

Tse Tah Area Mines Updates

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • November 2020

This Factsheet covers mines in the following chapters:

Tolikan, Teecnospos, Red Mesa, and Mexican Water

Background

Funds are available to assess and clean up 37 abandoned uranium mines in Tse Tah and 11 mines near Tse Tah. Funds are also available to conduct a water study and assessments at two mines in Tse Tah (*see map for locations*).

Funds to assess and clean up the mines are provided by:

- Two legal settlements between Navajo Nation and the United States (more information below);
- A legal settlement with Cyprus Amax Minerals Company (Cyprus Amax); and
- The Tronox legal settlement for mines operated by Kerr-McGee Corporation.

Uranium was mined in the Tse Tah area from the 1940s to 1960s. Beginning in the 1990s, the Navajo Nation Abandoned Mine Lands Reclamation Program addressed physical hazards at these mines. Under the direction of the U.S. Environmental Protection Agency (USEPA), detailed investigations, also called Removal Site Evaluations (RSEs), have been completed at six mines and field work has been completed at 18 mines.



Phase 1 Trustee's team of experts assessing soil samples at a Tse Tah abandoned uranium mine.

Settlement Name	Number of Funded Mines		Superfund Dragge Status
	In Tse Tah	Near Tse Tah	Superfund Process Status
Phase 1 and Phase 2 Settlements	9	1	Removal Site Evaluations (RSEs) for four Phase 1 Trust mines completed in October 2018
Cyprus Amax	27	9	RSEs for 18 mines to be completed in 2021
Tronox	1	1	RSEs for two mines were completed in 2019
Total	37	11	

Legal Agreements and the Superfund Cleanup Process

Phase 1 and Phase 2 Trusts

Four of the mines assessed in and near Tse Tah were among 16 mines assessed under the "Phase 1" legal settlement between the Navajo Nation and the United States. Sadie Hoskie was the trustee implementing the Phase 1 Trust. The results of the Phase 1 assessments in the Tse Tah area are included in RSEs and were shared with the community in fall 2018.

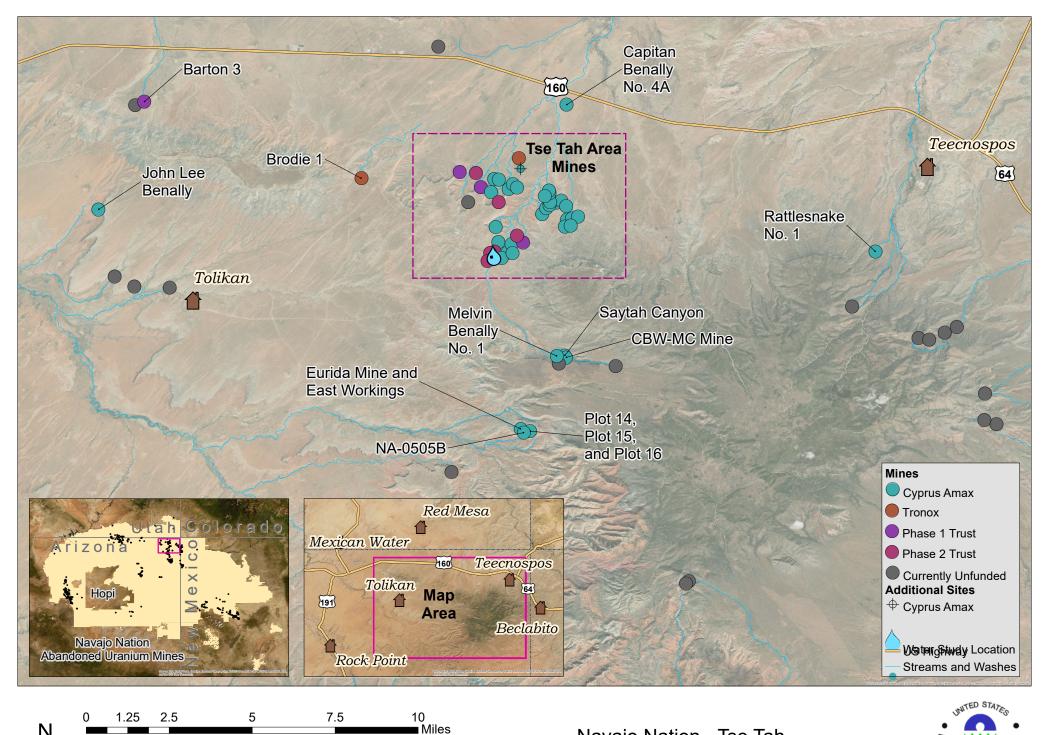
The Phase 2 Settlement provides funds to assess four additional mines, conduct a water study with assessments at two additional mines, and conduct any necessary cleanup at the four mines assessed under the Phase 1 Settlement. The Trustee for the Phase 2 work is Derrith Watchman-Moore. She will begin work at the six additional mines in Tse Tah in 2021. Once an additional legal document is executed, she will begin the cleanup process at the Phase 1 sites.

