CARBON HILL UTILITIES BOARD

Lead and Copper Sampling

Plan

***Carbon Hill Utilities Board***

***PWSID: AL0001324***

***156 NW 3rd Ave.***

***P.O. Box 459***

***Carbon Hill, AL 35549***

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***Carbon Hill Utilities Board serves a population of approximately 1,100 water customers. We purchase water from two different water sources (Jasper Waterworks & Eldridge Water). We do sample test every three years for Lead and Copper.***

***Our Lead and Copper test our done through TTL Inc,- Tuscaloosa Office/laboratory: 3516 Greensboro Avenue, Tuscaloosa Alabama 35401, Phone (205) 345-0816, Fax (205) 343-0609***

***For more information about how Carbon Hill Utilities Board conducts its Lead and Copper Materials Inventory, please contact:***

***Superintendent Grade II Water System Operator: Jackie Stough***

***Phone: (205) 924-9313 Email:*** [***utilities@carbonhillutilities.com***](mailto:utilities@carbonhillutilities.com)

**Lead and Copper Rule (LCR)**

EPA promulgated the Lead and Copper Rule (LCR) in 1991, and ADEM adopted the rule in 1992. Implementation of this rule is a critical component of ADEM's efforts to protect public health and ensure the safety of our state's drinking water. The following information outlines how the LCR is implemented and identifies ways for the public to find information about the quality of its drinking water.

* The LCR has four basic requirements:

1. Require water systems to optimize their treatment system to control corrosion in the distribution system and the customer's plumbing;  
2. Determine tap water levels of lead and copper for customers who have lead service lines or lead-based solder in their plumbing system;  
3. Rule out the source water as a source of significant lead levels; and  
4. If lead action levels are exceeded, the water system is required to take additional actions, which may include:

a. Developing and implementing a plan to optimize corrosion control in the finished drinking water;  
b. Educating their customers about lead and suggesting actions they can take to reduce their exposure to lead through public notices and public education programs;  
c. Replacing the portions of level service lines under the system's control; and  
d. Offering to replace lead service lines under their customers' control at an equitable cost to the customer.

* The LCR requires water systems to monitor at least every 3 years. Some water systems monitor more frequently. The water system selects the sites based on criteria set out in the rule. The criteria for the lead and copper sampling sites are:

1. Tier 1 sites--These sites include single family structures containing lead pipe or plumbing, are served by a lead service line, or contain copper pipes with lead solder and were constructed after 1982.  
2. Tier 2 sites--These sites include buildings and multiple family residences containing lead pipe or plumbing, are served by a lead service line, or contain copper pipes with lead solder and were constructed after 1982.  
3. Tier 3 sites--These sites include single family structures containing copper pipes with lead solder which were constructed prior to 1983.

**Public Water Supply Lead and Copper Sample Site Plan Selection Criteria for Community Systems**

All public water supplies must complete a materials evaluation of their system to identify their pool of sample sites. Samples must be collected from Tier 1 sites unless there are not sufficient sites, then Tier 2 sites may be used. If there are not sufficient Tier 1 and 2 sites then Tier 3 sites may be used.

**Tier definitions are as follows:**

* Tier 1 – includes single family structures that;
  + Contain copper pipes with lead solder which was installed after 1982 or;
  + Contain lead pipes or;
  + Is served by a lead service line
* Tier 2 – includes multi-family structures and buildings that;
  + Contain copper pipes with lead solder which was installed after 1982 or;
  + Contain lead pipes or;
  + Is served by a lead service line
* Tier 3 - includes single family structures that contain copper pipes with lead solder which were installed prior to 1983

**Tier Categories -** Use the following to identify the Tier and category of each site:

Tier 1

* Single family – copper pipe with lead solder constructed after 1982
* Single family – lead pipes
* Single family – lead service
* Multi-family – copper pipe with lead solder constructed after 1982
* Multi-family – lead pipes
* Multi-family – lead service

Tier 2

* Building – copper pipe with lead solder constructed after 1982
* Building – lead pipes
* Building – lead service

Tier 3

* Single family – copper pipe with lead solder constructed before 1983

*If not enough Tier 1, 2 or 3 sites are available, random sites may be chosen.*

* Random location

The minimum number of lead and copper tap samples you must collect depends upon your system size (population) and what monitoring schedule you are on (standard or reduced). ADEM will specify the minimum number of samples that need to be collected.

