

PARAMETERS	HEALTH CANADA RECOMMENDATIONS (2014)	QUEBEC REGULATION DRINKING WATER QUALITY (Q-2,r.40)	DRINKING WATER		
			CONCENTRATION		
			MIN.	AVE.	MAX.
<b>Physical Properties</b>					
Conductivity ( $\mu\text{S}/\text{cm}$ ) **	--	--	288	315	328
Color (T.C.U.) **	$\leq 15$ <sup>1</sup>	--	<0.3	0.83	3.00
Agressivity Index **	--	--	10.4	12.1	12.3
Ryznar Index	--	--	7.8	8.6	10.7
Langelier's Saturation Index	--	--	-2.19	-0.27	0.19
pH (units)	6.5 - 8.5	6.5 - 8.5	7.90	8.01	8.20
Solids (mg/l) **			137	147	158
Total Solids(mg/l) **			164	181	210
Temperature ( $^{\circ}\text{C}$ ) **			1.00	11.87	25.30
Turbidity (N.T.U.)	$\leq 1.0$	$\leq 5 / \leq 1$ <sup>2</sup>	0.12	0.22	0.57
Turbidity (N.T.U.) - West Montreal	$\leq 1.0$	$\leq 5 / \leq 1$ <sup>2</sup>	0.14	0.26	0.36
<b>Biological Characteristics</b>					
			<b>ANNUAL AVERAGE</b>		
Total coliforms (C.F.U./100ml)	>90% ABS <sup>4</sup>	>90% ABS <sup>4</sup>	99,87 % ABS		
E. coli (C.F.U./100ml)	ABS <sup>4</sup>	<1 or ABS <sup>4</sup>	100 % ABS		
<b>West Montreal Network</b>					
Total coliforms (C.F.U./100ml)	>90% ABS <sup>4</sup>	>90% ABS <sup>4</sup>	100% ABS		
E. coli (C.F.U./100ml)	ABS <sup>4</sup>	<1 or ABS <sup>4</sup>	100 % ABS		
<b>Inorganic and Organic Chemical Characteristics (mg/l)</b>					
Antimony (Sb)	$\leq 0.006$	$\leq 0.006$	0.00012	0.00012	0.00012
Alkalinity (eq. $\text{CaCO}_3$ ) **	--	--	84	90	96
Aluminum (Al) **	<0.1	--	0.01015	0.10084	0.41535
Silver (Ag) **	--	--	<0.00003	<0.00003	0.00005
Arsenic (As)	$\leq 0.010$	$\leq 0.010$	0.00076	0.00077	0.00078
Barium (Ba)	$\leq 1.0$	$\leq 1.0$	0.02180	0.02200	0.02220
Bore (B)	$\leq 5$	$\leq 5.0$	0.03	0.03	0.03
Bromated ( $\text{BrO}_3$ ) *	$\leq 0.01$	$\leq 0.010$	<0.0001	0.00065	0.00110
Cadmium (Cd)	$\leq 0.005$	$\leq 0.005$	<0.00003	<0.00003	<0.00003
Calcium (Ca) **	--	--	26.32	30.97	35.55
Total Organic Carbon (TOC) **	--	--	1.44	2.10	3.10
Chlorides (Cl) **	$\leq 250$ <sup>1</sup>	--	24.59	26.88	29.16
Chromium (Cr)	$\leq 0.05$	$\leq 0.050$	<0.00001	<0.00001	<0.00001
Cobalt (Co) **	--	--	<0.00002	<0.00002	0.00005
Copper (Cu) <sup>7</sup>	$\leq 1.0$ <sup>1</sup>	$\leq 1.0$	0.06860	0.07850	0.08840
Cyanides (CN)	$\leq 0.2$	$\leq 0.20$	<0.004	<0.004	<0.004
Total Hardness (eq. $\text{CaCO}_3$ ) **	--	--	112	119	129
Iron (Fe) **	$\leq 0.3$ <sup>1</sup>	--	0.01	0.02	0.04
Fluorides (F)	$\leq 1.5$	$\leq 1.50$	0.12	0.12	0.13

