlorobenzene	µg/l <1
1,2-dichloroethane	µg/l <1
Hexachloroethane	µg/l <0.10
Chloroform	µg/l <1
<i>Auxiliary volatile organic compounds</i>	
Isopropylbenzene	µg/l 4
Propylbenzene	µg/l 4
1,3,5-trimethylbenzene	µg/l 10
Tert-butylbenzene	µg/l 1
1,2,4-trimethylbenzene	µg/l 40
Sec-butylbenzene	µg/l 20
p-isopropylbenzene	µg/l <1
Butylbenzene	µg/l 15
Fluorotrichloromethane	µg/l <1
1,1,2-trichloroethane	µg/l <1
1,1-dichloroethene	µg/l <1
1,1,1,2-Tetrachloroethane	µg/l <1
Tetrachloroethene	µg/l <1
Dichloromethane	µg/l <1
1,3-dichloropropane	µg/l <1
Trans-1,2-dichloroethene	µg/l <1
Dibromchloromethane	µg/l <1
1,1-dichloroethane	µg/l <1
1,2-dibromoethane	µg/l <1
2,2-dichloropropane	µg/l <1
Cis-1,2-dichloroethene	µg/l <1
Bromoform	µg/l <1
Bromobenzene	µg/l <1

Sampling person		Mati Salu	Mati Salu	Mati Salu	Mati Salu
Sample Point		JRK 15	JRK 15	JRK 15	JRK 15
Sample		Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name		V022678-06	V022679-06	V022680-06	V022681-06
Sample depth		Drilling 1507, deep 1,15- 1,55m	Drilling 1516, deep 1,9-3,0m	Drilling 1524, deep 2,1-3,0m	Drilling 1528, deep 2,1-3,5m
Sampling method					
Sample Date		2006-08-25	2006-08-25	2006-08-25	2006-08-25
Concentrations are reported per Dry Weight					
	Units				
1,1,1-trichlorethane	µg/l	<1	<1	<1	<1
1,2,3-trichloropropane	µg/l	<1	<1	<1	<1
Tetrachloromethane	µg/l	<1	<1	<1	<1
1,1-dichloropropane	µg/l	<1	<1	<1	<1
Trichloroethene	µg/l	<1	<1	<1	<1
1,2-dichloropropane	µg/l	<1	<1	<1	<1
Dibrommethane	µg/l	<1	<1	<1	<1
Bromchloromethane	µg/l	<1	<1	<1	<1
Bromodichloromethane	µg/l	<1	<1	<1	<1
Hexachlorobutadien	µg/l	<1	<1	<1	<1
1,3-Dichloropropene	µg/l	<1	<1	<1	<1
Group 2 Extractive compounds					
Aliphatics >C5-C8	mg/l	<0.02	<0.02	<0.02	0,67
Aliphatics >C8-C10	mg/l	<0.02	0,1	<0.02	4,2
Aliphatics >C10-C12	mg/l	<0.02	0,71	<0.02	2,2
Aliphatics >C12-C16	mg/l	<0.02	12	<0.02	24
Aliphatics >C16-C35	mg/l	<0.05	12	<0.05	26
Aromatics >C8-C10	mg/l	<0.1	0,16	<0.1	2,9
Aromatics >C10-C35	mg/l	<0.1	<0.1	<0.1	0,65
Poly Chlorinated Biphenyls PCBs					
2,4,4'-Trichlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	µg/l	<0.10	<0.10	<0.10	<0.10
Group 3 Phenols and Cresols					
Phenol	µg/l	<1.00	<1.00	<1.00	<1.00
m-cresol	µg/l	<1.00	<1.00	<1.00	<1.00
o-cresol	µg/l	<1.00	<1.00	<1.00	<1.00
p-cresol	µg/l	<1.00	<1.00	<1.00	<1.00
2,3-dimethylphenol	µg/l	<1.00	<1.00	<1.00	<1.00
3,4-dimethylphenol	µg/l	<1.00	<1.00	<1.00	<1.00
2,6-dimethylphenol	µg/l	<1.00	<1.00	<1.00	<1.00
Sum dichlorophenol	µg/l	<1.0	<1.0	<1.0	<1.0
Sum trichlorophenol	µg/l	<1.0	<1.0	<1.0	<1.0
Sum tetrachlorophenol	µg/l	<1.0	<1.0	<1.0	<1.0
Chlorophenol	µg/l	<1.0	<1.0	<1.0	<1.0
Sum cresols	µg/l	<3.0	<3.0	<3.0	<3.0

Sampling person	Mati Salu
Sample Point	JRK 15
Sample	Piirivalvesadam
	V022682-06
Sample name	Drilling 1533, deep 2,3-2,6m
Sample depth	
Sampling method	SS028150-2
Sample Date	2006-08-25
Concentrations are reported per Dry Weight	

	Units	
1,1,1-trichlorethane	µg/l	<1
1,2,3-trichloropropane	µg/l	<1
Tetrachloromethane	µg/l	<1
1,1-dichloropropane	µg/l	<1
Trichloroethene	µg/l	<1
1,2-dichloropropane	µg/l	<1
Dibrommethane	µg/l	<1
Bromchloromethane	µg/l	<1
Bromodichloromethane	µg/l	<1
Hexachlorobutadien	µg/l	<1
1,3-Dichloropropene	µg/l	<1

Group 2 Extractive compounds

Aliphatics >C5-C8	mg/l	0,092
Aliphatics >C8-C10	mg/l	1,9
Aliphatics >C10-C12	mg/l	0,4
Aliphatics >C12-C16	mg/l	3,7
Aliphatics >C16-C35	mg/l	5,7
Aromatics >C8-C10	mg/l	2
Aromatics >C10-C35	mg/l	675
Poly Chlorinated Biphenyls PCBs		
2,4,4'-Trichlorobiphenyl	µg/l	<0.10
2,2',5,5'-Tetrachlorobiphenyl	µg/l	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	µg/l	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	µg/l	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	µg/l	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	µg/l	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	µg/l	<0.10

Group 3 Phenols and Cresols

Phenol	µg/l	<1.00
m-cresol	µg/l	<1.00
o-cresol	µg/l	<1.00
p-cresol	µg/l	<1.00
2,3-dimethylphenol	µg/l	<1.00
3,4-dimethylphenol	µg/l	<1.00
2,6-dimethylphenol	µg/l	<1.00
Sum dichlorophenol	µg/l	<1.0
Sum trichlorophenol	µg/l	<1.0
Sum tetrachlorophenol	µg/l	<1.0
Chlorophenol	µg/l	<1.0
Sum cresols	µg/l	<3.0

Sampling person		Mati Salu	Mati Salu	Mati Salu	Mati Salu
Sample Point		JRK 15	JRK 15	JRK 15	JRK 15
Sample		Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name		V022678-06	V022679-06	V022680-06	V022681-06
Sample depth		Drilling 1507, deep 1,15- 1,55m	Drilling 1516, deep 1,9-3,0m	Drilling 1524, deep 2,1-3,0m	Drilling 1528, deep 2,1-3,5m
Sampling method			A209:35	A209:34	A209:35
Sample Date		2006-08-25	2006-08-25	2006-08-25	2006-08-25
Concentrations are reported per Dry Weight					
Group 5 PAH	Units				
	Units				
Anthracene	µg/l	<0.10	0,23	<0.10	<0.30
Phenanthrene	µg/l	<0.10	0,46	<0.10	45
Pyrene	µg/l	<0.10	2,3	<0.10	3,7
Acenaphthene	µg/l	<0.10	<0.30	<0.10	<0.30
Chrysene	µg/l	<0.10	1,4	<0.10	1,7
Naphtalene	µg/l	<0.10	2	<0.10	15
α-methylnaphtalene	µg/l	<0.10	<0.10	<0.10	52
β-methylnaphtalene	µg/l	<0.10	<0.10	<0.10	1,1
Acenaphtalene	µg/l	<0.10	<0.30	<0.10	<0.30
Benzo(a)pyrene	µg/l	<0.10	0,92	<0.10	0,87
Benzo(a)anthracene	µg/l	<0.10	0,92	<0.10	1,3
Benzo(b,k)fluorantene	µg/l	<0.10	1,8	<0.10	1,9
Indeno(1,2,3,c,d)pyrene	µg/l	<0.10	0,69	<0.10	0,43
Dibenzo(a,h)anthracene	µg/l	<0.10	0,23	<0.10	0,22
9H-Fluorene	µg/l	<0.10	2,1	<0.10	35
Fluorantene	µg/l	<0.10	2,5	<0.10	3,9
Benzo(g,h,i)perylene	µg/l	<0.10	0,69	<0.10	0,43
Dibenzofuran	µg/l	<0.10	0,68	<0.10	13
Carbazole	µg/l	<0.10	<0.10	<0.10	0,43
Sum carcinogenic PAH	µg/l	<0.30	<0.50	<0.30	6,4
Sum other PAH	µg/l	<0.50	10	<0.50	100
Group 7 Metals					
Cadmium	mg/l	<0.00002	<0.00002	0,00033	0,0011
Lead	mg/l	<0.00005	0,0012	0,00093	0,00058
Strontium	mg/l	0,13	0,28	0,26	1
Arsenic	mg/l	0,00042	0,01	0,0035	0,0063
Copper	mg/l	0,0022	0,002	0,043	0,0056
Chromium	mg/l	<0.0002	0,00028	0,0002	0,00043
Nickel	mg/l	0,00073	0,0092	0,011	0,038
Zinc	mg/l	0,0013	0,024	0,03	0,051
Lantmännen Analycen AB					
2006-10-31					
Caroline Karlsson					

