

Montréal  Division de l'expertise technique	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER AND CHARLES-J DES BAILLETS DRINKING WATER TREATMENT PLANTS	2008
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PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER CONCENTRATION		
			MIN.	MOY.	MAX
PHYSICAL PROPERTIES					
Specific Conductivity (µS/cm)	-	-	249	290	308
Color (T.C.U.)	≤ 15 ¹	-	1	1	4
Agressivity index pH+log(alk*dt)	-	-	11.4	11.7	12.0
Ryznar index (2pHs-pH)	-	-	8.1	9.0	9.7
Langelier's saturation index (pH-pHs)	-	-	-1.13	-0.65	-0.05
pH	6,5-8,5	6,5-8,5	7.33	7.71	8.05
Solids (mg/L)	-	-	130	138	151
Total solids(mg/L)	<500 ¹	-	162	170	185
Temperature (°C)	-	-	0,1	10	25
Turbidity (N.T.U..)	1	5 / 0,5 ²	0,08	0,28	2,6
BIOLOGICAL CHARACTERISTICS					
			ANNUAL AVERAGE		
Total coliforms (C.F.U./100mL)	≤ 10	≤ 10	ABS ⁴		
E.coli (C.F.U./100mL)	< 1 or ABS	< 1 ou ABS	ABS ⁴		
HPC (C.F.U./mL)	≤ 500	≤ 500	< 2 (geometric mean)		
INORGANIC AND ORGANIC CHEMICAL CHARACTERISTICS (mg/L)					
			MIN.	MOY.	MAX
Antimony	-	0,006	< 0,001	< 0,001	< 0,001
Alkalinity (eq.CaCO ₃)	-	-	73	82	89
Aluminum (Al)	-	-	0,003	0,014	0,048
Silver (Ag)	-	-	< 0,001	< 0,001	< 0,001
Arsenic (As)	0,025	0,025	< 0,001	< 0,001	0,001
Barium (Ba)	1,0	1,0	0,020	0,021	0,021
Bore (B)	5	5	0,06	0,07	0,07
Bromated (BrO ₃)*	0,010	0,010	0,0014	0,0014	0,0014
Cadmium (Cd)	0,005	0,005	< 0,0001	< 0,0001	< 0,0001
Calcium (Ca)	-	-	29	31	31
Total Organic Carbon (TOC)	-	-	1,70	2,30	3,21
Chlorides (Cl)	<250 ¹	-	18	22	24
Chromium (Cr)	0,05	0,05	< 0,001	0,002	0,003
Cobalt (Co)	-	-	< 0,001	< 0,001	< 0,001
Copper (Cu)	≤ 1,0 ¹	-	0,001	0,002	0,007
Cyanides (CN)	0,2	0,2	<0,005	<0,005	<0,005
Total Hardness (eq.CaCO ₃)	-	-	99	115	123
Iron (Fe)	<0,3 ¹	-	<0,005	0,020	0,040
Fluorides (F)	1,5	1,5	0,11	0,13	0,15
Magnesium (Mg)	-	-	7,1	8,1	8,4
Manganese (Mn)	<0,05 ¹	-	< 0,001	< 0,001	< 0,001
Mercury (Hg)	0,001	0,001	<0,00007	<0,00007	<0,00007
Nickel (Ni)	-	-	< 0,001	<0,001	0,001
Nitrites + nitrates (N)	10	10	0,15	0,25	0,36
Phosphates (total) (P)	-	-	<0,002	0,002	0,003
Lead (Pb)	0,01	0,01	< 0,001	< 0,001	< 0,001
Potassium (K)	-	-	1,35	1,47	1,55
Selenium (Se)	0,01	0,01	< 0,001	<0,001	<0,001
Silica (SiO ₂)	-	-	0,70	1,13	1,82
Sodium (Na)	<200 ¹	-	11,2	12,2	13,1
Sulfates (SO ₄)	≤ 500 ¹	-	22	24	26
Uranium (U)	0,02	0,02	< 0,001	< 0,001	< 0,001
Zinc (Zn)	≤ 5,0 ¹	-	< 0,001	<0,001	0,001

