

**NORTH TEXAS MUNICIPAL WATER DISTRICT - Tawakoni**  
**Water Analysis**  
**Dec-2016**

| <b>Mineral Analysis</b>       | <b>Raw</b>                            | <b>Treated</b>                        | <b>Standards</b>                      |                                       |                                       |                                       |
|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
|                               |                                       |                                       | <b>EPA<br/>Primary</b>                | <b>EPA<br/>Secondary</b>              | <b>TCEQ<br/>Primary</b>               | <b>TCEQ<br/>Secondary</b>             |
|                               | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         |
| Residue on Evaporation        | 98.0                                  | 186                                   |                                       | 500                                   |                                       | 1000                                  |
| Silica (SiO <sub>2</sub> )    | 3.58                                  | 3.52                                  |                                       |                                       |                                       |                                       |
| Iron (Fe)                     | 0.240                                 | <0.200                                |                                       | 0.3                                   |                                       | 0.3                                   |
| Calcium (Ca)                  | 27.2                                  | 45.9                                  |                                       |                                       |                                       |                                       |
| Magnesium (Mg)                | 2.86                                  | 3.10                                  |                                       |                                       |                                       |                                       |
| Sodium (Na)                   | 8.77                                  | 15.3                                  |                                       |                                       |                                       |                                       |
| Potassium (K)                 | 4.94                                  | 4.84                                  |                                       |                                       |                                       |                                       |
| Sulfate (SO <sub>4</sub> )    | 7.98                                  | 63.6                                  |                                       | 250                                   |                                       |                                       |
| Nitrite (NO <sub>2</sub> )    | <0.0200                               | <0.0200                               | 1                                     |                                       | 1                                     |                                       |
| Nitrate (NO <sub>3</sub> )    | 0.383                                 | 0.484                                 | 10                                    |                                       | 10                                    |                                       |
| Chloride (Cl)                 | 3.8                                   | 9.1                                   |                                       | 250                                   |                                       | 300                                   |
| Fluoride (F)                  | <0.250                                | 0.333                                 | 4.0                                   | 2.0                                   |                                       | 2.0                                   |
| Phosphates (PO <sub>4</sub> ) | 0.0540                                | <0.0100                               |                                       |                                       |                                       |                                       |
|                               | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
| Total Alkalinity              | 80.1 *                                | 56.5 *                                |                                       |                                       |                                       |                                       |
| Total Hardness                | 78.4                                  | 135                                   |                                       |                                       |                                       |                                       |
| Langelier Index               |                                       | -0.3298                               |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00133       | <0.00050      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0736        | 0.0454        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.00100      | <0.00100      | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00250      | <0.00250      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | <0.00100      | 0.0584        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.240         | <0.200        |               | 0.3           |               |               |
| Lead (Pb)      | <0.000500     | <0.000500     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0381        | 0.00304       |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.000100     | <0.000100     | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00141       | 0.00357       |               |               |               |               |
| Selenium (Se)  | <0.00100      | <0.00100      | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.00050      | <0.00050      |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00151       | 0.00611       |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |        |     |           |     |      |
|-------------------------------------|-------|--------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | --    | 3.57 * | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | --    | A      | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.80  | 7.90 * |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 193   | 320    |     |           |     |      |
| Turbidity (NTU)                     | 5.2 * | 0.05 * | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 24E   | 2Cl    |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**NORTH TEXAS MUNICIPAL WATER DISTRICT - Tawakoni**  
**Water Analysis**  
**Nov-2016**

| <b>Mineral Analysis</b>       | <b>Raw</b>                            | <b>Treated</b>                        | <b>Standards</b>                      |                                       |                                       |                                       |
|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
|                               |                                       |                                       | <b>EPA<br/>Primary</b>                | <b>EPA<br/>Secondary</b>              | <b>TCEQ<br/>Primary</b>               | <b>TCEQ<br/>Secondary</b>             |
|                               | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         | <b>(mg/L)</b>                         |
| Residue on Evaporation        | 142                                   | 196                                   |                                       | 500                                   |                                       | 1000                                  |
| Silica (SiO <sub>2</sub> )    | 4.09                                  | 4.10                                  |                                       |                                       |                                       |                                       |
| Iron (Fe)                     | 0.376                                 | <0.200                                |                                       | 0.3                                   |                                       | 0.3                                   |
| Calcium (Ca)                  | 27.0                                  | 48.5                                  |                                       |                                       |                                       |                                       |
| Magnesium (Mg)                | 2.94                                  | 3.00                                  |                                       |                                       |                                       |                                       |
| Sodium (Na)                   | 8.46                                  | 14.0                                  |                                       |                                       |                                       |                                       |
| Potassium (K)                 | 4.97                                  | 4.67                                  |                                       |                                       |                                       |                                       |
| Sulfate (SO <sub>4</sub> )    | 6.73                                  | 61.5                                  |                                       | 250                                   |                                       |                                       |
| Nitrite (NO <sub>2</sub> )    | <0.0200                               | <0.0200                               | 1                                     |                                       | 1                                     |                                       |
| Nitrate (NO <sub>3</sub> )    | 0.374                                 | 0.546                                 | 10                                    |                                       | 10                                    |                                       |
| Chloride (Cl)                 | 3.9                                   | 10.8                                  |                                       | 250                                   |                                       | 300                                   |
| Fluoride (F)                  | <0.250                                | 0.315                                 | 4.0                                   | 2.0                                   |                                       | 2.0                                   |
| Phosphates (PO <sub>4</sub> ) | 0.0660                                | 0.0130                                |                                       |                                       |                                       |                                       |
|                               | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
| Total Alkalinity              | 81.1 *                                | 73.0 *                                |                                       |                                       |                                       |                                       |
| Total Hardness                | 77.0                                  | 133                                   |                                       |                                       |                                       |                                       |
| Langelier Index               |                                       | --                                    |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00194       | <0.0500       | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0805        | 0.0477        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.00100      | <0.100        | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00250      | <0.250        | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00117       | <0.100        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.376         | <0.200        |               | 0.3           |               |               |
| Lead (Pb)      | <0.000500     | <0.0500       | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0452        | <0.100        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.000100     | <0.000100     | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00160       | <0.100        |               |               |               |               |
| Selenium (Se)  | <0.00100      | <0.100        | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.00050      | <0.0500       |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00287       | <0.100        |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |        |     |           |     |      |
|-------------------------------------|-------|--------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | --    | 3.57 * | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | --    | A      | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | --    | *      |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 191   | 308    |     |           |     |      |
| Turbidity (NTU)                     | 4.0 * | 0.09 * | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 8E    | 8Cl    |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**  
**Water Analysis: Tawakoni Plant**  
**Oct-2016**

