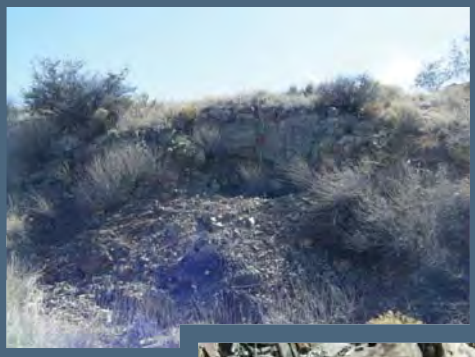
# Abandoned Uranium Mine Site Assessment for the Red Tiger Site (NM0247)



**FINAL REPORT**

**Prepared For:**

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**March 24, 2010**

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# 1.0 INTRODUCTION

INTERA Incorporated (INTERA) has prepared this Abandoned Uranium Mine (AUM) Site Assessment Report for the Mining and Minerals Division (MMD) of the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) in compliance with the Professional Service Agreement dated November 2, 2009. INTERA visited the Red Tiger Site (AUM Site), MMD ID: NM0247, on February 25, 2010.

## 1.1 PREVIOUSLY KNOWN INFORMATION ABOUT THE SITE

Anderson, 1980 reported that the Site consists of the Red Tiger prospect, a series of old prospect pits dug in a greenish-grey siltstone in the Abo Formation. The Anderson field team was unable to visit the Site due to access issues (Anderson, 1980).

McLemore, 1983, reported drill holes and pits up to 10 feet deep at the Red Tiger prospect. Nine tons of ore with a final yield of 15 pounds of uranium were extracted from a mineralized zone in the Abo Formation (McLemore, 1983).

A series of small pits were dug onsite during copper mining in the 1930s. One carload of copper ore was extracted from the site during this activity. Six pits approximately 4 feet across and 3 feet deep were reported during a site evaluation in 1956 (USAEC, 1970).

Ladder Ranch personnel reported a very faint road leading to the Site area from County Road 22.

## 1.2 SITE LOCATION AND DIRECTIONS

The AUM Site is on land owned by the State of New Mexico and the Ladder Ranch. Mine features are found in the Southeast Quarter of Section 1, Township 13 South, Range 5 West. The Site is located in Sierra County and is approximately 15.5 miles west-northwest of the town of Truth or Consequences and 9 miles west of the town of Cuchillo, between Cross O Canyon and Board Gate Canyon. The location of this site was provided to INTERA by MMD.

To access the AUM Site from Albuquerque, drive south on Interstate 25 for approximately 136 miles. Take Exit 89 towards New Mexico 181, turn right and then left to follow New Mexico 181. Continue south, paralleling Interstate 25, for 3 miles. When you reach New Mexico 52, turn right and go about 7 miles, passing through the town of Cuchillo. Just before leaving the town, turn left on County Road B073. The County Road will cross the valley and climb the hills on the other side. Continue along County Road B073 for about 4.5 miles until it takes a sharp right just before a large canyon. Stay on this road for about 7 more miles. Minor roads will branch to the right and the left but access to the Site is along the most well traveled road.

After about 7 miles, the road crosses an area of flat ground. A faint, overgrown two-track road branches off to the left. This road leads to the AUM Site, but it may be safer to park on the main road and proceed on foot.

Note that permission must be obtained from the Ladder Ranch in order to reach the Red Tiger site, as they maintain a locked gate along the access road. Parts of the AUM site may be located both on Ladder Ranch land and State Trust land.

### 1.3 SITE GEOLOGY

The AUM site is situated within the Sierra Cuchillo fault system, a series of generally north-south faults through northwestern Sierra County which formed in response to early Tertiary continental uplift. Paleozoic strata in the region have been faulted into generally monoclinal blocks with steep fault scarps on the western front and gentle dip slopes to the east (Harley, 1934). Some prospecting at the AUM Site occurred in the Abo Formation, a series of early Permian non-marine red and grayish-brown sandstone, limestone, and clay deposits (Kues and Giles, 2004). The target rock appeared to be a layer of grey-green mudstone. Other workings a quarter mile to the east occurred in a gray silicified layer with green copper mineralization and calcite crystals along fracture surfaces. Mineralized boulders from this layer contained the highest gamma readings recorded onsite.

### 1.4 SITE HYDROGEOLOGY

The surface runoff at the AUM Site discharges to Palomas Creek, which drains into the Rio Grande approximately 18 miles to the southeast.

The AUM Site is located in the Hot Springs Artesian Basin, which is part of the larger Palomas Basin. The Hot Springs Artesian Groundwater Basin was created for administrative purposes by the New Mexico State Engineer. This basin falls between the Middle Rio Grande Basin and the Lower Rio Grande Basin. The groundwater generally flows west to east, discharging into the Rio Grande. Paleozoic rocks and Quaternary/Tertiary Santa Fe Group sediments are the dominant aquifers in this basin (DBSA, 2003).

### 1.5 REGIONAL TOPOGRAPHY AND TERRAIN

The AUM Site is found on the Thumb Tank Quadrangle 7.5 minute United States Geological Survey topographic map at an elevation of approximately 5500 feet above mean sea level (see Figure 2). The AUM Site is located in the southern Sierra Cuchillo northwest of Truth or Consequences. The elevation of the Sierra Cuchillo ranges from 5800 to 8300 feet. These mountains were formed during faulting in association with the Rio Grande Rift (Julyan, 2006). Figure 3 shows an aerial photograph of the terrain surrounding the AUM Site.

## 2.0 MINE FEATURES

The mine features described below are based on the features provided to INTERA by MMD in the GIS Data Dictionary (MMD, 2009). INTERA marked the locations of the AUM Site features using a Trimble Global Positioning System (GPS), and entered details about the features into the GPS using the MMD data dictionary. Please see the Photo Log in Appendix A, Table 1 for a list of AUM Site features, and Figures 4a and 4b for the locations of the AUM Site features.

