

Lead and Copper Sampling Plans

NJARNG Facilities
2018

Quality Assurance Round – Sampling Plan

A First Round of water sampling was conducted at NJARNG sites between 1/25/2018 and 4/13/2018 by students in the Collaborative Environmental Internship Program through Stockton University (SUEIP). Sampling was organized and managed by the Program Intern Advisor, with cooperation from DMAVA EMB staff. See “Water Sampling Results” Excel Sheet.

First Round Details

Facility Armorers were contacted prior to sampling to identify faucets that were commonly used for consumption purposes (drinking water, coffee making, food preparation, etc). SUEIP students traveled to each facility, and collected 2 samples from every targeted faucet:

First Draw – Water that had remained stagnant in the pipes for a minimum of 8 hours.

Second Draw – Sample taken after water had been flushed through the pipes for several minutes.

Armorers were instructed to place an “Out Of Order Sign” on the targeted faucets the night prior to sampling. This was to ensure that the first sample (FIRST DRAW) we collected was water that had remained stagnant in the pipes for a minimum of 8 hours prior to sampling.

Samples were taken to J.R. Henderson Labs Inc. in Beachwood, NJ for analysis within 14 days of collection. Lab results were sent to DMAVA staff and the SUEIP Intern Advisor. See “Water Sampling Results” Excel Sheet and charts below for results.

Completed	
First Round Of Water Sampling	
Total # Samples Collected	199
Total # Faucets Sampled	100
# Faucets Sampled Twice	1
# Samples Above AL	16
# Faucets Above AL	14
# Samples Below AL	183
# Faucets Below AL	86

Quality Assurance Round Plan

Background

Working within the parameters of our \$550 budget, with individual samples costing \$35 each, this only allowed for a maximum of 15 samples for the second round of water sampling.

During our first round of water sampling, we identified 5 faucets that were used DAILY and had Pb concentrations above the AL. The four daily usage faucets with the highest lead concentrations will be re-tested (Draw 1 and 2) because they pose the greatest risk.

We will also be retesting all daily, weekly, and monthly faucets that were above the AL (11 total samples). We will not be sampling any faucets that are only used annually.

Second Round Of Water Sampling	
# Faucets That Were ≥ AL with either Daily, Weekly, or Monthly Usage	11
4 Daily Usage Faucets with the Highest Lead Concentration	4
Total # Faucets To Sample	15

Methods

1. The following four faucets classified as daily usage with the highest lead concentration will be re-tested (Draw 1 and 2). See table below:

Targeted Faucets (Draw 1 and 2)

4 Daily Usage Faucets with the Highest Lead Concentration

Site	Building	Floor #	Faucet Description	Sample ID (As Written On COC Form)	Draw	Usage (Daily, Weekly, Monthly, etc)	Lead Action Level (mg/L)	Lead Results (mg/L)	Copper Action Level (mg/L)	Copper Results (mg/L)
Lawrenceville	FMS	1	Break Room Sink FMS	LVF-2-8-18-1A	1	Daily	0.015	0.093	1.3	0.5
Mercer	State Police Office	1	Break Room	MR-02-22-18-1B	2	Daily	0.015	0.048	1.3	0.07
Sea Girt	Bldg. 66 Museum	1	Water fountain	SG-03-01-18-13A	1	Daily	0.015	0.023	1.3	0.04
Newark	Armory	1	Break room sink	NK-4-13-18-1B	2	Daily	0.015	0.034	1.3	0.6

2. All other faucets with daily, weekly, and monthly usage above the AL Pb (0.015 mg/L) or Cu (1.3 mg/L) on Draw 1 or Draw 2 during the first round of water sampling will also be re-tested (Draw 1 only). See table below:

Targeted Faucets (Draw 1)

Faucets That Had Results above the AL with Daily, Weekly, and Monthly Usage

Site	Building	Floor #	Faucet Description	Sample ID (As Written On COC Form)	Draw	Faucet Usage (Daily, Weekly, Monthly, etc)	Lead Action Level (mg/L)	Lead Results (mg/L)	Copper Action Level (mg/L)	Copper Results (mg/L)
Atlantic City	Armory	1	Gym Kitchen Sink	AY-1-29-18-1A	1	Daily	0.015	0.019	1.3	0.2
Teaneck	Armory	Basement	Basement Sink 2	TNA-2-2-18-4A	1	Monthly	0.015	<0.002	1.3	5.9
Woodbridge	Armory	1	Armory Fountain *	WBE-2-15-18-1B	2	Weekly?	0.015	0.02	1.3	0.2
Woodbridge	Armory	1	Armory Kitchen	WBE-2-15-18-2A	1	Monthly	0.015	0.235	1.3	0.2
Somerset	Armory	1	Kitchen Sink 2, Food Prep, Under Space Heater	ST-2-15-18-2A	1	Monthly	0.015	0.05	1.3	1
Woodstown	Armory	1	Right sink by wall	WN-2-23-18-2A	1	Weekly	0.015	0.033	1.3	0.2
Hackettstown	Armory	1	Kitchen Sink by fire extinguisher SYS1	HACK-4-5-18-1A	1	Weekly	0.015	<0.017	1.3	0.2

All samples will be collected following the same methods as in the First Round. Quality Assurance sampling will be completed by the end of September, 2018.