



DEPARTMENT OF THE NAVY
JOINT EXPEDITIONARY BASE LITTLE CREEK-FORT STORY
2600 TARAWA COURT, SUITE 100
VIRGINIA BEACH, VA 23459-3297

5090
Ser N4/488
September 12, 2022

Mr. Ernest Johnson
Virginia Department of Health
Office of Drinking Water
830 Southampton Avenue, Room 2058
Norfolk, VA 23510-1001

Dear Mr. Johnson:

**SUBJECT: 2022 TRIENNIAL LEAD AND COPPER RESULTS, JOINT EXPEDITIONARY
BASE (JEB) LITTLE CREEK (PWS# 3810340)**

Enclosed are the 2022 triennial lead and copper analysis results. All samples were below the Environmental Protection Agency action levels for both lead and copper.

Also enclosed are the Lead and Copper Results Delivery Certification Form, a sample copy of the water monitoring results notification, and the change of site forms for the substitution of four Tier 3 sampling sites.

If you have any questions or comments, please contact Mr. Bill Bounds at (757) 462-4806.

Sincerely,

A handwritten signature in black ink, appearing to read "Sharon L. Waligora".

SHARON L. WALIGORA
Environmental Program Manager
By direction
of the Commander

- Enclosures:
1. 2022 Lead And Copper Triennial Results
 2. Lead and Copper Results Delivery Certification
 3. Sample copy Monitoring Results Notification Letter
 4. Change of Sampling Site Forms

2022 LEAD AND COPPER TRIENNIAL RESULTS
 JEB LITTLE CREEK

90th Percentile Lead Level: 2 ppb

90th Percentile Copper Level: 399 ppb

Action Level Lead: 15 ppb Action
 Level Copper: 1300 ppb

Bldg. No.	Sample Location	Secured Date	Secured Time	Sample Date	Sample Time	Stagnation Period (Hrs/Mins)	Lab Sample ID	Pb Result (ppb)	Pb Rank	Cu Result (ppb)	Cu Rank
1265	Front lobby	23-Aug-2022	1800	24-Aug-2022	0610	12:10	22-14261	<1	9	44	3
1602	Rm 117 Female head	23-Aug-2022	1515	24-Aug-2022	0630	15:15	22-14256	<1	5	169	14
3364	Sink behind front desk	23-Aug-2022	1745	24-Aug-2022	0445	11:00	22-14248	3	19	399	18
3603	F106	15-Aug-2022	0700	24-Aug-2022	1053	9D 3:53	22-14257	<1	6	113	11
3604	A101	23-Aug-2022	1630	24-Aug-2022	0700	13:30	22-14258	1	15	319	16
3812	Bathroom	23-Aug-2022	1600	24-Aug-2022	0550	12:50	22-14259	<1	7	338	17
3814	Male head	23-Aug-2022	1745	24-Aug-2022	0545	12:00	22-14260	<1	8	134	12
3816	Male head lower level	23-Aug-2022	2300	24-Aug-2022	0520	6:20	22-14250	2	16	249	15
3820	Head below control level	23-Aug-2022	2300	24-Aug-2022	0540	6:40	22-14251	<1	1	58	4
3821	Supply office	23-Aug-2022	1730	24-Aug-2022	0600	12:30	22-14249	1	14	165	13
3870	Lab deep sink	23-Aug-2022	1500	24-Aug-2022	0617	15:17	22-14252	<1	2	78	7
3872	Male head	23-Aug-2022	1505	24-Aug-2022	0630	15:25	22-14253	2	17	480	20
CB310	Male head	23-Aug-2022	1600	24-Aug-2022	0800	16:00	22-14255	<1	4	62	5
CB301	Male head	23-Aug-2022	1630	24-Aug-2022	0812	15:43	22-14254	<1	3	78	8
Navy Bldg 4053 (2215 Casablanca)	Half bathroom	23-Aug-2022	2100	24-Aug-2022	0500	8:00	22-14264	<1	12	20	1
Navy Bldg 4075 (4911 Safi)	Half bathroom	23-Aug-2022	2030	24-Aug-2022	0723	10:57	22-14266	8	20	112	10
Navy Bldg 4153 (5024 Gela)	Kitchen	23-Aug-2022	2045	24-Aug-2022	0547	9:02	22-14267	2	18	102	9
Navy Bldg 4171 (5014 Gela)	Half bathroom	23-Aug-2022	2100	24-Aug-2022	0615	9:15	22-14265	<1	13	40	2
Navy Bldg 5038 (5038C Gunter)	Half bathroom	23-Aug-2022	2000	24-Aug-2022	0700	11:00	22-14263	<1	11	456	19
Navy Bldg 5047 (5047A Pemberton)	Half bathroom	23-Aug-2022	2200	24-Aug-2022	0600	8:00	22-14262	<1	10	62	6