Sampling person Mati Salu

Sample Point JRK 15

Sample Piirivalvesadam

V022682-06

Sample name Drilling 1533,
deep 2,3-2,6m

Sample depth

Sampling method SS028150-2

Sample Date 2006-08-25

Concentrations are reported per Dry Weight

Units

Group 5 PAH

Units

Anthracene	µg/l	7,6
Phenanthrene	µg/l	26
Pyrene	µg/l	10
Acenaphthene	µg/l	0,6
Chrysene	µg/l	3,8
Naphtalene	µg/l	10
α-methylnaphtalene	µg/l	8,6
β-methylnaphtalene	µg/l	2,2
Acenaphtalene	µg/l	10
Benzo(a)pyrene	µg/l	0,8
Benzo(a)anthracene	µg/l	1,4
Benzo(b,k)fluorantene	µg/l	1,2
Indeno(1,2,3,c,d)pyrene	µg/l	1
Dibenzo(a,h)anthracene	µg/l	0,2
9H-Fluorene	µg/l	27
Fluorantene	µg/l	3,4
Benzo(g,h,i)perylene	µg/l	1,8
Dibenzofuran	µg/l	9
Carbazole	µg/l	2,2
Sum carcinogenic PAH	µg/l	8,4
Sum other PAH	µg/l	96

Group 7 Metals

Cadmium	mg/l	<0.00002
Lead	mg/l	0,0001
Strontium	mg/l	0,34
Arsenic	mg/l	0,002
Copper	mg/l	0,00082
Chromium	mg/l	0,012
Nickel	mg/l	0,0013
Zinc	mg/l	0,0024

Lantmännen Analycen AB
2006-10-31

Caroline Karlsson

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample	A015779-06	A015780-06	A015781-06	A015782-06
Sample name	15-04	15-05	15-06	15-09
Sample depth	0,7-0,9	0,9-1,0	1,4-1,5	2-3-2,4
Sampling method				
Sample Date	2006-08-22	2006-08-23	2006-08-23	2006-08-23
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 1 Volatile Organic Compounds				
Benzene	<0.005	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	<0.005
Xylene	< 0.1	0,45	< 0.1	< 0.1
Ethylbenzene	<0.005	<0.005	<0.005	<0.005
Sum TEX	< 0.1	0,45	< 0.1	< 0.1
Styrene	<0.005	<0.005	<0.005	<0.005
MTBE	< 0.1	< 0.1	< 0.1	< 0.1
Chloroorganic aromatics				
Chlorobenzene	<0.005	<0.005	<0.005	<0.005
2-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
1,3-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,4-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,4-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,3-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichloroethane	<0.005	<0.005	<0.005	<0.005
Hexachloroethane	<0.10	<0.10	<0.10	<0.10
Choroform	<0.005	<0.005	<0.005	<0.005
<i>Auxiliary volatile organic compounds</i>				
Isopropylbenzene	<0.005	<0.005	<0.005	<0.005
Propylbenzene	<0.005	<0.005	<0.005	<0.005
1,3,5-trimetylbenzene	<0.005	0,63	<0.005	<0.005
Tert-butylbenzene	<0.005	<0.005	<0.005	<0.005
1,2,4-trimetylbenzene	<0.005	0,15	<0.005	<0.005
Sec-butylbenzene	<0.005	0,015	<0.005	<0.005
p-isopropylbenzene	<0.005	0,086	<0.005	<0.005
Butylbenzene	<0.005	<0.005	<0.005	<0.005
Fluortrichloromethane	<0.005	<0.005	<0.005	<0.005
1,1,2-trichloroethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethene	<0.005	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005
Dichloromethane	<0.005	<0.005	<0.005	<0.005
1,3-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trans-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Dibromchloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethane	<0.005	<0.005	<0.005	<0.005
1,2-dibromoethane	<0.005	<0.005	<0.005	<0.005
2,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Cis-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005	<0.005
Bromobenzene	<0.005	<0.005	<0.005	<0.005

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name	A015783-06	A015784-06	A015785-06	A015786-06
Sample depth	15-14	15-16	15-18	15-20
Sampling method	2,9-3,0	2,7-2,8	0,8-0,9	0,9-1,0
Sample Date	2006-08-23	2006-08-23	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 1 Volatile Organic Compounds				
Benzene	<0.005	<0.005	<0.005	0,25
Toluene	<0.005	<0.005	<0.005	<0.005
Xylene	< 0.1	< 0.1	< 0.1	228
Ethylbenzene	<0.005	<0.005	<0.005	41
Sum TEX	< 0.1	< 0.1	< 0.1	270
Styrene	<0.005	<0.005	<0.005	<0.005
MTBE	< 0.1	< 0.1	< 0.1	< 0.1
Chloroorganic aromatics				
Chlorobenzene	<0.005	<0.005	<0.005	<0.005
2-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
1,3-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,4-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,4-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,3-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichloroethane	<0.005	<0.005	<0.005	<0.005
Hexachloroethane	<0.10	<0.10	<0.10	<0.10
Choroform	<0.005	<0.005	<0.005	<0.005
<i>Auxiliary volatile organic compounds</i>				
Isopropylbenzene	<0.005	<0.005	<0.005	5,2
Propylbenzene	<0.005	<0.005	<0.005	26
1,3,5-trimetylbenzene	<0.005	<0.005	<0.005	100
Tert-butylbenzene	<0.005	<0.005	<0.005	0,1
1,2,4-trimetylbenzene	<0.005	<0.005	<0.005	340
Sec-butylbenzene	<0.005	0,029	<0.005	6,1
p-isopropylbenzene	<0.005	<0.005	<0.005	4,1
Butylbenzene	<0.005	<0.005	<0.005	12
Fluortrichloromethane	<0.005	<0.005	<0.005	<0.005
1,1,2-trichloroethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethene	<0.005	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005
Dichloromethane	<0.005	<0.005	<0.005	<0.005
1,3-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trans-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Dibromchloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethane	<0.005	<0.005	<0.005	<0.005
1,2-dibromoethane	<0.005	<0.005	<0.005	<0.005
2,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Cis-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005	<0.005
Bromobenzene	<0.005	<0.005	<0.005	<0.005

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample	A015787-06	A015788-06	A015789-06	A015790-06
Sample name	15-20	15-23	15-24	15-25
Sample depth	1,3-1,4	1,9-2,5	2,9-3,0	3,3-3,5
Sampling method				
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 1 Volatile Organic Compounds				
Benzene	0,011	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	0,014
Xylene	13	< 0.1	< 0.1	< 0.1
Ethylbenzene	0,15	<0.005	<0.005	<0.005
Sum TEX	13,2	< 0.1	< 0.1	< 0.1
Styrene	<0.005	<0.005	<0.005	<0.005
MTBE	< 0.1	< 0.1	< 0.1	< 0.1
Chloroorganic aromatics				
Chlorobenzene	<0.005	<0.005	<0.005	<0.005
2-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
1,3-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,4-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,4-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,3-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichloroethane	<0.005	<0.005	<0.005	<0.005
Hexachloroethane	<0.10	<0.10	<0.10	<0.10
Choroform	<0.005	<0.005	<0.005	<0.005
<i>Auxiliary volatile organic compounds</i>				
Isopropylbenzene	0,67	<0.005	<0.005	<0.005
Propylbenzene	2	<0.005	<0.005	<0.005
1,3,5-trimetylbenzene	28	0,053	<0.005	<0.005
Tert-butylbenzene	0,029	<0.005	<0.005	<0.005
1,2,4-trimetylbenzene	92	0,24	0,017	0,011
Sec-butylbenzene	1,3	<0.005	<0.005	<0.005
p-isopropylbenzene	1,2	<0.005	<0.005	0,0075
Butylbenzene	<0.005	0,014	<0.005	<0.005
Fluortrichloromethane	<0.005	<0.005	<0.005	<0.005
1,1,2-trichloroethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethene	<0.005	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005
Dichloromethane	<0.005	<0.005	<0.005	<0.005
1,3-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trans-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Dibromchloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethane	<0.005	<0.005	<0.005	<0.005
1,2-dibromoethane	<0.005	<0.005	<0.005	<0.005
2,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Cis-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005	<0.005
Bromobenzene	<0.005	<0.005	<0.005	<0.005

