

# **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.*

## **Eunice Becenti AUM Site**

### **Navajo AUM Eastern Region**

**Prepared by:**

**Weston Solutions, Inc.**

**Contract: W91238-06-F-0083**

**12767.063.496.1111**

**May 2009**

**Part I Site Identification, Location and Status**

**Site Names and ID numbers as applicable**

**Mine ID:** 313

**Map ID:** E20

**CERCLIS:** NNN 000 908 710

**NAMLRP:** NOT ASSIGNED

**New Mexico Mining and Mineral Division ID:** NM0167

**New Mexico Bureau of Geology and Mineral Resources:** NNMK0230

**Local name / Aliases:** Becenti, Section 28

**Chapter and local area:** Church Rock Chapter

**Lat/Long:** 35.5032157358 N / -108.650193736 W

**Nearby road and highway:** NM-566, Interstate 40      **Local Post Office:** Gallup, 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 Indian Allotment land.

## 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:** 5 houses were observed approximately 0.25 miles east and northeast of the site (Photo 4). Gamma radiation levels at the houses were found to be less than 2 times background levels.

**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):**

- 5 houses and 10,000 gallon water tank east and northeast of site – measured at 7,987 counts per minute (cpm)
- 30,000 gallon water tank southeast of site – measured at 6,396 cpm

**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:** 2 water tanks were observed nearby, a 10,000 gallon tank near the houses 0.25 mile to the east (Photo 5), and a 30,000 gallon tank approximately 0.25 miles southeast of the site (Photo 2). Local residents stated that they collected water the tanks, but did not know the source of the water. Field personnel were unable to determine the source of the tanks. Gamma radiation levels at both tanks were found to be less than 2 times background levels.

**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.**

Eunice Becenti mine consists of an area of 4,905.28 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 site is currently unknown. No visible signs of reclamation were observed. No waste piles, adits, or other mine features were observed during the site visit. The site was found alongside a large cliff-face, making much of the site inaccessible.

**Part IV Summary of radiological readings****Background Locations**

#1 7,897 cpm

#2 6,395 cpm

#3 7,737 cpm

**Mine site:** Eunice Becenti

- See Figures 1 and 2

**Nearby Structure Perimeter** – None**Describe any other radiological measurements:**

A total of 1,022 gamma radiation measurements were collected from mine sites, ranging from 5,141 cpm to 227,586 cpm. The measurements are represented in Figures 1 and 2.

**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):** Eunice Becenti      **Chapter:** Church Rock

**Decision Criteria**

**Is there an unreclaimed waste pile at the site?** No

**At what distance from the waste pile is the nearest residential structure located?** N/A

**At what distances from the waste pile are there potential drinking water sources?** N/A

**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**

5 houses were observed approximately 0.25 miles east and northeast of the site (Photo 4). Gamma radiation levels at the houses were found at 7,987 cpm, less than 2 times background levels. 2 water tanks were observed nearby, a 10,000 gallon tank near the houses 0.25 mile to the east (Photo 5), and a 30,000 gallon tank approximately 0.25 miles southeast of the site (Photo 2). Local residents stated that they collected water the tanks, but did not know the source of the water. Field personnel were unable to determine the source of the tanks. Gamma radiation levels at the 10,000 gallon tank were found at 7,987 cpm, and 6,396 at the 30,000 gallon tank, both were less than 2 times background levels.

**Summary of reclamation factors**

No known reclamation

**Part VII      Photos**



Photo 1. Eunice Becenti mine site, towards the north



Photo 2. Eunice Becenti mine site, water tank at base of hill, approximately 0.25 miles south of site, towards the northwest





Photo 3. Eunice Becenti mine site cliff area, towards the south



Photo 4. Eunice Becenti mine site, housing compound and water tank approximately 0.25 miles northeast of site, towards the northeast





Photo 5. Eunice Becenti mine site, housing compound and water tank approximately 0.25 miles east of site, towards the east



Photo 6. Eunice Becenti mine site, gravel and mudslide area, towards the north

**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

Information provided General Background and Contact/Access Information

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Name Ms George Padilla

Title or official role (if any) Regional Environmental Scientist, BIA, Navajo Nation

