

Seattle Public Schools
Drinking Water Quality Program

Results of Water Quality Testing
for
SEWARD (TOPS K-8) SCHOOL

Updated June 19, 2019

General Information:

Plumbing piping materials: mainly copper

Remediation plan:

This remediation plan is based on a Water Quality policy approved by the School Board. The policy includes standards for the presence of lead, cadmium, copper, iron and other substances in drinking water.

Sinks (S in the report) are not considered drinking water sources. We recognize that there is the potential for students to want to drink from classroom hand-washing sinks, so we test all of those. Where a student's choice to drink from a sink could be a problem, we post a reminder sign, as we do at all restroom sinks.

Status:

Policy Criteria:

All sources meet the policy criteria.

Follow-up monitoring: Will be performed in school year 2021-2022.

Service: The school will be flushed after any breaks longer than five days.

Water Quality Testing Results:

Legend

Symbol	Definition
SE	service entry (main)
B	bubbler
S	sink (faucet)
B/S	sink/bubbler combination
S/B	sink/bubbler combination
ppb	parts per billion
ppm	parts per million
NA	not applicable
None	no action required
Unk	unknown status or action
Sample	sample needs to be taken
Re-test	fixture needs to be resampled
Conf	resample to confirm measurement
No flush	not flushed before sampling
Sink	sampled faucet of S/B combo
Used	recently used; no 1st draw sample possible
PS	post sign
Disable(d)	fixture disabled in response to water quality testing
BDSS	Bubbler disabled, sign on sink
IF	install filter
RB	replace bubbler
RB/IF	replace bubbler and/or install filter
RF	replace faucet
RF/IF	replace faucet and/or install filter
BW	disable fixture and provide bottled water until remediated
Leaks	leaking fixture
NW	not working properly (sample S when B of S/B NW)
OS	out of service - disabled until fixed
RS	return to service - now passes testing
Rem	Removed from system - no longer exists

Table 1. Summary of Results

FIXTURE INFORMATION			LEAD		CADMIUM		COPPER		IRON		OK?
Fixture ID	Type	Location	Pass/Fail	Status	Pass/Fail	Status	Pass/Fail	Status	Pass/Fail	Status	Yes/No/Status
01	B	hallway near 204, left	P	None	P	None	P	None			Yes
02	B	hallway near 204, right	P	None	P	None	P	None			Yes
03	B	gym	P	None	P	None	P	None			Yes
04	B	hallway near 2nd floor lavs, left	P	None	P	None	P	None	P	None	Yes
05	B	hallway near 2nd floor lavs, right	P	None	P	None	P	None			Yes
06	B	hallway near rm C102	P	None	P	None	P	None			Yes
07	B	hallway near rm C102	P	None	P	None	P	None	P	None	Yes
09	B	hallway near 3rd floor commons, left	P	RS	P	None	P	None	P	None	Yes
10	B	hallway near 3rd floor commons, right	P	RS	P	None	P	None	P	None	Yes
11	S	nurse's office	P	None	P	None	P	None	P	None	Yes
12	B	hallway near 3rd floor girl's lav, left	P	None	P	None	P	None			Yes
13	B	hallway near 3rd floor girl's lav, right	P	None	P	None	P	None			Yes
14	B	hallway near 4th floor room 404, left	P	None	P	None	P	None	P	None	Yes
15	B	hallway near 4th floor room 404, right	P	None	P	None	P	None	P	None	Yes
16	S	lounge (1st floor)	P	None	P	None	P	None	P	None	Yes
17	S	kitchen. Middle	P	None	P	None	P	None	P	None	Yes
19	S	room C103	P	None	P	None	P	None			Yes
20	S	room C104	P	None	P	None	P	None			Yes
21	S	room C105	P	None	P	None	P	None	P	None	Yes
22	S	room C106	P	None	P	None	P	None	P	None	Yes
23	S	room C102	P	None	P	None	P	None			Yes
24	S	room C101	P	None	P	None	P	None	P	None	Yes
26	S	room C201	P	None	P	None	P	None	P	None	Yes
27	S	room C301	P	None	P	None	P	None			Yes
28	S	room C302	P	None	P	None	P	None			Yes
29	S	room C303	P	None	P	None	P	None			Yes
30	S	room C304	P	None	P	None	P	None	P	None	Yes
31	S	room B205	P	None	P	None	P	None	P	None	Yes
32	S	room B204	P	None	P	None	P	None	P	None	Yes
33	S	room B203	P	None	P	None	P	None	P	None	Yes
34	S	room B202	P	None	P	None	P	None	P	None	Yes
35	S	room B201	P	None	P	None	P	None	P	None	Yes
36	S	room B301	P	None	P	None	P	None	P	None	Yes
37	S	room B302	P	None	P	None	P	None	P	None	Yes
40	S	room B304 (science)	P	None	P	None	P	None	P	None	Yes
41	S	room B404	P	None	P	None	P	None			Yes
42	S	room B403	P	None	P	None	P	None			Yes
43	S	room B402	P	None	P	None	P	None			Yes
45	S	Kitchen south	P	None	P	None	P	None	P	None	Yes
46	S	custodian office	P	None	P	None	P	None	P	None	Yes
47	S	library office	P	None	P	None	P	None	P	None	Yes
48	S	main office	P	None	P	None	P	None	P	None	Yes
50	B	bottle filler at Gym	P	None	P	None	P	None			Yes