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name	A015791-06	A015792-06	A015793-06	A015794-06
Sample depth	15-27	15-28	15-30	15-30
Sampling method	1,6-1,7	1,0-1,1	2,8-2,9	3,4-3,5
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 1 Volatile Organic Compounds				
Benzene	<0.005	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	<0.005
Xylene	< 0.1	0,38	< 0.1	< 0.1
Ethylbenzene	<0.005	<0.005	<0.005	<0.005
Sum TEX	< 0.1	0,38	< 0.1	< 0.1
Styrene	<0.005	<0.005	<0.005	<0.005
MTBE	< 0.1	< 0.1	< 0.1	< 0.1
Chloroorganic aromatics				
Chlorobenzene	<0.005	<0.005	<0.005	<0.005
2-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
4-Chlorotoluene	<0.005	<0.005	<0.005	<0.005
1,3-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,4-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,4-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2,3-trichlorobenzene	<0.005	<0.005	<0.005	<0.005
1,2-dichloroethane	<0.005	<0.005	<0.005	<0.005
Hexachloroethane	<0.10	<0.10	<0.10	<0.10
Choroform	<0.005	<0.005	<0.005	<0.005
Auxiliary volatile organic compounds				
Isopropylbenzene	<0.005	<0.005	<0.005	<0.005
Propylbenzene	<0.005	<0.005	<0.005	<0.005
1,3,5-trimetylbenzene	<0.005	0,057	<0.005	<0.005
Tert-butylbenzene	<0.005	0,015	<0.005	<0.005
1,2,4-trimetylbenzene	0,0067	0,016	<0.005	<0.005
Sec-butylbenzene	<0.005	0,024	<0.005	<0.005
p-isopropylbenzene	<0.005	0,11	<0.005	<0.005
Butylbenzene	<0.005	<0.005	<0.005	<0.005
Fluortrichloromethane	<0.005	<0.005	<0.005	<0.005
1,1,2-trichloroethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethene	<0.005	<0.005	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005
Dichloromethane	<0.005	<0.005	<0.005	<0.005
1,3-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trans-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Dibromchloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloroethane	<0.005	<0.005	<0.005	<0.005
1,2-dibromoethane	<0.005	<0.005	<0.005	<0.005
2,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Cis-1,2-dichloroethene	<0.005	<0.005	<0.005	<0.005
Bromoform	<0.005	<0.005	<0.005	<0.005
Bromobenzene	<0.005	<0.005	<0.005	<0.005

Sampling person	MS	MS
Sample Point	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam
	A015795-06	A015796-06
Sample name	15-31	15-34
Sample depth	2,9-3,0	1,8-2,5
Sampling method		
Sample Date	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight		
Group 1 Volatile Organic Compounds		
Benzene	<0.005	<0.005
Toluene	<0.005	<0.005
Xylene	< 0.1	2,7
Ethylbenzene	<0.005	<0.005
Sum TEX	< 0.1	2,7
Styrene	<0.005	<0.005
MTBE	< 0.1	< 0.1
Chloroorganic aromatics		
Chlorobenzene	<0.005	<0.005
2-Chlorotoluene	<0.005	<0.005
4-Chlorotoluene	<0.005	<0.005
1,3-dichlorobenzene	<0.005	<0.005
1,4-dichlorobenzene	<0.005	<0.005
1,2-dichlorobenzene	<0.005	<0.005
1,2,4-trichlorobenzene	<0.005	<0.005
1,2,3-trichlorobenzene	<0.005	<0.005
1,2-dichloroethane	<0.005	<0.005
Hexachloroethane	<0.10	<0.10
Choroform	<0.005	<0.005
<i>Auxiliary volatile organic compounds</i>		
Isopropylbenzene	<0.005	0,5
Propylbenzene	<0.005	0,059
1,3,5-trimetylbenzene	<0.005	0,024
Tert-butylbenzene	<0.005	0,095
1,2,4-trimetylbenzene	<0.005	1,1
Sec-butylbenzene	<0.005	0,68
p-isopropylbenzene	<0.005	<0.005
Butylbenzene	<0.005	0,42
Fluortrichloromethane	<0.005	<0.005
1,1,2-trichloroethane	<0.005	<0.005
1,1-dichloroethene	<0.005	<0.005
1,1,1,2-Tetrachloroethane	<0.005	<0.005
Tetrachloroethene	<0.005	<0.005
Dichloromethane	<0.005	<0.005
1,3-dichloropropane	<0.005	<0.005
Trans-1,2-dichloroethene	<0.005	<0.005
Dibromchloromethane	<0.005	<0.005
1,1-dichloroethane	<0.005	<0.005
1,2-dibromoethane	<0.005	<0.005
2,2-dichloropropane	<0.005	<0.005
Cis-1,2-dichloroethene	<0.005	<0.005
Bromoform	<0.005	<0.005
Bromobenzene	<0.005	<0.005

Sampling person	MS	MS	MS	MS
	JRK 15	JRK 15	JRK 15	JRK 15
Sample Point	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample	A015779-06	A015780-06	A015781-06	A015782-06
Sample name	15-04	15-05	15-06	15-09
Sample depth	0,7-0,9	0,9-1,0	1,4-1,5	2-3-2,4
Sampling method				
Sample Date	2006-08-22	2006-08-23	2006-08-23	2006-08-23
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
1,1,1-trichlorethane	<0.005	<0.005	<0.005	<0.005
1,2,3-trichloropropane	<0.005	<0.005	<0.005	<0.005
Tetrachloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005
1,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Dibrommethane	<0.005	<0.005	<0.005	<0.005
Bromchloromethane	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadien	<0.005	<0.005	<0.005	<0.005
1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005
Group 2 Extractive compounds				
Aliphatics >C5-C8	< 5	< 5	< 5	< 5
Aliphatics >C8-C10	< 5	< 5	< 5	< 5
Aliphatics >C10-C12	<5	140	<5	<5
Aliphatics >C12-C16	21	150	27	<5
Aliphatics >C16-C35	67	360	41	<10
Aromatics >C8-C10	<5	17	<5	<5
Aromatics >C10-C35	<10	12	<10	<10
Poly Chlorinated Biphenyls PCBs				
2,4,4'-Trichlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
Group 3 Phenols and Cresols				
Phenol	<1.00	<1.00	<1.00	<1.00
m-cresol	<1.00	<1.00	<1.00	<1.00
o-cresol	<1.00	<1.00	<1.00	<1.00
p-cresol	<1.00	<1.00	<1.00	<1.00
2,3-dimethylphenol	<1.00	<1.00	<1.00	<1.00
3,4-dimethylphenol	<1.00	<1.00	<1.00	<1.00
2,6-dimethylphenol	<1.00	<1.00	<1.00	<1.00
Sum dichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum trichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum tetrachlorophenol	<1.0	<1.0	<1.0	<1.0
Chlorophenol	<1.0	<1.0	<1.0	<1.0
Sum cresols	<3.0	<3.0	<3.0	<3.0

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name	A015783-06	A015784-06	A015785-06	A015786-06
Sample depth	15-14	15-16	15-18	15-20
Sample depth	2,9-3,0	2,7-2,8	0,8-0,9	0,9-1,0
Sampling method				
Sample Date	2006-08-23	2006-08-23	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
1,1,1-trichlorethane	<0.005	<0.005	<0.005	<0.005
1,2,3-trichloropropane	<0.005	<0.005	<0.005	<0.005
Tetrachloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005
1,2-dichloropropane	<0.005	<0.005	<0.005	0,53
Dibrommethane	<0.005	<0.005	<0.005	<0.005
Bromchloromethane	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadien	<0.005	<0.005	<0.005	<0.005
1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005
Group 2 Extractive compounds				
Aliphatics >C5-C8	< 5	< 5	< 5	460
Aliphatics >C8-C10	< 5	< 5	< 5	540
Aliphatics >C10-C12	6,3	35	8,4	480
Aliphatics >C12-C16	59	350	9,5	250
Aliphatics >C16-C35	87	330	130	170
Aromatics >C8-C10	<5	<5	<5	5900
Aromatics >C10-C35	<10	<10	<10	110
Poly Chlorinated Biphenyls PCBs				
2,4,4'-Trichlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
Group 3 Phenols and Cresols				
Phenol	<1.00	<1.00	<1.00	<1.00
m-cresol	<1.00	<1.00	<1.00	<1.00
o-cresol	<1.00	<1.00	<1.00	<1.00
p-cresol	<1.00	<1.00	<1.00	<1.00
2,3-dimethylphenol	<1.00	<1.00	<1.00	<1.00
3,4-dimethylphenol	<1.00	<1.00	<1.00	<1.00
2,6-dimethylphenol	<1.00	<1.00	<1.00	<1.00
Sum dichlorophenol	<1.0	<1.0	<1.00	<1.0
Sum trichlorophenol	<1.0	<1.0	<1.00	<1.0
Sum tetrachlorophenol	<1.0	<1.0	<1.00	<1.0
Chlorophenol	<1.0	<1.0	<1.00	<1.0
Sum cresols	<3.0	<3.0	<3.0	<3.0

