



Minneapolis Water Works

Monthly Plant Effluent Water Analysis for:

September 2017

Physical and Chemical Water Quality

	<u>Plant Effluent Average Value</u>
Temperature, River Water Average (°C)	22
Total Organic Carbon (ppm* as C)	5.09
Total Dissolved Solids (ppm)	159
Turbidity (NTU)	0.08
Alkalinity-Total (ppm as CaCO ₃)	45
Ammonia Nitrogen (ppm as N)	0.86
Chlorine Residual (ppm Cl as Cl ₂)	3.9
Fluoride-F (ppm as F)	0.72
pH	9.01
Nitrate - NO ₃ (ppm as N)	0.80
Nitrite - NO ₂ (ppm as N)	<0.015
Phosphate-PO ₄ (ppm as PO ₄)	0.9
Sulfate - SO ₄ (ppm as SO ₄)	29.3
Total Hardness (grains per gallon) EDTA method	5.67
Total Hardness (ppm as CaCO ₃) EDTA method	97

Chemical Water Quality - Inorganic Metals

	<u>Plant Effluent Average Value</u>
<u>Chemical Element</u>	
Aluminum-Al (ppm as Al)	0.02
Arsenic-As (ppm as As)	Not Detected
Cadmium-Cd (ppm as Cd)	Not Detected
Calcium-Ca (ppm as Ca)	28.6
Chloride-Cl (ppm as Cl)	25.5
Chromium (ppm as Cr)	<0.01
Copper-Cu (ppm as Cu)	<0.01
Iron-Fe (ppm as Fe)	Not Detected
Lead-Pb (ppm as Pb)	Not Detected
Magnesium-Mg (ppm as Mg)	1.72
Manganese-Mn (ppm as Mn)	<0.01
Silica-Si (ppm as Si)	9.9
Sodium-Na (ppm as Na)	13.1
Zinc-Zn (ppm as Zn)	Not Detected

*ppm = parts per million