



Minneapolis Water Works

Monthly Plant Effluent Water Analysis for:

November 2015

Physical and Chemical Water Quality

	<u>Plant Effluent Average Value</u>
Temperature, River Water Average (°C)	7.8
Total Organic Carbon (ppm* as C)	4.63
Total Dissolved Solids (ppm)	158
Turbidity (NTU)	0.07
Alkalinity-Total (ppm as CaCO ₃)	55
Ammonia Nitrogen (ppm as N)	0.9
Chlorine Residual (ppm Cl as Cl ₂)	3.8
Fluoride-F (ppm as F)	0.68
pH	8.86
Nitrate - NO ₃ (ppm as N)	0.81
Nitrite - NO ₂ (ppm as N)	< 0.015
Phosphate-PO ₄ (ppm as PO ₄)	0.75
Sulfate - SO ₄ (ppm as SO ₄)	21.5
Total Hardness (grains per gallon) EDTA method	5.2
Total Hardness (ppm as CaCO ₃) EDTA method	90

Chemical Water Quality - Inorganic Metals

<u>Chemical Element</u>	<u>Plant Effluent Average Value</u>
Aluminum-Al (ppm as Al)	0.01
Arsenic-As (ppm as As)	Not Detected
Cadmium-Cd (ppm as Cd)	Not Detected
Calcium-Ca (ppm as Ca)	29.8
Chloride-Cl (ppm as Cl)	27.4
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)	3.0
Manganese-Mn (ppm as Mn)	<0.01
Silica-Si (ppm as Si)	8.0
Sodium-Na (ppm as Na)	19.4
Zinc-Zn (ppm as Zn)	Not Detected

*ppm = parts per million