Table 2. Lead Test Results

FIXTURE INFORMATION			11/5/2009			11/21/2012			11/25/2015			5/23/2019			Summary Status	
Fixture ID	Type	Location	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	Pass/Fail	Status
01	B	hallway near 204, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
02	B	hallway near 204, right	<1	<1	P	<1	<1	P	1	<1	P	<1	1	P	P	None
03	B	gym	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
04	B	hallway near 2nd floor lavs, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
05	B	hallway near 2nd floor lavs, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
06	B	hallway near rm C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
07	B	hallway near rm C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
09	B	hallway near 3rd floor commons, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	RS
10	B	hallway near 3rd floor commons, right	<1	<1	P	<1	<1	P	<1	<1	P				P	RS
11	S	nurse's office	1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
12	B	hallway near 3rd floor girl's lav, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
13	B	hallway near 3rd floor girl's lav, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
14	B	hallway near 4th floor room 404, left	<1	<1	P	<1	<1	P	1	<1	P	<1	<1	P	P	None
15	B	hallway near 4th floor room 404, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
16	S	lounge (1st floor)	<1	<1	P	2	<1	P	<1	<1	P	<1	<1	P	P	None
17	S	kitchen. Middle	4	<1	P	3	<1	P	2	<1	P	2	<1	P	P	None
19	S	room C103	<1	<1	P	<1	<1	P	<1	<1	P	1	<1	P	P	None
20	S	room C104	1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
21	S	room C105	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
22	S	room C106	2	<1	P	1	<1	P	<1	<1	P	<1	1	P	P	None
23	S	room C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
24	S	room C101	1	<1	P	<1	<1	P	<1	<1	P	1	<1	P	P	None
26	S	room C201	1	1	P	<1	<1	P	1	<1	P	<1	<1	P	P	None
27	S	room C301	2	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
28	S	room C302	1	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
29	S	room C303	1	<1	P	2	<1	P	<1	<1	P	<1	<1	P	P	None
30	S	room C304	1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
31	S	room B205	1	<1	P	1	<1	P	1	<1	P	<1	<1	P	P	None
32	S	room B204	1	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
33	S	room B203	1	<1	P	2	<1	P	2	<1	P	<1	<1	P	P	None
34	S	room B202	1	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
35	S	room B201	1	1	P	2	<1	P	<1	<1	P	<1	<1	P	P	None
36	S	room B301	1	<1	P	1	<1	P	1	<1	P	1	<1	P	P	None
37	S	room B302	2	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
40	S	room B304 (science)	2	<1	P	3	<1	P	<1	<1	P	<1	<1	P	P	None
41	S	room B404	2	<1	P	1	<1	P	1	<1	P	<1	<1	P	P	None
42	S	room B403	2	<1	P	2	<1	P	1	<1	P	<1	<1	P	P	None
43	S	room B402	1	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
45	S	Kitchen south	3	<1	P	1	<1	P	5	<1	P	<1	<1	P	P	None
46	S	custodian office	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
47	S	library office	1	<1	P	1	<1	P	<1	<1	P	<1	<1	P	P	None
48	S	main office	<1	<1	P	1	<1	P	1	<1	P	<1	<1	P	P	None
50	B	bottle filler at Gym										<1	<1	P	P	None