Lead and Copper Results Delivery Certification

PWS Name: JEB Little Creek
Population: 9,782

PWSID: 3810340

DELIVERY METHOD – Community Waterworks

Waterworks serving a population of greater than 3,300 people:

The occupants of each lead and copper sampling location were notified by hand/direct delivery on 09/9/2022.

Waterworks serving a population of 3,300 or fewer people (choose either delivery method):

The occupants of each lead and copper sampling location were notified by U.S. Mail on _____.

The occupants of each lead and copper sampling location were notified by hand/direct delivery on _____.

I certify that each occupant of the residence from where lead and copper tap water samples were collected has been informed of the lead and copper monitoring results. Also provided was the following information: MCLGs, ALs and their definitions, a fact sheet on the health effects of lead which includes steps to reduce exposure to lead in drinking water, and contact information for the water utility. I further certify that notification was completed within 30 days after our system learned of the results from the Office of Drinking Water, and that if the residence is a rental property; both the occupant(s) and rental property owner were notified.

Signature: _____

Print Name: William Bounds

Job Title: Water Program Manager

Phone: 757-462-4806

Within three months from the end of the monitoring period:

- **Complete this form**
- **Attach a copy of the residence notification to this form**
- **Mail to:**

**VDH – Office of Drinking Water
Southeast Virginia Field Office
830 Southampton Ave., Room 2058
Norfolk, VA 23510**

Enclosure (2)

Results Notification Letter

To: NIOC, Building 1265

Building:	1265
Sample Date:	8/24/2022

From: JEB Little Creek, Public Works, Virginia Beach, VA 23460

SUBJECT: LEAD AND COPPER DRINKING WATER MONITORING RESULTS

On behalf of Joint Expeditionary Base (JEB) Little Creek and the Public Works Department Environmental Office, we appreciate your participation in the drinking water monitoring program for lead and copper. This letter is to report that the testing at your workplace, as well as the 90th percentile values for JEB Little Creek water system, are below both the lead action level of 15 parts per billion and copper action level of 1300 parts per billion.

Parameter	EPA Action Level (ppb)	Bldg. 1265 Results (ppb)	Below/ Above Action Level	Waterworks 90th Percentile Result (ppb)	Below/ Above Action Level
LEAD	15	<1	Below	2	Below
COPPER	1300	44	Below	399	Below

What Does This Mean?

Under the authority of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) set the drinking water Action Level at 15 ppb for lead and 1300 ppb for copper. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the buildings sampled (90th percentile value). The Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Since corrosive water can cause lead and copper to leach from pipes and other plumbing materials, the waterworks that provides water to the installation strives to keep the corrosivity of our water as low as possible. We recommend that you review the enclosed Fact Sheets and take the steps listed to further reduce your exposure to lead and copper in drinking water.

Questions and/or Concerns?

Please call the JEB Little Creek Public Works Environmental Office at 757-462-4806 if you have any questions about our water monitoring program.

For more information on reducing lead exposure around your home and the health effects of lead, visit the EPA website at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>, call the National Lead Information Center at 1-800-424-LEAD, or contact your health care provider.

For more information about reducing copper exposure in drinking water, visit the Agency for Toxic Substances and Disease Registry (ATSDR) website <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=206&tid=37> or call the Centers for Disease Control and Prevention (CDC) Information Center at 1-800-CDC-INFO (232-4636).

LEAD IN DRINKING WATER FACT SHEET

Lead is a naturally occurring metal present in small amounts in the earth's crust. While it has some beneficial uses, it is toxic to humans and animals if ingested or inhaled. It can be found throughout our environment in the air, soil, and water due to industrial pollution and past use of leaded gasoline and lead-based paint in homes. Lead and lead compounds have been used in many products found in and around homes, including paint, ceramics, pipes and plumbing materials, batteries, ammunition, and even some cosmetics. Federal and state regulations have helped to reduce the amount of lead in air, soil, drinking water, consumer products, food, and occupational settings.