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<b>Inorganic and Organic Chemical Characteristics (mg/l)</b>					
Magnesium (Mg) **	--	--	6.49	7.88	8.96
Manganese (Mn) **	≤0.05 <sup>1</sup>	--	0.00005	0.00029	0.00077
Mercury (Hg)	≤0.001	≤0.001	<0.00003	<0.00003	<0.00003
Nickel (Ni) **	--	--	<0.00003	0.00043	0.00055
Nitrites (NO <sub>2</sub> -N) + nitrates (NO <sub>3</sub> -N)	≤1 + ≤10	≤10.0	0.13	0.26	0.34
Lead (Pb) <sup>7</sup>	≤0.010	≤0.010	0.00079	0.00084	0.00089
Potassium (K) **	--	--	1.26	1.50	1.75
Selenium (Se)	≤0.05	≤0.010	0.00020	<0.00021	0.00020
Silica (SiO <sub>2</sub> ) **	--	--	0.66	1.00	1.40
Sodium (Na) **	≤200 <sup>1</sup>	--	12.00	14.57	16.71
Sulfates (SO <sub>4</sub> ) **	≤500 <sup>1</sup>	--	20.88	24.15	26.30
Uranium (U)	≤0.02	≤0.020	0.00036	0.00037	0.00038
Zinc (Zn) **	≤5.0 <sup>1</sup>	--	<0.00017	0.00043	0.00150

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				MAXIMUM DETECTED (µg/L)
<b>Carbamates</b>				
Bendiocarb *	-		27	N.D.
Carbaryl *	90		70	N.D.
Carbofuran *	90		70	N.D.
<b>Volatile Organic Compounds (VOC)</b>				
1,1,1,2-Tétrachloroethane	-		-	N.D.
1,1,1-Trichloroethane	-		-	N.D.
1,1,2,2-Tétrachloroethane	-		-	N.D.
1,1,2-Trichloroethane	-		-	N.D.
1,1-Dichloroethane	-		-	N.D.
1,1-Dichloroethylene	14		10	N.D.
1,1-Dichloropropene	-		-	N.D.
1,2,3-Trichlorobenzene	-		-	N.D.
1,2,3-Trichloropropane	-		-	N.D.
1,2,4-Trichlorobenzene	-		-	N.D.
1,2,4-Triméthylbenzene	-		-	N.D.
1,2-Dibromo-3-chloropropane	-		-	N.D.
1,2-Dibromoethane	-		-	N.D.
1,2-Dichlorobenzene	200	3 <sup>1</sup>	150	N.D.
1,2-Dichloroethane	5		5	N.D.
1,2-Dichloropropane	-		-	N.D.
1,3,5-Triméthylbenzene	-		-	N.D.
1,3-Dichlorobenzene	-		-	N.D.
1,3-Dichloropropane	-		-	N.D.
1,4-Dichlorobenzene	5	1 <sup>1</sup>	5	N.D.
1-Chlorobutane	-		-	N.D.
1-Propene,3-chloro	-		-	N.D.
2,2-Dichloropropane	-		-	N.D.
2-Butanone	-		-	N.D.
2-Chlorotoluene	-		-	N.D.
2-Nitropropane	-		-	N.D.
4-Chlorotoluene	-		-	N.D.
4-Isopropyltoluene	-		-	N.D.
Acrylonitrile	-		-	N.D.
Benzene	5		0.5	N.D.
Bromobenzene	-		-	N.D.
Bromochloromethane	-		-	N.D.
Bromoform	-		See Note 3	0.64
Bromoform – Montréal-Ouest	-			0.68
Bromodichloromethane	-		See Note 3	13.85
Bromodichloromethane – Montréal-Ouest	-			11.76
Bromomethane	-		-	N.D.

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	<b>Volatile Organic Compounds (VOC)</b>			
Chloroacetonitrile	-		-	N.D.
Chlorobenzene	80	30 <sup>1</sup>	60	N.D.
Chlorodibromomethane	-		See Note 3	6.80
Chlorodibromomethane – Montréal-Ouest	-		See Note 3	6.12
Chloroethane	-		-	N.D.
Chloroform	-		See Note 3	51.25
Chloroform – Montréal-Ouest	-		See Note 3	43.40
Chloromethane	-		-	N.D.
Vinyl chloride	2		2	N.D.
cis-1,2-Dichloroethylene	-		-	N.D.
cis-1,3-Dichloropropene	-		-	N.D.
Dibromomethane	-		-	N.D.
Dichlorodifluoromethane	-		-	N.D.
Dichloromethane	50		50	0.25
Diethylether	-		-	N.D.
Carbon disulfide	-		-	N.D.
Ethylbenzene	140	1.6 <sup>1</sup>	-	N.D.
Hexachlorobutadiene	-		-	N.D.
Hexachloroethane	-		-	N.D.
Isopropylbenzene	-		-	N.D.
Methacrylonitrile	-		-	N.D.
Methyl acrylate	-		-	N.D.
Methyl methacrylate	-		-	N.D.
MTBE(methyl tert-butyl ether)	-	15 <sup>1</sup>	-	N.D.
m-Xylene + p-Xylene + o-Xylene	90	200 <sup>1</sup>	-	N.D.
Naphthalene	-		-	N.D.
n-Butylbenzene	-		-	N.D.
n-Propylbenzene	-		-	N.D.
Propionitrile	-		-	N.D.
sec-Butylbenzene	-		-	N.D.
Styrene	-		-	N.D.
tert-Butylbenzene	-		-	N.D.
Tetrachloroethylene	30		25	N.D.
Carbon tetrachloride	2		5	N.D.
Tetrahydrofurane	-		-	N.D.
Toluene	60	24 <sup>1</sup>	-	N.D.
trans-1,2-Dichloroethylene	-		-	N.D.
trans-1,3-Dichloropropene	-		-	N.D.
Trans-1,4-dichloro-2-butene	-		-	N.D.
Trichloroethylene	5		5	N.D.
Trichlorofluoromethane	-		-	N.D.