Table 3. Cadmium Test Results

FIXTURE INFORMATION			11/5/2009			11/21/2012			11/25/2015			5/23/2019			Summary Status	
Fixture ID	Type	Location	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	Pass/Fail	Status
01	B	hallway near 204, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
02	B	hallway near 204, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
03	B	gym	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
04	B	hallway near 2nd floor lavs, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
05	B	hallway near 2nd floor lavs, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
06	B	hallway near rm C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
07	B	hallway near rm C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
09	B	hallway near 3rd floor commons, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
10	B	hallway near 3rd floor commons, right	<1	<1	P	<1	<1	P	<1	<1	P				P	None
11	S	nurse's office	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
12	B	hallway near 3rd floor girl's lav, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
13	B	hallway near 3rd floor girl's lav, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
14	B	hallway near 4th floor room 404, left	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
15	B	hallway near 4th floor room 404, right	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
16	S	lounge (1st floor)	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
17	S	kitchen. Middle	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
19	S	room C103	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
20	S	room C104	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
21	S	room C105	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
22	S	room C106	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
23	S	room C102	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
24	S	room C101	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
26	S	room C201	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
27	S	room C301	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
28	S	room C302	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
29	S	room C303	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
30	S	room C304	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
31	S	room B205	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
32	S	room B204	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
33	S	room B203	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
34	S	room B202	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
35	S	room B201	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
36	S	room B301	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
37	S	room B302	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
40	S	room B304 (science)	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
41	S	room B404	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
42	S	room B403	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
43	S	room B402	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
45	S	Kitchen south	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
46	S	custodian office	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
47	S	library office	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
48	S	main office	<1	<1	P	<1	<1	P	<1	<1	P	<1	<1	P	P	None
50	B	bottle filler at Gym										<1	<1	P	P	None