Cyprus Amax Minerals Company Settlement

In 2017, the United States and the Navajo Nation entered into a settlement agreement with Cyprus Amax and Western Nuclear, two companies owned by Freeport-McMoRan. The settlement funds the assessment and cleanup of 94 abandoned uranium mines on the Navajo Nation, including 36 mines in and near Tse Tah. Cyprus Amax is currently finishing detailed investigations (RSEs) at 18 of these mines in Tse Tah.

Tronox Settlement

In 2015, the United States entered into a historic legal settlement that provides almost \$1 billion to investigate and clean up approximately 50 abandoned uranium mines on or near Navajo Nation that were operated by Kerr-McGee and its successor, Tronox. Two of these mines are in or near Tse Tah and detailed investigations were completed in 2019. USEPA is currently preparing risk assessments and Engineering Evaluations / Cost Analyses for two Tronox mines.

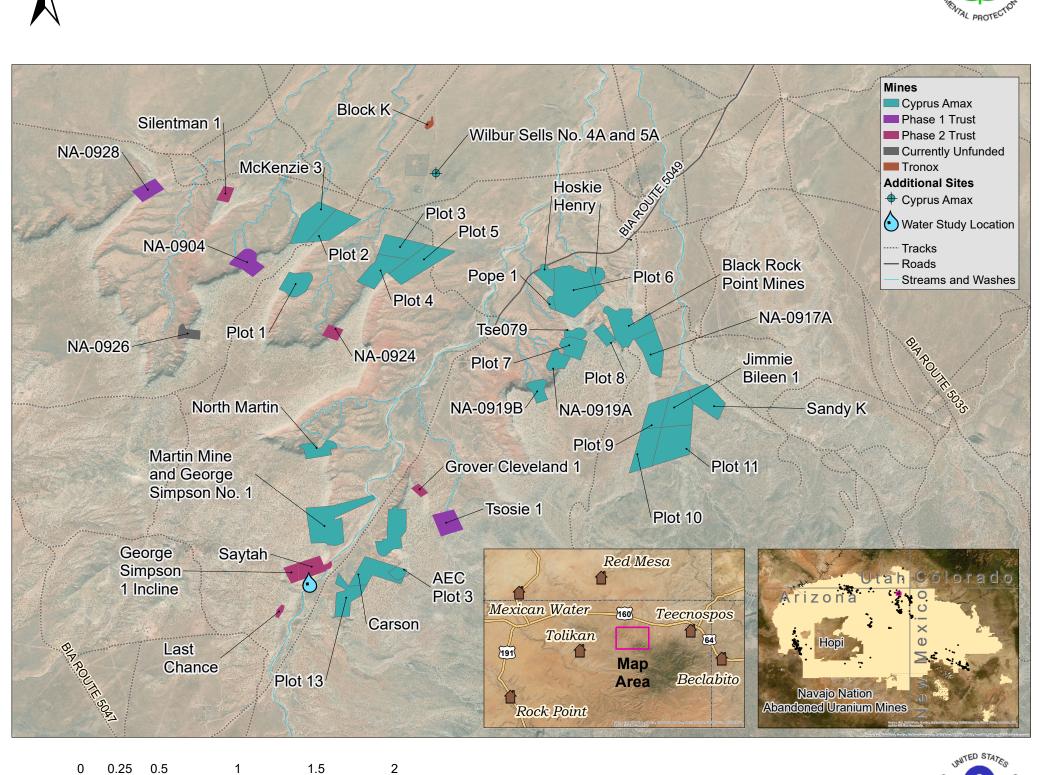


March 31, 2020

Navajo Nation - Tse Tah

Abandoned Uranium Mines and Current Settlements

Navajo Nation - Tse Tah Abandoned Uranium Mines and Current Settlements



Miles

March 31, 2020

What Has Been Done?

- · Legal settlements provide funds to assess, evaluate, design and clean up 48 mines.
- USEPA met with chapter officials, hosted two informational meetings and one water informational meeting for the Tse Tah communities, and began developing a Community Involvement Plan.
- The Phase 1 Trustee completed RSEs for four mines, shared results with the communities and heard comments on October 23, 2018.
- A community Liaison was hired for the Tse Tah area.
- USEPA completed investigations at two Tronox mines in 2019.

What is Happening Now?

- USEPA will complete a Community Involvement Plan by the end of 2020.
- USEPA is preparing risk assessments and Engineering Evaluations / Cost Analyses for two Tronox mines.

What Happens Next?

- USEPA will implement the Community Involvement Plan and share it with the community.
- Cyprus Amax will complete investigations at 18 mines.