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name	A015787-06	A015788-06	A015789-06	A015790-06
Sample depth	15-20	15-23	15-24	15-25
Sampling method	1,3-1,4	1,9-2,5	2,9-3,0	3,3-3,5
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
1,1,1-trichlorethane	<0.005	<0.005	<0.005	<0.005
1,2,3-trichloropropane	<0.005	<0.005	<0.005	<0.005
Tetrachloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005
1,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Dibrommethane	<0.005	<0.005	<0.005	<0.005
Bromchloromethane	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadien	<0.005	<0.005	<0.005	<0.005
1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005
Group 2 Extractive compounds				
Aliphatics >C5-C8	720	< 5	< 5	< 5
Aliphatics >C8-C10	510	< 5	< 5	< 5
Aliphatics >C10-C12	200	<5	<5	<5
Aliphatics >C12-C16	100	<5	<5	<5
Aliphatics >C16-C35	76	<10	<10	14
Aromatics >C8-C10	1800	<5	<5	<5
Aromatics >C10-C35	25	<10	<10	<10
Poly Chlorinated Biphenyls PCBs				
2,4,4'-Trichlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
Group 3 Phenols and Cresols				
Phenol	<1.00	<1.00	<1.00	<1.00
m-cresol	<1.00	<1.00	<1.00	1,23
o-cresol	<1.00	<1.00	<1.00	<1.00
p-cresol	<1.00	<1.00	<1.00	1,17
2,3-dimethylphenol	<1.00	<1.00	<1.00	<1.00
3,4-dimethylphenol	<1.00	<1.00	<1.00	<1.00
2,6-dimethylphenol	<1.00	<1.00	<1.00	<1.00
Sum dichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum trichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum tetrachlorophenol	<1.0	<1.0	<1.0	<1.0
Chlorophenol	<1.0	<1.0	<1.0	<1.0
Sum cresols	<3.0	<3.0	<3.0	<3.0

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15	JRK 15	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam	Piirivalvesadam
Sample name	A015791-06	A015792-06	A015793-06	A015794-06
Sample depth	15-27	15-28	15-30	15-30
Sampling method	1,6-1,7	1,0-1,1	2,8-2,9	3,4-3,5
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
1,1,1-trichlorethane	<0.005	<0.005	<0.005	<0.005
1,2,3-trichloropropane	<0.005	<0.005	<0.005	<0.005
Tetrachloromethane	<0.005	<0.005	<0.005	<0.005
1,1-dichloropropane	<0.005	<0.005	<0.005	<0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005
1,2-dichloropropane	<0.005	<0.005	<0.005	<0.005
Dibrommethane	<0.005	<0.005	<0.005	<0.005
Bromchloromethane	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadien	<0.005	<0.005	<0.005	<0.005
1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005
Group 2 Extractive compounds				
Aliphatics >C5-C8	< 5	< 5	< 5	< 5
Aliphatics >C8-C10	< 5	9	< 5	< 5
Aliphatics >C10-C12	7,9	350	<5	<5
Aliphatics >C12-C16	38	2000	<5	33
Aliphatics >C16-C35	110	2300	31	26
Aromatics >C8-C10	<5	6,2	<5	<5
Aromatics >C10-C35	<10	130	<10	<10
Poly Chlorinated Biphenyls PCBs				
2,4,4'-Trichlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	<0.10	<0.10	<0.10	<0.10
Group 3 Phenols and Cresols				
Phenol	<1.00	<1.00	<1.00	<1.00
m-cresol	<1.00	<1.00	<1.00	<1.00
o-cresol	<1.00	<1.00	<1.00	<1.00
p-cresol	<1.00	<1.00	<1.00	<1.00
2,3-dimethylphenol	<1.00	<1.00	<1.00	<1.00
3,4-dimethylphenol	<1.00	<1.00	<1.00	<1.00
2,6-dimethylphenol	<1.00	<1.00	<1.00	<1.00
Sum dichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum trichlorophenol	<1.0	<1.0	<1.0	<1.0
Sum tetrachlorophenol	<1.0	<1.0	<1.0	<1.0
Chlorophenol	<1.0	<1.0	<1.0	<1.0
Sum cresols	<3.0	<3.0	<3.0	<3.0

Sampling person	MS	MS
Sample Point	JRK 15	JRK 15
Sample	Piirivalvesadam	Piirivalvesadam
Sample name	A015795-06	A015796-06
Sample depth	15-31	15-34
Sampling method	2,9-3,0	1,8-2,5
Sample Date	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight		
1,1,1-trichlorethane	<0.005	<0.005
1,2,3-trichloropropane	<0.005	<0.005
Tetrachloromethane	<0.005	<0.005
1,1-dichloropropane	<0.005	<0.005
Trichloroethene	<0.005	<0.005
1,2-dichloropropane	<0.005	<0.005
Dibrommethane	<0.005	<0.005
Bromchloromethane	<0.005	<0.005
Bromodichloromethane	<0.005	<0.005
Hexachlorobutadien	<0.005	<0.005
1,3-Dichloropropene	<0.005	<0.005
Group 2 Extractive compounds		
Aliphatics >C5-C8	< 5	< 5
Aliphatics >C8-C10	< 5	65
Aliphatics >C10-C12	<5	600
Aliphatics >C12-C16	32	3100
Aliphatics >C16-C35	86	3100
Aromatics >C8-C10	<5	48
Aromatics >C10-C35	<10	200
Poly Chlorinated Biphenyls PCBs		
2,4,4'-Trichlorobiphenyl	<0.10	<0.10
2,2',5,5'-Tetrachlorobiphenyl	<0.10	<0.10
2,2',4,5,5'-Pentachlorobiphenyl	<0.10	<0.10
2,3',4,4',5'-Pentachlorobiphenyl	<0.10	<0.10
2,4,5,2',4',5'-Hexachlorobiphenyl	<0.10	<0.10
2,2',3,4,4',5'-Hexachlorobiphenyl	<0.10	<0.10
2,2',3,4,4',5,5'-Heptachlorobiphenyl	<0.10	<0.10
Group 3 Phenols and Cresols		
Phenol	<1.00	<1.00
m-cresol	<1.00	<1.00
o-cresol	<1.00	<1.00
p-cresol	<1.00	<1.00
2,3-dimethylphenol	<1.00	<1.00
3,4-dimethylphenol	<1.00	<1.00
2,6-dimethylphenol	<1.00	<1.00
Sum dichlorophenol	<1.0	<1.0
Sum trichlorophenol	<1.0	<1.0
Sum tetrachlorophenol	<1.0	<1.0
Chlorophenol	<1.0	<1.0
Sum cresols	<3.0	<3.0

Sampling person	MS	MS	MS	MS
Sample Point	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam
Sample	A015779-06	A015780-06	A015781-06	A015782-06
Sample name	15-04	15-05	15-06	15-09
Sample depth	0,7-0,9	0,9-1,0	1,4-1,5	2-3-2,4
Sampling method				
Sample Date				
Units	2006-08-22	2006-08-23	2006-08-23	2006-08-23
Concentrations are reported per Dry Weight	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Group 5 PAH				
Anthracene	0,11	0,56	<0.10	<0.10
Phenanthrene	0,5	0,79	0,34	<0.10
Pyrene	0,63	3,6	0,46	<0.10
Acenaphthene	<0.10	0,22	<0.10	<0.10
Chrysene	0,5	1,2	0,21	<0.10
Naphtalene	<0.10	1,5	<0.10	<0.10
α -methylnaphtalene	<0.10	0,79	<0.10	<0.10
β -methylnaphtalene	<0.10	0,34	<0.10	<0.10
Acenaphtalene	<0.10	1,1	<0.10	<0.10
Benzo(a)pyrene	0,26	1	<0.10	<0.10
Benzo(a)anthracene	0,38	1	0,17	<0.10
Benzo(b,k)fluorantene	0,62	1,6	0,29	<0.10
Indeno(1,2,3,c,d)pyrene	0,12	0,34	<0.10	<0.10
Dibenzo(a,h)anthracene	<0.10	0,11	<0.10	<0.10
9H-Fluorene	<0.10	0,34	0,49	<0.10
Fluorantene	0,68	1,6	0,48	<0.10
Benzo(g,h,i)perylene	0,13	0,56	<0.10	<0.10
Dibenzofuran	<0.10	0,11	<0.10	<0.10
Carbazole	<0.10	0,11	<0.10	<0.10
Sum carcinogenic PAH	1,9	5,3	0,81	<0.30
Sum other PAH	2,2	10	1,9	<0.50
Group 7 Metals				
Cadmium	<0.22	<0.20	<0.22	<0.22
Lead	12	25	19	6,4
Strontium	20	83	22	12
Arsenic	<2.2	<2.0	<2.2	<2.2
Copper	11	14	5,7	5,7
Chromium	11	5,6	6,1	12
Nickel	12	4,5	4,8	12
Zinc	28	55	24	21

