

PARAMETERS	HEALTH CANADA RECOMMENDATIONS (2017)	QUEBEC REGULATION DRINKING WATER QUALITY (Q-2,r.40)	DRINKING WATER		
			CONCENTRATION		
			MIN.	AVE.	MAX.
Physical Properties					
Conductivity (µS/cm) **	--	--	289	316	330
Color (T.C.U.) **	≤15 ¹	--	1,00	0,69	1,00
Agressivity Index **	--	--	11,3	12,2	12,6
Ryznar Index	--	--	7,9	8,9	9,3
Langelier's Saturation Index	--	--	-0,72	-0,44	0,13
pH (units)	7,0-10,5 ⁵	6,5 - 8,5	7,90	8,03	8,10
Solids (mg/l) **			138	145	153
Total Solids(mg/l) **			167	174	193
Temperature (°C) **			0,50	5,35	24,40
Turbidity (N.T.U.) ²			0,14	0,17	0,24
Turbidity (N.T.U.) ² - West Montreal	≤1,0	≤5	0,18	0,21	0,32
Turbidity (N.T.U.) ² - Royal- Mount			0,14	0,22	0,39
Biological Characteristics					
			ANNUAL AVERAGE		
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	99.1 % ABS ⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁹		
West Montreal Network					
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	99 % ABS ⁸⁺⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁹		
Royal-Mount Network					
Total coliforms (C.F.U./100ml)	>90% ABS ⁴	>90% ABS ⁴	99,7 % ABS ⁹		
E. coli (C.F.U./100ml)	ABS ⁴	<1 or ABS ⁴	100 % ABS ⁹		

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Inorganic and Organic Chemical Characteristics (mg/l)					
Antimony (Sb)	≤0.006	≤0.006	0,00014	0,00014	0,00014
Alkalinity (eq. CaCO ₃) **	--	--	87	93	96
Aluminum (Al) **	<0.1	--	0,00660	0,00953	0,01650
Silver (Ag) **	--	--	<0,00331	<0,00331	0,00004
Arsenic (As)	≤0.010	≤0.010	0,00073	0,00075	0,00077
Barium (Ba)	≤1.0	≤1.0	0,02090	0,02120	0,02150
Bore (B)	≤5	≤5.0	0,03	0,03	0,04
Bromated (BrO ₃) *	≤0.01	≤0.010	<0,0001	0,00175	0,00360
Cadmium (Cd)	≤0.005	≤0.005	<0,00004	<0,00004	<0,00004
Calcium (Ca) **	--	--	30,70	32,78	34,90
Total Organic Carbon (TOC) **	--	--	1,42	1,88	2,48
Chlorides (Cl) **	≤250 ¹	--	23,62	26,78	29,74
Chromium (Cr)	≤0.05	≤0.050	0,00007	0,00007	0,00008
Cobalt (Co) **	--	--	0,00002	0,00002	0,00002
Copper (Cu) ⁷	≤1.0 ¹	≤1.0	0,07930	0,08310	0,08690
Cyanides (CN)	≤0.2	≤0.20	<0,004	<0,004	<0,004
Total Hardness (eq. CaCO ₃) **	--	--	108	119	126
Iron (Fe) **	≤0.3 ¹	--	0,00	0,00	0,01
Fluorides (F ⁻)	≤1.5	≤1.50	0,12	0,12	0,12
Magnesium (Mg) **	--	--	6,89	7,92	8,57
Manganese (Mn) **	≤0.05 ¹	--	<0,00017	<0,00017	0,00033
Mercury (Hg)	≤0.001	≤0.001	<0,00003	<0,00003	<0,00003
Nickel (Ni) **	--	--	0,00040	0,00046	0,00056
Nitrites (NO ₂ -N) + nitrates (NO ₃ -N)	≤1 + ≤10	≤10.0	0,22	0,29	0,36
Lead (Pb) ⁷	≤0.010	≤0.010	0,00067	0,00071	0,00076
Potassium (K) **	--	--	1,36	1,47	1,61
Selenium (Se)	≤0.05	≤0.010	<0,00021	<0,00021	<0,00021
Silica (SiO ₂) **	--	--	0,68	0,90	1,20
Sodium (Na) **	≤200 ¹	--	13,80	14,88	15,70
Sulfates (SO ₄) **	≤500 ¹	--	19,68	23,82	27,41
Uranium (U)	≤0.02	≤0.020	0,00029	0,00029	0,00030
Zinc (Zn) **	≤5.0 ¹	--	<0,00001	<0,00001	0,00095