What Are The Health Effects of Lead?

Because lead can be harmful to health, even at low exposure levels, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is the level of a contaminant in drinking water below which no adverse health effects would be expected to occur. MCLGs are non-enforceable health standards and based solely on possible health risks. MCLGs allow for a margin of safety.

People can come in contact with lead either by eating and drinking foods and drinks contaminated with lead or from dishes or glasses that contain lead. They may also breathe in lead dust in areas where lead-based paint is deteriorating, during renovation or repair work, or while engaging in hobbies where lead is used, such as hunting, fishing, pottery, or making stained glass. Lead can enter the body and accumulate over time, resulting in damage to the brain and kidneys. It can interfere with the production of red blood cells that carry oxygen to all parts of your body. Adults who are exposed to lead could develop decreased kidney function, high blood pressure, or reproductive problems.

Young children, infants, and fetuses are especially vulnerable to lead because the physical and behavioral effects of lead occur at lower levels of exposure in children than in adults. A dose of lead that would have little effect on an adult can have a significant, adverse effect on a child. Lead in drinking water can be especially problematic for infants, whose diets may be mostly liquids, such as baby formula or concentrated juice mixed with water. Scientists have linked the effects of lead in children with damage to the central nervous system, learning disabilities, slowed growth, hearing problems, and anemia. During pregnancy, lead can cross the placenta, exposing the developing fetus to lead. The fetus can also receive lead from the mother's bones. This can result in serious health effects such as impaired fetal growth and premature birth.

What Are The Sources of Lead?

The primary sources of lead exposure for most people, particularly 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 adults do. If you are concerned about lead exposure, parents should ask their health care providers about testing children for lead in the blood.

Lead may get into drinking water after the water has entered the distribution system and is on its way to consumers' taps. This usually happens due to the corrosion of materials containing lead in

a building's 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 services lines or in a buildings plumbing; lead solder has been banned in Virginia since 1985.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

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

1. **Run your tap water to flush out pipes.** If water hasn't been used for several hours, allow the water to run at the cold water tap for at least 30 seconds to 2 minutes or until it reaches a steady temperature before using it for drinking or cooking. The water you run from the tap does not have to be wasted. You can use this water for cleaning purposes or for watering plants. Taking a shower, doing laundry, or washing a load of laundry will also flush out the pipes in your home.
2. **Use only cold water for drinking, cooking, and for preparing baby formula.** Do not cook with or drink water from the hot water tap as lead dissolves more easily into hot water. Boiling water does not remove lead from water.
3. **Regularly clean your faucet's screen (aerator).** This can remove any trapped debris that could potentially contaminate your tap water.
4. **Look for alternative sources or treatment of water.** Water filters certified to remove lead both pre and post tap are effective at removal of lead and other contaminants from tap water. Read the package to be sure the filter is approved to reduce lead. Contact the National Sanitation Foundation (NSF) at 800-NSF-8010 or <https://www.nsf.org/consumer-resources/articles/lead-schools-older-homes> for information on performance standards for water filters. If you choose to install a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.
5. **Get your child tested.** If you are concerned about lead exposure, contact your healthcare provider or local health department to find out how you can get your child tested for lead.
6. **Determine if your plumbing fixtures contain lead.** New brass faucets, fittings, and valves, including those advertised as "lead-free", may contribute lead to drinking water. Prior to January 2014, the law allowed end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead-free". As of January 2014, the law changed the lead-free definition to only allow up to 0.2 percent lead when used with respect to solder and flux; and no more than 0.25 percent for pipes, pipe fittings, plumbing fitting, and end-use plumbing. Visit the NSF Web site at <https://www.nsf.org/consumer-resources/articles/lead-schools-older-homes> to learn more about lead-containing plumbing fixtures.

COPPER IN DRINKING WATER FACT SHEET

Copper is a reddish, naturally-occurring metal that is found in rocks, soil, water, sediment, and air. It is present in all known living organisms, including humans, as an essential element and is an essential nutrient for humans in small amounts. Therefore, plants and animals must absorb some copper from eating, drinking, and breathing. Copper is used to make different kinds of products such as electrical wiring, plumbing pipes, and sheet metal. Copper compounds are used as agricultural pesticides and to control algae in lakes and reservoirs. Copper is also combined with other metals to make brass and bronze alloys in pipes and faucets.

