

Navajo Abandoned Uranium Mine Site Screen Report

This form is for use at the site of abandoned uranium mines (AUM) located on Navajo Nation lands. Applicable sites include all mine and mine features that have or have not undergone reclamation by the Navajo Abandoned Mine Lands Reclamation Program, including features, adits and pits. Applicable sites also include all AUM sites listed in the USEPA CERCLIS database, all sites listed in the 2008 AUM GIS Report issued by USACOE and USEPA, all AUM sites on allotment lands associated with the Navajo Nation, and any and all AUM sites lands not listed in any database located on Navajo lands. Reconnaissance of any sites located on lands adjacent to Navajo lands but that are or may be impacting Navajo lands will need to be coordinated with the authorities appropriate to those lands.

The purpose of the form is to ascertain the status and location of the identified AUM site, to record all immediate site information associated with the mine site and to document the recommendation and/or decision on what additional steps, if any, are needed at the site.

Yucca AUM Site

Navajo AUM Eastern Region

Prepared by:

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Contract: W91238-06-F-0083

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Part I Site Identification, Location and Status

Site Names and ID numbers as applicable

Mine ID: 355

Map ID: E55

CERCLIS: NNN 000 908 756

NAMLRP: NOT ASSIGNED

New Mexico Mining and Mineral Division ID: NM0158

New Mexico Bureau of Geology and Mineral Resources: NMMK0136

Local name / Aliases: T-2, T-10, Yucca No. 2

Chapter and local area: Baca/Haystack Chapter

Lat/Long: 35.4154335782 N / -108.015383214 W

Nearby road and highway: Route 19, Red Cliffs Road **Local Post Office:** Prewitt, NM

Land Status: check one or more and provide ownership and contact information below

- Tribal Trust Land**
- Tribal Fee Land**
- Allotment**
- Fee land**
- Public lands**
- Private**
- Bureau of Land Mgmt**
- State**

Ownership and contact information:

No ownership was identified. The mine site property is classified as Public Land Order 964, but no residences were found within 0.25 miles of the site

Part II Site Observations

Observed Structures: list number of and describe human habitation status of structures at the following distances from mine:

0 to 200 feet: None **200 feet to 0.25 mile:** None

Observed Public or commercial structure: list and describe all schools, clinics, Chapter Houses, places of business and any other structure used by members of the community at the following distances:

0 to 200 feet: None **200 feet to 0.25 mile:** None

Levels measured around the perimeter(s) of the identified structure(s):

None

Observed water sources: list the number and type of wells and surface water sources that are potentially used for human consumption at the following distances from the mine:

0 to 0.25 miles: None **0.25 miles to 4 miles:** None

Observed Sensitive environments: note and describe all sensitive environments located within visible range of the mine site, including: wetlands, endangered species habitats and approximate locations of sites that may be under protection of the government of the Navajo Nation.

None observed

Known Site History: include information from interviews with Chapter officials and residents.

Note information on mine ownership, period of operation, and type of mining operation.

The Yucca mine consists of an area of 2,615.44 square meters. Any historical information pertaining to mining operations and historical ownership of the mine site appeared to be unclear.

Part III Type, number and reclamation status of mine features

Provide description and reclamation status of all mine sites and features at site. Include all waste piles, adits, pits and other features, and indicate whether they are open, closed, covered, capped, buried or unreclaimed. Indicate approximate size, shape and extent, including description of any reclamation caps. Note condition of all reclamation caps.

Reclamation status of the mine sites are currently unknown. No visible signs of reclamation were observed. Numerous waste rock piles are found throughout the site. The mining appears to have been conducted from exposed bedrock at the surface. No adits or other mine features were observed during the site visit.

Part IV Summary of radiological readings

Background Locations

#1 8,296 cpm

#2 8,515 cpm

#3 7,241 cpm

Mine site: Yucca

- See Figures 1 and 2

Nearby Structure Perimeter – None

Describe any other radiological measurements:

A total of 655 gamma radiation measurements were collected from mine sites, ranging from 6,341 cpm to 259,261 cpm. The measurements are represented in Figures 1 and 2. Radiological measurements collected for the New Mexico Mining and Minerals Division during a 2008 field screening survey found gamma radiation levels near the ground surface with a maximum of 220 micro Roentgen per hour ($\mu\text{R/hr}$) and a minimum of 9 $\mu\text{R/hr}$, levels at the 4-foot elevation with a maximum of 160 $\mu\text{R/hr}$ and a minimum of 10 $\mu\text{R/hr}$, and background levels of 10 $\mu\text{R/hr}$.

Part V Site sketch of all mine features and readings, including locations of all structures, sources of drinking water and any other important features and radiological readings.

Presented in Figures 1 and 2

Part VI Response Action Summary

Site Name(s): Yucca **Chapter:** Baca/Haystack

Decision Criteria

Is there an unreclaimed waste pile at the site? Yes

At what distance from the waste pile is the nearest residential structure located? 0.9 mile

At what distances from the waste pile are there potential drinking water sources? 0.9 mile

Is there a reclamation cap or sealed adit in place at the site? No

Is the cap/seal functionally intact? N/A

Is the cap/seal sufficiently degraded to create a concern about releases? N/A

At what distance from the cap/seal is the nearest domestic structure located? N/A

At what distance from the cap/seal is the nearest domestic drinking water source? N/A

Summary of emergency response factors

None

Summary hazard ranking system factors

None

Summary of reclamation factors

No known reclamation

Part VII Photos



Photo 1. Yucca Mine site, towards the south



Photo 2. Yucca Mine site, towards the north



Photo 3. Yucca Mine site, waste rock piles



Photo 4. Yucca Mine site, waste rock piles pushed off mesa into a box canyon

Part VIII Contacts Reports and Information

Name Stanley Edison

Title or official role (if any) Navajo EPA Superfund Program

Address PO Box 2946, Window Rock, AZ 86515

Telephone number 928- 871-6861

Information provided General Background and Contact/Access Information

Name Susan A. Lucas Kamat

Title or official role (if any) AUM Data Manager – New Mexico Mining & Mineral Division

Telephone number (505) 476-3408 fx: (505) 476-3408

Information provided Background information and findings from 2008 New Mexico MMD
Survey of mining sites.