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	Carbamates				
Bendiocarb *	-		27	0,2	N.D.
Carbaryl *	90		70	0,2	0,00
Carbofuran *	90		70	0,2	0,00
Volatile Organic Compounds (VOC)					
1,1,1,2-Tétrachloroethane	-		-	0,06	N.D.
1,1,1-Trichloroethane	-		-	0,06	N.D.
1,1,2,2-Tétrachloroethane	-		-	0,06	N.D.
1,1,2-Trichloroethane	-		-	0,06	N.D.
1,1-Dichloroethane	-		-	0,06	N.D.
1,1-Dichloroethylene	14		10	0,06	N.D.
1,1-Dichloropropene	-		-	0,06	N.D.
1,2,3-Trichlorobenzene	-		-	0,06	N.D.
1,2,3-Trichloropropane	-		-	0,06	N.D.
1,2,4-Trichlorobenzene	-		-	0,06	N.D.
1,2,4-Triméthylbenzene	-		-	0,06	N.D.
1,2-Dibromo-3-chloropropane	-		-	0,06	N.D.
1,2-Dibromoethane	-		-	0,06	N.D.
1,2-Dichlorobenzene	200	3 ¹	150	0,06	N.D.
1,2-Dichloroethane	5		5	0,06	N.D.
1,2-Dichloropropane	-		-	0,06	N.D.
1,3,5-Triméthylbenzene	-		-	0,06	N.D.
1,3-Dichlorobenzene	-		-	0,06	N.D.
1,3-Dichloropropane	-		-	0,06	N.D.
1,4-Dichlorobenzene	5	1 ¹	5	0,06	N.D.
2,2-Dichloropropane	-		-	0,06	N.D.
2-Chlorotoluene	-		-	0,06	N.D.
4-Chlorotoluene	-		-	0,06	N.D.
4-Isopropyltoluene	-		-	0,06	N.D.
Benzene	5		0,5	0,06	N.D.
Bromobenzene	-		-	0,06	N.D.
Bromochloromethane	-		-	0,06	N.D.
Bromoform					0,40
Bromoform - West Montreal	-		Voir note 3	See Note 3	0,40
Bromoform - Royal-Mount					0,40
Bromodichloromethane					14,90
Bromodichloromethane - West Montreal	-		Voir note 3	See Note 3	14,40
Bromodichloromethane - Royal-Mount					14,80
Bromomethane	-		-	0,06	N.D.

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					MAXIMUM DETECTED (µg/L)
Volatile Organic Compounds (VOC)					
Chlorobenzene	80	30 ¹	60	0,06	N.D.
Chlorodibromomethane					5,80
Chlorodibromomethane - West Montreal	-		Voir note 3	0,06	6,00
Chlorodibromomethane - Royal-Mount					5,70
Chloroethane	-		-	0,06	N.D.
Chloroform					55,30
Chloroform - West Montreal	-		Voir note 3	0,06	47,30
Chloroform - Royal-Mount					55,10
Chloromethane	-		-	0,06	N.D.
Vinyl chloride	2		2	0,06	N.D.
cis-1,2-Dichloroethylene	-		-	0,06	N.D.
cis-1,3-Dichloropropene	-		-	0,06	N.D.
Dibromomethane	-		-	0,06	N.D.
Dichlorodifluoromethane	-		-	0,06	N.D.
Dichloromethane	50		50	0,06	N.D.
Diethylether	-		-	0,06	N.D.
Carbon disulfide	-		-	0,06	N.D.
Ethylbenzene	140	1,6 ¹	-	0,06	N.D.
Hexachlorobutadiene	-		-	0,06	N.D.
Isopropylbenzene	-		-	0,06	N.D.
MTBE(methyl tert-butyl ether)	-	15 ¹	-	0,06	N.D.
m-Xylene + p-Xylene + o-Xylene	90	20 ¹	-	0,06	N.D.
Naphthalene	-		-	0,06	N.D.
n-Butylbenzene	-		-	0,06	N.D.
n-Propylbenzene	-		-	0,06	N.D.
sec-Butylbenzene	-		-	0,06	N.D.
Styrene	-		-	0,06	N.D.
tert-Butylbenzene	-		-	0,06	N.D.
Tetrachloroethylene	10		25	0,06	N.D.
Carbon tetrachloride	2		5	0,06	N.D.
Toluene	60	24 ¹	-	0,06	N.D.
trans-1,2-Dichloroethylene	-		-	0,06	N.D.
trans-1,3-Dichloropropene	-		-	0,06	N.D.
Trichloroethylene	5		5	0,06	N.D.
Trichlorofluoromethane	-		-	0,06	N.D.
Trihalomethanes (THM) (total) ⁶					66,90
Trihalomethanes (THM) (total) ⁶ - West Montreal	-		Voir note 3	0,24	63,80
Trihalomethanes (THM) (total) ⁶ - Royal-Mount					72,30