### 2.1 MINE SHAFTS, ADITS, AND DECLINES

No shafts, adits, or declines were found at the AUM Site.

### 2.2 MINING AND EXPLORATION PITS AND OPEN CUTS

Five open cuts and three pits were found at the AUM Site. One cut was located in red siltstone and exposed a greenish-gray mudstone layer (CutLn-1). The other cuts and pits were located in massive, cherty bedrock about a quarter mile east of CutLn-1. One pit contained a gamma reading of 270 µR/hr at contact (Pit-2).

### 2.3 WASTE AND ORE PILES AND DISTURBANCES

Nine piles, two pile ridges, three disturbances, and a berm were found onsite. One pile (PilePly-1) was located adjacent to CutLn-1 and consisted of reddish siltstone and green mudstone. The other features were located on the cherty layer about a quarter mile to the east.

### 2.4 MINING RELATED BUILDINGS AND FOUNDATIONS

No mining related buildings and foundations were evident at the AUM Site.

### 2.5 OTHER MINE FEATURES

A possible claim marker, consisting of a metal stake, was found at the AUM Site (Claim-1). Half of a 55 gallon drum was also found onsite (Equip-1).

### 2.6 BOREHOLES

No boreholes were evident at the AUM Site.

### 2.7 RECLAMATION ACTIVITIES

No apparent reclamation activities have taken place at the AUM Site.

## 3.0 ARCHEOLOGICAL SITES

No apparent archeological sites were identified at or near this AUM Site.

## 4.0 SITE GAMMA RADIATION READINGS

One background gamma radiation reading was taken at the AUM Site, recording 7 µR/hr at contact and 8 µR/hr at 4 ft above ground. Please see Table 2 for all of the gamma radiation readings taken at the AUM Site and Figures 4a and 4b for the locations of the radiation readings.

The maximum gamma radiation reading for the AUM Site was 270 µR/hr at bedrock contact at point Rad-14. This reading was taken in a prospect pit (Pit-2). A reading of 100 µR/hr at contact was recorded on a pile ridge (Pileridge-2) at point Rad-19. Another measurement of 160 µR/hr was recorded on a mineralized boulder inside of a shallow disturbed region (DistPly-1).

# 5.0 CURRENT LAND USES

## 5.1 HUMAN ACTIVITY AND RECREATIONAL SITE USE

The Ladder Ranch maintains horses, cattle, and buffalo in the area.

## 5.2 NEARBY RESIDENTIAL, COMMERCIAL AND INDUSTRIAL STRUCTURES

No structures were noted on or near the AUM Site.

## 5.3 NEARBY DOMESTIC WELLS

No wells, domestic or otherwise, are located within a mile of the site.

## 5.4 EVIDENCE OF GRAZING OR AGRICULTURE

Cow droppings were noted in the area.

## 5.5 EVIDENCE OF WILDLIFE

Several jackrabbits and quail were seen onsite. Deer and elk hoof prints as well as coyote scat were present. Deer antlers were found offsite to the east, near point RadBack-1.

# 6.0 VEGETATION

The Red Tiger AUM site is located in a Desert Grassland (Ecotone). Species identified from samples and photographs include prickly pear cactus (*Opuntia* Spp.), cholla cactus (*Cylindropuntia* Spp.), small barrel cactus (*Echinocerus* Spp.), and Ocotillo. Shrubs included mesquite, creosote, Apache plume, and Torrey ephedra. Grass species observed from photographs and plant samples included side-oats grama and possibly Aristda (three-awn) species. No forbs were collected at the site and no evidence of noxious weeds was observed.

# 7.0 POTENTIAL OFFSITE IMPACTS

## 7.1 EROSION

Some gullying was noted near CutLn-1.

## 7.2 ENVIRONMENTAL IMPACTS

There is no evidence of soil staining from chemicals potentially brought to the AUM Site.

# 8.0 REFERENCES

Anderson, Orin J., 1980. Abandoned or Inactive Uranium Mines in New Mexico. New Mexico Bureau of Mines and Mineral Resources Open File Report 148.

Daniel B. Stephens & Associates, Inc (DBSA), 2003. Socorro-Sierra Regional Water Plan. Prepared for: Socorro Soil and Water Conservation District, Socorro, New Mexico.

Harley, George T. *The Geology and Ore Deposits of Sierra County, New Mexico*. Socorro: New Mexico State Bureau of Mines and Mineral Resources, 1934.

Kues, Barry S., and Katherine A. Giles. "The Late Paleozoic Ancestral Rocky Mountains System in New Mexico." New Mexico Geological Society. *The Geology of New Mexico: A Geologic History* (2004): 95-136.

McLemore, Virginia, 1983. Uranium and Thorium Occurrences in New Mexico: Distribution, Geology, Production, and Resources, with Selected Bibiliography. New Mexico Bureau of Mines and Mineral Resources Open File Report OF-183.

Mining and Minerals Division (MMD), 2009. Mine Feature Data Dictionary.

New Mexico Office of the State Engineer (NMOSE), 2008. Wells and Surface Diversions in New Mexico. WATERS_PODS_may08.shapfile. OSE Waters Database.

USACE, 1970. Preliminary Reconnaissance for Uranium in New Mexico, 1950-1958. United States Army Corps of Engineers, ASO-90.

