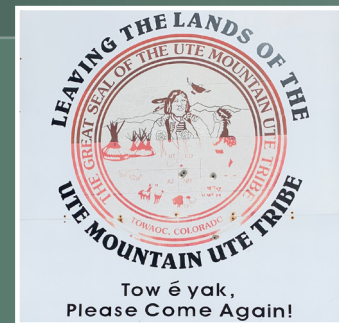


# Evaluation of Radiation in Air and Water Near the White Mesa Uranium Mill, White Mesa, San Juan County, Utah

June 2023



The Ute Mountain Ute Tribe (UMUT) asked the Agency for Toxic Substances and Disease Registry (ATSDR) to evaluate how radiation and other chemicals related to uranium milling activities at the White Mesa Uranium Mill might affect the health of tribal members. The mill is located next to UMUT land. This fact sheet summarizes the findings of the report on radiation in air and water. The full report is available at: <https://wwwn.cdc.gov/TSP/PHA/PHAListing.aspx?StateIndicator=UT>.

## Key Findings

- » Water from the UMUT public water system is safe for children and adults to drink. The water meets federal drinking water standards for radioactive contaminants.
- Breathing the outdoor air in White Mesa will not cause children and adults to become sick. The amount of radiation in air samples taken within the White Mesa community are below ATSDR's minimal risk level (MRL) for radiation.



ATSDR's minimal risk level for ionizing radiation is an amount of radiation, above background levels, a person could receive every year that would not be expected to result in any harmful effects.

## Site Background

Uranium and related radioactive material are found in soil, rocks, and water as a natural part of the environment. However, past and current milling activities at the White Mesa Uranium Mill have resulted in concentrated radioactive and non-radioactive materials above the levels naturally present in the area.

Milling activities produce waste products, called tailings, that contain radioactive materials. Tailings are stored on the White Mesa Uranium Mill property. Exposure to these radioactive materials could harm people's health.

## What did ATSDR do?

ATSDR evaluated whether contact with radiation from drinking water provided by the UMUT public water system or breathing outdoor air near the White Mesa Uranium Mill might make people sick. ATSDR reviewed data from reports, letters, articles, and other scientific documents from the UMUT and from state and federal environmental and public health agencies. The environmental sampling data ATSDR reviewed included the

- White Mesa Community Drinking Water Quality Reports for 2014–2017
- UMUT air sampling data for 2013, 2018, and 2019

ATSDR estimated radiation exposure for adults and children by looking at how often children and adults spent time in locations near the mill site. We looked at air and water sampling data and activities such as running, walking, or going to school to evaluate possible exposure levels and any health effects expected from the exposure.

## What did ATSDR find?

ATSDR's main finding was that UMUT members and other residents of the White Mesa community **are not likely to have health problems from exposure to radiation** from contaminants from the White Mesa Uranium Mill.

- Drinking water sampling data provided by the UMUT show levels below the Environmental Protection Agency (EPA) maximum contaminant level (MCL). The MCL is the highest level of a contaminant that EPA allows in public drinking water systems. The U.S. Safe Drinking Water Act sets the maximum contaminant levels of substances in public water systems.
- Estimated annual radiation doses calculated from UMUT air sampling data are below ATSDR's minimal risk level or MRL.

## Because there were no data, ASTDR was not able to evaluate

- if radon emissions from the mill could impact bordering properties or residents,
- if soil and vegetation present a radiation hazard, and
- if seeps and springs present a radiation hazard.

## Recommendations for UMUT

ATSDR recommends the following actions for UMUT members and other members of the White Mesa community:

- Continue to monitor and maintain the public drinking water supply according to all EPA rules and regulations and the UMUT Water Quality Program.
- Collect air samples in areas of concern closer to the mill property. ATSDR is available to talk with UMUT members to plan where and when sampling should take place.

## What are the next steps?

### To protect public health from mill-related exposures, ATSDR will

- communicate the findings of this report and respond to questions,
- provide further technical assistance to UMUT members, other members of the White Mesa community, and partner agencies, and
- talk with UMUT members about potential exposures to other chemicals from the mill not related to radiation that are being analyzed and will be reported on in a second report.

### Also, if requested, ATSDR will

- review any new environmental data and issue an updated report if the new data changes this report's conclusions and recommendations, and
- assist UMUT in designing an air sampling strategy and choosing sampling locations for any additional air sampling to better understand radioactive contamination in specific areas.

### The UMUT will

- collect radon samples in areas of interest to the Ute Mountain Ute Tribe,
- collect soil samples in locations of interest, and
- collect water samples from seeps and springs.

## How can I protect my health?

ATSDR's report found that the levels of radioactive material in UMUT drinking water and in the air at White Mesa are unlikely to harm health. However, if you'd like to take additional steps to reduce potential chemical or radiological exposures from your environment, these general tips will help protect you and your family ([Uranium](#) | [ToxFAQs™](#) | [ATSDR \(cdc.gov\)](#)):

- Test the indoor air in your home for radon.
- Wash home-grown vegetables before preparing or eating, especially root vegetables (potatoes, sweet potatoes, parsnips and turnips).
- Remove the outside layer of home-grown vegetables before eating.
- Wash hands before eating.

## How do I learn more?

- Call 1 800 CDC-INFO (1-800-232-4636) and ask for information about the White Mesa Uranium Mill.
- Email [www.cdc.gov/info](http://www.cdc.gov/info).
- Link to the report at <https://wwwn.cdc.gov/TSP/PHA/PHAListing.aspx?StateIndicator=UT>.
- Visit the ATSDR Uranium ToxFAQs page at ([Uranium](#) | [ToxFAQs™](#) | [ATSDR \(cdc.gov\)](#)).



## About ATSDR

ATSDR is a federal public health agency of the U.S. Department of Health and Human Services. ATSDR works with other agencies and tribal, state, and local governments to study possible health risks in communities where people could come in contact with hazardous materials. You can learn more about ATSDR by visiting us online at [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov).



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