Generated: 11/14/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>                  |                                     |                                    |                                      |
|-------------------------------|------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
|                               |            |                | <b>EPA<br/>Primary<br/>(mg/L)</b> | <b>EPA<br/>Secondary<br/>(mg/L)</b> | <b>TCEQ<br/>Primary<br/>(mg/L)</b> | <b>TCEQ<br/>Secondary<br/>(mg/L)</b> |
| Residue on Evaporation        | 134        | 220            |                                   | 500                                 |                                    | 1000                                 |
| Silica (SiO <sub>2</sub> )    | 5.00       | 4.60           |                                   |                                     |                                    |                                      |
| Iron (Fe)                     | 0.331      | 0.173          |                                   | 0.3                                 |                                    | 0.3                                  |
| Calcium (Ca)                  | 24.7       | 48.7           |                                   |                                     |                                    |                                      |
| Magnesium (Mg)                | 2.46       | 3.03           |                                   |                                     |                                    |                                      |
| Sodium (Na)                   | 8.51       | 15.5           |                                   |                                     |                                    |                                      |
| Potassium (K)                 | 4.30       | 4.45           |                                   |                                     |                                    |                                      |
| Sulfate (SO <sub>4</sub> )    | 6.18       | 69.3           |                                   | 250                                 |                                    |                                      |
| Nitrite (NO <sub>2</sub> )    | <0.0100    | <0.0100        | 1                                 |                                     | 1                                  |                                      |
| Nitrate (NO <sub>3</sub> )    | 0.137      | 0.398          | 10                                |                                     | 10                                 |                                      |
| Chloride (Cl)                 | 3.83       | 11.5           |                                   | 250                                 |                                    | 300                                  |
| Fluoride (F)                  | 0.155      | 0.300          | 4.0                               | 2.0                                 |                                    | 2.0                                  |
| Phosphates (PO <sub>4</sub> ) | 0.112      | 0.0273         |                                   |                                     |                                    |                                      |

|                  | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Total Alkalinity | 74.0                                  | 66.0                                  |                                       |                                       |                                       |                                       |
| Total Hardness   | 74.2                                  | 129                                   |                                       |                                       |                                       |                                       |
| Langelier Index  | -                                     | -                                     |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00324       | 0.000467      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0784        | 0.0578        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.000500     | <0.000500     | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00125      | <0.00125      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00152       | 0.0286        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.331         | 0.173         |               | 0.3           |               |               |
| Lead (Pb)      | 0.000713      | <0.000250     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0732        | 0.00948       |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.0000500    | <0.0000500    | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00132       | 0.00436       |               |               |               |               |
| Selenium (Se)  | <0.000500     | <0.000500     | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.000250     | <0.000250     |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00304       | 0.0883        |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.51*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.70* | 8.00*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 188   | 339     |     |           |     |      |
| Turbidity (NTU)                     | 4.17  | 0.0700* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 50F   | 1.4CL   |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**  
**Water Analysis: Tawakoni Plant**  
**Sep-2016**

Generated: 10/11/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>                  |                                     |                                    |                                      |
|-------------------------------|------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
|                               |            |                | <b>EPA<br/>Primary<br/>(mg/L)</b> | <b>EPA<br/>Secondary<br/>(mg/L)</b> | <b>TCEQ<br/>Primary<br/>(mg/L)</b> | <b>TCEQ<br/>Secondary<br/>(mg/L)</b> |
| Residue on Evaporation        | 116        | 180            |                                   | 500                                 |                                    | 1000                                 |
| Silica (SiO <sub>2</sub> )    | 4.88       | 4.53           |                                   |                                     |                                    |                                      |
| Iron (Fe)                     | 0.164      | 0.134          |                                   | 0.3                                 |                                    | 0.3                                  |
| Calcium (Ca)                  | 28.5       | 40.6           |                                   |                                     |                                    |                                      |
| Magnesium (Mg)                | 3.07       | 3.17           |                                   |                                     |                                    |                                      |
| Sodium (Na)                   | 8.42       | 15.5           |                                   |                                     |                                    |                                      |
| Potassium (K)                 | 5.21       | 5.24           |                                   |                                     |                                    |                                      |
| Sulfate (SO <sub>4</sub> )    | 6.27       | 57.7           |                                   | 250                                 |                                    |                                      |
| Nitrite (NO <sub>2</sub> )    | 0.0159     | <0.0100        | 1                                 |                                     | 1                                  |                                      |
| Nitrate (NO <sub>3</sub> )    | 0.219      | 0.444          | 10                                |                                     | 10                                 |                                      |
| Chloride (Cl)                 | 3.57       | 11.3           |                                   | 250                                 |                                    | 300                                  |
| Fluoride (F)                  | 0.153      | 0.311          | 4.0                               | 2.0                                 |                                    | 2.0                                  |
| Phosphates (PO <sub>4</sub> ) | 0.0720     | 0.0250         |                                   |                                     |                                    |                                      |