# TABLES

# Table 1
# Site Features

## Red Tiger-NM0247
## Abandoned Uranium Mine Assessments

| Feature Name | On Site? | Feature Type | Associated Feature | Material | Height or Depth (ft) | Width or Diameter (ft) | Length (ft) | Open | Collapsed | Closure Type | Associated Photo | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Access-1 | No | Access Road | -- | -- | -- | -- | -- | -- | -- | -- | -- | variable road conditions |
| Berm-1 | Yes | Berm | -- | -- | 1 | 5 | 50 | -- | -- | -- | NM0247_015 | -- |
| Claim-1 | Yes | Metal Stake | -- | -- | 1 | -- | -- | -- | -- | -- | NM0247_020 | -- |
| CutLn-1 | Yes | Open Cut | -- | -- | 15 | 20 | 30 | Yes | -- | -- | NM0247_003-005 | -- |
| CutLn-2 | Yes | Open Cut | -- | -- | 4 | 6 | 30 | Yes | -- | -- | NM0247_016 | -- |
| CutPly-1 | Yes | Open Cut | -- | -- | 3 | 15 | 30 | Yes | -- | -- | NM0247_025 | -- |
| CutPly-2 | Yes | Open Cut | -- | -- | 8 | 15 | 25 | Yes | -- | -- | NM0247_047 | -- |
| CutPly-3 | Yes | Open Cut | -- | -- | 7 | 10 | 15 | Yes | -- | -- | NM0247_050 | -- |
| DistPly-1 | Yes | Disturbed Ground | -- | -- | 2 | 40 | 60 | -- | -- | -- | NM0247_013-014 | -- |
| DistPly-2 | Yes | Disturbed Ground | -- | -- | -- | 20 | 30 | -- | -- | -- | NM0247_019 | -- |
| DistPt-1 | Yes | Disturbed Ground | -- | -- | -- | 5 | 7 | -- | -- | -- | NM0247_033 | -- |
| Equip-1 | Yes | 55 Gallon Drum | -- | -- | -- | -- | -- | -- | -- | -- | NM0247_026 | -- |
| Fenc-1 | Yes | Fence | -- | Wood | -- | -- | -- | -- | -- | -- | -- | may be ladder ranch boundary |
| PilePly1 | Yes | Pile | -- | Waste | 20 | 30 | 40 | -- | -- | -- | NM0247_002-003, 006-007 | -- |
| PilePly2 | Yes | Pile | -- | Rock | 4 | 10 | 20 | -- | -- | -- | NM0247_017 | -- |
| PilePly3 | Yes | Pile | -- | Rock | 4 | 10 | 30 | -- | -- | -- | NM0247_024 | -- |
| PilePly4 | Yes | Pile | -- | Soil | 3 | 20 | 30 | -- | -- | -- | NM0247_027 | -- |
| PilePly5 | Yes | Pile | -- | Rock | 10 | 20 | 30 | -- | -- | -- | NM0247_029 | -- |
| PilePly6 | Yes | Pile | -- | Rock | 3 | 8 | 10 | -- | -- | -- | NM0247_031 | -- |
| PilePly7 | Yes | Pile | -- | Rock | 3 | 10 | 20 | -- | -- | -- | NM0247_042 | -- |
| PilePly8 | Yes | Pile | -- | Rock | 15 | 30 | 50 | -- | -- | -- | NM0247_044 | -- |
| PilePly9 | Yes | Pile | -- | Rock | 15 | 25 | 25 | -- | -- | -- | NM0247_048 | -- |
| Pileridge-1 | Yes | Pile | -- | -- | 6 | -- | -- | -- | -- | -- | NM0247_032 | -- |
| Pileridge-2 | Yes | Pile | -- | -- | 3 | -- | -- | -- | -- | -- | NM0247_045 | -- |
| Pit-1 | Yes | Pit | -- | -- | 4 | 15 | 20 | Yes | No | -- | NM0247_021 | -- |
| Pit-2 | Yes | Pit | -- | -- | 2 | 5 | 15 | Yes | No | -- | NM0247_022 | -- |
| Pit-3 | Yes | Pit | -- | -- | 5 | 10 | 15 | Yes | No | -- | NM0247_030-031 | -- |
| Rd-1 | Yes | Mine Road | -- | -- | -- | -- | -- | -- | -- | -- | NM0247_009 | -- |

**Notes:**

-- designates no information

## Table 2
## Gamma Radiation Survey Results

## Red Tiger-NM0247
## Abandoned Uranium Mine Assessments

| Reading ID | Asssociated Features | Reading at 0 ft Above Ground (µR/hr) | Reading at 4 ft Above Ground (µR/hr) | Associated Photos |
|---|---|---|---|---|
| Rad-1 | CutLn-1 | 35 | 20 | NM0247_004 |
| Rad-2 | PilePly-1 | 23 | 15 | -- |
| Rad-3 | -- | 30 | 21 | NM0247_008 |
| Rad-4 | -- | 13 | 12 | NM0247_010 |
| Rad-5 | -- | 12 | 12 | -- |
| Rad-6 | DistPly-1 | 160 | 21 | NM0247_012 |
| Rad-7 | Berm-1 | 21 | 16 | -- |
| Rad-8 | -- | 60 | 40 | -- |
| Rad-9 | CutLn-2 | 22 | 22 | -- |
| Rad-10 | PilePly-2 | 15 | 16 | -- |
| Rad-11 | DistPly-2 | 60 | 40 | -- |
| Rad-12 | Pit-1 | 26 | 25 | -- |
| Rad-13 | Pit-2 | 33 | 26 | -- |
| Rad-14 | -- | 270 | 40 | -- |
| Rad-15 | PilePly-3 | 17 | 18 | -- |
| Rad-16 | CutPly-1 | 37 | 27 | -- |
| Rad-17 | PilePly-4 | 14 | 14 | -- |
| Rad-18 | PilePly-5 | 25 | 15 | -- |
| Rad-19 | Pit-3 | 100 | 24 | -- |
| Rad-20 | PilePly-6 | 18 | 17 | -- |
| Rad-21 | Pileridge-1 | 34 | 24 | -- |
| Rad-22 | DistPt-1 | 15 | 14 | -- |
| Rad-23 | PilePly-7 | 17 | 15 | -- |
| Rad-24 | PilePly-8 | 24 | 23 | -- |
| Rad-25 | Pileridge-2 | 11 | 12 | -- |
| Rad-26 | CutPly-2 | 50 | 16 | -- |
| Rad-27 | PilePly-9 | 22 | 19 | -- |
| Rad-28 | CutPly-3 | 48 | 20 | NM0247_049 |
| RadBack-1 | -- | 7 | 8 | -- |

