



Detroit Water and Sewerage Department
Water Quality Division
Laboratory Analysis of Water Samples Collected at
Southwest Plant
4/8/2014

| Parameter | Formula | Units | Raw | Tap | MCL | Sec.Std | MDL |
|-------------------------------|---------------------------------|-----------|-----|---------|-------------|----------|-------|
| Turbidity | | NTU | IV | 0.04 | 0.3/95% (1) | | |
| Total Solids | | mg/L | IV | 127 | | 500 | 10 |
| Total Dissolved Solids | | mg/L | IV | 101 | | 500 | 10 |
| Aluminum | Al | mg/L | IV | 0.115 | | 0.05-0.2 | 0.005 |
| Iron | Fe | mg/L | IV | 0.516 | | 0.3 | 0.005 |
| Copper | Cu | mg/L | IV | 0.006 | 1.3 | | 0.002 |
| Magnesium | Mg | mg/L | IV | 8.01 | | | 0.5 |
| Calcium | Ca | mg/L | IV | 27.2 | | | 0.1 |
| Sodium | Na | mg/L | IV | 5.67 | | 20 (2) | 0.1 |
| Potassium | K | mg/L | IV | 0.88 | | | 0.1 |
| Manganese | Mn | mg/L | IV | 0.002 | | 0.05 | 0.002 |
| Lead | Pb | mg/L | IV | < 0.002 | 0.015 | | 0.002 |
| Zinc | Zn | mg/L | IV | < 0.10 | | 5 | 0.1 |
| Silica | SiO ₂ | mg/L | IV | 0.9 | | | 0.4 |
| Sulfate | SO ₄ ²⁻ | mg/L | IV | 22.6 | | | |
| Chloride | Cl ⁻ | mg/L | IV | 8.5 | | 250 | 5 |
| Phosphorus | P | mg/L | IV | 0.34 | | | 0.05 |
| Free Carbon Dioxide | CO ₂ | mg/L | IV | 8.2 | | | |
| Total Hardness (3), (4), (5) | | mg/L | IV | 90 | | | |
| Total Alkalinity (3) | | mg/L | IV | 73 | | | |
| Carbonate Alkalinity (3) | | mg/L | IV | 0 | | | |
| Bi-Carbonate Alkalinity (3) | | mg/L | IV | 73 | | | |
| Non-Carbonate Hardness (3) | | mg/L | IV | 17 | | | |
| Chemical Oxygen Demand | | mg/L | IV | < 2.0 | | | 2 |
| Dissolved Oxygen | | mg/L | IV | 13.5 | | | |
| Nitrite Nitrogen | NO ₂ ⁻ -N | mg/L | IV | < 0.1 | 1 | | 0.1 |
| Nitrate Nitrogen | NO ₃ ⁻ -N | mg/L | IV | 0.28 | 10 | 10 | 0.1 |
| Fluoride | F ⁻ | mg/L | IV | 0.58 | 4 | | 0.5 |
| pH | | | IV | 7.25 | 6.5-8.5 | 6.5-8.5 | |
| Specific Conductance @ 25 °C. | | micromhos | IV | 210 | | | |
| Temperature | | °C | IV | 9.3 | | | |

| Legend | Notes: |
|-----------------------------------|--|
| MCL: Maximum Contaminant Level | (1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month |
| Sec.Std: Secondary Standard | (2) EPA Guidance Level |
| NTU: Nephelometric Turbidity Unit | (3) As Calcium Carbonate |
| mg/L: Milligram Per Liter | mg/L is equivalent to part per million (ppm) |
| µg/L: Microgram Per Liter | µg/L is equivalent to part per billion (ppb) |
| MDL: Method Detection Limit | (4) By Titration |
| < : Less than | (5) Tap Water Hardness in Grains per Gallon 5.22 GPG |
| AE: Analytical Error | (6) Reported results are below the low calibration standard but above the instrument |
| IV: Invalid Sample | detection limit. |

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|--------------------------------|------------------------|---------|--------------|-------|-----------|
| Analyst: Brian Brown | Sr. Analytical Chemist | Initial | B. B. | Date: | 6/26/2014 |
| Reviewed By: Patrick Williford | Principal Chemist | Initial | P. W. | Date: | 7/1/2014 |

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