

**City of Detroit**  
**Water and Sewerage Department**  
 Laboratory analysis of Water Samples collected at  
**Southwest Plant**  
 on May 15, 2002

|  | Raw   | Tap    | MCL/[SMCL] <sup>(1)</sup> | MDL <sup>(2)</sup> |
|--|-------|--------|---------------------------|--------------------|
| Turbidity <sup>(3)</sup>                     | 11.8  | 0.219  | 0.3/95%                   |                    |
| Total Solids                                 | 171   | 162    | [500]                     | 10                 |
| Total Dissolved Solids                       | 121   | 133    | [500]                     | 10                 |
| Aluminum (Al)                                | 0.555 | 0.042  | [0.05-0.2]                | 0.005              |
| Iron (Fe)                                    | 0.461 | <0.005 | [0.3]                     | 0.002              |
| Copper (Cu)                                  | 0.005 | <0.002 | 1.3                       | 0.001              |
| Magnesium (Mg)                               | 3.96  | 3.29   |                           | 0.2                |
| Calcium (Ca)                                 | 28.3  | 31.1   |                           | 0.06               |
| Sodium (Na)                                  | 5.56  | 5.53   | 20 <sup>(4)</sup>         | 0.01               |
| Potassium (K)                                | 1.16  | 0.95   |                           | 0.01               |
| Manganese (Mn)                               | 0.008 | <0.001 | [0.05]                    | 0.001              |
| Zinc (Zn)                                    | <0.01 | <0.01  | [5.0]                     | 0.01               |
| Silica (SiO <sub>2</sub> )                   | 2.73  | 4.14   |                           | 0.4                |
| Sulfate (SO <sub>4</sub> )                   | 16.8  | 28.8   |                           |                    |
| Chloride (Cl <sup>-</sup> )                  | 8.5   | 9.5    | [250]                     | 1.0                |
| Phosphorus (P)                               | <0.01 | 0.31   |                           | 0.01               |
| Free Carbon Dioxide                          | 1.2   | 5.3    |                           |                    |
| Total Hardness <sup>(5)</sup> <sup>(6)</sup> | 110   | 110    |                           |                    |
| Total Alkalinity <sup>(5)</sup>              | 84    | 72     |                           |                    |
| Carbonate Alkalinity <sup>(5)</sup>          | 0     | 0      |                           |                    |
| Bi-Carbonate Alkalinity <sup>(5)</sup>       | 84    | 72     |                           |                    |
| Non-Carbonate Hardness <sup>(5)</sup>        | 26    | 38     |                           |                    |
| Chemical Oxygen Demand                       | 5.6   | 4.0    |                           | 2.0                |
| Dissolved Oxygen                             | 10.6  | 10.2   |                           |                    |
| Ammonia Nitrogen                             | <0.1  | <0.1   |                           | 0.1                |
| Organic Nitrogen                             | 0.3   | <0.1   |                           | 0.1                |
| Nitrite Nitrogen                             | <0.01 | <0.01  | 1.0                       | 0.01               |
| Nitrate Nitrogen                             | 0.39  | 0.42   | 10.0                      | 0.01               |
| Fluoride                                     | 0.1   | 0.9    | 4.0                       | 0.1                |
| pH in pH units                               | 8.13  | 7.43   | 6.5-8.5                   |                    |
| Specific Conductance in micromhos at 25° C.  | 225   | 232    |                           |                    |
| Temperature in ° C.                          | 11.7  | 12.4   |                           |                    |

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 FOR INFORMATIONAL PURPOSES ONLY

Notes: All units are mg/L unless otherwise noted. (1) MCL/[SMCL] = Maximum Contaminant Level/Secondary Maximum Contaminant Level. (2) MDL = Method Detection Limit. (3) NTU = Nephelometric Turbidity Units. Reported results are from a Grab sample. EPA requirements are for 95% of monthly readings to be <0.3 NTU. (4) EPA Guidance level. (5) = As Calcium Carbonate. (6) by EDTA titration. (7) Metals results temporarily unavailable. "<" = Less than. EF = Equipment Failure.

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