|  |  |  |  |
| --- | --- | --- | --- |
| **Size Category** | **System Size** | **Standard** | **Reduced** |
| **Large** | **>100K**  **50,001 – 100K** | **100**  **60** | **50**  **30** |
| **Medium** | **10,0001- 50K**  **3,301 – 10K** | **60**  **40** | **30**  **20** |
| **Small** | **501 – 3,300**  **101 – 500**  **< 100** | **20**  **10**  **5** | **10**  **5**  **5** |

Using the Tiering criteria and the chart above, you are now ready to identify those sites at which lead and copper sampling will be conducted.

**Author:** Joe Alan Power, Dennis D. Harrison.

**Statutory Authority:** Code of Alabama 1975, §§ 22-23-33, 22-22A-5,

22-22A-6.

**History:** Adopted: September 23, 1992; Amended: September 19, 1995 (ER);

November 28, 1995. Effective: January 2, 1996.

**Amended:** March 12, 2002; January 22, 2008; May 26, 2009; September 25,

2012; November 25, 2014.

**335-7-11-.18 Reporting Requirements.**

(1) Tap Water Monitoring. All water systems shall provide the results of

all tap water monitoring for lead and copper and for all water quality parameter

samples by the 10th of the month following the end of the compliance period.

The end of the compliance period is the last date that samples can be collected

during the monitoring period.

(a) Included shall be information regarding the tap, the tier level of the

site, identification as a non first draw sample and length of standing time,

documentation for all tap water lead and copper monitoring that the system

requests invalidation, and an explanation for any site which was not monitored

during the previous monitoring period or why sites may have changed.

1. Systems with lead service lines not providing 50% of the monitoring

from these sites will provide a letter demonstrating why it was unable to locate

a sufficient number of each site. Values shall be placed in ascending order with

the highest value first and the 90th percentile value either circled or labeled.

2. All systems utilizing non first draw samples shall provide the

Department prior to the first monitoring period after these regulations become

effective the locations and standing times of all such monitoring. Systems

applying for or systems that have been granted a waiver shall provide a

certification that the system's distribution and plumbing materials are lead and

copper free. A water system that has been granted a waiver and later

determines the system's materials are no longer lead or copper free shall

provide the basis of that determination and a corrective action plan to remove

those materials within 60 days of the determination.

(b) Source Water Monitoring. The lead/copper results from source water

required to be monitored shall be provided by the 10th of the month following

the analysis.

(c) Corrosion Control Treatment. Systems with an approved corrosion

control treatment system on the effective date of these regulations will continue

to provide monthly monitoring reports providing the required information.

These reports must be received by the 10th of the following month. For

systems required to establish optimized corrosion control, daily and weekly

analysis may be provided on the monthly operation reports which must be

submitted by the 10th of the following month. For systems monitoring during a

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six-month compliance cycle, the analysis must be provided by the 10th of the

month following the analysis.

(d) Lead Service Line Replacement. Systems required to replace service

lines shall provide yearly information by December 31 regarding the number

and location of service lines replaced, the number remaining, the location and

lead concentration of any lead service line monitoring, and any proposed

modification to the lead service line removal plan.

(2) Record Keeping of Reporting Requirements. All systems shall retain

in its office or on its premises original records of all monitoring data, analysis,

reports, surveys, letters, evaluations, schedules, state determinations and other

information reflecting activities to demonstrate compliance with the lead and

copper requirements of this Department. These records shall be retained for no

less than 12 years.

(3) Any water system proposing the addition of a new source or any longterm

change in water treatment shall submit a written report to the Department

on how the change or source addition will affect the system's ability to comply

with the lead and copper action levels and water quality parameter monitoring

before implementing changes in treatment (or treatment processes) or using a

new source.

(a) Examples of long-term water treatment changes include the addition

of a new treatment process or modification of an existing treatment process.

(b) Examples of modifications include switching secondary disinfectants,

switching coagulants and switching corrosion inhibitor products.

(c) Long term changes can include dose changes to existing chemicals if

the system is planning long-term changes to its finished water pH or residual

inhibitor concentration. Long-term treatment changes would not include

chemical dose fluctuations associated with daily raw water quality changes.