Table 4. Copper Test Results

FIXTURE INFORMATION			11/5/2009			11/21/2012			11/25/2015			5/23/2019			Summary Status	
Fixture ID	Type	Location	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	1st Draw	Flush 30s	Pass/Fail	Pass/Fail	Status
01	B	hallway near 204, left	0.342	0.187	P	0.174	0.092	P	0.154	0.112	P	0.192	0.126	P	P	None
02	B	hallway near 204, right	0.266	0.202	P	0.178	0.164	P	0.104	0.06	P	0.064	0.123	P	P	None
03	B	gym	0.351	0.342	P	0.152	0.179	P	0.11	0.121	P	0.117	0.125	P	P	None
04	B	hallway near 2nd floor lavs, left	0.302	0.343	P	0.168	0.1	P	0.137	0.104	P	0.159	0.135	P	P	None
05	B	hallway near 2nd floor lavs, right	0.335	0.229	P	0.15	0.099	P	0.124	0.098	P	0.137	0.115	P	P	None
06	B	hallway near rm C102	0.295	0.185	P	0.117	0.07	P	0.071	0.053	P	0.096	0.067	P	P	None
07	B	hallway near rm C102	0.29	0.162	P	0.128	0.072	P	0.065	0.051	P	0.052	0.021	P	P	None
09	B	hallway near 3rd floor commons, left	0.284	0.251	P	0.176	0.081	P	0.119	0.061	P	0.145	0.082	P	P	None
10	B	hallway near 3rd floor commons, right	0.197	0.192	P	0.083	0.072	P	0.071	0.058	P				P	None
11	S	nurse's office	0.394	0.182	P	0.245	0.123	P	0.189	0.087	P	0.266	0.092	P	P	None
12	B	hallway near 3rd floor girl's lav, left	0.662	0.152	P	0.191	0.113	P	0.143	0.119	P	0.163	0.147	P	P	None
13	B	hallway near 3rd floor girl's lav, right	0.192	0.205	P	0.106	0.082	P	0.09	0.055	P	0.117	0.066	P	P	None
14	B	hallway near 4th floor room 404, left	0.391	0.306	P	0.215	0.181	P	0.179	0.088	P	0.216	0.163	P	P	None
15	B	hallway near 4th floor room 404, right	0.306	0.235	P	0.119	0.083	P	0.166	0.135	P	0.127	0.097	P	P	None
16	S	lounge (1st floor)	0.502	0.085	P	0.332	0.289	P	0.124	0.098	P	0.169	0.101	P	P	None
17	S	kitchen. Middle	0.404	0.469	P	0.221	0.283	P	0.142	0.169	P	0.234	0.224	P	P	None
19	S	room C103	0.378	0.338	P	0.247	0.19	P	0.163	0.128	P	0.279	0.099	P	P	None
20	S	room C104	0.32	0.31	P	0.191	0.131	P	0.139	0.079	P	0.236	0.189	P	P	None
21	S	room C105	0.3	0.268	P	0.184	0.172	P	0.136	0.093	P	0.171	0.111	P	P	None
22	S	room C106	0.431	0.23	P	0.205	0.211	P	0.162	0.16	P	0.187	0.151	P	P	None
23	S	room C102	0.328	0.255	P	0.143	0.133	P	0.116	0.095	P	0.182	0.127	P	P	None
24	S	room C101	0.424	0.179	P	0.199	0.12	P	0.138	0.058	P	0.165	0.035	P	P	None
26	S	room C201	0.684	0.4	P	0.229	0.218	P	2.08	0.176		0.229	0.21	P	P	None
27	S	room C301	0.34	0.208	P	0.18	0.098	P	0.128	0.095	P	0.159	0.089	P	P	None
28	S	room C302	0.254	0.199	P	0.147	0.135	P	0.131	0.058	P	0.012	0.012	P	P	None
29	S	room C303	0.255	0.31	P	0.181	0.091	P	0.131	0.094	P	0.156	0.018	P	P	None
30	S	room C304	0.315	0.305	P	0.182	0.164	P	0.143	0.097	P	0.138	0.137	P	P	None
31	S	room B205	0.31	0.374	P	0.184	0.188	P	0.174	0.156	P	0.15	0.067	P	P	None
32	S	room B204	0.335	0.231	P	0.153	0.143	P	0.135	0.095	P	0.134	0.095	P	P	None
33	S	room B203	0.246	0.154	P	0.183	0.175	P	0.132	0.065	P	0.115	0.052	P	P	None
34	S	room B202	0.272	0.295	P	0.141	0.157	P	0.11	0.054	P	0.11	0.056	P	P	None
35	S	room B201	0.424	0.465	P	0.215	0.242	P	0.153	0.138	P	0.215	0.07	P	P	None
36	S	room B301	0.499	0.418	P	0.245	0.24	P	0.24	0.233	P	0.214	0.199	P	P	None
37	S	room B302	0.32	0.152	P	0.155	0.063	P	0.11	0.04	P	0.12	0.044	P	P	None
40	S	room B304 (science)	0.45	0.451	P	0.288	0.126	P	0.191	0.042	P	0.228	0.018	P	P	None
41	S	room B404	0.275	0.25	P	0.129	0.096	P	0.08	0.06	P	0.098	0.049	P	P	None
42	S	room B403	0.515	0.253	P	0.273	0.155	P	0.213	0.13	P	0.216	0.115	P	P	None
43	S	room B402	0.429	0.39	P	0.33	0.331	P	0.27	0.253	P	0.293	0.276	P	P	None
45	S	Kitchen south	0.514	0.33	P	0.259	3.22		0.164	0.17	P	0.213	0.128	P	P	None
46	S	custodian office	0.301	0.212	P	0.202	0.143	P	0.094	0.095	P	0.189	0.179	P	P	None
47	S	library office	0.448	0.423	P	0.238	0.22	P	0.129	0.08	P	0.159	0.09	P	P	None
48	S	main office	0.334	0.253	P	0.302	0.247	P	0.261	0.167	P	0.292	0.131	P	P	None
50	B	bottle filler at Gym										0.144	0.124	P	P	None