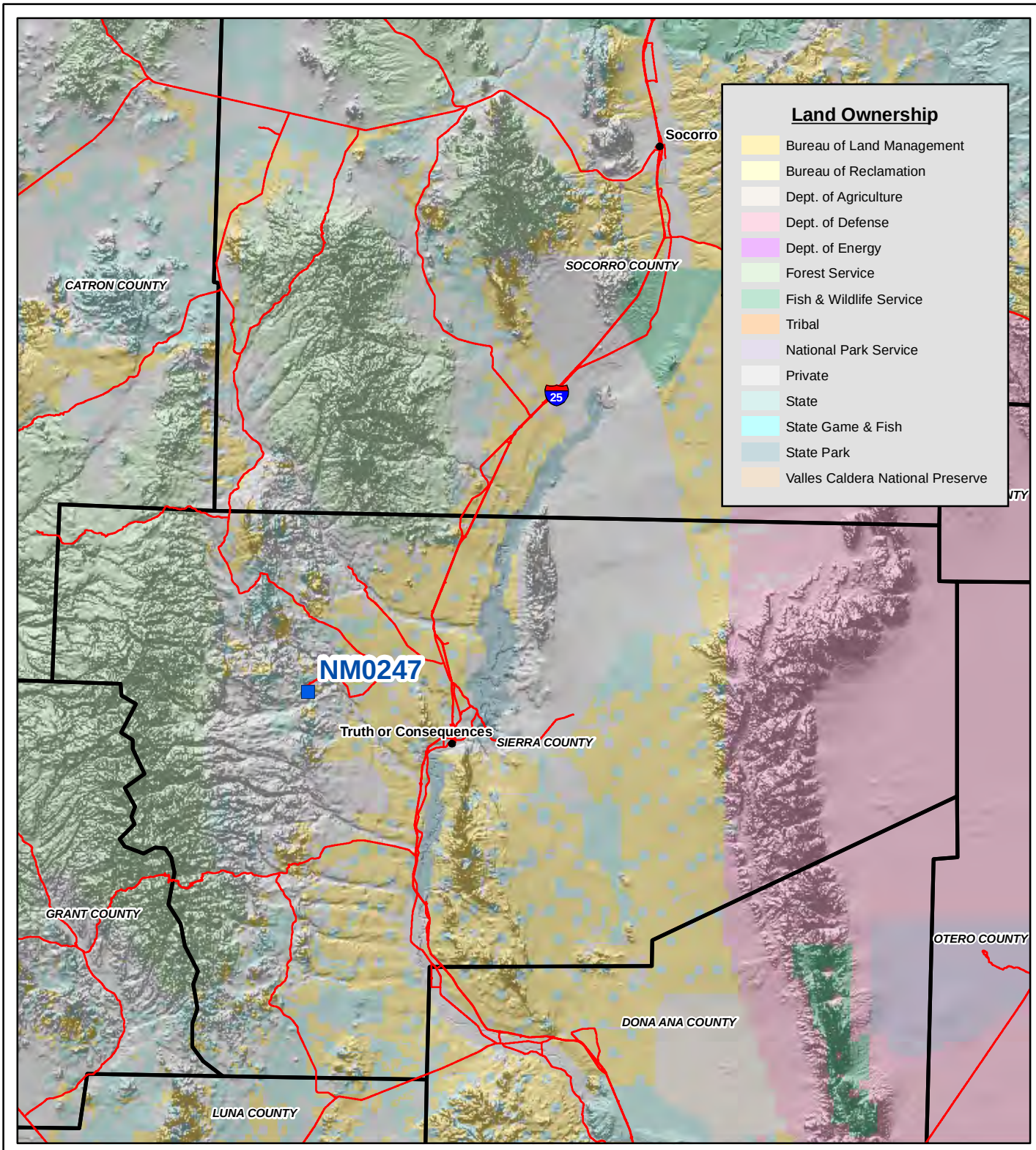
**Notes:**

All gamma readings at this site taken by Ludlum 192 µR/Ratemeter

µR/hr=microroetgens per hour

-- designates no information

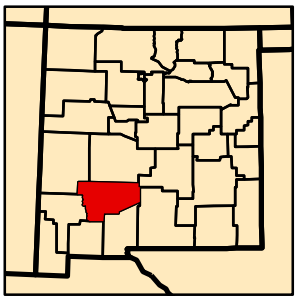
# FIGURES




Map Source(s):
Ownership - BLM, 2007

0 7.5 15 30
Miles

NORTH



## Legend

- AUM Location
- Road
- County Boundary

**Figure 1**
**Site Location Map**
**NM0247-Red Tiger**
Abandoned Uranium Mine Assessment

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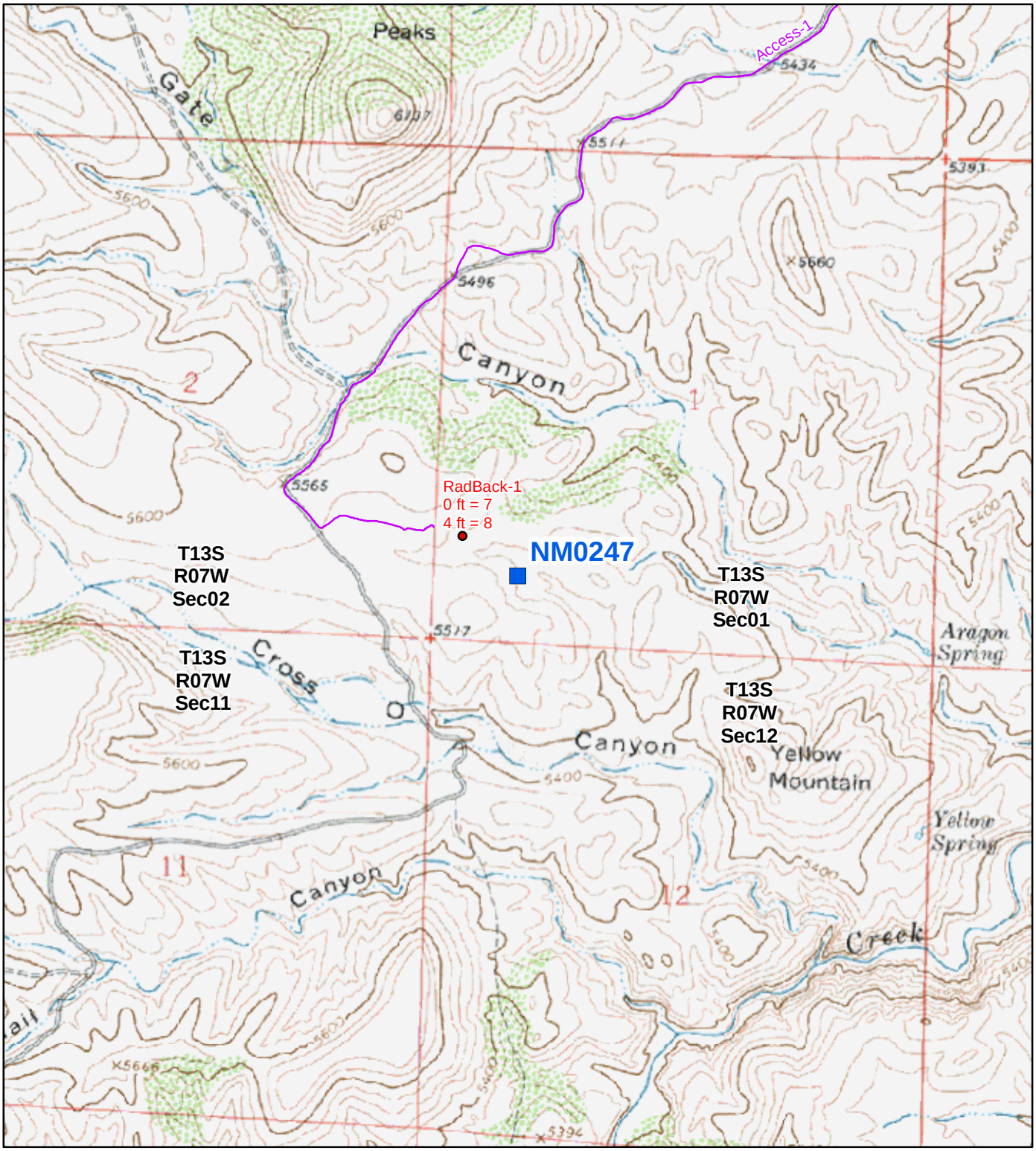


Map Source(s):
U.S. Geological Survey 7.5-Minute
Topographic Map
-Thumb Tank Peak, 1963

0 750 1,500 3,000
Feet

NORTH

Note:
There are no wells within 1 mile of the Site.

## Legend

- Radiation Readings (µR/hr)
- AUM Location
- Access Route

**Figure 2**
**Topographic Map**
**NM0247-Red Tiger**
Abandoned Uranium
Mine Assessment

INTERA

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Map Source(s):
U.S. Geological Survey 7.5-Minute
DOQQ County Mosaic
-Sierra County, 2009

Note:
There are no wells within 1 mile of the Site.

0 750 1,500 3,000
Feet

NORTH

**Legend**

- Radiation Readings (µR/hr)
- AUM Location
- Access Route
- Section Boundary
- Township/Range Boundary