|                  | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Total Alkalinity | 71.8                                  | 58.4                                  |                                       |                                       |                                       |                                       |
| Total Hardness   | 92.2                                  | 113                                   |                                       |                                       |                                       |                                       |
| Langelier Index  | -                                     | -                                     |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00428       | 0.000707      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0640        | 0.0510        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.000500     | <0.000500     | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00125      | <0.00125      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00126       | 0.0571        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.164         | 0.134         |               | 0.3           |               |               |
| Lead (Pb)      | 0.00152       | <0.000250     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0498        | 0.0227        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0            | <0            | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00270       | 0.00445       |               |               |               |               |
| Selenium (Se)  | <0.000500     | <0.000500     | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.000250     | <0.000250     |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00552       | 0.00255       |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.31*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.50* | 7.40*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 182   | 305     |     |           |     |      |
| Turbidity (NTU)                     | 2.56  | 0.0700* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 17E   | 1G      |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**



**North Texas Municipal Water District**  
**Water Analysis: Tawakoni Plant**  
**Aug-2016**

Generated: 09/07/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>                  |                                     |                                    |                                      |
|-------------------------------|------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
|                               |            |                | <b>EPA<br/>Primary<br/>(mg/L)</b> | <b>EPA<br/>Secondary<br/>(mg/L)</b> | <b>TCEQ<br/>Primary<br/>(mg/L)</b> | <b>TCEQ<br/>Secondary<br/>(mg/L)</b> |
| Residue on Evaporation        | 120        | 192            |                                   | 500                                 |                                    | 1000                                 |
| Silica (SiO <sub>2</sub> )    | 2.81       | 2.36           |                                   |                                     |                                    |                                      |
| Iron (Fe)                     | 0.232      | 0.186          |                                   | 0.3                                 |                                    | 0.3                                  |
| Calcium (Ca)                  | 24.7       | 39.9           |                                   |                                     |                                    |                                      |
| Magnesium (Mg)                | 2.57       | 2.67           |                                   |                                     |                                    |                                      |
| Sodium (Na)                   | 7.81       | 13.4           |                                   |                                     |                                    |                                      |
| Potassium (K)                 | 4.26       | 4.08           |                                   |                                     |                                    |                                      |
| Sulfate (SO <sub>4</sub> )    | 7.55       | 61.5           |                                   | 250                                 |                                    |                                      |
| Nitrite (NO <sub>2</sub> )    | 0.0150     | <0.0100        | 1                                 |                                     | 1                                  |                                      |
| Nitrate (NO <sub>3</sub> )    | 0.114      | 0.263          | 10                                |                                     | 10                                 |                                      |
| Chloride (Cl)                 | 3.51       | 11.3           |                                   | 250                                 |                                    | 300                                  |
| Fluoride (F)                  | 0.150      | 0.360          | 4.0                               | 2.0                                 |                                    | 2.0                                  |
| Phosphates (PO <sub>4</sub> ) | 0.0748     | 0.0171         |                                   |                                     |                                    |                                      |

|                  | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Total Alkalinity | 72.4                                  | 59.5                                  |                                       |                                       |                                       |                                       |
| Total Hardness   | 90.6                                  | 110                                   |                                       |                                       |                                       |                                       |
| Langelier Index  | -                                     | -                                     |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00497       | 0.000620      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0674        | 0.0543        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.000500     | <0.000500     | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00125      | <0.00125      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.000709      | 0.0241        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.232         | 0.186         |               | 0.3           |               |               |
| Lead (Pb)      | <0.000250     | <0.000250     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0648        | 0.0234        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.0000500    | <0.0000500    | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00152       | 0.00433       |               |               |               |               |
| Selenium (Se)  | <0.000500     | <0.000500     | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.000250     | <0.000250     |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00340       | 0.00416       |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.44*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.60* | 7.90*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 178   | 305     |     |           |     |      |
| Turbidity (NTU)                     | 2.77  | 0.0700* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 35F   | ND      |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**  
**Water Analysis**  
**Jul-2016**