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	Volatile Organic Compounds (VOC)				
Trihalomethanes total – Annual mean concentration	100		80 ³	0,24	56,75
Trihalomethanes total-West Montreal–Annual mean concentration					47,93
Trihalomethanes total - Royal-Mount – Annual mean concentration					43,68
Phenolic Compounds					
2,3,4,6-Tetrachlorophenol *	100	1 ¹	70	0,4	N.D.
2,4 -Dichlorophenol *	900	0,3 ¹	700	0,3	N.D.
2,4,6-Trichlorophenol *	5	2 ¹	5	0,4	N.D.
Pentachlorophenol *	60	30 ¹	42	0,4	N.D.
Glyphosate					
Glyphosate *	280		210	10	N.D.
Polycyclic Aromatic Hydrocarbons (PAH)					
Benzo(a)pyrene *	0,04		0,01	0,003	N.D.
Triazine Herbicides					
Atrazine and metabolites *	5		3,5	0,3	N.D.
Cyanazine *	-		9	0,2	N.D.
Metribuzine *	80		60	0,2	N.D.
Simazine *	10		9	0,2	N.D.
Chlorophenoxy Acid and Trichloroacetate Pesticides					
2,4-D *	100		70	0,03	N.D.
Dicamba *	120		85	0,6	N.D.
Dinoseb *	-		7	0,4	N.D.
Picloram *	190		140	0,06	N.D.
Organochlorine Pesticides					
Metolachlor *	50		35	0,07	N.D.
Methoxychlor *	-		700	0,1	N.D.
Trifluralin *	45		35	0,2	N.D.
Organophosphorus Pesticides					
Azinphos-methyl *	20		17	0,3	N.D.
Chlorpyrifos *	90		70	0,2	N.D.
Diazinon *	20		14	0,2	N.D.
Dimethoate *	20		14	0,2	N.D.
Diuron *	150		110	0,3	N.D.
Malathion *	190		140	0,2	N.D.
Parathion *	-		35	0,2	N.D.
Phorate *	2		1,4	0,2	N.D.
Terbufos *	1		0,5	0,2	N.D.
Others					
Bromoxynil *	5		3,5	0,4	N.D.
Methyl-Diclofop *	9		7	0,2	N.D.
Diquat *	70		50	10	N.D.
Paraquat *	10		7	0,6	N.D.
Haloacetic acids *	80		60	3	35,20
Nitrilotriacetic acid	400		280	25	0,06

- *: Analyzed by an outside accredited laboratory.
- ** : At the exit of water treatment plant.
- RDL: Reported Detection Limit.
- 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 (nephelometric turbidity units).
- 3: The annual mean concentration of total THM (chloroform, bromodichloromethane, chlorodibromomethane and bromoform) calculated over four consecutive quarters 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.
Copper and Lead (mg/l)					
<i>Montreal Network</i>					
Copper (Cu)	≤1.0 ¹	≤1.0	0,00341	0,02635	0,09370
Lead (Pb)	≤0.010	≤0.010	0,00010	0,00631	0,01750
<i>West Montreal Network</i>					
Copper (Cu)	≤1.0 ¹	≤1.0	0,02490	0,04164	0,07490
Lead (Pb)	≤0.010	≤0.010	0,00043	0,00555	0,01792
<i>Royal-Mount Network</i>					
Cuivre (Cu)	≤1.0 ¹	≤1.0	0,03170	0,06191	0,12400
Plomb (Pb)	≤0.010	≤0.010	0,00007	0,00080	0,00621

- 8: When less than 21 water samples are taken over a period of 30 consecutive days, only one of these samples may have presence of total coliforms. It have been respected in 2018.
- 9: There is no requirement for annual average. It is used only as a reference. For all year long, monthly average have been respected