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			MAXIMUM DETECTED	DETECTION LIMIT
ORGANIC COMPOUNDS				
CARBAMATES (µg/L)				
Bendiocarb*	40	40	N.D.	0,3
Carbaryl*	90	90	N.D.	0,4
Carbofuran*	90	90	N.D.	0,2
VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)				
1,1,1,2-Tétrachloroethane	-	-	N.D.	0,08
1,1,1-Trichloroethane	-	-	N.D.	0,05
1,1,2,2-Tétrachloroethane	-	-	N.D.	0,06
1,1,2-Trichloroethane	-	-	N.D.	0,05
1,1-Dichloroethane	-	-	N.D.	0,06
1,1-Dichloroethylene	14	14	N.D.	0,07
1,1-Dichloropropene	-	-	N.D.	0,06
1,2,3-Trichlorobenzene	-	-	N.D.	0,04
1,2,3-Trichloropropane	-	-	N.D.	0,09
1,2,4-Trichlorobenzene	-	-	N.D.	0,04
1,2,4-Triméthylbenzene	-	-	N.D.	0,04
1,2-Dibromo-3-chloropropane	-	-	N.D.	0,24
1,2-Dibromoethane	-	-	N.D.	0,04
1,2-Dichlorobenzene	200	200	N.D.	0,07
1,2-Dichloroethane	5	5	N.D.	0,05
1,2-Dichloropropane	-	-	N.D.	0,06
1,3,5-Triméthylbenzene	-	-	N.D.	0,02
1,3-Dichlorobenzene	-	-	N.D.	0,06
1,3-Dichloropropane	-	-	N.D.	0,02
1,4-Dichlorobenzene	5	5	N.D.	0,05
1-Chlorobutane	-	-	N.D.	0,08
1-Propene,3-chloro	-	-	N.D.	0,20
2,2-Dichloropropane	-	-	N.D.	0,06
2-Butanone	-	-	N.D.	0,22
2-Chlorotoluene	-	-	N.D.	0,06
2-Nitropropane	-	-	N.D.	0,31
4-Chlorotoluene	-	-	N.D.	0,04
4-Isopropyltoluene	-	-	N.D.	0,03
Acrylonitrile	-	-	N.D.	0,13
Benzene	5	5	N.D.	0,05
Bromobenzene	-	-	N.D.	0,05
Bromochloromethane	-	-	N.D.	0,07
Bromoform	-	See note 3	0,6	0,09
Bromodichloromethane	-	See note 3	13,0	0,04
Bromomethane	-	-	N.D.	0,15

