

**2010 Annual Water Quality Report**  
(for period January through December 2009)

**TRUSSVILLE UTILITIES**

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We are pleased to present to you this year's Annual Water Quality Report which is designed to inform you about the quality water and services we deliver to you every day. The constant goal of the Water Division of Trussville Utilities is to provide customers with a safe, reliable supply of drinking water that can be used with confidence at the lowest possible cost while maintaining the highest quality. Our employees monitor your water supply 24 hours a day, seven days a week to insure that the water delivered from our facilities meets these priorities.

|                             |                                                                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Water Sources:</b>       | Seven groundwater wells producing from Tuscumbia-Fort Payne chert and Bangor limestone aquifers                                  |
| <b>Water Treatment:</b>     | Chlorination, filtration, flocculation, pH adjustment, fluoridation                                                              |
| <b>Storage Capacity:</b>    | Thirteen tanks with a total capacity of 14,850,000 gallons and one clear well with a capacity of 3,000,000 gallons               |
| <b>Number of Customers:</b> | Approximately 11,000                                                                                                             |
| <b>Board Members:</b>       | Gordon Flynn, Chairman<br>Hugh Jones, Vice Chairman<br>Don Evans, Director<br>Leland Dockery, Director<br>Teddy Gilmer, Director |

**Source Water Assessment**

Trussville Utilities became one of the first water systems in the state to develop a Wellhead Protection Program to insure that its water supply is safe and protected. In addition to the Wellhead Protection Program, the Source Water Assessment Plan has been delineated and approved by ADEM. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. All of the potential contaminants sited in our study area were rated as either low or moderately susceptible to contaminating the water supply. The assessment has been performed, public notification has been completed, and the plan has been approved by ADEM. A copy of the report is available in our office for review during normal business hours, or you may purchase a copy upon request for a nominal reproduction fee.

Please help us make this effort worthwhile by protecting our source water. Carefully follow instructions on pesticides and herbicides you use for your lawn and garden, and properly dispose of household chemicals, paints and waste oil.

**Monitoring Schedule**

Trussville Utilities *routinely* monitors for constituents in your drinking water according to federal and state laws. This report contains results from the most recent monitoring which was performed in accordance with the regulatory schedule.

| <b>Constituent Monitored</b>                                         | <b>Date Monitored</b> |
|----------------------------------------------------------------------|-----------------------|
| Inorganic Contaminants                                               | 2007                  |
| Lead/Copper                                                          | 2008                  |
| Microbiological Contaminants                                         | current               |
| Nitrates                                                             | 2009                  |
| Radioactive Contaminants                                             | 2008                  |
| Synthetic Organic Contaminants (including pesticides and herbicides) | 2009                  |
| Volatile Organic Contaminants                                        | 2009                  |
| Disinfection By-products                                             | 2009                  |

## General Information

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCL's, defined in a List of Definitions in this report, are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and it can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water run-off, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Questions?

If you have any questions about this report or concerning your water utility, please contact Alan Long at 205-655-3211 or 1-800-755-3211. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the fourth Monday of each month in the Board Room at 127 Main Street in Trussville. Please confirm before attending.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

See this report and other information about our water system on our web site at [www.trussville.com](http://www.trussville.com)

As you can see by the table below, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means.

| TABLE OF DETECTED DRINKING WATER CONTAMINANTS |               |                   |           |      |        |                                                                                                                           |
|-----------------------------------------------|---------------|-------------------|-----------|------|--------|---------------------------------------------------------------------------------------------------------------------------|
| Contaminants                                  | Violation Y/N | Level Detected    | Unit Msmr | MCLG | MCL    | Likely Source of Contamination                                                                                            |
| Alpha emitters                                | NO            | 2.5 ± 1.1         | PCi/l     | 0    | 15     | Erosion of natural deposits                                                                                               |
| Copper                                        | NO            | 0.657 *<br>1 > AL | ppm       | 1.3  | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives                    |
| Fluoride                                      | NO            | 0.66              | ppm       | 4    | 4      | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate (as Nitrogen)                         | NO            | 0.75              | ppm       | 10   | 10     | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits                               |
| TTHM [Total trihalomethanes]                  | NO            | 29.9              | ppb       | 0    | 80     | By-product of drinking water chlorination                                                                                 |
| HAA5 [Total haloacetic acids]                 | NO            | 5.44              | ppb       | 0    | 60     | By-product of drinking water chlorination                                                                                 |
| <b>Secondary Contaminants</b>                 |               |                   |           |      |        |                                                                                                                           |
| Chloride                                      | NO            | 4.87              | ppm       | n/a  | 250    | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff                      |
| Hardness                                      | NO            | 163               | ppm       | n/a  |        | Naturally occurring in the environment or as a result of treatment with water additives                                   |
| pH                                            | NO            | 8.18              | S.U.      | n/a  | n/a    | Naturally occurring in the environment or as a result of treatment with water additives                                   |
| Sulfate                                       | NO            | 11.0              | ppm       | n/a  | 250    | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff                      |
| Total Dissolved Solids                        | NO            | 176               | ppm       | n/a  | 500    | Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff                      |