Telephone number (505) 863-8434

Address PO Box 1060, Gallup, NM 87305

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Name \_\_\_\_\_

Title or official role (if any) \_\_\_\_\_

Telephone number \_\_\_\_\_

Information provided \_\_\_\_\_

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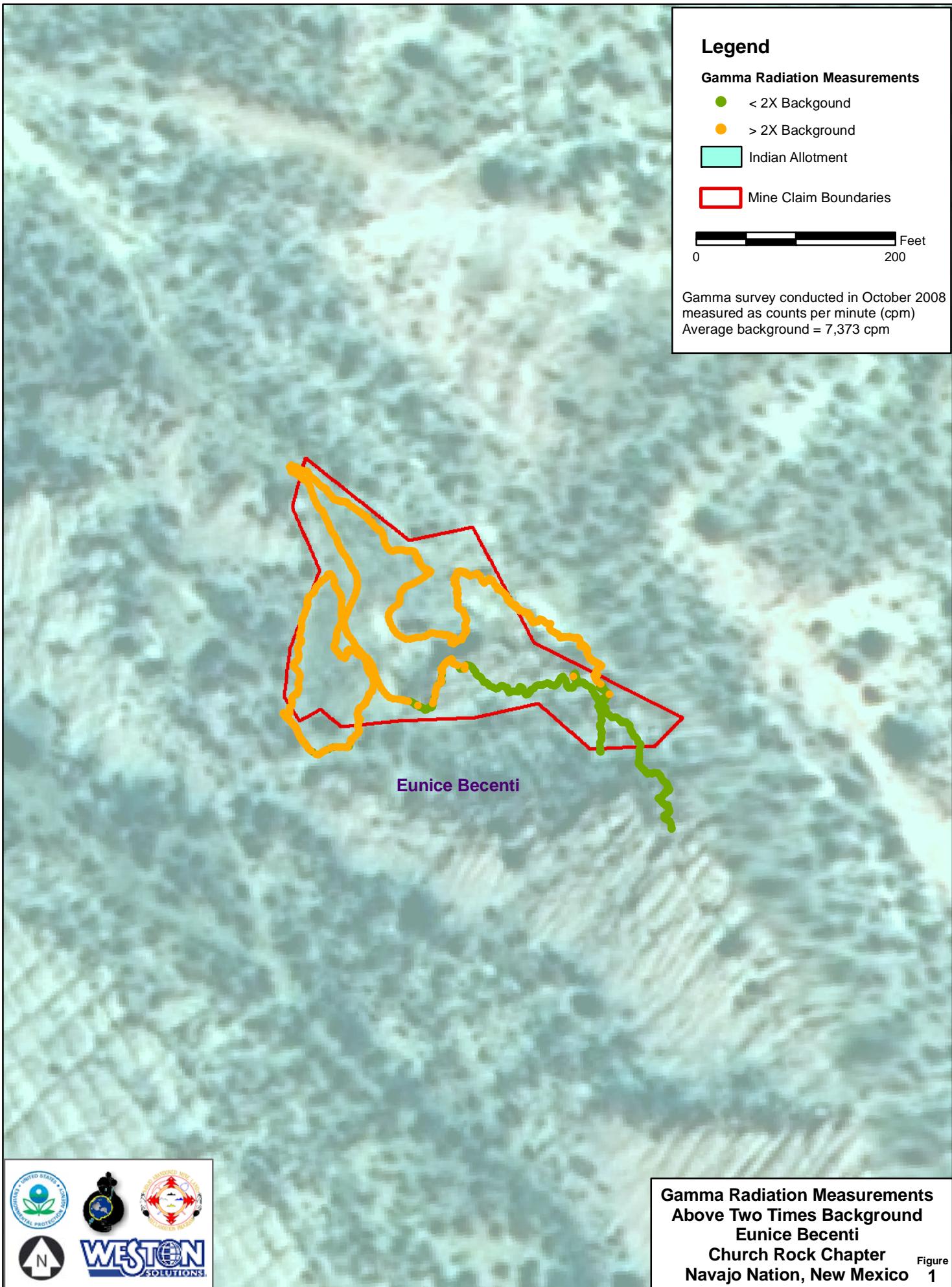
Name \_\_\_\_\_

Title or official role (if any) \_\_\_\_\_

Telephone number \_\_\_\_\_

Information provided \_\_\_\_\_

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**Legend**

**Gamma Radiation Measurements**

- < 2X Background
- > 2X Background

Indian Allotment

Mine Claim Boundaries

Feet  
0 200

Gamma survey conducted in October 2008  
measured as counts per minute (cpm)  
Average background = 7,373 cpm

Eunice Becenti

**Gamma Radiation Measurements  
Above Two Times Background  
Eunice Becenti  
Church Rock Chapter  
Navajo Nation, New Mexico** Figure  
1





# Legend

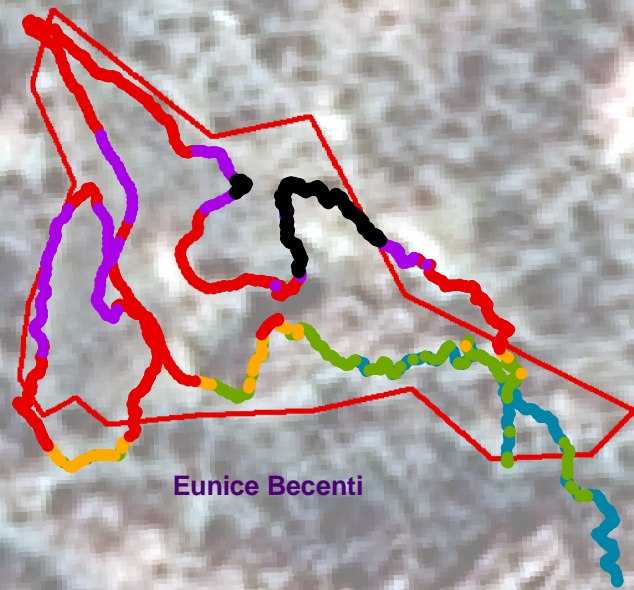
## Gamma Radiation Measurements

- 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



Eunice Becenti



Gamma Radiation Measurements  
Eunice Becenti  
Church Rock Chapter  
Navajo Nation, New Mexico Figure 2