MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

LEAD AND COPPER REPORT AND CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY FORM A – SUPPLIES WITH LEAD SERVICE LINES

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.
Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: City of Royal Oak
2. County: Oakland 3. WSSN: 05830
4. Population: 57,236 5. Monitoring Period: From: 6/1/2022 To: 9/30/2022
6. Minimum # of Samples Required: 30 7. # of Samples Taken: 31
8. Name of Certified Laboratory: Paragon Labs

9. SAMPLE CRITERIA:

This form is for water supplies collecting ***some*** or ***all*** lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.			
Yes	No		
☒	☐	Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.	For more information see *Instructions* item 11 "Tier and Sample Category" at the end of the document.
☒	☐	Did you prioritize sample collection according to the following: • Tier 1 sites must be used unless insufficient Tier 1 sites available. • If insufficient Tier 1 sites available, then Tier 2 sites must be used. • If insufficient Tier 2 sites, then Tier 3 sites must be used. • If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.	
☐	☒	Were the same sampling sites used as in the previous monitoring period? **If no, explain** (attach additional pages if needed): Only one site was from previous test. The others have had their service line replaced.	
Comments:			

10. SIGNATURE:

Name: Aaron Filipski Signature: 

Title: Director of Public Services Phone: 248.246.3313 Date: 8/12/2022

11. TAP SAMPLING DATA

Use additional sheets as needed. Sheet _____ of _____.

Water Supply Name: City of Royal Oak

WSSN: 05830

Sample Location	Sample Date	Tier (1,2,3,OT)[1]	Category (see below)[2]	Service Line (L*,C,G,P)[3]	Building Plumbing (L,CLS, C,G,P)[3]	Tap Type (K,B)[4]	1st Liter Sample			5th Liter Sample		
							Lead ☐ mg/L ☐ ug/L	Copper ☐ mg/L ☐ ug/L	Lab Sample Number	Lead ☐ mg/L ☐ ug/L	Copper ☐ mg/L ☐ ug/L	Lab Sample Number
SEE ATTACHED												

[1] Tier	[2] Category	Description	[1] Tier	[2] Category	Description	[3] Material	[4] Tap Type
Tier 1	A*	Single Family w/ lead service line (LSL)	Tier 2	D*	Multi Family or building w/ LSL	L = Lead CLS = Copper with lead solder (building plumbing only) C = Copper G = Galvanized P = Plastic	K = Kitchen Sink B = Bathroom Sink O = Other (not an option for residential sites)
	B	Single Family w/ interior lead plumbing		E	Multi Family or building w/ interior lead plumbing		
	C*	Multi Family Residence (MFR) w/ a LSL, if MFRs comprise at least 20% of total service connections.	Tier 3	F	Single Family w/ copper plumbing with lead solder installed before 1988		
	* Use Report Form A if any samples collected were from sites with LSLs to allow reporting of 1st and 5th liter results.		Other	OT	If no Tier 1, 2, 3 sites, use sites representative of plumbing commonly found throughout the supply.		

