

# Minneapolis Water Works

## Monthly Plant Effluent Water Analysis for: September 2018

### Physical and Chemical Water Quality

	<u>Plant Effluent Average Value</u>
Temperature, River Water Average (°C)	21.1
Total Organic Carbon (ppm* as C)	4.92
Total Dissolved Solids (ppm)	146
Turbidity (NTU)	0.04
Alkalinity-Total (ppm as CaCO <sub>3</sub> )	52
Ammonia Nitrogen (ppm as N)	0.90
Chlorine Residual (ppm Cl as Cl <sub>2</sub> )	3.8
Fluoride-F (ppm as F)	0.76
pH	8.89
Nitrate - NO <sub>3</sub> (ppm as N)	0.46
Nitrite - NO <sub>2</sub> (ppm as N)	<0.015
Phosphate-PO <sub>4</sub> (ppm as PO <sub>4</sub> )	0.85
Sulfate - SO <sub>4</sub> (ppm as SO <sub>4</sub> )	24.8
Total Hardness (grains per gallon) EDTA method	4.91
Total Hardness (ppm as CaCO <sub>3</sub> ) EDTA method	84

### Chemical Water Quality - Inorganic Metals

<u>Chemical Element</u>	<u>Plant Effluent Average Value</u>
Aluminum-Al (ppm as Al)	0.03
Arsenic-As (ppm as As)	Not Detected
Cadmium-Cd (ppm as Cd)	Not Detected
Calcium-Ca (ppm as Ca)	33.2
Chloride-Cl (ppm as Cl)	27.5
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)	1.59
Manganese-Mn (ppm as Mn)	<0.01
Silica-Si (ppm as Si)	10.25
Sodium-Na (ppm as Na)	16.0
Zinc-Zn (ppm as Zn)	<0.01

\*ppm = parts per million