Generated: 08/11/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>                  |                                     |                                    |                                      |
|-------------------------------|------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
|                               |            |                | <b>EPA<br/>Primary<br/>(mg/L)</b> | <b>EPA<br/>Secondary<br/>(mg/L)</b> | <b>TCEQ<br/>Primary<br/>(mg/L)</b> | <b>TCEQ<br/>Secondary<br/>(mg/L)</b> |
| Residue on Evaporation        | 112        | 190            |                                   | 500                                 |                                    | 1000                                 |
| Silica (SiO <sub>2</sub> )    | 2.61       | 2.42           |                                   |                                     |                                    |                                      |
| Iron (Fe)                     | 0.165      | 0.176          |                                   | 0.3                                 |                                    | 0.3                                  |
| Calcium (Ca)                  | 25.3       | 38.7           |                                   |                                     |                                    |                                      |
| Magnesium (Mg)                | 2.73       | 2.66           |                                   |                                     |                                    |                                      |
| Sodium (Na)                   | 8.03       | 14.5           |                                   |                                     |                                    |                                      |
| Potassium (K)                 | 4.40       | 3.97           |                                   |                                     |                                    |                                      |
| Sulfate (SO <sub>4</sub> )    | 6.14       | 65.6           |                                   | 250                                 |                                    |                                      |
| Nitrite (NO <sub>2</sub> )    | 0.0269     | <0.0100        | 1                                 |                                     | 1                                  |                                      |
| Nitrate (NO <sub>3</sub> )    | 0.0570     | 0.365          | 10                                |                                     | 10                                 |                                      |
| Chloride (Cl)                 | 3.66       | 12.5           |                                   | 250                                 |                                    | 300                                  |
| Fluoride (F)                  | 0.133      | 0.355          | 4.0                               | 2.0                                 |                                    | 2.0                                  |
| Phosphates (PO <sub>4</sub> ) | 0.0860     | 0.0190         |                                   |                                     |                                    |                                      |

|                  | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Total Alkalinity | 78.2                                  | 68.5                                  |                                       |                                       |                                       |                                       |
| Total Hardness   | 96.6                                  | 149                                   |                                       |                                       |                                       |                                       |
| Langelier Index  | -                                     | -                                     |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | 0.00474       | 0.000403      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0600        | 0.0562        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.000500     | <0.000500     | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00125      | <0.00125      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00802       | 0.0209        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.165         | 0.176         |               | 0.3           |               |               |
| Lead (Pb)      | 0.000862      | <0.000250     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0450        | 0.0102        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.0000500    | <0.0000500    | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00158       | 0.00404       |               |               |               |               |
| Selenium (Se)  | <0.000500     | <0.000500     | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.000250     | <0.000250     |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | <0.00250      | 0.00287       |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.38*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.50* | 8.10*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 175   | 303     |     |           |     |      |
| Turbidity (NTU)                     | 2.43  | 0.0700* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 3G    | 17CL    |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**

**Water Analysis**

**Jun-2016**

Generated: 07/06/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>       |                          |                         |                           |
|-------------------------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|
|                               |            |                | <b>EPA<br/>Primary</b> | <b>EPA<br/>Secondary</b> | <b>TCEQ<br/>Primary</b> | <b>TCEQ<br/>Secondary</b> |
|                               | (mg/L)     | (mg/L)         | (mg/L)                 | (mg/L)                   | (mg/L)                  | (mg/L)                    |
| Residue on Evaporation        | 120        | 190            |                        | 500                      |                         | 1000                      |
| Silica (SiO <sub>2</sub> )    | 3.32       | 2.96           |                        |                          |                         |                           |
| Iron (Fe)                     | 0.223      | 0.130          |                        | 0.3                      |                         | 0.3                       |
| Calcium (Ca)                  | 27.0       | 47.5           |                        |                          |                         |                           |
| Magnesium (Mg)                | 2.48       | 2.49           |                        |                          |                         |                           |
| Sodium (Na)                   | 7.74       | 13.6           |                        |                          |                         |                           |
| Potassium (K)                 | 4.44       | 4.07           |                        |                          |                         |                           |
| Sulfate (SO <sub>4</sub> )    | 7.66       | 61.7           |                        | 250                      |                         |                           |
| Nitrite (NO <sub>2</sub> )    | <0.0100    | <0.0100        | 1                      |                          | 1                       |                           |
| Nitrate (NO <sub>3</sub> )    | 0.233      | 0.328          | 10                     |                          | 10                      |                           |
| Chloride (Cl)                 | 3.42       | 10.6           |                        | 250                      |                         | 300                       |
| Fluoride (F)                  | 0.131      | 0.309          | 4.0                    | 2.0                      |                         | 2.0                       |
| Phosphates (PO <sub>4</sub> ) | 0.0890     | 0.0130         |                        |                          |                         |                           |

|                  | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) |
|------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Total Alkalinity | 72.1                            | 62.8                            |                                 |                                 |                                 |                                 |
| Total Hardness   | 68.0                            | 110                             |                                 |                                 |                                 |                                 |
| Langelier Index  | -                               | -                               |                                 |                                 |                                 |                                 |

**Trace Element Analysis**

|                | (mg/L)     | (mg/L)     | (mg/L) | (mg/L) | (mg/L) | (mg/L) |
|----------------|------------|------------|--------|--------|--------|--------|
| Arsenic (As)   | 0.00394    | <0.00250   | 0.01   |        | 0.01   |        |
| Barium (Ba)    | 0.0601     | 0.0549     | 2      |        | 2      |        |
| Cadmium (Cd)   | <0.000500  | <0.000500  | 0.005  |        | 0.005  |        |
| Chromium (Cr)  | <0.00250   | <0.00250   | 0.1    |        | 0.1    |        |
| Copper (Cu)    | 0.00182    | 0.0181     | 1.3    |        | 1.3    | 1.0    |
| Iron (Fe)      | 0.223      | 0.130      |        | 0.3    |        |        |
| Lead (Pb)      | 0.00101    | <0.000500  | 0.15   |        | 0.15   |        |
| Manganese (Mn) | 0.0383     | 0.00973    |        | 0.05   |        | 0.05   |
| Mercury (Hg)   | <0.0000500 | <0.0000500 | 0.002  |        | 0.002  |        |
| Nickel (Ni)    | 0.00175    | 0.00358    |        |        |        |        |
| Selenium (Se)  | <0.000500  | <0.000500  | 0.05   |        | 0.05   |        |
| Silver (Ag)    | <0.000500  | <0.000500  |        | 0.10   |        | 0.1    |
| Zinc (Zn)      | <0.00250   | <0.00250   |        | 5      |        | 5      |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.49*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | P       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.30* | 7.90*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 179   | 310     |     |           |     |      |
| Turbidity (NTU)                     | 2.59  | 0.0600* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 0F    | ND      |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**  
**Water Analysis**  
**May-2016**

