SAINT PAUL REGIONAL WATER SERVICES

PHYSICAL AND CHEMICAL ANALYSIS OF WATER

Apr-13

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	113
Temperature (^{0}C)	0.02	5
Total Dissolved Solids (ppm)	56	197
Turbidity (NTU)	0.020	0.027

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	11.9
Hydrogen Ion-pH	0.04	9.10
Non-Carbonate Hardness (ppm)	0.40	24
Total Hardness (ppm as $CaCO_3$)-EDTA method	0.40	84
Total Organic Carbon (ppm as C)	0.40	5.75

Total Hardness (grains/Gal as $CaCO_3$)-EDTA method is 4.91 grains/Gal

CHEMICAL WATER QUALITY - INORGANIC NONMETALS		
	Reporting Limit	EFFLUENT
Ammonia Nitrogen (ppm as N)	0.030	0.717
Chloride-Cl (ppm as Cl^{-1})	8	36
Chlorine Residual (ppm Cl as Cl_2)	0.085	3.29
Fluoride-F (ppm as F^{-1})	0.08	1.09
Nitrate, Nitrite Nitrogen (ppm as N)	0.202	0.870
Sulfur-S (ppm as S)	2.68	3.70
Sulfide-S^{2-} (ppm as S^{2-})	0.020	<0.020
Total Phosphorus-P (ppm as P)	0.004	0.008
Total Nitrogen-N (ppm as N)	0.008	1.52

CHEMICAL WATER QUALITY - METALS		
	Reporting Limit	EFFLUENT
Aluminum-Al (ppm as Al)	0.006	<0.006
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	21
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)	0.003	<0.003
Magnesium-Mg (ppm as Mg)	0.40	8
Manganese-Mn (ppm as Mn)	0.050	<0.050
Silicon-Si (ppm as Si)	0.84	4.97
Sodium-Na (ppm as Na)	0.020	19.80
Zinc-Zn (ppm as Zn)	0.050	<0.050