(4) Within 12 months after the end of the monitoring period in which the

water system exceeded the lead action level, the water system shall submit the

following written documentation to the Department.

(a) Material evaluation conducted as required in rule 335-7-11-.07.

(b) A list of all lead service line locations in the distribution system at the

time the exceedance occurred.

(c) Schedule for replacing at least 7 percent of the initial lead service

lines annually.

(5) Within 12 months after the end of the monitoring period in which the

water system exceeded the lead action level and every 12 months thereafter, the

water system shall demonstrate in writing either:

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(a) The water system has replaced in the previous 12 months at least 7

percent (or as required by the Department) of the initial lead service lines or

(b) The water system has replaced at least 7 percent (or as required by

the Department) of the initial lead service lines and/or demonstrated through

monitoring that that at least 7 percent (or as required by the Department) of the

initial lead service lines no longer exceeds the lead action level.

(6) The annual report submitted to the Department under this rule shall

contain at a minimum the following information:

(a) Number of lead service lines scheduled to be replaced during the

previous year of the system's lead service line replacement program.

(b) The location of each full or partial lead service line replaced with an

indicator if the replacement was a full or partial replacement.

(c) If measured, the lead concentration of any lead service line. The

water system shall also report the analytical method used and the date of the

sample.

(d) The schedule of lead service lines to be replaced in the upcoming year

along with the latest monitoring results for these locations.

(7) Any water system that collects lead service line samples following a

partial lead service line replacement shall report the results to the Department

within the first ten days of the month in which the water system receives the

laboratory results.

(8) Public Education Program Reporting Requirements.

(a) Any water system that is subject to the public education

requirements of this chapter shall, within ten days after the end of each period

in which the system was required to perform public education send written

documentation to the Department that contains:

1. A demonstration that the water system has delivered the public

education materials that met the content and delivery requirements of this

chapter.

2. A list of all the newspapers, radio stations, television stations, and

facilities and organizations to which the system delivered public education

materials during the period in which the water system was required to perform

public education tasks.

(b) Each water system shall mail a sample copy of the consumer

notification of tap results to the Department along with a certification that the

notification has been distributed in a manner consistent with this chapter. The

sample copy and certification shall be submitted to the Department within 3

months following the end of the monitoring period.

**Carbon Hill Utilities Board Material List**

The Carbon Hill Utilities Board system consists of approximately 61 miles of class 160 and 200 and 250 class polyvinyl chloride (PVC) pipe with rubber gaskets and approximately 55 miles of ductile iron pipe with rubber gaskets serving approximately 1,100 water customers. The tapping saddles consist of brass and ductile iron. The service lines from the main to the meter consist of polyethylene tubing and type k copper with all brass mechanical compression type connectors and fittings. The meters contain brass, iron and or plastic parts with all brass shut off valves (curbstops) and brass backflow prevention devices. The Carbon Hill Utilities Board system contains **no** lead materials.

The Carbon Hill Utilities Board Water System is required by**ADEM** (*Alabama Department of Environmental Management)* to test for Lead and Copper every three years and the samples are analyzed by TTL (*Tuscaloosa Testing Laboratory*) located in Tuscaloosa Alabama. The Carbon Hill Utilities Board Water System is also under reduced monitoring due to the very low lab test results and the lack of lead material within the system.

**Lead and Copper Sampling Procedures**

All lead and copper samples must be first-draw samples and shall be 1 liter in volume. The water should have stood motionless in the plumbing system (not used) of each sample site for a minimum of six hours. While the water cannot be used for more than six hours, do not collect samples from sites which have not been used for an extended period of time; such as a site which has had no water use for several days, i.e. a weekend. Pre-stagnation flushing shall not be performed.

First-draw residential samples shall be collected from the cold water kitchen or bathroom sink only. First-draw nonresidential samples shall be collected from an interior cold water tap from which water is typically drawn for consumption. Aerators shall not be removed from taps or cleaned prior to or during the collection of samples.

Sampling sites must not include faucets which have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants. This includes such devices as filters, softeners, RO systems, etc.