Generated: 06/09/2016

**Mineral Analysis**

|                               | <b>Raw</b>    | <b>Treated</b> | <b>Standards</b>  |                   |                    |                    |
|-------------------------------|---------------|----------------|-------------------|-------------------|--------------------|--------------------|
|                               |               |                | <b><u>EPA</u></b> | <b><u>EPA</u></b> | <b><u>TCEQ</u></b> | <b><u>TCEQ</u></b> |
|                               | <b>(mg/L)</b> | <b>(mg/L)</b>  | <b>Primary</b>    | <b>Secondary</b>  | <b>Primary</b>     | <b>Secondary</b>   |
|                               |               |                | <b>(mg/L)</b>     | <b>(mg/L)</b>     | <b>(mg/L)</b>      | <b>(mg/L)</b>      |
| Residue on Evaporation        | 122           | 180            |                   | 500               |                    | 1000               |
| Silica (SiO <sub>2</sub> )    | 2.27          | 2.07           |                   |                   |                    |                    |
| Iron (Fe)                     | 0.643         | 0.120          |                   | 0.3               |                    | 0.3                |
| Calcium (Ca)                  | 22.9          | 34.9           |                   |                   |                    |                    |
| Magnesium (Mg)                | 2.33          | 2.79           |                   |                   |                    |                    |
| Sodium (Na)                   | 6.78          | 13.8           |                   |                   |                    |                    |
| Potassium (K)                 | 3.84          | 4.16           |                   |                   |                    |                    |
| Sulfate (SO <sub>4</sub> )    | 8.15          | 65.3           |                   | 250               |                    |                    |
| Nitrite (NO <sub>2</sub> )    | <0.0100       | <0.0100        | 1                 |                   | 1                  |                    |
| Nitrate (NO <sub>3</sub> )    | 0.346         | 0.484          | 10                |                   | 10                 |                    |
| Chloride (Cl)                 | 3.73          | 11.2           |                   | 250               |                    | 300                |
| Fluoride (F)                  | 0.129         | 0.316          | 4.0               | 2.0               |                    | 2.0                |
| Phosphates (PO <sub>4</sub> ) | 0.103         | 0.0270         |                   |                   |                    |                    |

|                  | <b>(mg/L as CaCO<sub>3</sub>)</b> | <b>(mg/L as CaCO<sub>3</sub>)</b> | <b>(mg/L as CaCO<sub>3</sub>)</b> | <b>(mg/L as CaCO<sub>3</sub>)</b> | <b>(mg/L as CaCO<sub>3</sub>)</b> | <b>(mg/L as CaCO<sub>3</sub>)</b> |
|------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Total Alkalinity | 72.0                              | 58.0                              |                                   |                                   |                                   |                                   |
| Total Hardness   | 74.2                              | 113                               |                                   |                                   |                                   |                                   |
| Langelier Index  | -                                 | -                                 |                                   |                                   |                                   |                                   |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | <0.00250      | <0.00250      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0653        | 0.0562        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.000500     | <0.000500     | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00250      | <0.00250      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00152       | 0.0190        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.643         | 0.120         |               | 0.3           |               |               |
| Lead (Pb)      | <0.000500     | <0.000500     | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0479        | 0.0121        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.0000500    | <0.0000500    | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00195       | 0.00279       |               |               |               |               |
| Selenium (Se)  | <0.000500     | <0.000500     | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.000500     | <0.000500     |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | 0.00364       | <0.00250      |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.40*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.60* | 7.90*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 178   | 305     |     |           |     |      |
| Turbidity (NTU)                     | 3.98  | 0.0600* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 2G    | ND      |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**



**North Texas Municipal Water District**

**Water Analysis**

**Apr-2016**

Regenerated: 05/12/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>       |                          |                         |                           |
|-------------------------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|
|                               |            |                | <b>EPA<br/>Primary</b> | <b>EPA<br/>Secondary</b> | <b>TCEQ<br/>Primary</b> | <b>TCEQ<br/>Secondary</b> |
|                               | (mg/L)     | (mg/L)         | (mg/L)                 | (mg/L)                   | (mg/L)                  | (mg/L)                    |
| Residue on Evaporation        | 116        | 178            |                        | 500                      |                         | 1000                      |
| Silica (SiO <sub>2</sub> )    | 1.05       | 1.19           |                        |                          |                         |                           |
| Iron (Fe)                     | 0.390      | 0.128          |                        | 0.3                      |                         | 0.3                       |
| Calcium (Ca)                  | 22.3       | 43.2           |                        |                          |                         |                           |
| Magnesium (Mg)                | 2.28       | 2.78           |                        |                          |                         |                           |
| Sodium (Na)                   | 6.83       | 13.6           |                        |                          |                         |                           |
| Potassium (K)                 | 3.87       | 4.25           |                        |                          |                         |                           |
| Sulfate (SO <sub>4</sub> )    | 8.21       | 68.6           |                        | 250                      |                         |                           |
| Nitrite (NO <sub>2</sub> )    | <0.0100    | <0.0100        | 1                      |                          | 1                       |                           |
| Nitrate (NO <sub>3</sub> )    | 0.386      | 0.409          | 10                     |                          | 10                      |                           |
| Chloride (Cl)                 | 3.70       | 10.7           |                        | 250                      |                         | 300                       |
| Fluoride (F)                  | 0.125      | 0.125          | 4.0                    | 2.0                      |                         | 2.0                       |
| Phosphates (PO <sub>4</sub> ) | 0.0590     | 0.0110         |                        |                          |                         |                           |

