

Attachment 6: Example Results Letter to the Participant (Adult or Parent of Child)

Note: The format and content of this example letter could change depending on the results of the EI. Final letters will also go through CDC/ATSDR clearance.

(Flesch-Kincaid Reading Level: grade XX)

(ATSDR Letterhead)

DATE _____

Name XXXXX

Address XXXX

Dear _____

Thank you for participating in (or allowing your child/ward, _____, to take part in) the Agency for Toxic Substances and Disease Registry's (ATSDR) Exposure Investigation in Anaconda, Montana. The goal of the Exposure Investigation is to determine whether people living in Anaconda, MT are being exposed to lead and arsenic.

This letter contains the results of your (your child's/ward's) blood lead and urine arsenic tests. ATSDR collected a blood and urine sample from you/your child/ward for testing on [Month Day, Year].

Test results of your (your child's/ward's) samples are shown in the enclosed Table 1.

Lead in Blood:

- if BLL is $<5 \mu\text{g/dL}$:

Your (your child's/ward's) blood lead level was **below** the reference level for blood lead. Although there is no safe level of blood lead, the results indicate that your (your child's/ward's) blood lead level is similar to most other people's results in the United States. Therefore, no additional action with regard to lead is needed based on these results.

- if BLL is $\geq 5 \mu\text{g/dL}$:

Your (your child's/ward's) blood lead level was **equal to or above** the reference level for blood lead. As a result, the Anaconda Deer Lodge County (ADLC) health department will contact you to help identify the possible source of exposure. ADLC is also available to speak with you about ways to reduce your exposure to lead. You can contact ADLC at XXX-XXX-XXXX. The exposure could be coming from various sources including hobbies, contaminated soil and dust, or lead-based paint.

The U.S. Centers for Disease Control and Prevention (CDC) sets a reference level for blood lead for children under the age of 6 years. The current CDC reference level is 5 microgram of lead per deciliter of blood ($\mu\text{g}/\text{dL}$). Because lead can pass from a mother to her unborn baby, ATSDR uses this child blood lead reference level for pregnant women. For this Exposure Investigation, the level of 5 $\mu\text{g}/\text{dL}$ is used for all age groups and pregnancy status.

Although there is no known safe exposure level for lead, blood lead levels above the reference level do not mean that you or your child will develop health effects. Health effects depend on the blood lead level, length of exposure, age and present health status. Potential health effects for pregnant women include increased risk of miscarriage, low birth weight or premature birth. Potential health effects for baby from lead exposure can include: learning problems such as speech and language delay; problems with attention; decreased intelligence quotient (IQ); anemia (fewer red blood cells than normal).

Your health care provider should retest your blood lead level as soon as possible.

Arsenic in Urine:

Total arsenic is measured by adding two different types of arsenic together: organic and inorganic.

Organic arsenic, often found in fish and seafood, is not typically associated with health concerns. Organic arsenic can be increased in urine when a person eats fish or seafood a few days before the urine is collected for testing

Inorganic arsenic, found in many places in the environment including soil and water, is known to be associated with health concerns when elevated.

ATSDR uses total arsenic levels as a first step in measuring a person's exposure. If total arsenic is above the investigation follow-up level, we look to see what form of arsenic is in the sample: organic and inorganic forms. If a person's organic arsenic measurement is above the follow-up level, it is usually the result of a recent meal that included food that may contain arsenic. If a person's inorganic arsenic measurement is above the follow-up level, it means that person may consider ways to lower their exposure to arsenic or may see a healthcare provider if they are concerned about how arsenic may cause health problems.

- *If total arsenic was below the NHANES:*

Your (your child's/ward's) levels were **below** the reference level for total arsenic. This indicates that your (your child's/ward's) results are similar to most other people's results in the United States. Therefore, no additional action is needed.

- *If total arsenic was above the NHANES:*

Your (your child's/ward's) total arsenic level(s) was **above** the exposure investigation follow-up level.

Because the level of total urine arsenic was **above** the follow-up level we looked at the additional test to determine the levels of organic and inorganic arsenic present in your (your child's/ward's) urine sample.

o Inorganic arsenic:

The inorganic arsenic detected in your (your child's/ward's) urine samples was **below** the level that is representative of inorganic arsenic in the U.S. population, indicating that the elevated total arsenic level is not the result of inorganic arsenic and is probably the result of organic arsenic in your (your child's/ward's) diet.

OR

The inorganic arsenic detected in your (your child's/ward's) urine samples was **above** the level that is representative of inorganic arsenic in the U.S. population. This means that the increased total arsenic level in your (your child's/ward's) urine is the result of inorganic arsenic, which may cause health effects. It is recommended that people with higher inorganic arsenic levels may evaluate ways to reduce arsenic exposure and may consider seeing a physician if you are concerned about potential effects of arsenic on your (your child's/ward's) health.

o Organic arsenic:

Organic arsenic in your (your child's/ward's) was **below** the level that is representative of organic arsenic in the U.S. population, indicating the elevated total arsenic level is not the result of organic arsenic and is likely the result of inorganic arsenic.

OR

Organic arsenic in your (your child's/ward's) was **above** the level that is representative of organic arsenic in the U.S. population. This means the increased total arsenic level in your (your child's/ward's) urine may contain organic arsenic, and suggests that your (your child's/ward's) diet likely contributed to the elevated level.

If you have questions concerning this Exposure Investigation or your (your child's/ward's) test results, please contact me at 888-320-5291 or by email at LRosalesGuevera@cdc.gov.

Sincerely,

Lourdes Rosales-Guevara, MD
Medical Officer – Anaconda MT Exposure Investigation
ATSDR Division of Community Health Investigations, Exposure Investigation Team

Table 1: Test Results for Firstname Lastname

| Test | Test Result | Follow-Up Level |
|---------------------|------------------------|------------------------|
| Blood Lead | XXX µg/mL | 5 µg/dL ¹ |
| Total Urine Arsenic | XXX µg/g of creatinine | XX ² |
| Inorganic Arsenic | XX | XX |
| Organic Arsenic | XX | XX |

¹The reference value for Blood Lead is taken from the CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention [CDC 2012].

² The total urine arsenic reference value is the lowest 95th percentile total urine arsenic value reported for the appropriate age group in the 2013-2014 CDC National Health and Nutrition Examination Survey. Results are reported in micrograms per gram of creatinine (µg/g) [CDC 2018]. Creatinine testing is a standard method used to measure the amount of arsenic present in urine samples.

References:

[CDC 2012] Centers for Disease Control and Prevention. 2012. CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in "Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention". Centers for Disease Control and Prevention, June 7, 2012. Available at: http://www.cdc.gov/nceh/lead/ACCLPP/CDC_Response_Lead_Exposure_Recs.pdf

[CDC 2018] Centers for Disease Control and Prevention. Fourth Report on Human Exposure to Environmental Chemicals, Updated Tables, (March 2018). Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <https://www.cdc.gov/exposurereport/>