First-draw samples may be collected by the system or the system may allow residents to collect samples after receiving instruction on the proper sampling procedures. Wide-mouth bottles shall be used to collect samples to allow for a higher flow rate during sample collection which is more representative of the flow that a consumer may use to fill a glass of water.

A water supply system shall collect each first-draw tap sample from the same sampling sites used in the previous round of sampling unless a change of sampling site is documented and submitted to the Alabama Department of Environmental Management (ADEM).

**Sites and Situations to Avoid**

***Do not use***

* A mop sink, outside faucet or a tap that is not generally used or intended for human consumption
* A site which is vacant *(don’t make special arrangements to get access to site)*
* A site which has undergone recent (within the last 6 months) plumbing improvements or changes including faucets at the specific sample location
* A tap that has any type of treatment
* A site where the owner or resident is uncooperative

**Customer Instructions for Homeowner Tap Sample Collection Procedures**

These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U.S. Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM) under the Lead and Copper Rule, and is being accomplished through a collaboration between the public water system and their consumers (e.g. residents).

*Collect samples from a tap that has not been used for at least 6 hours. To ensure the water has not been used for at least 6 hours, the best time to collect samples is either early in the morning or in the evening upon returning from work. Be sure to use a kitchen or bathroom cold water tap that has been used for drinking water consumption in the past few weeks. The collection procedure is described below.*

1. Prior arrangements will be made with you, the customer, to coordinate the sample collection. Dates will be set for sample kit delivery and picked-up by the Carbon Hill Utilities staff.

2. There must be a minimum of 6 hours during which there is no water used from the tap where the sample will be collected and any taps adjacent or close to that tap. Either early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist. Do not intentionally flush the water line before the start of the 6-hour period.

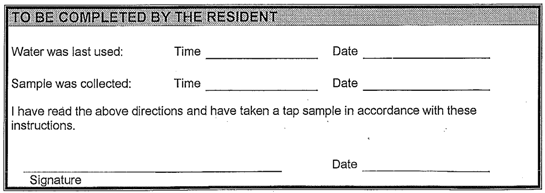
3. Use a kitchen or bathroom cold-water faucet for sampling. If you have water softeners on your kitchen taps, collect your sample from the bathroom tap that is not attached to a water softener, or a point of use filter, if possible. Do not remove the aerator prior to sampling. Place the opened sample bottle below the faucet and open the cold water tap as you would do to fill a glass of water. Fill the sample bottle to the line marked "1000-mL" and turn off the water.

4. Tightly cap the sample bottle and place in the sample kit provided. Please review the sample kit label at this time to ensure that all information contained on the label is correct.

5. If any plumbing repairs or replacement has been done in the home since the previous sampling event, note this information on the label as provided. Also if your sample was collected from a tap with a water softener, note this as well.

6. Place the sample kit in the same location the kit was delivered to so that water system staff may pick up the sample kit.

7. Results from this monitoring effort and information about lead will be provided to you as soon as practical but no later than 30 days after the system learns of the tap monitoring results. However, if excessive lead and/or copper levels are found, immediate notification will be provided (usually 1-2 working days after the system learns of the tap monitoring results).



**Call the Office of Carbon Hill Utilities at 205-924-9313 if you have any questions regarding these instructions.**

Thank you for your help!

(See pages 18 and 19 for documents used to report to customers)

**Copper Monitoring Results**

System Name and PWSID # Carbon Hill Utilities AL0001324

Monitoring Period June 1st thru Sept. 30 2017

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample Name and Address  No. # of Customers | TIER  1,2 or 3 | Date of  Collection | Date of  Analysis | Copper  Results  (mg/l) | Year Of Plumbing |
| # 1 Housing Authority office  316 NE 6th St.  Carbon Hill, AL 35549  # 2 Betty Gleason  Apt. 76 Meadowview  Carbon Hill, AL 35549  # 3 William Thomas  Apt. 78 Meadowview  Carbon Hill, AL 35549  # 4 Shirley Garrett  Apt. 80 Meadowview  Carbon Hill, AL 35549  # 5 Shirley Sims  Apt. 84 Meadowview  Carbon Hill, AL 35549  # 6 Larry Evans  Apt. 85 Meadowview  Carbon Hill, AL 35549  # 7 Wayne Rush  Apt. 89 Meadowview  Carbon Hill, AL 35549  # 8 Howard Hines  Apt. 90 Meadowview  Carbon Hill, AL 35549  # 9 James Anderson  Apt. 94 Meadowview  Carbon Hill, AL 35549  # 10 Margaret Pike  Apt. 98 Meadowview  Carbon Hill, AL 35549 | 1  1  1  1  1  1  1  1  1  1 |  |  |  | 1983  1983  1983  1983  1983  1983  1983  1983  1983  1983 |