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Sampling person	MS	MS	MS	MS
Sample Point	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam
Sample	A015783-06	A015784-06	A015785-06	A015786-06
Sample name	15-14	15-16	15-18	15-20
Sample depth	2,9-3,0	2,7-2,8	0,8-0,9	0,9-1,0
Sampling method				
Sample Date	2006-08-23	2006-08-23	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 5 PAH				
Anthracene	<0.10	<0.10	1,4	0,71
Phenanthrene	<0.10	0,14	2,3	3,5
Pyrene	0,13	0,28	5,4	6,4
Acenaphthene	<0.10	<0.10	0,42	0,71
Chrysene	<0.10	0,11	1,4	4
Naphtalene	<0.10	<0.10	0,21	26
α -methylnaphtalene	<0.10	<0.10	0,42	14
β -methylnaphtalene	<0.10	<0.10	0,32	24
Acenaphtalene	<0.10	<0.10	1,4	<0.10
Benzo(a)pyrene	<0.10	<0.10	1,6	2,3
Benzo(a)anthracene	<0.10	<0.10	1,3	3,4
Benzo(b,k)fluorantene	<0.10	0,2	2	4,4
Indeno(1,2,3,c,d)pyrene	<0.10	<0.10	0,53	1,2
Dibenzo(a,h)anthracene	<0.10	<0.10	0,21	0,35
9H-Fluorene	<0.10	0,2	0,53	1
Fluorantene	<0.10	0,27	2,2	7,7
Benzo(g,h,i)perylene	<0.10	<0.10	0,74	1,1
Dibenzofuran	<0.10	0,13	0,21	0,28
Carbazole	<0.10	<0.10	<0.10	<0.10
Sum carcinogenic PAH	<0.30	0,53	6,8	16
Sum other PAH	<0.50	1,1	15	47
Group 7 Metals				
Cadmium	<0.21	<0.21	<0.20	<0.25
Lead	33	8,2	12	12
Strontium	130	23	40	14
Arsenic	2,5	<2.1	<2.0	<2.5
Copper	25	6	4,2	9,3
Chromium	17	4	5,3	5,1
Nickel	64	2,4	2,7	4,6
Zinc	110	25	31	13

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Sampling person	MS	MS	MS	MS
Sample Point	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam
Sample	A015787-06	A015788-06	A015789-06	A015790-06
Sample name	15-20	15-23	15-24	15-25
Sample depth	1,3-1,4	1,9-2,5	2,9-3,0	3,3-3,5
Sampling method				
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 5 PAH				
Anthracene	0,23	<0.10	<0.10	<0.10
Phenanthrene	0,83	<0.10	0,15	<0.10
Pyrene	1,9	<0.10	0,24	0,33
Acenaphthene	0,2	<0.10	<0.10	<0.10
Chrysene	1	<0.10	0,11	0,12
Naphtalene	1,6	<0.10	<0.10	<0.10
α -methylnaphtalene	2,8	<0.10	<0.10	<0.10
β -methylnaphtalene	4,1	<0.10	<0.10	<0.10
Acenaphtalene	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	0,68	<0.10	<0.10	0,13
Benzo(a)anthracene	0,86	<0.10	<0.10	0,1
Benzo(b,k)fluorantene	1,5	<0.10	0,18	0,19
Indeno(1,2,3,c,d)pyrene	0,27	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	0,11	<0.10	<0.10	<0.10
9H-Fluorene	0,27	<0.10	<0.10	<0.10
Fluorantene	2,4	<0.10	0,21	0,2
Benzo(g,h,i)perylene	0,28	<0.10	<0.10	<0.10
Dibenzofuran	<0.10	<0.10	<0.10	<0.10
Carbazole	<0.10	<0.10	<0.10	<0.10
Sum carcinogenic PAH	4,4	<0.30	<0.30	0,54
Sum other PAH	7,7	<0.50	0,6	0,52
Group 7 Metals				
Cadmium	<0.20	<0.23	0,63	<0.22
Lead	3,4	2,4	160	11
Strontium	5,1	10	16	20
Arsenic	<2.0	<2.3	<2.1	<2.2
Copper	3,4	2,9	120	22
Chromium	5,5	3,7	10	6,8
Nickel	4,2	3,1	5,6	4,7
Zinc	14	8,7	120	61

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Sampling person	MS	MS	MS	MS
Sample Point	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam
Sample	A015791-06	A015792-06	A015793-06	A015794-06
Sample name	15-27	15-28	15-30	15-30
Sample depth	1,6-1,7	1,0-1,1	2,8-2,9	3,4-3,5
Sampling method				
Sample Date	2006-08-24	2006-08-24	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight				
Group 5 PAH				
Anthracene	<0.10	0,39	<0.10	<0.10
Phenanthrene	<0.10	1,7	<0.10	<0.10
Pyrene	<0.10	0,44	<0.10	<0.10
Acenaphthene	<0.10	0,83	<0.10	<0.10
Chrysene	<0.10	0,17	<0.10	<0.10
Naphtalene	<0.10	0,33	<0.10	<0.10
α -methylnaphtalene	<0.10	2,8	<0.10	<0.10
β -methylnaphtalene	<0.10	0,11	<0.10	<0.10
Acenaphtalene	<0.10	0,55	<0.10	<0.10
Benzo(a)pyrene	<0.10	<0.10	<0.10	<0.10
Benzo(a)anthracene	<0.10	<0.10	<0.10	<0.10
Benzo(b,k)fluorantene	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3,c,d)pyrene	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	<0.10	<0.10	<0.10	<0.10
9H-Fluorene	<0.10	1,9	<0.10	<0.10
Fluorantene	<0.10	0,17	<0.10	<0.10
Benzo(g,h,i)perylene	<0.10	<0.10	<0.10	<0.10
Dibenzofuran	<0.10	1	<0.10	<0.10
Carbazole	<0.10	0,33	<0.10	<0.10
Sum carcinogenic PAH	<0.30	0,44	<0.30	<0.30
Sum other PAH	<0.50	6,1	<0.50	<0.50
Group 7 Metals				
Cadmium	<0.20	<0.21	<0.21	<0.22
Lead	7,6	4	2,4	3,4
Strontium	48	110	33	14
Arsenic	11	3,3	<2.1	<2.2
Copper	2	4,2	13	9,4
Chromium	2,9	10	13	13
Nickel	2,2	3,1	39	14
Zinc	4,8	29	11	9

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Sampling person	MS	MS
Sample Point	JRK 15 Piirivalvesadam	JRK 15 Piirivalvesadam
Sample	A015795-06	A015796-06
Sample name	15-31	15-34
Sample depth	2,9-3,0	1,8-2,5
Sampling method		
Sample Date	2006-08-24	2006-08-24
Units	mg/kg DW	mg/kg DW
Concentrations are reported per Dry Weight		
Group 5 PAH		
Anthracene	<0.10	0,5
Phenanthrene	<0.10	5,4
Pyrene	<0.10	0,67
Acenaphthene	<0.10	1,1
Chrysene	<0.10	0,33
Naphtalene	<0.10	0,95
α -methylnaphtalene	<0.10	11
β -methylnaphtalene	<0.10	0,22
Acenaphtalene	<0.10	1,1
Benzo(a)pyrene	<0.10	<0.10
Benzo(a)anthracene	<0.10	0,17
Benzo(b,k)fluorantene	<0.10	0,11
Indeno(1,2,3,c,d)pyrene	<0.10	<0.10
Dibenzo(a,h)anthracene	<0.10	<0.10
9H-Fluorene	<0.10	3,3
Fluorantene	<0.10	0,28
Benzo(g,h,i)perylene	<0.10	<0.10
Dibenzofuran	<0.10	2,2
Carbazole	<0.10	0,45
Sum carcinogenic PAH	<0.30	0,78
Sum other PAH	<0.50	13
Group 7 Metals		
Cadmium	1,3	<0.21
Lead	11	2,8
Strontium	14	6,6
Arsenic	73	<2.1
Copper	13	28
Chromium	19	24
Nickel	29	54
Zinc	29	14

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Caroline Karlsson

Maximum Limits for Dangerous Substances in Soil and Groundwater

Regulation of the Minister of the Environment No. 12 of 2 April 2004

(RTL 2004, 40, 662),

entered into force 19 April 2004.

This Regulation is established pursuant to § 12 of the “Chemicals Act” (RT I 1998, 47, 697; 1999, 45, 512; 2002, 53, 336; 61, 375; 63, 387; 2003, 23, 144; 51, 352; 75, 499; 88, 591).

I. General Provisions

§ 1. Maximum limits for dangerous substances

- (1) The maximum limits for dangerous substances serve as the basis for assessing the condition of soil and groundwater and for planning measures necessary to improve the condition of soil and groundwater.
- (2) For the purposes of this Regulation, the maximum limits for dangerous substances are expressed as reference values and target values for these substances. The reference values for dangerous substances in soil are expressed in micrograms per dry mass of soil.