Table 5. Iron Test Results

FIXTURE INFORMATION			11/5/2009		11/21/2012		11/25/2015		5/23/2019		Summary Status	
Fixture ID	Type	Location	Flush 2m	Pass/Fail	Flush 2m	Pass/Fail	Flush 2m	Pass/Fail	Flush 2m	Pass/Fail	Pass/Fail	Status
01	B	hallway near 204, left										
02	B	hallway near 204, right										
03	B	gym										
04	B	hallway near 2nd floor lavs, left									P	None
05	B	hallway near 2nd floor lavs, right										
06	B	hallway near rm C102										
07	B	hallway near rm C102					<0.05	P			P	None
09	B	hallway near 3rd floor commons, left							<0.05	P	P	None
10	B	hallway near 3rd floor commons, right									P	None
11	S	nurse's office									P	None
12	B	hallway near 3rd floor girl's lav, left										
13	B	hallway near 3rd floor girl's lav, right										
14	B	hallway near 4th floor room 404, left	<0.05	P							P	None
15	B	hallway near 4th floor room 404, right			<0.05	P					P	None
16	S	lounge (1st floor)					<0.05	P			P	None
17	S	kitchen. Middle							<0.05	P	P	None
19	S	room C103										
20	S	room C104										
21	S	room C105	<0.05	P							P	None
22	S	room C106			<0.05	P					P	None
23	S	room C102										
24	S	room C101					<0.05	P			P	None
26	S	room C201							<0.05	P	P	None
27	S	room C301										
28	S	room C302										
29	S	room C303										
30	S	room C304	<0.05	P							P	None
31	S	room B205			<0.05	P					P	None
32	S	room B204					<0.05	P			P	None
33	S	room B203							<0.05	P	P	None
34	S	room B202	<0.05	P							P	None
35	S	room B201			<0.05	P					P	None
36	S	room B301	<0.05	P							P	None
37	S	room B302			<0.05	P					P	None
40	S	room B304 (science)					0.053	P			P	None
41	S	room B404										
42	S	room B403										
43	S	room B402										
45	S	Kitchen south	<0.05	P							P	None
46	S	custodian office			<0.05	P					P	None
47	S	library office					<0.05	P			P	None
48	S	main office							<0.05	P	P	None
50	B	bottle filler at Gym										

Table 6. Service Entry Test Results

Test Results (Service Entry/SE, Units as Shown)						
SOURCE INFORMATION			Most Recent Sampling			
Fixture ID	Type	Location	Item	Sampled	Max Value	Pass/Fail
00	SE	boiler room	Arsenic	25-Nov-15	2 ppb	P
00	SE	boiler room	Cadmium	23-May-19	1 ppb	P
00	SE	boiler room	Chlorine	20-May-04	1.1 ppm	P
00	SE	boiler room	Copper	23-May-19	0.021 ppm	P
00	SE	boiler room	Iron	23-May-19	<0.05 ppm	P
00	SE	boiler room	Lead	23-May-19	1 ppb	P
00	SE	boiler room	Total Coliforms	05-Nov-09	<1 Colonies	P

"<" means: less than the value shown (below analytical detection limits).

"n/a" means: not applicable.

Table 7. Bacteriological Test Results

Bacteriological Characteristics

Bacteriological testing of selected samples indicated no (zero) coliform bacteria.