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	<b>Volatile Organic Compounds (VOC)</b>			
Trihalomethanes (THM) (total)	-		See Note 3	63.89
Trihalomethanes (THM) (total) – Montréal-Ouest				56.11
Trihalomethanes (THM) (total) – Annual mean concentration	100		80 <sup>3</sup>	49.83
Trihalomethanes (THM) (total) – Montréal-Ouest – Annual mean concentration				44.56
<b>Phenolic Compounds</b>				
2,3,4,6-Tetrachlorophenol *	100	1 <sup>1</sup>	70	N.D.
2,4 -Dichlorophenol *	900	0.3 <sup>1</sup>	700	N.D.
2,4,6-Trichlorophenol *	5	2 <sup>1</sup>	5	N.D.
Pentachlorophenol *	60	30 <sup>1</sup>	42	N.D.
<b>Glyphosate</b>				
Glyphosate *	280		210	N.D.
<b>Polycyclic Aromatic Hydrocarbons (PAH)</b>				
Benzo(a)pyrene *	0.01		0.01	N.D.
<b>Triazine Herbicides</b>				
Atrazine and metabolites *	5		3.5	N.D.
Cyanazine *	-		9	N.D.
Metribuzine *	80		60	N.D.
Simazine *	10		9	N.D.
<b>Chlorophenoxy Acid and Trichloroacetate Pesticides</b>				
2,4-D *	100		70	N.D.
Dicamba *	120		85	N.D.
Dinoseb *	-		7	N.D.
Picloram *	190		140	N.D.
<b>Organochlorine Pesticides</b>				
Metolachlor *	50		35	N.D.
Methoxychlor *	-		700	N.D.
Trifluralin *	45		35	N.D.
<b>Organophosphorus Pesticides</b>				
Azinphos-methyl *	20		17	N.D.
Chlorpyrifos *	90		70	N.D.
Diazinon *	20		14	N.D.
Dimethoate *	20		14	N.D.
Diuron *	150		110	N.D.
Malathion *	190		140	N.D.
Parathion *	-		35	N.D.
Phorate *	2		1.4	N.D.
Terbufos *	1		0.5	N.D.

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<b>Others</b>			
Bromoxynil *	5	3.5	N.D.
Methyl-Diclofop *	9	7	N.D.
Diquat *	70	50	N.D.
Paraquat *	10	7	N.D.

\*: Analyzed by an outside accredited laboratory.

\*\* : At the exit of water treatment plant.

N.D.: Not detected, lower than the detection limit method.

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 1.0 NTU for more than 5 % of total measures taken within 30 days.
- 3: The annual mean concentration of total THM (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) must not exceed 80 µg/L (samples taken at the end of drinking water distribution network).
- 4: ABS = absence, PRE = Presence
- 5: Health reasons objectives.
- 6: Maximum obtained for a sampling site.
- 7: Lead and copper level at the center of water distribution network. When water samples are taken from old pipes (before 1970) results are shown below.

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			MIN.	AVE.	MAX.
			<b>Copper and Lead (mg/l)</b>		
<i>Montreal Network</i>					
Copper (Cu)	≤1.0 <sup>1</sup>	≤1.0	0.00152	0.02631	0.08040
Lead (Pb)	≤0.010	≤0.010	0.00009	0.00916	0.02750
<i>Montréal-Ouest Network</i>					
Copper (Cu)	≤1.0 <sup>1</sup>	≤1.0	0.02070	0.05003	0.07920
Lead (Pb)	≤0.010	≤0.010	0.00076	0.00757	0.01420