§ 2. Reference value

- (1) A reference value is the concentration of a dangerous substance in soil or groundwater above which the soil or groundwater is polluted and dangerous to human health and the environment.
- (2) The reference value for a group of dangerous substances is the total of the reference values for the individual substances in the group, unless determined otherwise.
- (3) The concentration of dangerous substances for which reference values are not established by this Regulation shall be assessed on the basis of expert assessments of the condition of soil and groundwater. An expert assessment shall be conducted if previous use of the area under assessment has created a risk of contamination from such dangerous substances.
- (4) Depending on the purpose of land use, this Regulation shall implement different reference values for industrial and residential zones. The purpose of land use shall be determined based on Government of the Republic Regulation No. 36 of 24 January 1995 "Approval of the Intended Purposes of Cadastral Units and of the Bases of their Designation" (RT I 1995, 13, 150; 1996, 32, 636).
- (5) For the purposes of this Regulation, the following are industrial zones:
 - 1) land used for production facilities, except cold storages, grain storages, vegetable storages and warehouse complexes;
 - 2) land used for repair shops for agricultural machinery and forging shops that belong to agricultural production facilities;
 - 3) land used for mining;
 - 4) land used for landfills;
 - 5) land used for transportation;
 - 6) national defence land, except land under and needed to service buildings used for accommodation and rendering services to people;
 - 7) polluted technogenic soil and other wasteland resulting from human activity, which is not designated for a specific purpose;
 - 8) commercial land used for petrol stations;
 - 9) land used for mass communication networks and utility works;
- (6) The categories of land use not listed in subsection (5) belong to residential zones.
- (7) The suitability of groundwater as a source of potable water cannot be determined on the basis of the reference values set out in this Regulation.

§ 3. Target value

A target value is a concentration of a dangerous substance in soil or groundwater at or below which the condition of the soil or groundwater is good, that is, safe for humans and the environment.

§ 4. Satisfactory condition of soil or groundwater

The condition of soil or groundwater is satisfactory if the concentration of dangerous substances is between the reference values and target values for soil or groundwater.

II. Maximum limits of dangerous substances in soil and groundwater

No	Dangerous substance	CAS No.	Maximum limits				
			In soil, (mg/kg)			In groundwater, µg/l	
			Target value	Reference value in residential zone	Reference value in industrial zone	Target value	Reference value
I. Heavy metals							
1.	Mercury (Hg)	—	0,5	2	10	0,4	2
2.	Cadmium (Cd)	—	1	5	20	1	10
3.	Lead (Pb)	—	50	300	600	10	200
4.	Zinc (Zn)	—	200	500	1500	50	5000
5.	Nickel (Ni)	—	50	150	500	10	200
6.	Chromium (Cr)	—	100	300	800	10	200
7.	Copper (Cu)	—	100	150	500	15	1000
8.	Cobalt (Co)	—	20	50	300	5	300
9.	Molybdenum (Mo)	—	10	20	200	5	70
10.	Tin (Sn)	—	10	50	300	3	150
11.	Barium (Ba)	—	500	750	2000	50	7000
12.	Selenium (Se)	—	1	5	20	5	50
13.	Vanadium (V)	—	50	300	1000	—	—
14.	Antimony (Sb)	—	10	20	100	—	—
15.	Thallium (Tl)	—	1	5	20	—	—
16.	Beryllium (Be)	—	2	10	50	—	—
17.	Uranium (U)	—	20	50	500	—	—
II. Other inorganic compounds							
18.	Fluoride (as F-ion, total)	—	450	1200	2000	1500	4000
19.	Arsenic (As)	—	20	30	50	5	100
20.	Boron (B)	—	30	100	500	500	2000
21.	Cyanides (as CN-ion, free)	—	1	10	100	5	100
22.	Cyanides (CN-total)	—	5	50	500	100	200
III. Aromatic hydrocarbons							
23.	Benzene	71-43-2	0,05	0,5	5	0,2	5
24.	Ethylbenzene	100-41-4	0,1	5	50	0,5	50
25.	Toluene	108-88-3	0,1	3	100	0,5	50
26.	Styrene	100-42-5	1	5	50	0,5	50
27.	Xylenols	—	0,1	5	30	0,5	30
28.	Aromatic hydrocarbons (total)	—	1	10	100	1	100
29.	Monophenols (total concentration of cresols and dimethyl phenols)	—	1	10	100	1	100
30.	Biphenols (total concentration of pyrocatechol, resorcinol and hydroquinone)	—	1	10	100	1	100

No	Dangerous substance	CAS No.	Maximum limits				
			In soil, (mg/kg)			In groundwater, µg/l	
			Target value	Reference value in residential zone	Reference value in industrial zone	Target value	Reference value
31.	Phenols (each following compound)		0,1	1	10	0,5	50
	o-cresol	95-48-7					
	m-cresol	108-39-4					
	p-cresol	106-44-5					
	2,3-dimethyl phenol	526-75-0					
	2,4-dimethyl phenol	105-67-9					
	2,5-dimethyl phenol	95-87-4					
	2,6-dimethyl phenol	576-26-1					
	3,4-dimethyl phenol	95-65-8					
	3,5-dimethyl phenol	108-68-9					
	pyrocatechol	120-80-9					
	resorcinol	108-46-3					
	beta naphthol	135-19-3					
	hydroquinome	123-31-9					
32.	Chlorophenols (each compound)	–	0,05	0,5	5	0,3	30
33.	MTBE	1634-04-4	1	5	100	0,5	10
34.	Oil products total	–	100	500	5000	20	600
IV. Polycyclic aromatic hydrocarbons (PAH)							
35.	Anthracene	120-12-7	1	5	50	0,1	5
36.	Chrysene	218-01-9	0,5	2	20	0,01	1
37.	Phenanthrene	85-01-8	1	5	50	0,05	2
38.	Naphthalene	91-20-3	1	5	100	1	50
39.	Pyrene	129-00-0	1	5	50	1	5
40.	α-methylnaphthalene	90-12-0	1	4	40	1	30
	β-methylnaphthalene	91-57-6					
41.	Dimethylnaphthalene (each following compound)		1	4	40	1	30
	1,2-dimethylnaphthalene	573-98-8					
	1,2-dimethylnaphthalene	575-41-7					
	1,4-dimethylnaphthalene	571-58-4					
	1,5-dimethylnaphthalene	571-61-9					
	1,6-dimethylnaphthalene	575-43-9					
	1,7-dimethylnaphthalene	575-37-1					
	1,8-dimethylnaphthalene	569-41-5					
	2,3-dimethylnaphthalene	581-40-8					
	2,6-dimethylnaphthalene	581-42-0					
	2,7-dimethylnaphthalene	582-16-1					

No	Dangerous substance	CAS No.	Maximum limits				
			In soil, (mg/kg)			In groundwater, µg/l	
			Target value	Reference value in residential zone	Reference value in industrial zone	Target value	Reference value
42.	Acenaphthene	83-32-9	1	4	40	1	30
43.	Benzo(a)pyrene	50-32-8	0,1	1	10	0,01	1
44.	PAH (total)	–	5	20	200	0,2	10
V. Chlorinated aliphatic hydrocarbons							
45.	1,2-dichloroethane	107-06-2	0,1	2	50	0,1	5
46.	Chloroform	67-66-3	0,1	1	25	0,1	2
47.	Hexachloroethane	67-72-1	1	10	100	1	10
48.	Chlorinated aliphatic hydrocarbons, each compound, except the compounds in this list		0,1	5	50	1	70
VI. Chlorinated aromatic hydrocarbons							
49.	PCB	1336-36-3	0,1	5	10	0,5	1
50.	Chlororganic aromatic compounds (each compound, except the compounds in this list)	–	0,1	0,5	30	0,1	5
51.	Chlororganic aromatic compounds (total)	–	0,2	5	100	0,5	5
VII. Amines							
52.	Aliphatic amines (total)	–	50	300	700	1	20
VIII. Pesticides							
53.	2,4-D	94-75-7	0,05	0,5	2	0,05	1
54.	Aldrin	309-00-2	0,1	1	5	0,01	1
55.	Dieldrin	60-57-1	0,05	0,5	2	0,01	1
56.	Endrin	72-20-8	0,1	1	5	0,005	0,5
57.	Isodrin	465-73-6	0,1	1	5	0,005	0,5
58.	DDT	50-29-3	0,1	0,5	5	0,1	1
59.	Hexachlorocyclohexane (each isomer)	–	0,05	0,2	2	0,01	1
60.	Trichlorobenzene	–	2	5	50	0,01	5
61.	Hexachlorobenzene	118-74-1	2	5	25	0,5	5
62.	Pesticides (total)	–	0,5	5	20	0,5	5

Pinnases ja põhjavees ohtlike ainete sisalduse piirnormid

Keskkonnaministri 2. aprilli 2004. a määrus nr 12

(RTL 2004, 40, 662)

jõustumiskuupäev 01.04.2004

Määrus kehtestatakse «Kemikaaliseaduse» ([RT I 1998, 47, 697](#); [1999, 45, 512](#); [2002, 53, 336](#); [61, 375](#); [63, 387](#); [2003, 23, 144](#); [51, 352](#); [75, 499](#); [88, 591](#)) § 12 alusel.

