

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.

Homestake Sapin No. 15

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: 357

Map ID: E61

CERCLIS: N/A

NAMLRP: NOT ASSIGNED

New Mexico Mining and Mineral Division ID: NM0027

New Mexico Bureau of Geology and Mineral Resources: NMMK0183

Local name / Aliases: Section 15

New Mexico MMD District: Ambrosia Lake

Lat/Long: 35.4365927001 N / -107.877422979 W

Nearby road and highway: NM-509, Interstate 40 **Local Post Office:** Milan, 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:

The mine site property is classified as private land. New Mexico MMD identifies the surface owners as Jerry & LuAnn Elkins, and owner of the mineral rights as The Newmont Mining Corporation.

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:** Drinking water access for the Rio Algom Mill

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 Homestake Sapin mine consists of a surface area of 171,479.93 square meters with approximately 131,188 square meters of underground workings. Any historical information pertaining to mining operations and historical ownership of the mine site appeared to be unclear. The New Mexico Mining and Minerals Division identified the operator from 1957-1958 as the Utah Construction Co. & Centennial Development Co., who sunk the initial shaft; 1958-1968 as Homestake-Sapin Partners; 1961-1965 as Rio de Oro; 1968-1981 as United Nuclear-Homestake Partners; 1977 as Ran-Con Corp., who drove the decline entry; and 1981 as the Homestake Mining Co.

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. According to the New Mexico Mining and Mineral division, in August – September 1991 the buildings were demolished & buried on site, the shaft & decline backfilled & capped with reinforced concrete, the boreholes were backfilled & capped, and the ponds/containment berms were flattened; and in May-June 1992 earthwork was completed to reconfigure/cover waste piles.

Part IV Summary of radiological readings

Background Locations

#1 21,621 counts per minute (cpm)

Mine site: Homestake Sapin No. 15

- See Figures 1 and 2

Nearby Structure Perimeter – None

Describe any other radiological measurements:

A total of 3,256 gamma radiation measurements were collected from the mine site, ranging from 13,634 cpm to 134,881 cpm. There are animal burrows along the fence at the southern end of the site. It is possible that ore was brought to the surface this way. Readings were approximately 170,000 cpm. There is a concrete vault along the southern fenceline, approximately 6' x 12'. Readings were approximately 135,000 cpm. The general range along the southern fenceline was ~40,000 to 170,000 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 potential drinking water and any other important features and radiological readings.

Presented in Figures 1 and 2

Part VI Response Action Summary

Site Name(s): Homestake Sapin No. 15 **New Mexico MMD District:** Ambrosia Lake

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? None observed

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 potential 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. Homestake Sapin 15 mine site, towards the northeast from southwest corner



Photo 2. Homestake Sapin 15 mine site, towards the northeast from southwest corner



Photo 3. Reading taken at hot area around southwest corner of site



Photo 4. Reading taken at hot area around southwest corner of site



Photo 5. Reading taken at animal burrows along fence at southern end of site



Photo 6. Animal burrows along fence at southern end of site



Photo 7. GPS walking west along southern fence



Photo 8. Reading taken at concrete vault along south fence



Photo 9. Concrete vault along south fence



Photo 10. View from atop a hill at northeast corner of site, towards the southwest Note: Field vehicle in distance showing size/length of site