\* 90<sup>th</sup> percentile = 0.657 ppm and # of sites above action level (1.3 ppm) = 1

#### Definitions

**Action Level** - the concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

**Coliform Absent (ca)** - Laboratory analysis indicates that the contaminant is not present.

**Disinfection byproducts** - are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

**Initial Distribution System Evaluation (IDSE)** - a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

**Maximum Contaminant Level** - (mandatory language) The Maximum Allowed (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal** - (mandatory language) The Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Millirems per year (mrem/yr)** - measure of radiation absorbed by the body.

**Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Not Applicable (NA)** - Not applicable to water system because not required to perform the referenced monitoring.

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present.

**Not Required (NR)** - laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.

**Parts per billion (ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in \$10,000,000,000,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**Threshold Odor Number (TON)** - The greatest dilution of a sample with odor-free water that yields a barely detectable odor.

**Treatment Technique (TT)** - (mandatory language) a required process intended to reduce the level of a contaminant in drinking water.

**Variances & Exemptions (V&E)** - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

At the end of this report a list of *Primary Drinking Water Contaminants* and a list of *Unregulated Contaminants* for which our water system routinely monitors. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants*.

| STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS |                      |                         |                             |     |              |
|------------------------------------------------------|----------------------|-------------------------|-----------------------------|-----|--------------|
| Contaminant                                          | MCL                  | Unit of Msmt            | Contaminant                 | MCL | Unit of Msmt |
| <b>Bacteriological</b>                               |                      |                         | o-Dichlorobenzene           | 600 | ppb          |
| Total Coliform Bacteria                              | <5%                  | present or absent       | p-Dichlorobenzene           | 75  | ppb          |
| Fecal Coliform and E. coli                           | 0                    | present or absent       | 1,2-Dichloroethane          | 5   | ppb          |
| Turbidity                                            | TT                   | NTU                     | Nitrite                     | 1   | ppm          |
| <b>Radiological Contaminants</b>                     |                      |                         | Total Nitrate and Nitrite   | 10  | ppm          |
| Beta/photon emitters                                 | 4                    | mrem/yr                 | Selenium                    | 50  | ppb          |
| Alpha emitters                                       | 15                   | pCi/l                   | Thallium                    | 2   | ppb          |
| Combined radium                                      | 5                    | pCi/l                   | <b>Organic Contaminants</b> |     |              |
| Uranium                                              | 30                   | pCi/l                   | 2,4-D                       | 70  | ppb          |
| <b>Inorganic Chemicals</b>                           |                      |                         | 2,4,5-TP (Silvex)           | 50  | ppb          |
| Antimony                                             | 6                    | ppb                     | Acrylamide                  | TT  |              |
| Arsenic                                              | 10                   | ppb                     | Alachlor                    | 2   | ppb          |
| Asbestos                                             | 7                    | MFL                     | Benzo(a)pyrene [PAHs]       | 200 | ppt          |
| Barium                                               | 2                    | ppm                     | Carbofuran                  | 40  | ppb          |
| Beryllium                                            | 4                    | ppb                     | Chlordane                   | 2   | ppb          |
| Cadmium                                              | 5                    | ppb                     | Dalapon                     | 200 | ppb          |
| Chromium                                             | 100                  | ppb                     | Di (2-ethylhexyl)adipate    | 400 | ppb          |
| Copper                                               | AL=1.3               | ppm                     | Di (2-ethylhexyl)phthalate  | 6   | ppb          |
| Cyanide                                              | 200                  | ppb                     | Dinoseb                     | 7   | ppb          |
| Fluoride                                             | 4                    | ppm                     | Diquat                      | 20  | ppb          |
| Lead                                                 | AL=15.               | ppb                     | Dioxin [2,3,7,8-TCDD]       | 30  | Picograms/l  |