|                  | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) |
|------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Total Alkalinity | 71.5                            | 55.7                            |                                 |                                 |                                 |                                 |
| Total Hardness   | 68.6                            | 104                             |                                 |                                 |                                 |                                 |
| Langelier Index  | -                               | -                               |                                 |                                 |                                 |                                 |

**Trace Element Analysis**

|                | (mg/L)     | (mg/L)     | (mg/L) | (mg/L) | (mg/L) | (mg/L) |
|----------------|------------|------------|--------|--------|--------|--------|
| Arsenic (As)   | <0.00250   | <0.00250   | 0.01   |        | 0.01   |        |
| Barium (Ba)    | 0.0623     | 0.0544     | 2      |        | 2      |        |
| Cadmium (Cd)   | <0.000500  | <0.000500  | 0.005  |        | 0.005  |        |
| Chromium (Cr)  | <0.00250   | <0.00250   | 0.1    |        | 0.1    |        |
| Copper (Cu)    | 0.00129    | 0.0290     | 1.3    |        | 1.3    | 1.0    |
| Iron (Fe)      | 0.390      | 0.128      |        | 0.3    |        |        |
| Lead (Pb)      | <0.000500  | <0.000500  | 0.15   |        | 0.15   |        |
| Manganese (Mn) | 0.0284     | 0.0176     |        | 0.05   |        | 0.05   |
| Mercury (Hg)   | <0.0000500 | <0.0000500 | 0.002  |        | 0.002  |        |
| Nickel (Ni)    | 0.00180    | 0.00223    |        |        |        |        |
| Selenium (Se)  | <0.000500  | <0.000500  | 0.05   |        | 0.05   |        |
| Silver (Ag)    | <0.000500  | <0.000500  |        | 0.10   |        | 0.1    |
| Zinc (Zn)      | 0.00549    | 0.00371    |        | 5      |        | 5      |

**Other Analysis**

|                                     |      |         |     |           |     |      |
|-------------------------------------|------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -    | 3.57*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -    | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | *    | *       |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 169  | 286     |     |           |     |      |
| Turbidity (NTU)                     | 7.47 | 0.0600* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 24F  | ND      |     |           |     | 3    |

**Note 1: National Primary Drinking Water Regulations or Primary Standards are legally enforceable standards. National Secondary Drinking Water Regulations or Secondary Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects In Drinking Water.**

**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**

**Water Analysis**

**Mar-2016**

Regenerated: 05/05/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>       |                          |                         |                           |
|-------------------------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|
|                               |            |                | <b>EPA<br/>Primary</b> | <b>EPA<br/>Secondary</b> | <b>TCEQ<br/>Primary</b> | <b>TCEQ<br/>Secondary</b> |
|                               | (mg/L)     | (mg/L)         | (mg/L)                 | (mg/L)                   | (mg/L)                  | (mg/L)                    |
| Residue on Evaporation        | 116        | 184            |                        | 500                      |                         | 1000                      |
| Silica (SiO <sub>2</sub> )    | 5.14       | 4.74           |                        |                          |                         |                           |
| Iron (Fe)                     | 0.469      | <0.200         |                        | 0.3                      |                         | 0.3                       |
| Calcium (Ca)                  | 25.4       | 43.2           |                        |                          |                         |                           |
| Magnesium (Mg)                | 2.45       | 2.77           |                        |                          |                         |                           |
| Sodium (Na)                   | 7.72       | 14.9           |                        |                          |                         |                           |
| Potassium (K)                 | 4.34       | 4.53           |                        |                          |                         |                           |
| Sulfate (SO <sub>4</sub> )    | 9.06       | 67.6           |                        | 250                      |                         |                           |
| Nitrite (NO <sub>2</sub> )    | <0.0200    | <0.0200        | 1                      |                          | 1                       |                           |
| Nitrate (NO <sub>3</sub> )    | 0.470      | 0.500          | 10                     |                          | 10                      |                           |
| Chloride (Cl)                 | 4.15       | 13.4           |                        | 250                      |                         | 300                       |
| Fluoride (F)                  | <0.250     | <0.250         | 4.0                    | 2.0                      |                         | 2.0                       |
| Phosphates (PO <sub>4</sub> ) | 0.0690     | 0.0110         |                        |                          |                         |                           |

|                  | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) |
|------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Total Alkalinity | 70.1                            | 56.9                            |                                 |                                 |                                 |                                 |
| Total Hardness   | 90.2                            | 117                             |                                 |                                 |                                 |                                 |
| Langelier Index  | -                               | -                               |                                 |                                 |                                 |                                 |