- The Phase 2 RSE Trustee will begin work to assess four mines, and conduct a water study and assess two additional mines in Tse Tah.
- Once RSE reports are complete:
 - > the risk the mines pose to people and the environment will be assessed;
 - > cleanup alternatives will be evaluated;
 - > a final cleanup alternative will be selected; and
 - be the mines will be cleaned up.
- USEPA will continue to investigate companies responsible for all other mines not currently funded.

Superfund Process on the Navajo Nation Decision Making Assessment Clean Up **Operations &** Maintenance Site Action Signs and Public Action Design Access Resources Engineering Long-term Agreements Surveys Fences Evaluation Evaluation / Comment Memorandum **Cost Analysis** Community Involvement and planning for a site's future are ongoing throughout the process Coordination with the Navajo Nation government including NNEPA, Navajo AML, and the Diné Uranium Remediation Advisory Commission



Reduce Your Contact with Uranium and Radiation

Steps to keep yourself safe:

- Stay away from abandoned mines and mills
- Find out if your home is a contaminated structure
- Use regulated water for human needs
- Never use unregulated water for human needs even if it looks OK
- Use good water hauling practices to keep your
- Get regular cancer screenings, like pap tests, mammograms, colonoscopies, and other cancer screenings

For More Information

Linda Reeves

Remedial Project Manager (Phase 1 Trust Mines and Cyprus Amax mines) **USEPA** Region 9 (415) 972 – 3445 reeves.linda@epa.gov

Freyja Knapp

Remedial Project Manager (Phase 2 RSE Trust Mines) **USEPA** Region 9 (415) 972 -3025knapp.freyja@epa.gov

Elsa Johnson

Community Involvement Coordinator (All Tse Tah Mines) **USEPA** Region 9 (415) 947 - 3552johnson.elsa@epa.gov

Dariel Yazzie

Environmental Program Supervisor NNEPA Superfund Program (928)871 - 7601darielyazzie@navajo-nsn.gov

Navajo Nation Abandoned Uranium Mines webpage: https://www.epa.gov/navajo-nation-uranium-cleanup