I. ÜLDSÄTTED

§ 1. Ohtlike ainete sisalduse piirnormid

- (1) Ohtlike ainete sisalduse piirnormid on aluseks pinnase ja põhjavee seisundi hindamisel ning pinnase ja põhjavee seisundi parandamiseks vajalike meetmete kavandamisel.
- (2) Ohtlike ainete sisalduse piirnormi selle määruse tähenduses väljendatakse nende ainete sisalduse piirarvu ja sihtarvuga. Pinnases ohtlike ainete sisalduse piirnormid antakse milligrammides pinnase kuivmassi suhtes.

§ 2. Piirarv

- (1) Piirarv on selline ohtliku aine sisaldus pinnases või põhjavees, millest suurema väärtuse korral on pinnas või põhjavesi reostunud ning inimese tervisele ja keskkonnale ohtlik.
- (2) Ohtlike ainete rühma kuuluvate ainete sisalduse piirarv on selle rühma üksikute ainete ühendite summaarseks maksimaalseks piirarvuks, kui pole määratud teisiti.
- (3) Nende ohtlike ainete sisaldust, mille piirarvusi määrus ei kehtesta, hinnatakse pinnase ja põhjavee seisundi eksperthinnangu põhjal. Eksperthinnang antakse, kui uuritava ala senine kasutamine on tekitanud selliste ohtlike ainete reostumise ohu.
- (4) Sõltuvalt maakasutuse otstarbest rakendab määrus tööstus- ja elutsoonis eri piirarvusi. Maakasutuse otstarbe määramisel juhendatakse Vabariigi Valitsuse 24. jaanuari 1995. a määrusest nr 36 «Katastriüksuse sihtotstarvete liikide ja nende määramise aluste kinnitamine» ([RT I 1995, 13, 150](#); [1996, 32, 636](#)).
- (5) Selle määruse mõistes kuulub tööstustsooni:
 - 1) tootmishoonete maa, v.a külmhoonete, teraviljahoidlate, juurviljabaaside ja laokomplekside maa;
 - 2) põllumajanduslike tootmishoonete maa hulka kuuluv põllumajandusmasinate remonditöökodade ja sepikodade maa;
 - 3) mäetööstusmaa;
 - 4) jäätmeoidla maa;
 - 5) transpordimaa;
 - 6) riigikaitsemaa, v.a majutuse ja inimeste teenindamisega seotud hoonete alune ja nende teenindamiseks vajalik maa;
 - 7) sihtotstarbeta maa hulka kuuluvad rikutud tehnogeensed pinnased ja teised inimtegevuse tagajärjel tekkinud jäätmaad;
 - 8) ärimaa hulka kuuluv bensinijaamade maa;
 - 9) massikommunikatsioonide ja tehnorajatiste maa.
- (6) Lõikes 5 nimetatata katastriüksuse sihtotstarvete liigid kuuluvad elutsooni.
- (7) Põhjavee kõlblikkust joogiveeallikana ei saa hinnata selle määruse piirarvude alusel.

§ 3. Sihtarv

Sihtarv on pinnase või põhjavee ohtliku aine sisaldus, millega võrdse või väiksema väärtuse korral on pinnase või põhjavee seisund hea ehk inimesele ja keskkonnale ohutu.

§ 4. Pinnase või põhjavee rahuldav seisund

Pinnase või põhjavee seisund on rahuldav, kui ohtlike ainete sisaldus jääb pinnase või põhjavee piirarvu ja sihtarvu vahele.

II. PINNASES JA PÕHJAVEES OHTLIKE AINETE SISALDUSE PIIRNORMID

Nr	Ohtlik aine	CAS nr	Piirnormid				
			Pinnases, mg/kg			põhjavees, µg/l	
			Sihtarv	Piirarv elutsoonis	Piirarv tööstustsoonis	Sihtarv	Piirarv
I RASKMETALLID							
1.	Elavhõbe (Hg)	–	0,5	2	10	0,4	2
2.	Kaadmium (Cd)	–	1	5	20	1	10
3.	Plii (Pb)	–	50	300	600	10	200
4.	Tsink (Zn)	–	200	500	1500	50	5000
5.	Nikkel (Ni)	–	50	150	500	10	200
6.	Kroom (Cr)	–	100	300	800	10	200
7.	Vask (Cu)	–	100	150	500	15	1000
8.	Koobalt (Co)	–	20	50	300	5	300
9.	Molübdeen (Mo)	–	10	20	200	5	70
10.	Tina (Sn)	–	10	50	300	3	150
11.	Baarium (Ba)	–	500	750	2000	50	7000
12.	Seleen (Se)	–	1	5	20	5	50
13.	Vanaadium (V)	–	50	300	1000	–	–
14.	Antimon (Sb)	–	10	20	100	–	–
15.	Tallium (Tl)	–	1	5	20	–	–
16.	Berüllium (Be)	–	2	10	50	–	–
17.	Uraan (U)	–	20	50	500	–	–
II MUUD ANORGAANILISED ÜHENDID							
18.	Fluoriid (F ⁻ -ioonina, üldine)	–	450	1200	2000	1500	4000
19.	Arseen (As)	–	20	30	50	5	100
20.	Boor (B)	–	30	100	500	500	2000
21.	Tsüaniidid (CN ⁻ -ioonina, vaba)	–	1	10	100	5	100
22.	Tsüaniidid (CN-üldine)	–	5	50	500	100	200
III AROMAATSED SÜSIVESINIKUD							
23.	Benseen	71-43-2	0,05	0,5	5	0,2	5
24.	Etüülbenseen	100-41-4	0,1	5	50	0,5	50
25.	Tolueen	108-88-3	0,1	3	100	0,5	50
26.	Stüreen	100-42-5	1	5	50	0,5	50
27.	Ksüleenid	–	0,1	5	30	0,5	30
28.	Aromaatsed süsivesinikud (kokku)	–	1	10	100	1	100
29.	Ühealuselised fenoolid (kresoolide ja dimetüülfenoolide summaarne kontsentratsioon)	–	1	10	100	1	100
30.	Kahealuselised fenoolid (pürokatehhooli, resortsinooli ja hüdrokinooni summaarne kontsentratsioon)	–	1	10	100	1	100

Nr	Ohtlik aine	CAS nr	Piirnormid				
			Pinnases, mg/kg			põhjavees, µg/l	
			Sihtarv	Piirarv elutsoonis	Piirarv tööstustsoonis	Sihtarv	Piirarv
31.	Fenoolid (iga järgnev ühend)						
	o-kresool	95-48-7					
	m-kresool	108-39-4					
	p-kresool	106-44-5					
	2,3-dimetüülfenool	526-75-0					
	2,4-dimetüülfenool	105-67-9	0,1	1	10	0,5	50
	2,5-dimetüülfenool	95-87-4					
	2,6-dimetüülfenool	576-26-1					
	3,4-dimetüülfenool	95-65-8					
	3,5-dimetüülfenool	108-68-9					
	pürokatehhool	120-80-9					
	resortsinool	108-46-3					
	beeta-naftool	135-19-3					
	hüdrokinoom	123-31-9					
32.	Klorofenoolid (iga ühend)	–	0,05	0,5	5	0,3	30
33.	MTBE	1634-04-4	1	5	100	0,5	10
34.	Naftasaadused kokku	–	100	500	5000	20	600
IV POLÜTSÜKLILISED AROMAATSED SÜSIVESINIKUD (PAH)							
35.	Antratseen	120-12-7	1	5	50	0,1	5
36.	Krüseen	218-01-9	0,5	2	20	0,01	1
37.	Fenantreen	85-01-8	1	5	50	0,05	2
38.	Naftaleen	91-20-3	1	5	100	1	50
39.	Püreen	129-00-0	1	5	50	1	5
40.	α-metüül-naftaleen	90-12-0	1	4	40	1	30
	β-metüüleftaleen	91-57-6					
41.	Dimetüüleftaleen (iga järgnev ühend)						
	1,2-dimetüüleftaleen	573-98-8					
	1,3-dimetüüleftaleen	575-41-7					
	1,4-dimetüüleftaleen	571-58-4					
	1,5-dimetüüleftaleen	571-61-9					
	1,6-dimetüüleftaleen	575-43-9	1	4	40	1	30
	1,7-dimetüüleftaleen	575-37-1					
	1,8-dimetüüleftaleen	569-41-5					
	2,3-dimetüüleftaleen	581-40-8					
	2,6-dimetüüleftaleen	581-42-0					
	2,7-dimetüüleftaleen	582-16-1					
42.	Atsenaften	83-32-9	1	4	40	1	30
43.	Benso(a)püreen	50-32-8	0,1	1	10	0,01	1
44.	PAH (kokku)	–	5	20	200	0,2	10