**Trace Element Analysis**

|                | (mg/L)    | (mg/L)    | (mg/L) | (mg/L) | (mg/L) | (mg/L) |
|----------------|-----------|-----------|--------|--------|--------|--------|
| Arsenic (As)   | <0.00500  | <0.00500  | 0.01   |        | 0.01   |        |
| Barium (Ba)    | 0.0599    | 0.0525    | 2      |        | 2      |        |
| Cadmium (Cd)   | <0.00100  | <0.00100  | 0.005  |        | 0.005  |        |
| Chromium (Cr)  | <0.00500  | <0.00500  | 0.1    |        | 0.1    |        |
| Copper (Cu)    | 0.00127   | 0.0597    | 1.3    |        | 1.3    | 1.0    |
| Iron (Fe)      | 0.469     | <0.200    |        | 0.3    |        |        |
| Lead (Pb)      | <0.00100  | <0.00100  | 0.15   |        | 0.15   |        |
| Manganese (Mn) | 0.0450    | 0.00768   |        | 0.05   |        | 0.05   |
| Mercury (Hg)   | <0.000100 | <0.000100 | 0.002  |        | 0.002  |        |
| Nickel (Ni)    | 0.00186   | 0.00213   |        |        |        |        |
| Selenium (Se)  | <0.00100  | <0.00100  | 0.05   |        | 0.05   |        |
| Silver (Ag)    | <0.00100  | <0.00100  |        | 0.10   |        | 0.1    |
| Zinc (Zn)      | <0.00500  | <0.00500  |        | 5      |        | 5      |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.61*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.80* | 7.70*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 188   | 313     |     |           |     |      |
| Turbidity (NTU)                     | 8.46  | 0.0600* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 6F    | 2CL     |     |           |     | 3    |

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**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**

**Water Analysis**

**Feb-2016**

Generated: 03/14/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>                  |                                     |                                    |                                      |
|-------------------------------|------------|----------------|-----------------------------------|-------------------------------------|------------------------------------|--------------------------------------|
|                               |            |                | <b>EPA<br/>Primary<br/>(mg/L)</b> | <b>EPA<br/>Secondary<br/>(mg/L)</b> | <b>TCEQ<br/>Primary<br/>(mg/L)</b> | <b>TCEQ<br/>Secondary<br/>(mg/L)</b> |
| Residue on Evaporation        | 142        | 196            |                                   | 500                                 |                                    | 1000                                 |
| Silica (SiO <sub>2</sub> )    | 5.75       | 5.55           |                                   |                                     |                                    |                                      |
| Iron (Fe)                     | 0.522      | <0.200         |                                   | 0.3                                 |                                    | 0.3                                  |
| Calcium (Ca)                  | 29.6       | 48.8           |                                   |                                     |                                    |                                      |
| Magnesium (Mg)                | 2.83       | 2.96           |                                   |                                     |                                    |                                      |
| Sodium (Na)                   | 8.06       | 13.9           |                                   |                                     |                                    |                                      |
| Potassium (K)                 | 4.91       | 4.69           |                                   |                                     |                                    |                                      |
| Sulfate (SO <sub>4</sub> )    | 9.40       | 78.5           |                                   | 250                                 |                                    |                                      |
| Nitrite (NO <sub>2</sub> )    | <0.0200    | <0.0200        | 1                                 |                                     | 1                                  |                                      |
| Nitrate (NO <sub>3</sub> )    | 0.486      | 0.518          | 10                                |                                     | 10                                 |                                      |
| Chloride (Cl)                 | 4.34       | 12.3           |                                   | 250                                 |                                    | 300                                  |
| Fluoride (F)                  | <0.250     | 0              | 4.0                               | 2.0                                 |                                    | 2.0                                  |
| Phosphates (PO <sub>4</sub> ) | 0.0726     | <0.0200        |                                   |                                     |                                    |                                      |

|                  | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> | <b>(mg/L as<br/>CaCO<sub>3</sub>)</b> |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Total Alkalinity | 72.3                                  | 55.3                                  |                                       |                                       |                                       |                                       |
| Total Hardness   | 70.4                                  | 113                                   |                                       |                                       |                                       |                                       |
| Langelier Index  | -                                     | [- 0.116 ]                            |                                       |                                       |                                       |                                       |

**Trace Element Analysis**

|                | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> | <b>(mg/L)</b> |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arsenic (As)   | <0.00500      | <0.00500      | 0.01          |               | 0.01          |               |
| Barium (Ba)    | 0.0612        | 0.0515        | 2             |               | 2             |               |
| Cadmium (Cd)   | <0.00100      | <0.00100      | 0.005         |               | 0.005         |               |
| Chromium (Cr)  | <0.00500      | <0.00500      | 0.1           |               | 0.1           |               |
| Copper (Cu)    | 0.00117       | 0.0184        | 1.3           |               | 1.3           | 1.0           |
| Iron (Fe)      | 0.522         | <0.200        |               | 0.3           |               |               |
| Lead (Pb)      | <0.00100      | <0.00100      | 0.15          |               | 0.15          |               |
| Manganese (Mn) | 0.0472        | 0.0154        |               | 0.05          |               | 0.05          |
| Mercury (Hg)   | <0.000100     | <0.000100     | 0.002         |               | 0.002         |               |
| Nickel (Ni)    | 0.00186       | 0.00229       |               |               |               |               |
| Selenium (Se)  | <0.00100      | <0.00100      | 0.05          |               | 0.05          |               |
| Silver (Ag)    | <0.00100      | <0.00100      |               | 0.10          |               | 0.1           |
| Zinc (Zn)      | <0.00500      | <0.00500      |               | 5             |               | 5             |