Name _____

Title or official role (if any) _____

Telephone number _____

Information provided _____

Name _____

Title or official role (if any) _____

Telephone number _____

Information provided _____



Legend

Gamma Radiation Measurements

- < 2X Background
- > 2X Background

Navajo Tribal Trust

Mine Claim Boundaries

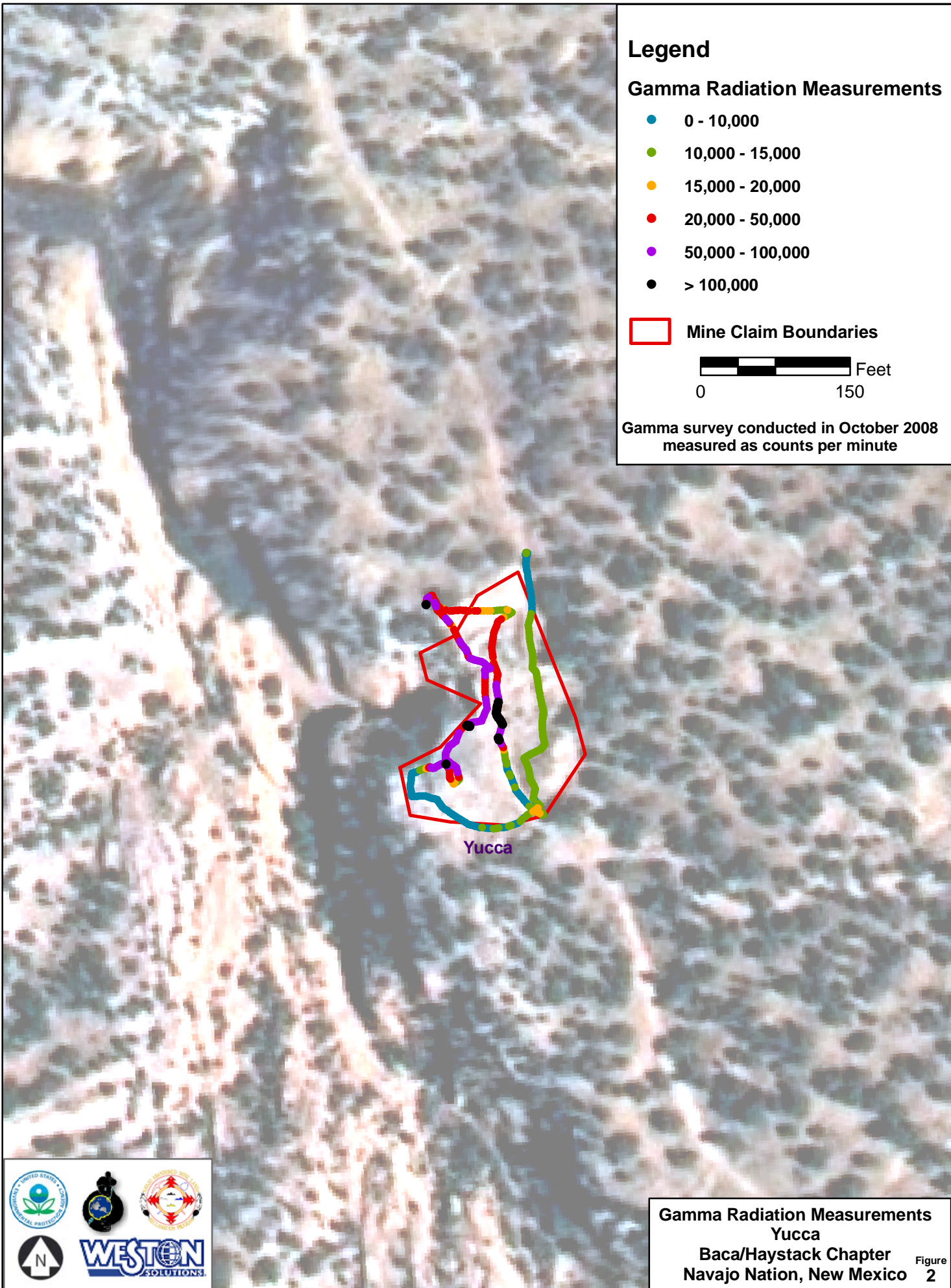
0 150 Feet

Gamma survey conducted in October 2008
 measured as counts per minute (cpm)
 Average background = 8,017 cpm

Yucca



Gamma Radiation Measurements Above Two Times Background Yucca
 Baca/Haystack Chapter
 Navajo Nation, New Mexico



Legend

Gamma Radiation Measurements

- 0 - 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 50,000
- 50,000 - 100,000
- > 100,000

□ Mine Claim Boundaries



Gamma survey conducted in October 2008
measured as counts per minute

Yucca



Gamma Radiation Measurements
Yucca
 Baca/Haystack Chapter
 Navajo Nation, New Mexico Figure 2