



Minneapolis Water Works

Monthly Plant Effluent Water Analysis for: November 2022

Physical and Chemical Water Quality

| | <u>Plant Effluent Average Value</u> |
|--|-------------------------------------|
| Temperature, River Water Average (°C) | 7.1 |
| Total Organic Carbon (ppm* as C) | 3.26 |
| Total Dissolved Solids (ppm) | 140 |
| Turbidity (NTU) | 0.05 |
| Alkalinity-Total (ppm as CaCO ₃) | 51 |
| Ammonia Nitrogen (ppm as N) | 0.89 |
| Total Chloramine Residual (ppm as NH ₂ Cl) | 3.8 |
| Fluoride-F (ppm as F) | 0.81 |
| pH | 9.06 |
| Nitrate - NO ₃ (ppm as N) | 0.23 |
| Nitrite - NO ₂ (ppm as N) | <0.015 |
| Phosphate-PO ₄ (ppm as PO ₄) | .80 |
| Sulfate - SO ₄ (ppm as SO ₄) | 25.7 |
| Total Hardness (grains per gallon) EDTA method | 5.32 |
| Total Hardness (ppm as CaCO ₃) EDTA method | 91 |

Chemical Water Quality - Inorganic Metals

| <u>Chemical Element</u> | <u>Plant Effluent Average Value</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) | 28.7 |
| Chloride-Cl (ppm as Cl) | 25.8 |
| 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) | 2.9 |
| Manganese-Mn (ppm as Mn) | <0.01 |
| Silica-Si (ppm as SiO ₂) | 7.9 |
| Sodium-Na (ppm as Na) | 14.6 |
| Zinc-Zn (ppm as Zn) | <0.01 |

*ppm = parts per million