City of Royal Oak 2022 Lead and Copper Testing

Sample Location							1st Liter					5th Liter					
Number	Street	Sample Date	Tier	Bldg Plmbg	Service Line	Tap Type	Pb (mg/L)	Pb (ppb)	Cu (mg/L)	Cu (ppb)	Lab #	Pb (mg/L)	Pb (ppb)	Cu (mg/L)	Cu (ppb)	Lab #	Results Sent
205	12 Mile W	6/28/2022	1A		L	K	<0.0010	<1.0	0.14	140	3787340001	<0.0010	<1.0	0.015	15	3787340002	7/26/2022
4451	Arlington	6/28/2022	1A		L	K	0.0012	1.2	0.077	77	3787340003	0.0038	3.8	0.011	11	3787340004	7/26/2022
1203	Blair N	6/28/2022	1A		L	K	0.0020	2	0.018	18	3787340005	0.0066	6.6	0.015	15	3787340006	7/26/2022
1321	Blair N	6/28/2022	1A		L	K	0.0046	4.6	0.26	260	3787340007	0.022	22	0.046	46	3787340008	7/26/2022
339	California	6/28/2022	1A		L	K	<0.0010	<1.0	0.0036	3.6	3787340009	<0.0010	<1.0	0.0033	3.3	3787340010	7/26/2022
1306	Mayfield	6/29/2022	1A		L	K	0.0019	1.9	0.057	57	3787340011	0.0068	6.8	0.012	12	3787340012	7/26/2022
730	Laurel S	6/29/2022	1A		L	K	<0.0010	<1.0	0.018	18	3787340013	<0.0010	<1.0	0.003	3	3787340014	7/26/2022
1107	12 Mile W	6/28/2022	1A		L	K	0.0016	1.6	0.068	68	3787340015	0.0048	4.8	0.018	18	3787340016	7/26/2022
1223	Altadena N	6/28/2022	1A		L	K	0.0021	2.1	0.3	300	3787340017	0.015	15	0.029	29	3787340018	7/26/2022
4311	Arlington	6/28/2022	1A		L	K	0.0031	3.1	0.013	13	3787340019	0.0037	3.7	0.008	8	3787340020	7/26/2022
223	Vermont N	6/29/2022	1A		L	K	0.0037	3.7	0.15	150	3787340021	0.0066	6.6	0.011	11	3787340022	7/26/2022
718	Laurel S	6/29/2022	1A		L	K	<0.0010	<1.0	0.16	160	3787340023	<0.0010	<1.0	0.016	16	3787340024	7/26/2022
412	Kenilworth E	6/28/2022	1A		L	K	0.0017	1.7	0.014	14	3787340025	0.0026	2.6	0.021	21	3787340026	7/26/2022
506	Hawthorn	6/29/2022	1A		L	K	<0.0010	<1.0	0.068	68	3787340027	<0.0010	<1.0	0.0073	7.3	3787340028	7/26/2022
405	Gardenia	6/28/2022	1A		L	K	<0.0010	<1.0	0.038	38	3787340029	<0.0010	<1.0	0.01	10	3787340030	7/26/2022
1210	Fifth E	6/28/2022	1A		L	K	<0.0010	<1.0	0.18	180	3787340031	<0.0010	<1.0	0.083	83	3787340032	7/26/2022
515	Hudson W	6/28/2022	1A		L	K	<0.0010	<1.0	0.018	18	3787340033	<0.0010	<1.0	0.02	20	3787340034	7/26/2022
2213	Glenview	6/28/2022	1A		L	K	<0.0010	<1.0	0.16	160	3787340035	<0.0010	<1.0	0.11	110	3787340036	7/26/2022
2013	Roseland	6/28/2022	1A		L	K	<0.0010	<1.0	0.064	64	3787340037	0.0049	4.9	0.0078	7.8	3787340038	7/26/2022
903	Woodcrest	6/28/2022	1A		L	K	<0.0010	<1.0	0.014	14	3787340039	<0.0010	<1.0	0.0068	6.8	3787340040	7/26/2022
1620	Catalpa	6/28/2022	1A		L	K	<0.0010	<1.0	0.012	12	3787340041	<0.0010	<1.0	0.003	3	3787340042	7/26/2022
511	Center N	6/28/2022	1A		L	K	<0.0010	<1.0	0.0061	6.1	3787340043	<0.0010	<1.0	0.0032	3.2	3787340044	7/26/2022
912	Cherokee	6/28/2022	1A		L	K	<0.0010	<1.0	0.029	29	3787340045	<0.0010	<1.0	0.024	24	3787340046	7/26/2022
220	Edison N	6/27/2022	1A		L	K	<0.0010	<1.0	0.019	19	3787340047	<0.0010	<1.0	0.005	5	3787340048	7/26/2022
1219	Ferris	6/28/2022	1A		L	K	0.0012	1.2	0.0074	7.4	3787340049	0.0024	2.4	0.0078	7.8	3787340050	7/26/2022
627	Woodlawn	6/28/2022	1A		L	K	<0.0010	<1.0	0.056	56	3787340051	<0.0010	<1.0	0.016	16	3787340052	7/26/2022
311	Vermont N	6/30/2022	1A		L	K	0.0049	4.9	0.037	37	3787340053	0.01	10	0.012	12	3787340054	7/26/2022
609	Forestdale	6/29/2022	1A		L	K	0.003	3	0.0042	4.2	3787340055	0.0014	1.4	0.0022	2.2	3787340056	7/26/2022
1119	Batavia	7/5/2022	1A		L	K	<0.0010	<1.0	0.054	54	3788150001	0.0018	1.8	0.0084	8.4	3788150002	8/10/2022
505	Mt Vernon	7/5/2022	1A		L	K	<0.0010	<1.0	0.049	49	3788150003	<0.0010	<1.0	0.0051	5.1	3788150004	8/10/2022
201	Houstonia W	7/27/2022	1A		L	K	<0.0010	<1.0	0.028	28	3794080001	<0.0010	<1.0	0.11	110	3794080002	8/10/2022

CONSUMER NOTICE OF LEAD AND COPPER RESULTS REQUIREMENTS AND CERTIFICATION

Each community water supply must deliver a Consumer Notice of Lead and Copper Results (Consumer Notice) to the occupants at each location sampled within 30 days of learning the sample results as required under R 325.10410(5) of the administrative rules promulgated under Act 399. Failure to deliver the Consumer Notice to each location on time will result in a reporting violation.