| Mercury                                              | 2                    | ppb                     | Chloramines                 | 4   | ppm          |
| Nitrate                                              | 10                   | ppm                     | Chlorite                    | 1   | ppm          |
| Endothall                                            | 100                  | ppb                     | HAA5 [Total haloacetic      | 60  | ppb          |
| Endrin                                               | 2                    | ppb                     | 1,1-Dichloroethylene        | 7   | ppb          |
| Epichlorohydrin                                      | TT                   |                         | cis-1,2-Dichloroethylene    | 70  | ppb          |
| Glyphosate                                           | 700                  | ppb                     | trans-1,2-Dichloroethylene  | 100 | ppb          |
| Heptachlor                                           | 400                  | Nanograms/l             | Dichloromethane             | 5   | ppb          |
| Heptachlor epoxide                                   | 200                  | Nanograms/l             | 1,2-Dichloropropane         | 5   | ppb          |
| Hexachlorobenzene                                    | 1                    | ppb                     | Ethylbenzene                | 700 | ppb          |
| Hexachlorocyclopentadiene                            | 50                   | ppb                     | Ethylene dibromide          | 50  | ppt          |
| Lindane                                              | 200                  | Nanograms/l             | Styrene                     | 100 | ppb          |
| Methoxychlor                                         | 40                   | ppb                     | Tetrachloroethylene         | 5   | ppb          |
| Oxamyl [Vydate]                                      | 200                  | ppb                     | 1,1,1-Trichloroethane       | 200 | ppb          |
| Oxamyl [Vydate]                                      | 200                  | PCBs                    | 1,1,2-Trichloroethane       | 5   | ppb          |
| Pentachlorophenol                                    | 1                    | ppb                     | Trichloroethylene           | 5   | ppb          |
| Picloram                                             | 500                  | ppb                     | TTHM [Total                 | 80  | ppb          |
| Simazine                                             | 4                    | ppb                     | Toluene                     | 1   | ppm          |
| Toxaphene                                            | 3                    | ppb                     | Vinyl Chloride              | 2   | ppb          |
| Benzene                                              | 5                    | ppb                     | Xylenes                     | 10  | ppm          |
| Carbon tetrachloride                                 | 5                    | ppb                     | Chlorine                    | 4   | ppm          |
| Chlorobenzene                                        | 100                  | ppb                     | Chlorine Dioxide            | 800 | ppb          |
| Dibromochloropropane                                 | 200                  | ppt                     | Bromate                     | 10  | ppb          |
| <b>UNREGULATED CONTAMINANTS</b>                      |                      |                         |                             |     |              |
| 1,1 - Dichloropropene                                | Aldicarb Sulfone     | Dibromochloromethane    | Metribuzin                  |     |              |
| 1,1,1,2-Tetrachloroethane                            | Aldicarb Sulfoxide   | Dibromomethane          | N - Butylbenzene            |     |              |
| 1,1,2,2-Tetrachloroethane                            | Aldrin               | Dicamba                 | Naphthalene                 |     |              |
| 1,1-Dichloroethane                                   | Bromobenzene         | Dichlorodifluoromethane | N-Propylbenzene             |     |              |
| 1,2,3 - Trichlorobenzene                             | Bromochloromethane   | Dicamba                 | O-Chlorotoluene             |     |              |
| 1,2,3 - Trichloropropane                             | Bromodichloromethane | Dichlorodifluoromethane | P-Chlorotoluene             |     |              |
| 1,2,4 - Trimethylbenzene                             | Bromoform            | Dieldrin                | P-Isopropyltoluene          |     |              |
| 1,3 - Dichloropropane                                | Bromomethane         | Hexachlorobutadiene     | Propachlor                  |     |              |
| 1,3 - Dichloropropene                                | Butachlor            | Isopropylbenzene        | Sec - Butylbenzene          |     |              |
| 1,3,5 - Trimethylbenzene                             | Carbaryl             | M-Dichlorobenzene       | Tert - Butylbenzene         |     |              |
| 2,2 - Dichloropropane                                | Chloroethane         | Methomyl                | Trichlorofluoromethane      |     |              |
| 3-Hydroxycarbofuran                                  | Chloroform           | MTBE                    |                             |     |              |
| Aldicarb                                             | Chloromethane        | Metolachlor             |                             |     |              |