**Lead Monitoring Results**

System Name and PWSID # Carbon Hill Utilities AL0001324

Monitoring Period June 1st thru Sept. 30 2017

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample Name and Address  No. # of Customers | TIER  1,2 or 3 | Date of  Collection | Date of  Analysis | Lead  Results  (mg/l) | Year Of Plumbing |
| # 1 Housing Authority office  316 NE 6th St.  Carbon Hill, AL 35549  # 2 Betty Gleason  Apt. 76 Meadowview  Carbon Hill, AL 35549  # 3 William Thomas  Apt. 78 Meadowview  Carbon Hill, AL 35549  # 4 Shirley Garrett  Apt. 80 Meadowview  Carbon Hill, AL 35549  # 5 Shirley Sims  Apt. 84 Meadowview  Carbon Hill, AL 35549  # 6 Larry Evans  Apt. 85 Meadowview  Carbon Hill, AL 35549  # 7 Wayne Rush  Apt. 89 Meadowview  Carbon Hill, AL 35549  # 8 Howard Hines  Apt. 90 Meadowview  Carbon Hill, AL 35549  # 9 James Anderson  Apt. 94 Meadowview  Carbon Hill, AL 35549  # 10 Margaret Pike  Apt. 98 Meadowview  Carbon Hill, AL 35549 | 1  1  1  1  1  1  1  1  1  1 |  |  |  | 1983  1983  1983  1983  1983  1983  1983  1983  1983  1983 |

**Carbon Hill Utilities Board Lead and Copper Samples Sites**

**Community: \_\_\_Carbon Hill, Alabama \_**

**PWSID#: \_\_\_\_\_\_AL0001324\_\_\_ Number of Samples Required Updated: \_\_\_10\_\_\_**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO.** | **Address** | **Tier Level** | **Lead Service line** | **Primary or Alt.** |
| **01** | **Housing Authority Office 316 6th St. NE** | **1** | **N** | **P** |
| **02** | **Apt 76 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **03** | **Apt 78 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **04** | **Apt 80 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **05** | **Apt 84 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **06** | **Apt 85 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **07** | **Apt 89 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **08** | **Apt 90 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **09** | **Apt 94 Meadowview 316 6th St. NE** | **1** | **N** | **P** |
| **10** | **Apt 98 Meadowview 316 6th St. NE** | **1** | **N** | **P** |

**Carbon Hill Utilities Board Lead and Copper Samples Sites**

**Community: \_\_Carbon Hill, Alabama \_\_\_**

**PWSID#: \_\_\_\_\_\_AL0001324\_\_\_\_Number of Samples Required Updated: \_\_10\_\_\_**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO.** | **Address** | **Tier Level** | **Lead Service line** | **Primary or Alt.** |
| **11** | **Apt 100 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **12** | **Apt 101 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **13** | **Apt 104 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **14** | **Apt 105 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **15** | **Apt 112 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **16** | **Apt 113 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **17** | **Apt 115 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **18** | **Apt 93 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **19** | **Apt 83 Meadowview 316 6th St. NE** | **1** | **N** | **A** |
| **20** | **Housing Authority Shop, 316 6th St. NE** | **1** | **N** | **A** |

**Making Changes to Sampling Site Locations**

Make an assessment of your ability to sample a sufficient number of appropriate sites from your lead and copper plan well in advance of the monitoring period. Making contact with the resident early and determining whether their home still meets the selection criteria as a sample location will eliminate this variable. Furthermore, lead and copper samples should be collected early in the monitoring period to ensure samples arrive at the lab in a timely fashion and are analyzed well before the end of the monitoring period.

Changes to sampling sites are allowed when water systems can no longer gain access to the site or if the original site location no longer meets the Tier selection criteria. For example, if a home is vacant or demolished, if a softener is added or plumbing upgrades have been made - the structure no longer meets the Tier criteria.

