



## 2020 Lead and Copper Rule Sampling Plan

### Sample Pool and Selection

The District of Columbia Water and Sewer Authority (DC Water) will collect samples from at least 100 Tier 1 sites in two semester periods—January to June 2020 and July to December 2020. Sample sites meeting Tier 1 criteria under 40 CFR §141.86(a)(3)(ii) are single family structures with either full or partial lead service lines based on DC Water’s data.

DC Water maintains a LCR “Sample Pool” of sites listed in Table 1. DC Water also receives requests from our customers to sample their tap water for lead. DC Water will include these customer-requested sites in the LCR sampling program if they meet the Tier 1 criteria: single family structures having a full lead service line based on DC Water’s customer information and service line inventory records; agree to participate in the program; and are not already in the Sample Pool.

DC Water will attempt to send sample bottles to all sites in Table 1 and to the approved customer-requested sites until at least the minimum number of valid compliance samples has been collected. In the event that the number of valid compliance samples is insufficient to meet the LCR monitoring requirements, DC Water will add sites by random selection. The randomly selected sites will have full lead service lines, be a single family structure according to DC Water customer information and service line inventory records, and the customer agrees to participate in the LCR sampling program. DC Water will retain all randomly selected sites that provide samples (homes that do not return samples will not be included in the next semester’s Sample Pool).

DC Water will schedule and distribute samples to Sample Pool sites in the order listed in Table 1. DC Water may sample locations out-of-order if the first sample submitted was rejected (refer to Criteria for Sample Acceptance section) and the customer requests a second sample kit. DC Water may also sample out-of-order if the customer contacts DC Water and requests a different sample date. DC Water will not leave a sample kit under the following conditions:

- Abandoned residence
- Partial lead service line replacement within 60 days of sample kit drop-off;
- Customer requests not to participate;
- Tier 1 status is suspect (e.g. possible condo conversion); or
- Site is undergoing rehabilitation.

DC Water will investigate to determine if the site should remain in the Sample Pool; however, the site will not be sampled until the following compliance period unless requested by the customer.

## **Sample Collection**

DC Water will collect samples between January and December 2020 (first monitoring period is January to June and the second is July to December). The homeowner will collect first and second draw samples following the instructions in the sample kit and complete the sampling form (or chain of custody; reference Appendix A). The samples will be sent to a certified laboratory, currently the Washington Aqueduct (WA), to analyze the lead, copper, and iron concentrations in the samples using Environmental Protection Agency (EPA) Method 200.8.

## **Criteria for Acceptance as a Valid Compliance Sample**

DC Water will forward samples to WA using the following criteria:

1. Bottles:
  - First draw sample bottle is full; and
  - First draw sample bottle is identified.
  
2. Sampling form or bottles must have the following information:
  - Address on bottles match address on sampling form;
  - Site is a single family structure (i.e., answered “No” to having multiple dwelling units);
  - Date and time stagnation started;
  - Date and time sample collected;
  - Stagnation time at least 6 hours;
  - No leaks or water use during stagnation; and
  - If the customer has a water treatment unit installed, they must indicate that the system was bypassed for sampling.

DC Water will attempt to obtain any missing information from incomplete sampling forms by contacting the customer. DC Water will note the customer contact by logging the customer’s name, the date, questions asked, customer’s responses, and the initials of the DC Water staff person. DC Water will transfer the missing information onto the sampling form.

## **Sample Invalidation**

DC Water will request invalidation from EPA Region III for samples analyzed by WA laboratory based on 40 CFR §141.86(f):

- The laboratory establishes that improper analysis caused erroneous results;
- The sample was taken from a site that did not meet Tier 1 criteria;
- The sample or sample container was damaged during transit; or
- There is substantial reason to suspect that the sample was subject to tampering.

DC Water will also request invalidation of samples analyzed by the WA laboratory if we learn that the sampling protocol was not followed and therefore may have affected the results.

## **Notifying Customers of Results**

In accordance with 40 CFR §141.85(d), DC Water will mail sample results to the homeowner along with lead advisory information within 30 days of receiving sample results from the laboratory. Appendix B contains the template letter used to send residents their results, which includes the required information in accordance with 40 CFR § 141.85(d)(3).

DC Water will provide customers with written notification if their copper test results exceed the copper action level.

