


Montréal  Division de l'expertise technique	MUNICIPAL DRINKING WATER PRODUCED BY ATWATER AND CHARLES-J DES BAILLETS DRINKING WATER TREATMENT PLANTS	2007
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PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTREAL'S DRINKING WATER CONCENTRATION		
			MIN.	MOY.	MAX
PHYSICAL PROPERTIES					
Specific Conductivity (µS/cm)	-	-	275	296	310
Color (T.C.U.)	≤ 15 ¹	-	1	1	5
Agressivity index pH+log(alk*dt)	-	-	11.6	11.7	12.0
Ryznar index (2pHs-pH)	-	-	8.2	9.0	9.6
Langelier's saturation index (pH-pHs)	-	-	-1.00	-0.59	0.79
pH	6,5-8,5	6,5-8,5	7.58	7.76	8.23
Solids (mg/L)	-	-	133	140	148
Total solids(mg/L)	<500 ¹	-	164	173	182
Temperature (°C)	-	-	0.5	10.4	24.5
Turbidity (N.T.U..)	1	5 / 0,5 ²	0.06	0.20	1.78
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)	-	-	80	84	88
Aluminum (Al)	-	-	0,004	0,011	0,031
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	0,022
Bore (B)	5	5	0,05	0,05	0,06
Bromated (BrO ₃)*	0,010	0,010	0,00075	0,00075	0,00075
Cadmium (Cd)	0,005	0,005	< 0,001	< 0,001	< 0,001
Calcium (Ca)	-	-	30	31	32
Total Organic Carbon (TOC)	-	-	1.58	2.12	2.81
Chlorides (Cl)	<250 ¹	-	18	22	27
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	0,004
Cyanides (CN)	0,2	0,2	<0,005	<0,005	<0,005
Total Hardness (eq.CaCO ₃)	-	-	110	117	123
Iron (Fe)	<0,3 ¹	-	0,006	0,014	0,025
Fluorides (F)	1,5	1,5	0,07	0,09	0,12
Magnesium (Mg)	-	-	7.8	8.1	8.7
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	0,004
Nitrites + nitrates (N)	10	10	0.14	0.29	0.42
Phosphates (total) (P)	-	-	0.007	0.007	0.007
Lead (Pb)	0,01	0,01	< 0,001	< 0,001	< 0,001
Potassium (K)	-	-	1.39	1.49	1.56
Selenium (Se)	0,01	0,01	< 0,001	<0,001	<0,001
Silica (SiO ₂)	-	-	0.57	0.90	1.35
Sodium (Na)	<200 ¹	-	11.3	12.2	13.1
Sulfates (SO ₄)	≤ 500 ¹	-	22	25	27
Uranium (U)	0,02	0,02	< 0,001	< 0,001	< 0,001
Zinc (Zn)	≤ 5,0 ¹	-	< 0,001	0,001	0,003

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PARAMETERS	HEALTH CANADA RECOMMENDATIONS	QUÉBEC REGULATION DRINKING WATER QUALITY (Q-2,r.18.1.1)	MONTRÉAL'S DRINKING WATER	
			MAXIMUM DETECTED	DETECTION LIMIT
ORGANIC COMPOUNDS				
CARBAMATES (µg/L)				
Bendiocarb*	40	40	N.D.	0,2
Carbaryl*	90	90	N.D.	0,2
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	0,98	0,09
Bromodichloromethane	-	See note 3	11,38	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	5,44	0,04
Chloroethane	-	-	N.D.	0,19
Chloroform	-	See note 3	26,44	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.	0,4
2,4 -Dichlorophenol *	900	900	N.D.	0,6
2,4,6-Trichlorophenol *	5	5	N.D.	0,4
Pentachlorophenol *	60	60	N.D.	0,4
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.	0,3
Cyanazine*	10	10	N.D.	0,2
Metribuzine*	80	80	N.D.	0,2
Simazine*	10	10	N.D.	0,2
CHLOROPHENOXY ACID AND TRICHLOROACETATE PESTICIDES (µg/L)				
2,4-D*	100	100	0,03	0,03
Dicamba*	120	120	N.D.	0,6
Dinoseb*	-	10	N.D.	0,4
Picloram*	190	190	N.D.	0,06
ORGANOCHLORINE PESTICIDES (µg/L)				
Metolachlor*	50	50	N.D.	0,2
Methoxychlor *	900	900	N.D.	0,03
Trifluralin*	45	45	N.D.	0,2
ORGANOPHOSPHORUS PESTICIDES (µg/L)				
Azinphos-methyl*	20	20	N.D.	0,3
Chlorpyrifos*	90	90	N.D.	0,2
Diazinon *	20	20	N.D.	0,2
Dimethoate*	20	20	N.D.	0,2
Diuron*	150	150	N.D.	0,3
Malathion*	190	190	N.D.	0,2
Parathion *	50	50	N.D.	0,2
Phorate*	2	2	N.D.	0,2
Terbufos*	1	1	N.D.	0,2
OTHERS (µg/L)				
Nitritotriacetic acid	400	400	N.D.	25
Bromoxynil*	5	5	N.D.	0,4
Methyl-Diclofop*	9	9	N.D.	0,2
Diquat *	70	70	N.D.	15
Geosmin	-	-	N.D.	0,005
2-Methyl Isoborneol (2-MIB)	-	-	N.D.	0,005
Paraquat *	10	10	N.D.	0,60
Trihalomethanes (THM) (total)	100	80 ³	40,82 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