Changes in locations must be submitted to the Department prior to sampling. Your lead and copper plan must be updated whenever there is an addition or deletion of a site and you are also encouraged to update the plan to identify sites that meet the requirements of proper sampling locations that can be readily substituted if needed during future monitoring events.

**Lead & Copper Rule**

**Reduced Monitoring Site Selection**

**Reduced sampling sites shall be selected using the following procedure:**

1. From the two most recent six-month rounds of testing, select the round of testing that had the OVERALL HIGHEST lead result.
2. Using the selected round, arrange the sampling sites in order, based on the lead test result, from highest to lowest.
3. Beginning with and including the site with the highest lead result, select and include every other site for reduced monitoring (i.e. highest result, 3rd highest, 5th highest, 7th highest, etc.).
4. After selecting every other site (see #3 above), if it is determined that a specific selected site can no longer be included in the sampling pool, replace the site with the next site on the original list (i.e. replace the 7th highest site with the 6th highest site).
5. This reduced sampling plan must be kept in your file for future reference. You must return to these same sites for each reduced sampling period.

If either the lead or copper action level IS EXCEEDED at the 90th percentile during any reduced monitoring period, you are required to conduct water quality parameter monitoring in accordance with ADEM Admin. Code r. 335-7-11-.11 during the monitoring period in which the action level was exceeded, and resume standard or base monitoring for at least two consecutive six-month monitoring periods.

**Calculating the 90th Percentile During Initial, Follow-up, Routine and Reduced Monitoring**

If you collect 5 samples, calculate your 90th percentile as follows:

* Rank your samples in order of concentration (mg/L) from lowest to highest.
* Find the average of the two highest results by adding the results together and dividing by two.
* The resulting number (average) is the 90th percentile

***EXAMPLE***

|  |  |
| --- | --- |
| Sample Site # | Sample Results |
| 1 | 0.001 |
| 2 | 0.001 |
| 3 | 0.006 |
| 4 | 0.008 |
| 5 | 0.014 |

0.008 + 0.014 = 0.022 0.022/2 = 0.011

90th percentile = 0.011 mg/l

This is the number to record on Form 141A and reported to the IDNR



If you collect 6 or more samples, calculate your 90th percentile as follows:

* Rank your samples in order of concentration (mg/L) from lowest to highest.
* Take the total number of samples collected and multiply by 0.90. The result will tell you which sample to record.
* If the number is not a whole number, round to the nearest whole number.
  + 12.7 would be rounded to 13.0 – 12.2 would be rounded to 12.0
* If the number is exactly in the middle of two whole numbers, round to the nearest even number.
  + 12.5 would be rounded to 12.0 – 13.5 would be rounded to 14.0

**EXAMPLE IF YOU COLLECTED 10 SAMPLES**

10 X 0.9 = 9

Sample #9 is the 90th percentile and should be recorded on Form 141A

|  |  |
| --- | --- |
| Sample Site # | Sample Results |
| 1 | 0.001 |
| 2 | 0.001 |
| 3 | 0.001 |
| 4 | 0.001 |
| 5 | 0.001 |
| 6 | 0.004 |
| 7 | 0.005 |
| 8 | 0.006 |
| **9** | **0.008** |
| 10 | 0.010 |

The 90th percentile is 0.008 mg/l and should be recorded on Form 141A.

*Please note these are examples only, you will have to insert your own results to determine your 90th percentile.*

**Lead and Copper Consumer Notice and Certification Forms**

PWS Name: \_CARBON HILL UTILITIES\_ PWSID#: AL0001324\_\_\_\_ Date: \_\_2017\_\_\_\_\_\_\_\_

**LEAD & COPPER CONSUMER NOTICE**

# **ANALYTICAL RESULTS FOR LEAD & COPPER TAP WATER MONITORING**

Our public water supply system is required to periodically collect tap water samples to determine the lead and copper levels in our system. Your residence was selected for this monitoring as part of our system’s sampling plan. This notice is provided to you with the analytical results of the tap water sample collected at your home.