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			MAXIMUM DETECTED	DETECTION LIMIT
Chloroacetonitrile	-	-	N.D.	1,38
Chlorobenzene	80	80	N.D.	0,05
Chlorodibromomethane	-	See note 3	6,4	0,04
Chloroethane	-	-	N.D.	0,19
Chloroform	-	See note 3	52,9	0,05
Chloromethane	-	-	N.D.	0,08
Vinyl chloride	2	2	N.D.	0,07
cis-1,2-Dichloroethylene	-	-	N.D.	0,07
cis-1,3-Dichloropropene	-	-	N.D.	0,11
Dibromomethane	-	-	N.D.	0,06
Dichlorodifluoromethane	-	-	N.D.	0,08
Dichloromethane	50	50	N.D.	0,09
Diethylether	-	-	N.D.	0,07
Carbon disulfide	-	-	N.D.	0,08
Ethylbenzene	≤ 2,4 ¹	-	N.D.	0,03
Hexachlorobutadiene	-	-	N.D.	0,08
Hexachloroethane	-	-	N.D.	0,14
Isopropylbenzene	-	-	N.D.	0,03
Methacrylonitrile	-	-	N.D.	0,12
Methyl acrylate	-	-	N.D.	0,10
Methyl methacrylate	-	-	N.D.	0,19
MTBE(methyl tert-butyl ether)	-	-	N.D.	0,05
m-Xylene + p-Xylene + o-Xylene	≤ 300 ¹	-	N.D.	0,03
Naphthalene	-	-	N.D.	0,11
n-Butylbenzene	-	-	N.D.	0,04
n-Propylbenzene	-	-	N.D.	0,04
Propionitrile	-	-	N.D.	0,27
sec-Butylbenzene	-	-	N.D.	0,10
Styrene	-	-	N.D.	0,07
tert-Butylbenzene	-	-	N.D.	0,10
Tetrachloroethylene	30	30	N.D.	0,05
Carbon tetrachloride	5	5	N.D.	0,07
Tetrahydrofurane	-	-	N.D.	0,46
Toluene	≤ 24 ¹	-	N.D.	0,03
trans-1,2-Dichloroethylene	-	-	N.D.	0,06
trans-1,3-Dichloropropene	-	-	N.D.	0,10
Trans-1,4-dichloro-2-butene	-	-	N.D.	0,14
Trichloroethylene	50	50	N.D.	0,06
Trichlorofluoromethane	-	-	N.D.	0,12
PHENOLIC COMPOUNDS (µg/L)				
2,3,4,6-Tetrachlorophenol *	100	100	N.D.	0,05
2,4 -Dichlorophenol *	900	900	N.D.	0,05
2,4,6-Trichlorophenol *	5	5	0,19	0,05
Pentachlorophenol *	60	60	N.D.	0,05
GLYPHOSATE AND AMPA (µg/L)				
Glyphosate*	280	280	N.D.	10
PAH (µg/L)				
Benzo (a) pyrene *	0,01	0,01	N.D.	0,003

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			MAXIMUM DETECTED	DETECTION LIMIT
TRIAZINES HERBICIDES (µg/L)				
Atrazine and metabolites*	5	5	N.D.	1,0
Cyanazine*	10	10	N.D.	0,2
Metribuzine*	80	80	N.D.	03
Simazine*	10	10	N.D.	03
CHLOROPHENOXY ACID AND TRICHLOROACETATE PESTICIDES (µg/L)				
2,4-D*	100	100	0,03	0,2
Dicamba*	120	120	N.D.	2,0
Dinoseb*	-	10	N.D.	0,7
Picloram*	190	190	N.D.	0,2
ORGANOCHLORINE PESTICIDES (µg/L)				
Metolachlor*	50	50	N.D.	0,02
Methoxychlor *	900	900	N.D.	0,4
Trifluralin*	45	45	N.D.	0,1
ORGANOPHOSPHORUS PESTICIDES (µg/L)				
Azinphos-methyl*	20	20	N.D.	1,0
Chlorpyrifos*	90	90	N.D.	0,04
Diazinon *	20	20	N.D.	0,07
Dimethoate*	20	20	N.D.	0,3
Diuron*	150	150	N.D.	0,8
Malathion*	190	190	N.D.	0,2
Parathion *	50	50	N.D.	0,2
Phorate*	2	2	N.D.	0,4
Terbufos*	1	1	N.D.	0,2
OTHERS (µg/L)				
Nitritotriacetic acid	400	400	N.D.	25
Bromoxynil*	5	5	N.D.	1,0
Methyl-Diclofop*	9	9	N.D.	0,2
Diquat *	70	70	N.D.	1,0
Paraquat *	10	10	N.D.	0,1
Trihalomethanes (THM) (total)	100	80 ³	65,5 ⁶	0,2

* : Analyzed by an outside accredited laboratory

N.D. : Not detected

D. : Detected, but cannot determine quantity

Notes :

1 Esthetical or organoleptic reasons

2 Turbidity must be equal or under 5 NTU and must not overpass 0,5 NTU for more than 5 % of total measures taken within 30 days.

3 Total THM concentration (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) must not exceed 80 µg/L (samples taken at the end of drinking water distribution network)

4 ABS : absence

5 Health reasons objectives

6 Maximum obtained for a sampling site