**Figure 3**
**Aerial Photo**
**NM0247-Red Tiger**
Abandoned Uranium
Mine Assessment

INTERA

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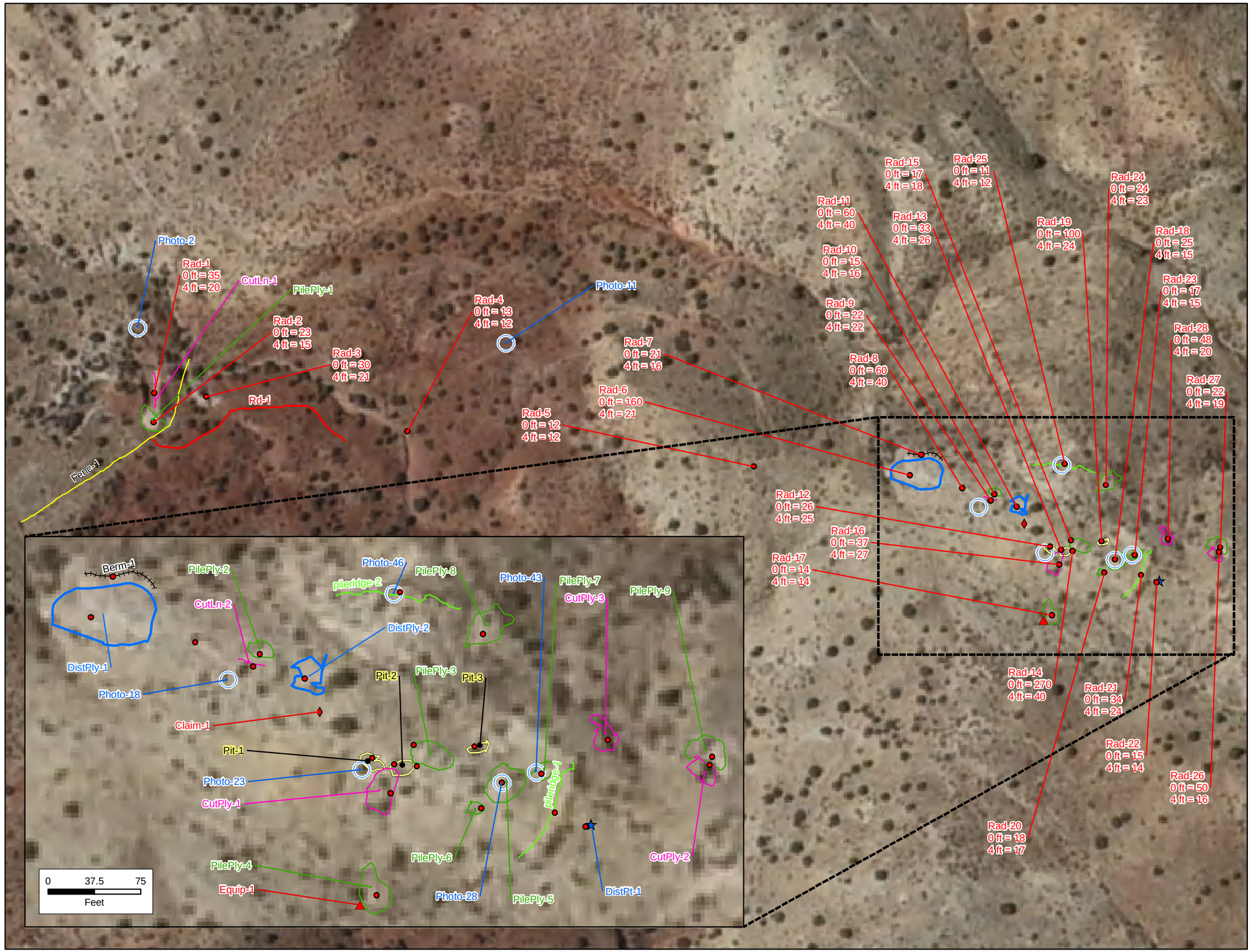


## Legend

- Radiation Readings (µR/hr)
- Claim Marker
- Equipment
- Site of Disturbance
- Photo Location
- Fence
- Berm
- Mine Road
- Open Cut
- Pile Ridge
- Open Cut Boundary
- Pile Boundary
- Pit Boundary
- Other Disturbance Area

### Surface Ownership

- State
- Private
- Bureau of Land Management

0 75 150 300
Feet

NORTH

Map Source(s):
U.S. Geological Survey 7.5-Minute
DOQQ County Mosaic
-Sierra County, 2009

**Figure 4a**
**Site Map on**
**Aerial Photo**
**NM0247-Red Tiger**
Abandoned Uranium
Mine Assessment

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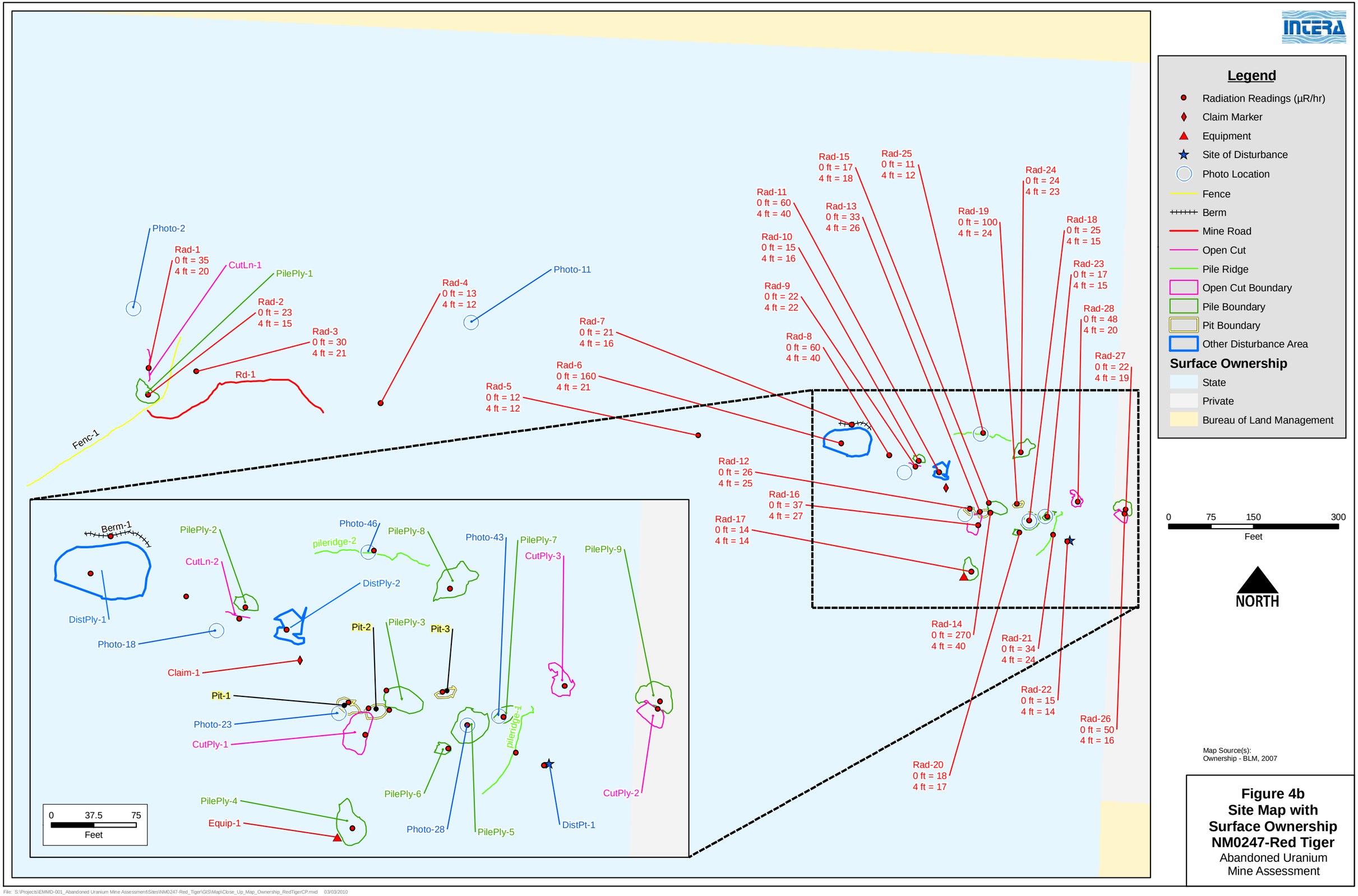