Sample address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sample collection date: \_\_\_\_\_\_\_\_\_\_

Analytical Lead result, in mg/L (milligrams per liter): \_\_\_\_\_\_\_\_\_\_\_\_

Analytical Copper result, in mg/L (milligrams per liter): \_\_\_\_\_\_\_\_\_\_

**Definitions**

*Action Level (AL):* The action level is a concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a public water supply system must follow. The lead action level is 0.015 mg/L. The copper action level is 1.3 mg/L.

*Maximum Contaminant Level Goal (MCLG):* The maximum contaminant level goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. The MCLG allows for a margin of safety. The lead MCLG is zero. The copper MCLG is 1.3 mg/L.

**What are the health effects of lead and how can I reduce my exposure?**

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. [NAME OF SYSTEM] is responsible for providing drinking water that meets all federal and state standards, 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 the water and using only cold water for drinking or cooking. Information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [*http://www.epa.gov/safewater/lead*](http://www.epa.gov/safewater/lead)*.*

When replacing your bathroom or kitchen faucet, consider a “lead-free” faucet that meets NSF/ANSI Standard 61 Annex G (California), which is less than 0.25% lead by weight.

**What are the health effects of copper and how can I reduce my exposure?**

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor. Flushing your tap before using the water as previously described will also reduce copper levels.

**Who can I contact at my water system for more information?**

*Phone number at our public water supply system: (205) 924-9313 or (205) 924-9039*

*E-mail address at our public water supply system: utilities@carbonhillutilities.com*

**Consumer Notice Instructions: Community PWS**

Per the Lead & Copper Rule consumer notice requirements, you must complete the lead consumer notice, distribute the notice to each home or building that was tested with its specific lead result, and submit a certification of your activities and a copy of the notice to ADEM.

### Consumer Notice Content

You are required to provide the consumer notice to consumers who occupy homes or buildings that are part of your system’s lead & copper monitoring program with the analytical results when their drinking water is tested for lead, including those who do not receive water bills. The Consumer Notice must include the mandatory language in the example provided with these instructions. It must be multilingual, where appropriate.

### Distribution of the Consumer Notice

Within 30 days of receiving the analytical results from the laboratory, you must provide the required notice to the people served at each residence or building that was a part of the sampling plan. This can be accomplished through direct mail, including it with the water utility bill, or by hand delivery.

Multi-family dwellings: Where testing occurs in buildings with many units, such as an apartment building, the notice must be provided to each individual unit that was tested. The notice does not have to extend to the entire building.

If you wish to use an alternate method that would still meet the requirements, contact the ADEM to discuss the method, prior to conducting the notice.

Date Created: **April 22, 2016**

### Delivery Certification

I certify under penalty of law that I am familiar with the information submitted in this document and that it is true, accurate, and complete.

**(Print or Type) Name/Date of Individual Completing plan Etta Wilson/April 22, 2016**

**Title:** **Utilities Clerk of Carbon Hill Utilities Board Phone: 205-924-9313 Fax: 205-924-9829**

**Email:** [**utilities@carbonhillutilities.com**](mailto:utilities@carbonhillutilities.com)

|  |  |
| --- | --- |
| Date |  |
| From | (water system) |
| To | (customer) |

**Consumer Notification of Lead/Copper Tap Monitoring Results**

Our public water supply system is required to periodically collect tap water samples to determine the lead and copper levels in our system. Your residence was selected for this monitoring as part of our system’s sampling plan. This notice is provided to you with the analytical results of the tap water sample collected at your home.

Sample address: Sample collection date: \_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contaminant | Action Level | Unit of Measurement ' | **Results**  **at your**  **home** ' '  I | •: ' ·. .. . . ..,, :: . ,, '  90th Compliance Violation?  Percentile\* (YES or NO)  ····  . '. . *:* . .... . |
| Lead | 0.015 | mg/I |  |  |
| Copper | 1.3 | mg/I |  |  |

**Definitions**

*Action Level (AL):* The action level is a concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a public water supply system must follow. The lead action level is 0.015 mg/L. The copper action level is 1.3 mg/L.

*Maximum Contaminant Level Goal (MCLG):* The maximum contaminant level goal is the level of a contaminant in

drinking water below which there is no known or expected risk to health. The MCLG allows for a margin of safety. The lead MCLG is zero. The copper MCLG is 1.3 mg/L.