Nr	Ohtlik aine	CAS nr	Piinormid				
			Pinnases, mg/kg			põhjavees, µg/l	
			Sihtarv	Piirarv elutsoonis	Piirarv tööstustsoonis	Sihtarv	Piirarv
V KLOORITUD ALFILAATSED SÜSIVESINIKUD							
45.	1,2-dikloroetaan	107-06-2	0,1	2	50	0,1	5
46.	Kloroform	67-66-3	0,1	1	25	0,1	2
47.	Heksakloroetaan	67-72-1	1	10	100	1	10
48.	Klooritud alifaatsed süsivesinikud, iga ühend, välja arvatud käesolevas nimekirjas toodud ühendid		0,1	5	50	1	70
VI KLOORITUD AROMAATSED SÜSIVESINIKUD							
49.	PCB	27323-18-8	0,1	5	10	0,5	1
50.	Kloororgaanilised aromaatsed üksikühendid (iga ühend, välja arvatud käesolevas nimekirjas toodud ühendid)	–	0,1	0,5	30	0,1	5
51.	Kloororgaanilised aromaatsed ühendid (kokku)	–	0,2	5	100	0,5	5
VII AMIINID							
52.	Alifaatsed amiinid (kokku)	–	50	300	700	1	20
VIII TAIMEKAITSEVAHENDID							
53.	2,4-D	94-75-7	0,05	0,5	2	0,05	1
54.	Aldriin	309-00-2	0,1	1	5	0,01	1
55.	Dieldriin	60-57-1	0,05	0,5	2	0,01	1
56.	Endriin	72-20-8	0,1	1	5	0,005	0,5
57.	Isodriin	465-73-6	0,1	1	5	0,005	0,5
58.	DDT	50-29-3	0,1	0,5	5	0,1	1
59.	Heksaklorotsükloheksaanid (iga isomeer)	–	0,05	0,2	2	0,01	1
60.	Triklorobenseen	–	2	5	50	0,01	5
61.	Heksaklorobenseen	118-74-1	2	5	25	0,5	5
62.	Taimekaitsevahendid (kokku)	–	0,5	5	20	0,5	5

Minister Villu REILJAN
Kantsler Sulev VARE

Ohtlike ainete sisalduse piirnormid pinna- ja merevees

Keskkonnaministri 11. märtsi 2005. a määrus nr 17

Määrus kehtestatakse «[Kemikaaliseaduse](#)» (RT I 1998, 47, 697; 1999, 45, 512; 2002, 53, 336; 61, 375; 63, 387; 2003, 23, 144; 51, 352; 75, 499; 88, 591; 2004, 45, 315; 75, 521; 89, 612) § 12 alusel.

§ 1. Piirnorm on ohtliku aine sisaldus pinna- või merevees, millest suurema väärtuse korral on pinna- või merevesi reostunud ning inimese tervisele ja keskkonnale ohtlik.

§ 2. Piirnormiga võrdsed või väiksema väärtuse korral on pinna- või merevee keemiline seisund hea ehk inimesele ja keskkonnale ohutu.

§ 3. Ohtlike ainete rühma sisalduse piirnorm on selle rühma üksikute ainete ühendite sisalduse summaarseks piirnormiks, kui pole sätestatud teisiti.

§ 4. Ohtlike ainete sisalduse piirnormid pinna- ja merevees on järgmised:

Nr	Ohtlik aine	CAS nr	Piirnorm pinnavees, µg/l	Piirnorm merevees, µg/l
1	Akrüülamiid	79-06-1	0,1	0,1
2	Alakloor	15972-60-8	50	50
3	Aldriin	309-00-2	0.01	0.01
4	Antratseen	120-12-7	0,005	0,005
5	Atratsiin	1912-24-9	0,1	0,1
6	Aromaatsed süsivesinikud	–	1,0	1,0
7	Arseen ja selle ühendid	7440-38-2	50	25
8	Baarium ja selle ühendid	7440-39-3	50	50
9	Benseen	71-43-2	5	5
10	Bromeeritud difenüüleetrid	–		
11	C10-13 klooralkaanid	85535-84-8		
12	DDT (isomeeride 1,1,1-trikloro-2,2 bis (p-klorofenüül) etaan; 1,1,1-trikloro-2 (o-klorofenüül)-2-(p-klorofenüül) etaan; 1,1,1-dikloro-2,2 bis (p-klorofenüül) etüleen ja 1,1,1-dikloro-2,2 bis(p-klorofenüül) etaan summa)	50-29-3	0.025	0.025
13	Isomeer para-para-DDT	–	0.01	0.01
14	Di (2-etüülheksüül) ftalaat (DEHP)	117-81-7	0,02–0,15	0,02–0,15
15	Dieldriin	60-57-1	0.01	0.01
16	Diklorofoss	62-73-7	0.001	0.04
17	Diklorometaan	75-09-2	50	50
18	Dimetüülnaftaleen	–	1,0	1,0
19	Diuroon	330-54-1	0,1	0,1
20	Elavhõbe ja selle ühendid	7439-97-6	1	0.3
21	Endosulfaan	115-29-7	0.003	0.003
22	Endriin	72-20-8	0.005	0.005

Nr	Ohtlik aine	CAS nr	Piirnorm pinnavees, µg/l	Piirnorm merevees, µg/l
23	Fluoranteen	206-44-0		
24	Fluoriid	7782-41-4	1500	1500
25	Heksaklorobenseen	118-74-1		
26	Heksaklorobutadieen	87-68-3		
27	Heksaklorotsükloheksaan	608-73-1		
	(gamma-isomeer, Lindaan) ¹	58-89-9		
28	Isodriin	465-73-6	0.005	0.005
29	Isoproturoon	34123-59-6	0,1	0,1
30	Kaadmium ja selle ühendid	7440-43-9	5	2.5
31	Kahealuselised fenoolid	–	1,0	1,0
32	Kloorfenviinfoss	470-90-6	1	1
33	Kloororgaanilised aromaatsed ühendid	–	0,5	0,5
34	Kloorpürifoss	2921-88-2		
35	Ksüleenid	–	30	30
36	MTBE	1634-04-4	0,5	0,5
37	Naftaleen	91-20-3	0,005	0,005
38	Naftasaadused	–	10	10
39	Nikkel ja selle ühendid	7440-02-0	5	5
40	Nonüülfenoolid	25154-52-3		
	(4-(para)-nonüülfenool)	104-40-5		
41	Oktüülfenoolid	1806-26-4	0,005	0,005
	(para-tert-oktüülfenool)	140-66-9		
42	Pentaklorobenseen	608-93-5		
43	Pentaklorofenool (PCP)	87-86-5	2	2
44	Perkloroetüleen	127-18-4	10	10
45	Pestitsiidid	–	0,5	0,5
46	Plii ja selle ühendid	7439-92-1	25	25
47	Polüaromaatsed süsivesinikud	–		
	(Benso (a) püreen)	50-32-8		
	(Benso (b) fluoroanteen)	205-99-2		
	(Benso (g, h, i) perüleen)	191-24-2		
	(Benso (k) fluoranteen)	207-08-9		
	(Indeno (1,2,3-cd) püreen)	193-39-5		
48	Polükloreeritud bifenüülid (PCB)	1336-36-3	0,5	0,5
49	Simasiin	122-34-9	2	2
50	Tina ja selle ühendid	–	3	3
51	Tolueen	108-88-3	50	40
52	Tributüültina ühendid	688-73-3		
	(Tributüültina-katioon)	36643-28-4		
53	Trifluraliin	1582-09-8	0.1	0.1
54	Triklorobenseenid	12002-48-1	0.4	0.4

Nr	Ohtlik aine	CAS nr	Piirnorm pinnavees, µg/l	Piirnorm merevees, µg/l
	(1,2,4-Triklorobenseen)	120-82-1		
55	Trikloroetüleen	79-01-6	10	10
56	Triklorometaan (kloroform)	67-66-3	0,3	0,3
57	Tsink ja selle ühendid	7440-66-6	50	40
58	Tsüaniid	57125	100	100
59	Vask ja selle ühendid	7440-50-8	15	5
60	Ühealuselised fenoolid	–	1,0	1,0
61	Üldkroom	–	10	10
62	1,2-Dikloroetaan	107-06-2	10	10

§ 5. Paragrahvis 4 järjekorranumbriga 10, 11, 23, 25, 26, 27, 34, 40, 42, 47 ja 52 tähistatud ohtlike ainete sisalduse piirnormiks pinna- ja merevees on nende ainete määramistäpsuse kontsentratsioon.

¹ Sulgudes on sätestatud ainegruppide indikaatorparameetrina iseloomulikumat üksikud ained.

Minister Villu REILJAN

Kantsler Annika VELTHUT

Märkus: määruse positsioonil 46 **“Plii ja selle ühendid”** on ekslikult kirjutatud piirnormideks 0,025 µg/l, millist viga tunnistab ka määruse koostaja Keskkonnaministeerium. Õige on 25 µg/l.