Instructions:

A. Use the Consumer Notice Form A template for sites with lead service lines or Consumer Notice Form B template for sites without lead service lines. See the examples on Page 10 to document results from both sites with a lead service line and without a lead service line.

B. Complete one Consumer Notice for each home or building that was sampled. MAKE SURE UNITS ARE CORRECT BEFORE DISTRIBUTING TO CONSUMERS.

   Note: 1 mg/L = 1 ppm = 1,000 ppb Example: 0.002 mg/L = 0.002 ppm = 2 ppb

C. Mail or hand deliver each Consumer Notice to the corresponding home or building sampled.

D. Water supplies have 90 days after the end of the monitoring period to submit a sample copy of the Consumer Notice along with a signed certification that notices have been distributed as required under R 325.10710d(f)(3) to the appropriate EGLE district office. When possible, EGLE encourages water supplies to send the sample Consumer Notice and certification (page 4 of this document) along with the Lead and Copper Report (pages 1 and 2 of this document), which is due within ten days after the end of the monitoring period. Please complete all forms accurately to avoid resubmittal.

Certification:

I hereby certify that the Consumer Notice has been provided to persons served at each of the taps that were tested, including all the following information:

- Delivery was by mail, hand delivery, or another method approved by EGLE.
- Delivery was within 30 days of knowing the result.
- Consumer Notice includes required content:
  - The results of lead and copper tap monitoring for the site that was sampled.
  - An explanation of the health effects of lead and copper.
  - The steps consumers can take to reduce exposure to lead in drinking water.
  - Contact information for the public water supply.
  - The maximum contaminant level goal and the action level for lead and copper with the definitions explaining each.

*Please **initial** each line verifying that each requirement was completed:*

AF A Consumer Notice was sent to persons served at each of the taps that were tested.

AF Delivery was by mail, hand delivery, or another method approved by EGLE.

AF Each Consumer Notice was delivered to the resident within 30 days of knowing the results.

AF Each Consumer Notice included the required content as stated above.

AF A sample copy of a Consumer Notice sent to a resident is attached.

Signature	Director of Public Services	8/12/2022
	Title	Date

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER SITE WITH A LEAD SERVICE LINE

Water Supply Name: City of Royal Oak

County: Oakland WSSN: 5830

Sample Location: 1219 Ferris Date Sampled: 6/28/22

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home's water service line is composed of lead or materials such as galvanzied steel, which can contain lead. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely to drink when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	1st Liter Result	5th Liter Result
Lead (ppb)	15	0	1.2	2.4
Copper (ppb)	1300	1300	7.4	7.8

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
ppb: Parts per billion or micrograms per liter.
ND: Not detected.

SAVE

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking**. The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.
    - If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
    - If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for drinking, cooking, and preparing baby formula**. Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper**. Boiling water will not reduce lead and copper levels.
- **Consider using a filter to reduce lead in drinking water**. Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or www.nsf.org for more information.
- **Consider purchasing bottled water**. The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead**. Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
- **Clean your aerator**. As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
- **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.

Lead *can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it 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. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.*

Copper *is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount 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.*

The United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at www.atsdr.cdc.gov/index.html, or contact your health provider.

What do I do now? What's the City of Royal Oak doing about lead service lines?

Even if the lead and copper concentrations in your samples didn't exceed 'action levels', it's always good practice to follow the exposure reduction advice provided. That's because there are no safe levels of lead in drinking water.

Currently, we are building our comprehensive inventory to know precisely how many there are, but we estimate there may be as many as 1,400 within the system. Because you've participated in this program, we've recorded the service line material for your home, and that helps us complete this count.

The City of Royal Oak is planning to replace all of these lead and galvanized steel services at a rate of about 100 per year. There is not an established waiting list for these replacements, however if your home had a result that exceeded the action level during this round of testing, you will be given priority consideration. The city will reach out to eligible homes directly during project planning.

It's important to remember that these service lines aren't the only potential source of lead. Older plumbing fixtures - even some manufactured as recently as 2014 and labeled "lead-free" - many still contain lead. Trapped particulate in aerators is another common source, so be sure to clean those regularly.

Additional resources:

- State of Michigan - Mi Lead Safe - www.michigan.gov/mileadsafe
- US EPA - Consumer Lead Guidance - www.epa.gov/lead
- City of Royal Oak - Lead Testing Page - www.romi.gov/leadtesting