Part VIII Contacts Reports and Information

Name Terry Fletcher

Title or official role (if any) President – Rio Algom Mining LLC

Telephone number 505-287-8851, fax 505-285-5550 Terry.Fletcher@bhpbilliton.com

Information provided Granted access to site

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 Dana Bahar

Title or official role (if any) Manager, Superfund Oversight Section

Ground Water Quality Bureau, New Mexico Environment Department

Telephone number (505) 827-2908

Information provided General Background Information

Name Mary Ann Menetrey

Title or official role (if any) Manager, Mining Environmental Compliance Section

Ground Water Quality Bureau, New Mexico Environment Department

Telephone number (505) 827-2944

Information provided General Background Information

Legend

Gamma Radiation Measurements

- < 2X Background
- > 2X Background

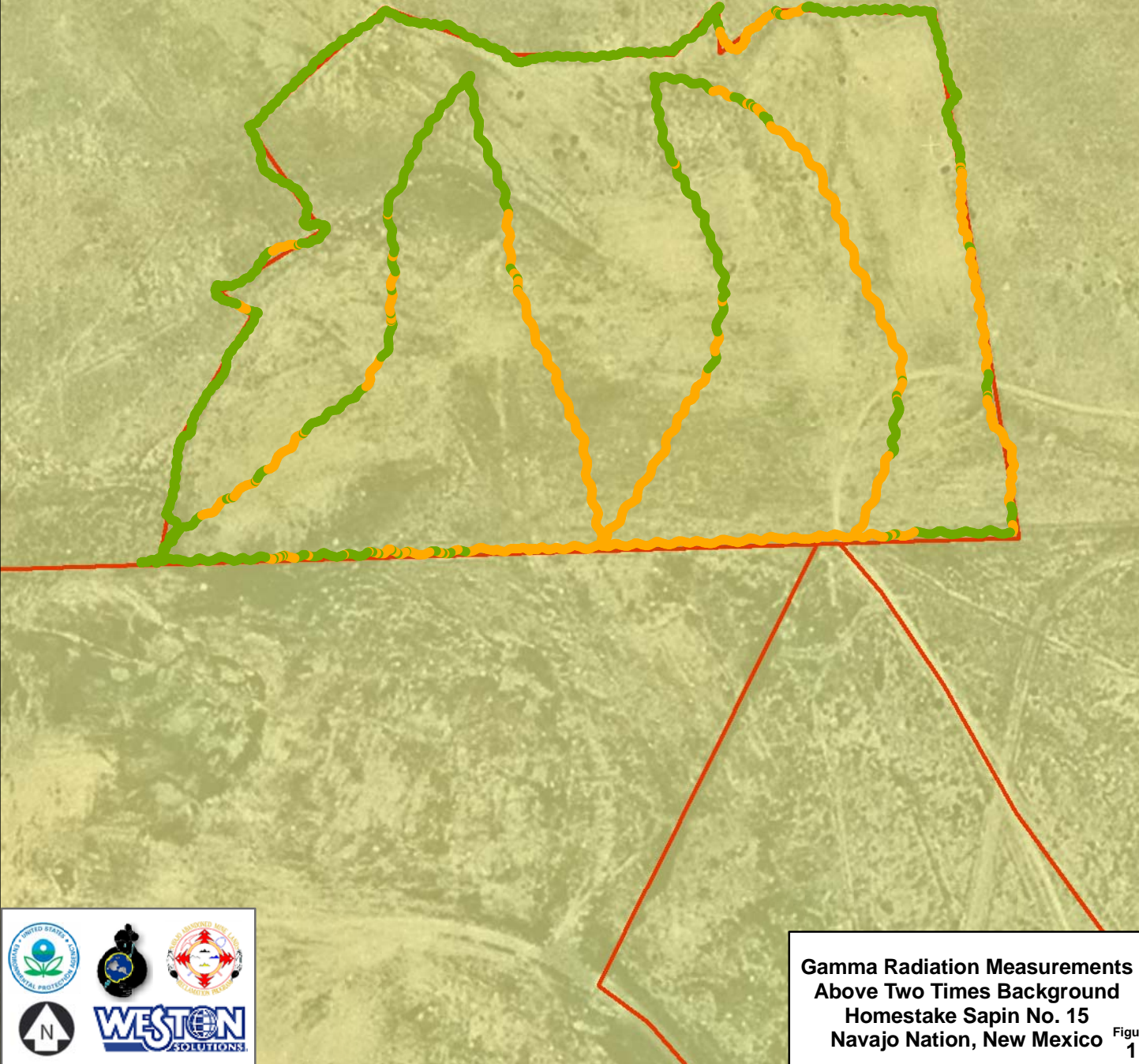
Private

Mine Claim Boundaries

0 500 Feet

Gamma survey conducted in October 2008
measured as counts per minute (cpm)
Average background = 21,621 cpm

Homestake Sapin No. 15



**Gamma Radiation Measurements
Above Two Times Background
Homestake Sapin No. 15
Navajo Nation, New Mexico** Figure 1