## **Sample Pool Revisions (Table 2)**

Sites will be removed from the Sample Pool under the following conditions:

- Site does not meet Tier 1 criteria (e.g. site is not a single family structure; condo conversion, no lead service line);
- Customer notifies DC Water that they do not want to participate;
- Customer cannot provide a valid sample (e.g. water treatment unit cannot be bypassed); or
- For the last four consecutive sampling events of the site (i.e., sample kit dropped at the site), valid compliance samples were not returned from the site.

DC Water will assess the geographic distribution of the sites in the Sample Pool to ensure that they are representative of the residential lead service line distribution in the District. DC Water will select new sites to improve geographic distribution if the sites are not representative of the lead service line distribution.

## **Reporting Format**

The lead and copper monitoring report will be submitted to EPA Region III in electronic format by July 10, 2020 and January 10, 2021, which are 10 days following the end of the LCR monitoring compliance periods. The report format will comply with 40 CFR §141.90. DC Water will report lead results as “0.0000” that have been reported by the WA laboratory as non-detect (<0.0002 mg/L). DC Water will notify EPA Region III within 48 hours of determining that the 90<sup>th</sup> percentile lead or copper action level has been exceeded.

## **Optimal Corrosion Control Treatment Monitoring (OCCT)**

DC Water will monitor for the OCCT Water Quality Parameters (WQP) twice per calendar year at 10 sites as required by 40 CFR §141.87(e)(2)(i). In order to achieve seasonal variability, DC Water will collect samples quarterly at the 10 sites listed in Table 3. One set of 5 sites will be sampled in February and August and a second set of 5 sites will be sampled in May and November. The parameters monitored will be pH, dissolved orthophosphate, nitrite, and free ammonia. DC Water will report entry point data collected by the Washington Aqueduct along with the WQP distribution system data by the 10<sup>th</sup> of the month following the end of the quarter (April, July, October, and January), which is 10 days following the end of the OCCT WQP monitoring compliance period.

**Table 1. January – June 2020 Sample Pool**

<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
1	1112 BUCHANAN ST NW	Lead
2	921 Emerson St NW	Lead
3	1220 Linden Pl NE	Lead
4	322 TENNESSEE AVE NE	Lead
5	1635 WEBSTER ST NW	Lead
6	1620 Underwood St NW	Lead
7	912 15TH ST SE	Lead
8	3114 15th St NE	Lead
9	3213 OLIVER ST NW	LEAD
10	2717 11th St NW	Lead
11	3909 13TH ST NW	Lead
12	110 18th St SE	Lead
13	15 14th St SE	Lead
14	219 Underwood St NW	Lead
15	5520 CAROLINA PL NW	LEAD
16	906 Crittenden St NW	Lead
17	3205 38TH ST NW	Lead
18	2427 North Capitol St NE	Lead
19	4810 KANSAS AVE NW	Lead
20	543 TENNESSEE AVE NE	Lead
21	3838 BEECHER ST NW	Lead
22	423 GALLATIN ST NW	Lead
23	821 E ST SE	Lead
24	3928 HUNTINGTON ST NW	Lead
25	1012 DOUGLAS ST NE	Lead
26	4011 13TH ST NW	Lead
27	1425 VARNUM ST NW	Lead
28	5600 NEBRASKA AVE NW	Lead
29	3920 5TH ST NW	Lead
30	5122 7TH ST NW	Lead
31	3011 Warder St NW	LEAD
32	317 TENNESSEE AVE NE	Lead
33	1505 CRITTENDEN ST NW	Lead
34	511 Tennessee Ave NE	LEAD
35	1115 C St NE	Lead
36	4536 Lowell St NW	Lead
37	2717 O ST NW	Lead
38	1648 ARGONNE PL NW	Lead
39	1167 Abbey Pl NE	Lead
40	114 MADISON ST NW	Lead
41	1326 G ST SE	Lead
42	2325 WYOMING AVE NW	Lead
43	338 14th St SE	Lead