**Other Analysis**

|                                     |       |       |     |           |     |      |
|-------------------------------------|-------|-------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.80* | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A     | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 8.00* | 8.20* |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 184   | 318   |     |           |     |      |
| Turbidity (NTU)                     | 11.9  | 0*    | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 17F   | 1.4CL |     |           |     | 3    |

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**Note 2: TCEQ Primary Standards are the maximum contaminant level allowed for each constituent. TCEQ Primary Standards are legally enforceable standards.**

**Note 3: \* Identifies Monthly Average Process analyses.**

**North Texas Municipal Water District**

**Water Analysis**

**Jan-2016**

Generated: 02/16/2016

**Mineral Analysis**

|                               | <b>Raw</b> | <b>Treated</b> | <b>Standards</b>       |                          |                         |                           |
|-------------------------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|
|                               |            |                | <b>EPA<br/>Primary</b> | <b>EPA<br/>Secondary</b> | <b>TCEQ<br/>Primary</b> | <b>TCEQ<br/>Secondary</b> |
|                               | (mg/L)     | (mg/L)         | (mg/L)                 | (mg/L)                   | (mg/L)                  | (mg/L)                    |
| Residue on Evaporation        | 104        | 150            |                        | 500                      |                         | 1000                      |
| Silica (SiO <sub>2</sub> )    | 6.20       | 5.64           |                        |                          |                         |                           |
| Iron (Fe)                     | 0.494      | 0.139          |                        | 0.3                      |                         | 0.3                       |
| Calcium (Ca)                  | 31.0       | 48.8           |                        |                          |                         |                           |
| Magnesium (Mg)                | 2.83       | 3.07           |                        |                          |                         |                           |
| Sodium (Na)                   | 8.71       | 15.6           |                        |                          |                         |                           |
| Potassium (K)                 | 5.19       | 5.19           |                        |                          |                         |                           |
| Sulfate (SO <sub>4</sub> )    | 7.74       | 66.3           |                        | 250                      |                         |                           |
| Nitrite (NO <sub>2</sub> )    | <0.0200    | <0.0200        | 1                      |                          | 1                       |                           |
| Nitrate (NO <sub>3</sub> )    | 0.405      | 0.431          | 10                     |                          | 10                      |                           |
| Chloride (Cl)                 | 3.98       | 11.1           |                        | 250                      |                         | 300                       |
| Fluoride (F)                  | <0.250     | 0              | 4.0                    | 2.0                      |                         | 2.0                       |
| Phosphates (PO <sub>4</sub> ) | 0.0870     | 0.0200         |                        |                          |                         |                           |

|                  | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) | (mg/L as<br>CaCO <sub>3</sub> ) |
|------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Total Alkalinity | 80.5                            | 61.5                            |                                 |                                 |                                 |                                 |
| Total Hardness   | 72.0                            | 102                             |                                 |                                 |                                 |                                 |
| Langelier Index  | -                               | [- 0.747 ]                      |                                 |                                 |                                 |                                 |

**Trace Element Analysis**

|                | (mg/L)    | (mg/L)    | (mg/L) | (mg/L) | (mg/L) | (mg/L) |
|----------------|-----------|-----------|--------|--------|--------|--------|
| Arsenic (As)   | <0.00500  | <0.00500  | 0.01   |        | 0.01   |        |
| Barium (Ba)    | 0.0566    | 0.0450    | 2      |        | 2      |        |
| Cadmium (Cd)   | <0.00100  | <0.00100  | 0.005  |        | 0.005  |        |
| Chromium (Cr)  | <0.00500  | <0.00500  | 0.1    |        | 0.1    |        |
| Copper (Cu)    | 0.00126   | 0.0375    | 1.3    |        | 1.3    | 1.0    |
| Iron (Fe)      | 0.494     | 0.139     |        | 0.3    |        |        |
| Lead (Pb)      | 0.000409  | <0.000250 | 0.15   |        | 0.15   |        |
| Manganese (Mn) | 0.0500    | 0.0104    |        | 0.05   |        | 0.05   |
| Mercury (Hg)   | <0.000100 | <0.000100 | 0.002  |        | 0.002  |        |
| Nickel (Ni)    | 0.00261   | 0.00204   |        |        |        |        |
| Selenium (Se)  | <0.00250  | <0.00250  | 0.05   |        | 0.05   |        |
| Silver (Ag)    | <0.000250 | <0.000250 |        | 0.10   |        | 0.1    |
| Zinc (Zn)      | 0.0162    | <0.00250  |        | 5      |        | 5      |

**Other Analysis**

|                                     |       |         |     |           |     |      |
|-------------------------------------|-------|---------|-----|-----------|-----|------|
| Chlorine Residual (mg/L)            | -     | 3.55*   | 4.0 |           | 4.0 |      |
| Total coliform ( Present / Absent ) | -     | A       | A   |           | A   |      |
| pH (Standard Units) @ 25°C          | 7.80* | 7.50*   |     | 6.5 - 8.5 |     | >7.0 |
| Specific Conductance (Umhos)        | 169   | 284     |     |           |     |      |
| Turbidity (NTU)                     | 8.39  | 0.0600* | 0.3 |           | 0.3 |      |
| Threshold Odor Number               | 70F   | 1.4CL   |     |           |     | 3    |

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