**Figure 4b**
**Site Map with**
**Surface Ownership**
**NM0247-Red Tiger**
Abandoned Uranium
Mine Assessment

File: S:\Projects\EMMD-001_Abandoned Uranium Mine Assessment\Sites\NM0247-Red_Tiger\GIS\Map\Close_Up_Map_Ownership_RedTigerCP.mxd 03/03/2010

# APPENDIX A

# PHOTO LOG

Note: Gaps in the numbering sequence of the photos is the result of removing photos not suitable for the report. A full set of photos is provided in the electronic deliverable.


Photo 1-Site photo and point RadBack-1.


Photo 2-View of CutLn-1 and PilePly-1, looking southeast (point Photo-2).

Photo 3-Closer view of CutLn-1 in the foreground and PilePly-1 in the background, looking southeast.

Photo 4-Photo of point Rad-1 inside CutLn-1.

Photo 5-Looking north at CutLn-1.

Photo 6-Looking southwest at PilePly-1.

Photo 7-Looking southwest at PilePly-1.

Photo 8-Outcrop near CutLn-1.  A radiation survey point was taken here (point Rad-3).

Photo 9-Looking east along Rd-1.

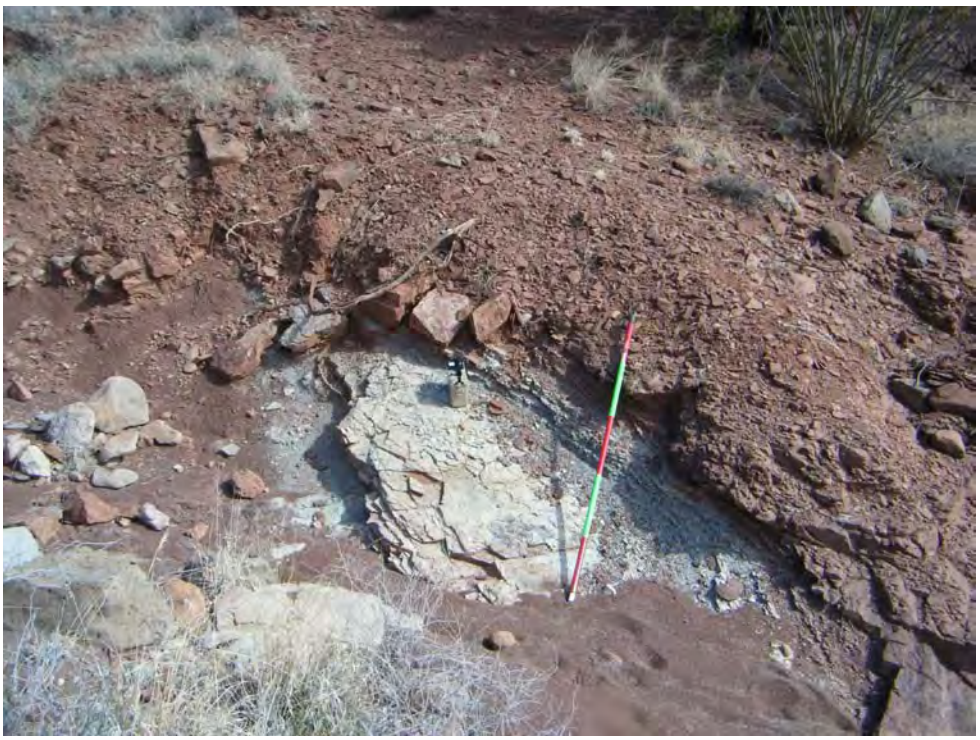

Photo 10-Outcrop in arroyo downstream of site, looking east (point Rad-4).

Photo 11-Site photo, looking west (point Photo-11).

Photo 12-Cherty boulder with copper bearing minerals (point Rad-6, 160 µR/hr at contact).