**What are the health effects of lead and how can I reduce my exposure?**

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. Some individual homes may have high lead concentrations while the 901h percentile value for the entire waterworks is below the Action Level. These individual site lead levels may be due to conditions unique to the individual home, such as the presence of lead solder or brass faucets, fittings and valves that may contain lead. This water system is responsible for providing drinking water that meets all federal and state standards but cannot control the variety of materials used in plumbing components. Our waterworks strives to keep the corrosivity of our water as low as possible (corrosive water can cause lead to leach from plumbing materials that contain lead).

Lead levels in your drinking water are likely to be higher if:

* Your home or water system has lead pipes, or
* Your home has faucets or fittings made of brass which contains some lead, or
* Your home has copper pipes with lead solder and you have naturally soft water, and
* Water often sits in the pipes for several hours.

**How can I reduce my exposure?** We strongly urge you to review the enclosed Fact Sheet and take the steps listed to reduce your exposure to lead in drinking water. These recommended actions are very important to the health of your family.

Information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *http:l*[*lw*](http://www.epa.gov/safewaterl/ead)*w*[*w.epa.gov/safewaterl/ead*](http://www.epa.gov/safewaterl/ead)*.*

If you have any questions, contact. at (phone). Sincerely,

**Fact Sheet: LEAD IN DRINKING WATER**

**Important Information on How to Protect Your Health**

Lead is a common metal that has been in many consumer products but is now known to be harmful to human health if ingested or inhaled. It can be found in lead-based paint, air, soil, household dust, food, some types of pottery, and drinking water. Lead is rarely found in natural sources of water such as rivers, lakes, wells or springs.

What Are The Health Effects of Lead? When people come in contact with lead, it may enter their bodies and accumulate over time, resulting in damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Lead in water can be a special problem for infants, whose diets may be mostly liquids, such as baby formulas or concentrated juices mixed with water. Smaller bodies can absorb lead more rapidly than bigger ones, so amounts of lead that won't hurt an adult can be very harmful to a child and scientists have linked the effects of lead on the brain with lowered IQ in children. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Adults who drink this water over many years could develop kidney problems or high blood pressure.

What Are The Sources of Lead? The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. If you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood.

What Can IDo To Reduce Exposure to Lead in Drinking Water? Lead may work its way into drinking water after the water entered the distribution system and is on its way to consumers taps. This usually happens through the corrosion of materials containing lead in household plumbing. These materials include brass faucets, lead solder on copper pipes, lead pipes, or lead service lines connecting the water main to the inside plumbing. Lead pipes are no longer installed for service lines or in household plumbing and lead solder has been outlawed in Virginia since 1985.

There are several steps you can take to reduce your exposure to lead in drinking water. These include:

**1**. **Run your water to flush out lead.** If water hasn't been used for several hours, allow the water to run at the tap for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead-containing water from the pipes. The water you run from drinking water taps does not have to be wasted. You can use this water for cleaning purposes or for watering plants. You may want to keep a container of drinking water in your refrigerator, so you don't have to run water every time you need it.

1. **Use cold water for cooking and especially for preparing baby formula.** Do not cook with or drink water from the hot water tap as lead dissolves more easily into hot water. *Do not use water from the hot water tap to make baby formula.*
2. **Do not boil water to remove lead.** Boiling water will not reduce lead.
3. **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact the National Sanitation Foundation at 800-NSF-801 O or [**www.nsf.org**](http://www.nsf.org/) for information on performance standards for water filters. If you choose to install a lead removal filter, be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.
4. **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.
5. **Identify if your plumbing fixtures contain lead.** New brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The new lead regulation lowered the maximum lead content of plumbing products from 8.0% to 0.25%, when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.
6. When replacing your bathroom or kitchen faucet, consider a "lead-free" faucet that meets NSF/ANSI Standard 61 Annex G (California), which is less than 0.25% lead by weight
7. Visit the National Sanitation Foundation Web site at [www.nsf .org](http://www.nsf.org/) to learn more about lead-containing plumbing fixtures.

For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's web site at [www.epa.gov/lead,](http://www.epa.gov/lead) call the National Lead Information Center at 800-424-LEAD, call your water system, or contact your health care provider.