No	Address	Pipe Material
44	3407 ORDWAY ST NW	LEAD
45	4529 Douglas St NE	Lead
46	3004 Alabama Ave SE	Lead
47	324 Douglas St NE	Lead
48	3074 Clinton St NE	Lead
49	1823 Monroe St NE	Lead
50	3567 Holmead PI NW	Lead
51	2414 Observatory PI NW	Lead
52	423 Shepherd St NW	Lead
53	1408 DECATUR ST NW	Lead
54	5427 Nevada Ave NW	Lead
55	525 9TH ST SE	Lead
56	1402 MORSE ST NE	Lead
57	1829 Monroe St NE	Lead
58	305 7th St NE	Lead
59	408 16th St SE	Lead
60	2325 32ND ST SE	Lead
61	3307 Woodley RD NW	Lead
62	109 Bates St NW	Lead
63	2435 33RD ST SE	Lead
64	1341 GALLATIN ST NW	Lead
65	5601 32ND ST NW	LEAD
66	412 BRANDYWINE ST SE	Lead
67	912 EVARTS ST NE	Lead
68	5312 ILLINOIS AVE NW	Lead
69	3636 13TH ST NW	Lead
70	450 Newton PI NW	Lead
71	3727 T St NW	Lead
72	1505 Buchanan St NW	Lead
73	4624 9TH ST NW	LEAD
74	1519 Olive St NE	Lead
75	2923 Cathedral AVE NW	Lead
76	132 11th St SE	LEAD
77	5019 16TH ST NW	LEAD
78	2913 Brandywine St NW	Lead
79	3221 OLIVER ST NW	LEAD
80	1346 F St NE	Lead
81	4425 14th St NE	Lead
82	2032 37TH ST NW	Lead
83	4014 Grant St NE	Lead
84	313 5TH ST NE	Lead
85	3822 Albemarle St NW	Lead
86	3420 34th St NW	Lead
87	3916 KANSAS AVE NW	Lead

No	Address	Pipe Material
88	1100 EAST CAPITOL ST NE	Lead
89	923 9TH ST NE	Lead
90	522 4TH ST SE	Lead
91	3629 Everett St NW	LEAD
92	106 V St NE	LEAD
93	3309 35TH ST NW	Lead
94	502 A ST SE	Lead
95	1020 INDEPENDENCE AVE SE	Lead
96	10 S St NW	Lead
97	559 23rd PL NE	Lead
98	3708 Reno Rd NW	LEAD
99	1620 Webster St NW	Lead
100	3670 Park PI NW	LEAD
101	118 18TH ST SE	LEAD
102	3710 Huntington St NW	Lead
103	3206 38th St NW	Lead
104	1247 GIRARD ST NE	LEAD
105	702 9th St SE	Lead
106	804 Delafield PI NW	Lead
107	1806 LAWRENCE ST NE	Lead
108	3743 W ST NW	LEAD
109	1706 NEW JERSEY AVE NW	Lead
110	6806 LAUREL ST NW	LEAD
111	3908 13TH ST NW	Lead
112	2007 37TH ST NW	Lead
113	228 V ST NE	Lead
114	926 Hamilton St NW	Lead
115	1826 Jackson St NE	Lead
116	5731 3rd PI NW	Lead
117	912 Emerson St NW	Lead
118	5923 33rd St NW	Lead
119	1703 D St NE	Lead
120	4703 Macarthur Blvd NW	Lead
121	3211 Central Ave NE	Lead
122	1649 HARVARD ST NW	Lead
123	4418 14th St NE	Lead
124	307 South Carolina Ave SE	LEAD
125	1123 BUCHANAN ST NW	LEAD
126	619 12th St NE	Lead
127	905 Kent PI NE	Lead
128	1354 D St SE	Partial Lead
129	1437 Ives PI SE	Partial Lead
130	4607 5th St NW	Partial Lead
131	4707 GEORGIA AVE NW	Partial Lead