What Are The Health Effects of Copper?

Copper in small amounts is essential for good health due to its role in several metabolic functions in humans. However, exposure to high levels of copper can be harmful. The EPA established a Maximum Contaminant Level Goal (MCLG) of 1,300 parts per billion (ppb) for copper. The MCLG is the level of a contaminant in drinking water below which no adverse health effects would be expected to occur. MCLGs are non-enforceable health standards and based solely on possible health risks. MCLGs allow for a margin of safety.

High levels of exposure to copper will typically result in the same types of effects in children and adults. Drinking water that contains high levels of copper can cause gastrointestinal illness, such as nausea, vomiting, stomach cramps, or diarrhea. Chronic effects that can occur from long-term exposure to high copper levels are anemia and liver and kidney damage. There is no scientific data on developmental effects on the unborn child due to the mother's exposure to elevated levels of copper.

What Are The Sources of Copper?

Copper is common in the environment. You may be exposed to copper by breathing air, eating food, drinking water, and by skin contact with soil, water, and other copper-containing substances. The primary sources of copper in drinking water results from either the leaching of copper from pipes and other plumbing fixtures due to acidic water or from contaminated well water. High levels of copper may get into the environment through mining, farming, manufacturing operations, and municipal or industrial wastewater releases into rivers and lakes.

What Can I Do To Reduce Exposure to Copper in Drinking Water?

Please refer to steps 1-4 on page 3. These same actions can reduce your exposure to copper in drinking water as well.

CHANGE OF SAMPLING SITE FORM

Waterworks Name: JEB Little Creek, Waterworks #3810340

Original site address (as reported in 2016) :

Building 4172 (5006 Gela Drive)

New site address:

Building 4171 (5014 Gela Drive)

Distance between sites

(approximately): 125 feet

Targeting Criteria:

NEW: Tier 3 (1974)

OLD: Tier 3 (1974)

Reason for change:

The resident in 5006 Gela Drive refused to participate in the water monitoring.

The original site will be maintained as an alternate site.

SIGNATURE: _____

William Bounds

Water Program Manager

21-Jul-2022

NAME

TITLE

DATE

CHANGE OF SAMPLING SITE FORM

Waterworks Name: JEB Little Creek, Waterworks #3810340

Original site address (as reported in 2016) :

Building 4153 (5131 Gela Drive)

New site address:

Building 4170 (5024 Gela Drive)

Distance between sites

(approximately): 750 feet

Targeting Criteria:

NEW: Tier 3 (1974)

OLD: Tier 3 (1974)

Reason for change:

The resident in 5131 Gela Drive refused to participate in the water monitoring.

The original site will be maintained as an alternate site.

SIGNATURE: _____

William Bounds

Water Program Manager

21-Jul-2022

NAME

TITLE

DATE

CHANGE OF SAMPLING SITE FORM

Waterworks Name: JEB Little Creek, Waterworks #3810340

Original site address (as reported in 2016) :

Building 4088 (2217 Sword Road)

New site address:

Building 5038 (5038 Gunter Street)

Distance between sites

(approximately): 1600 feet

Targeting Criteria:

NEW: Tier 3 (1954)

OLD: Tier 3 (1974)

Reason for change:

The resident in 2217 Sword Road refused to participate in the water monitoring.

The original site will be maintained as an alternate site.

SIGNATURE: _____

William Bounds

Water Program Manager

21-Jul-2022

NAME

TITLE

DATE

CHANGE OF SAMPLING SITE FORM

Waterworks Name: JEB Little Creek, Waterworks #3810340

Original site address (as reported in 2016) :

Building 4023 (4944 Juno Road)

New site address:

Building 5047 (5047 Pemberton Street Street)

Distance between sites

(approximately): 2600 feet

Targeting Criteria:

NEW: Tier 3 (1954)

OLD: Tier 3 (1974)

Reason for change:

The resident in 4944 Juno Road refused to participate in the water monitoring.

The original site will be maintained as an alternate site.

SIGNATURE: _____

William Bounds

Water Program Manager

21-Jul-2022

NAME

TITLE

DATE