

SAINT PAUL REGIONAL WATER SERVICES

PHYSICAL AND CHEMICAL ANALYSIS OF WATER

Oct. '14

All results are in parts per million & Samples Measured are Dissolved Ions

PHYSICAL WATER QUALITY

	Reporting Limit	EFFLUENT
Color (Color Units)	4	<4
Loss Ignition (ppm)	84	<84
Non-Volatile Salts (ppm)	84	144
Temperature (°C)	0.02	14
Total Dissolved Solids (ppm)	75	213
Turbidity (NTU)	0.030	<0.030

CHEMICAL WATER QUALITY

	Reporting Limit	EFFLUENT
Alkalinity-Total (ppm as CaCO ₃)	0.40	59
Carbonate Hardness (ppm as CaCO ₃)	0.40	59
Dissolved Oxygen (ppm)	1.2	9.1
Hydrogen Ion-pH	0.04	8.97
Non-Carbonate Hardness (ppm)	0.40	34
Total Hardness (ppm as CaCO ₃)-EDTA method	0.40	92
Total Organic Carbon (ppm as C)	0.40	4.37

Total Hardness (grains/Gal as CaCO₃)-EDTA method is 5.38 grains/Gal

CHEMICAL WATER QUALITY - INORGANIC NONMETALS

	Reporting Limit	EFFLUENT
Ammonia Nitrogen (ppm as N)	0.030	0.809
Chloride-Cl (ppm as Cl ⁻¹)	8	44
Chlorine Residual (ppm Cl as Cl ₂)	0.090	3.64
Fluoride-F (ppm as F ⁻¹)	0.08	0.66
Nitrate, Nitrite Nitrogen (ppm as N)	0.202	0.503
Sulfur-S (ppm as S)	2.7	<2.7
Sulfide-S ²⁻ (ppm as S ²⁻)	0.020	<0.020
Total Phosphorus-P (ppm as P)	0.025	<0.025
Total Nitrogen-N (ppm as N)	0.008	1.00

CHEMICAL WATER QUALITY - METALS

	Reporting Limit	EFFLUENT
Aluminum-Al (ppm as Al)	0.006	0.013
Arsenic-As (ppm as As)	0.006	<0.006
Cadmium-Cd (ppm as Cd)	0.003	<0.003
Calcium-Ca (ppm as Ca)	0.40	25
Copper-Cu (ppm as Cu)	0.050	<0.050
Hexavalent Chromium (ppm as Cr ⁶⁺)	0.040	<0.040
Iron-Fe (ppm as Fe)	0.050	<0.050
Lead-Pb (ppm as Pb)	0.006	<0.006
Magnesium-Mg (ppm as Mg)	0.40	7
Manganese-Mn (ppm as Mn)	0.090	<0.090
Silicon-Si (ppm as Si)	0.84	2.54
Sodium-Na (ppm as Na)	0.079	22.20
Zinc-Zn (ppm as Zn)	0.050	<0.050