<b>No</b>	<b>Address</b>	<b>Pipe Material</b>
132	523 12th st NE	Partial Lead
133	722 5th St NE	Partial Lead
134	1420 INGRAHAM ST NW	Partial Lead
135	3416 9th St NE	Partial Lead
136	3036 P St NW	Partial Lead
137	1453 S St NW	Partial Lead
138	15 Milmarson Pl NW	Partial Lead
139	308 9th St SE	Partial Lead
140	36 Florida Ave NW	Partial Lead
141	1222 HAMILTON ST NW	Partial Lead
142	313 10TH ST SE	Partial Lead
143	1211 Carrollsburg Pl SW	Partial Lead
144	5223 KANSAS AVE NW	Partial Lead
145	744 9TH ST SE	Partial Lead
146	1529 27TH ST NW	Partial Lead
147	4233 JENIFER ST NW	Partial Lead
148	4002 ILLINOIS AVE NW	Partial Lead
149	414 DOUGLAS ST NE	Partial Lead
150	3724 CHESAPEAKE ST NW	Partial Lead
151	1808 KEARNY ST NE	Partial Lead
152	6213 7TH ST NW	Partial Lead
153	4818 8th ST NW	Partial Lead
154	1332 Ritchie Pl NE	Partial Lead
155	3809 ALTON Pl NW	Partial Lead
156	5337 BROAD BRANCH RD NW	Partial Lead
157	5404 39TH ST NW	Partial Lead
158	2408 2nd St NE	Partial Lead
159	3301 BROWN St NW	Partial Lead
160	231 K St NE	Partial Lead
161	1353 JEFFERSON ST NW	Partial Lead
162	1412 S St NW	Partial Lead
163	3917 8th St NW	Partial Lead
164	3907 13th St NW	Partial Lead
165	4215 39th St NW	Partial Lead
166	4926 Glenbrook Rd NW	Partial Lead
167	5700 SHERIER Pl NW	Partial Lead
168	3030 44TH ST NW	Partial Lead

**Table 2. Sites Added, Removed, and Pipe Material Changed  
From the Previous Sample Pool (2019 July – December)**

No	Address	Change	Reason for Removal
1	1119 C ST NE	Removed	Customer requested to not participate in program; removed from Sample Pool on 7/25/2019
2	119 16TH ST NE	Removed	Customer requested to not participate in program; removed from Sample Pool on 8/23/2019
3	1243 34th St NW	Removed	Full LSR on 9/24/2019
4	1513 Varnum St NW	Removed	Removed; added to Sample Pool in Jul-Dec 2019 monitoring period and did not return samples
5	1613 Webster St NW	Removed	Full LSR on 7/12/2019
6	1653 Gales St NE	Removed	Full LSR on 1/9/2020
7	2217 39TH ST NW	Removed	Removed; added to Sample Pool in Jul-Dec 2019 monitoring period and did not return samples
8	24 16th St NE	Removed	Full LSR on 12/18/2019
9	2942 Ordway St NW	Removed	Customer requested to not participate in program; removed from Sample Pool on 7/25/2019
10	3217 7TH ST NE	Removed	Full LSR on 9/19/2019
11	3400 ORDWAY ST NW	Removed	Did not return valid samples in last four sampling events
12	3608 Park PI NW	Removed	Did not return valid samples in last four sampling events
13	3718 CHESAPEAKE ST NW	Removed	Full LSR on 6/3/2019
14	3757 Benton St NW	Removed	Removed; added to Sample Pool in Jul-Dec 2019 monitoring period and did not return samples
15	3811 LEGATION ST NW	Removed	Removed; added to Sample Pool in Jul-Dec 2019 monitoring period and did not return samples
16	421 Hamilton St NW	Removed	Did not return valid samples in last four sampling events
17	422 Independence Ave SE	Removed	Full LSR on 6/7/2019
18	427 6th St NE	Removed	Full LSR on 9/23/2019
19	431 Tennessee Ave NE	Removed	Did not return valid samples in last four sampling events
20	4806 Kansas Ave NW	Removed	Full LSR on 6/24/2019
21	4929 GLENBROOK RD NW	Removed	Full LSR on 9/25/2019
22	5301 RENO RD NW	Removed	Did not return valid samples in last four sampling events
23	5306 KANSAS AVE NW	Removed	Did not return valid samples in last four sampling events
24	6322 31st St NW	Removed	Point-of-entry filter cannot be bypassed; added to Sample Pool in Jul-Dec 2019 monitoring period
25	6409 7TH ST NW	Removed	Did not return valid samples in last four sampling events
26	6516 8TH ST NW	Removed	Did not return valid samples in last four sampling events
27	7120 Piney Branch RD NW	Removed	Removed; added to Sample Pool in Jul-Dec 2019 monitoring period and did not return samples
28	914 Evarts St NE	Removed	Full LSR on 9/4/2019
29	928 10th St NE	Removed	Full LSR on 6/19/2019
30	110 18th St SE	Added	Added to Sample Pool on 10/21/2019
31	1112 BUCHANAN ST NW	Added	Added to Sample Pool on 10/28/2019
32	114 MADISON ST NW	Added	Added to Sample Pool on 9/5/2019
33	1341 GALLATIN ST NW	Added	Added to Sample Pool on 8/12/2019



No	Address	Change	Reason for Removal
34	1402 MORSE ST NE	Added	Added to Sample Pool on 8/14/2019
35	1408 DECATUR ST NW	Added	Added to Sample Pool on 8/20/2019
36	15 14th St SE	Added	Added to Sample Pool on 9/19/2019
37	1620 Underwood St NW	Added	Added to Sample Pool on 11/18/2019
38	219 Underwood St NW	Added	Added to Sample Pool on 9/10/2019
39	2325 32ND ST SE	Added	Added to Sample Pool on 7/18/2019
40	24 16th ST NE	Added	Added to Sample Pool on 7/8/2019
41	2414 Observatory Pl NW	Added	Added to Sample Pool on 8/28/2019
42	305 7th St NE	Added	Added to Sample Pool on 7/29/2019
43	3114 15th St NE	Added	Added to Sample Pool on 10/15/2019
44	317 TENNESSEE AVE NE	Added	Added to Sample Pool on 9/5/2019
45	3567 Holmead Pl NW	Added	Added to Sample Pool on 7/29/2019
46	3909 13TH ST NW	Added	Added to Sample Pool on 10/24/2019
47	423 Shepherd St NW	Added	Added to Sample Pool on 8/23/2019
48	525 9TH ST SE	Added	Added to Sample Pool on 8/19/2019
49	5427 Nevada Ave NW	Added	Added to Sample Pool on 8/13/2019
50	5700 SHERIER PL NW	Added	Added to Sample Pool on 10/28/2019, POE 11/07/2019 photo shows copper,
51	906 Crittenden St NW	Added	Added to Sample Pool on 11/21/2019
52	912 15TH ST SE	Added	Added to Sample Pool on 9/5/2019
53	5923 33rd St NW	Pipe material	Pipe material changed from Partial to Full Lead; customer previously reported galvanized iron pipe entering home and later conducted magnet test which indicated non-iron pipe
54	1354 D St SE	Pipe material	Pipe material changed from Full Lead to Partial Lead based on picture of pipe at point-of-entry shows copper pipe
55	15 Milmarson Pl NW	Pipe material	Pipe material changed from Full Lead to Partial Lead based on picture of pipe at point-of-entry shows copper pipe
56	523 12th st NE	Pipe material	Pipe material changed from Full Lead to Partial Lead based on picture of pipe at point-of-entry shows copper pipe

Notes for Table 2:

<sup>1</sup> Sites are added when a customer contacts DC Water to request a lead test, and agree to participate in the Lead and Copper Monitoring Program. DC Water confirms that the address met Tier 1 criteria under 40 CFR 141.86(a)(3)(ii) as single family structure with a full lead service line based on DC Water's customer information and service line inventory records.

<sup>2</sup>Customers that do not return valid samples for four consecutive LCR sampling events are removed from the Sample Pool.

**Table 3**  
**Sample Sites for OCCT**

	<b>Site ID</b>	<b>Location</b>	<b>Sample Month</b>
1	2H-3 BKJV	Truesdale Elementary School, 800 Ingraham St NW	Feb, Aug
2	3H-3 BKJV	St. Johns High School @ 27th & Military	Feb, Aug
3	A1H-5	BP Gas Station, 5207 Nannie Helen Burroughs Ave NE	Feb, Aug
4	1H-14	FH # 12, 2225 5 <sup>th</sup> St NE	Feb, Aug
5	4H-9	FH #20, 4300 Wisconsin Ave NW	Feb, Aug
6	A3H-5	Dept. of Human Services, 3851 Alabama Ave SE	May, Nov
7	L-4	Harbor Police Station, 550 water St SW	May, Nov
8	A2-H8	My 3 Sons Barber Shop, 3125 MLK Ave SE	May, Nov
9	L-27	Starbucks, 325 7 <sup>th</sup> St NW	May, Nov
10	3H-14	Spicy Delight, 308 Carroll St NW	May, Nov