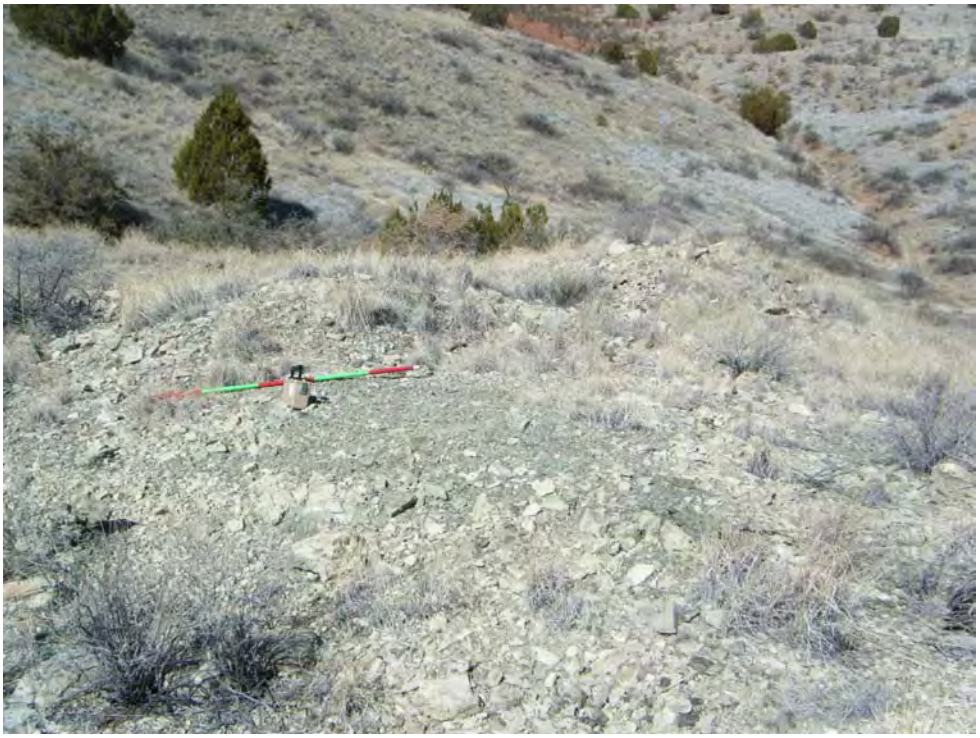

Photo 13-Looking west at DistPly-1.

Photo 14-Looking east at DistPly-1.

Photo 15-View of Berm-1.  Note how the berm is revegetated.

Photo 16-Looking southeast at CutPly-2.

Photo 17-Looking east at PilePly-2.

Photo 18-Looking north at PilePly-2 and CutLn-2 (point Photo-18).

Photo 19-Looking east at DistPly-2.

Photo 20-A stake found onsite (Claim-1).

Photo 21-Looking east at Pit-1.

Photo 22-Looking east at Pit-2.

Photo 23-Looking northeast over Pit-2 (point Photo-23).

Photo 24-Looking northeast at PilePly-3.

Photo 25-Looking north at CutPly-1.

Photo 26-Looking east at half of a 55 gallon drum found onsite (Equip-1).

Photo 27-Looking east at PilePly-4.

Photo 28-Site photo, looking west (point Photo-28).

Photo 29-Looking north at PilePly-5.

Photo 30-Looking west at Pit-3.

Photo 31-Closeup of Pit-3, looking southwest.

Photo 32-Looking southeast at PilePly-6.

Photo 33-Looking north at Pileridge-1.

Photo 34-Looking southeast at DistPt-1.

Photo 41-AUM Site vegetation.

Photo 42-Looking north at PilePly-7.

Photo 43-Site photo, looking northwest (point Photo-43).

Photo 44-Looking north at PilePly-7.

Photo 45-Looking west at Pileridge-2.

Photo 46-Site photo looking southeast (point Photo-46).

Photo 47-Looking east at CutPly-2.

Photo 48-Looking east at PilePly-9.

Photo 49-Bedrock inside CutPly-3 (point Rad-28).

Photo 50-Looking south at CutPly-3.

# APPENDIX B

# FIELD NOTES

2/25/10 AEA Abandoned Uranium Mines

Site Name: NM0247, Red Tiger

Objective: Site Assessment

Personnel: Amy Andrews, INTERA
Danny Bowman, INTERA

Equipment: Rental truck, Trimbel GeoXM (SN: 4948447271, 2008 Series); Ludlum 192 (SN: 234149), Fuji Film digital camera (No 8483949), backup Garmin GPS, cellphone amplifier, field laptop

745 Packing truck + leaving Truth or Consequences for site

~~1000~~ AEA

925 at gate to Ladder Ranch, Steve Dobrott gave us permission to be on the ranch, and the combination to the lock on the gate.

1000 Arrived near the site, parking the truck + getting ready to walk to the shapefile location

Radback 1 - contact = 7uR/hr; 1m = 8uR/hr
Photo 1 - radback 1

2/25/10 AEA Abandoned Uranium Mines

Photo 2 - first view of AUM site, cut 1 and pile 1 in background, looking SE

Cut 1 - 2~~0~~ AEA ft wide, 15ft deep, 30ft long
Photo 3 - cut 1 with pile 1 in background, scale pole is next to Rad 1, looking SE
Rad 1 - contact = ~~40~~ 35 AEA uR/hr; 1m = 20 uR/hr

Photo 4 - black staining has rad readings of 3x background, inside cut 1

Photo 5 - cut 1, looking N from pile 1

Pile 1 - 30ft x 40ft x 10ft tall
Rad 2 - contact = 23 uR/hr; 1m = 15 uR/hr
Photo 6 - pile 1, looking NE, cut 1 is to the left
Photo 7 - pile 1, looking SW

Fence 1 - belived to be the boundary to Ladder Ranch, pile 1 + cut 1 are on Federal land, all other features are on Ladder Ranch

Rad 3 - contact = 30 uR/hr; 1m = 21 uR/hr
Photo 8 - Rad 3

Rd 1 - road running past site
Photo 9 - Rd 1, looking E

Rad 4 - contact = 13 uR/hr; 1m = 12 uR/hr
Photo 10 - Rad 4, in arroyo downstream of site, looking E

2/25/10 AFA Abandoned Uranium Mines

Photo 11 - site photo looking W

Geology is Abo formation, fine grain red sandstone with desert varnish
Above the Abo is a volcanic tuft.
The Abo formation is highly erosive, with many water pathways and very little vegetation. It is not clear if the erosion started because of the mining activities, or if it is natural. Soil is silty sand

Rad 5 - contact = 12uR/hr; 1m = 12uR/hr

Rad 6 - contact = 160uR/hr; 1m = 21uR/hr
Photo 12 - rad 6, friable siltstone w/ copper bearing mineral

Dist 1 - large area of broken rock with radiation readings above background area has revegetated itself
Photo 13 - dist 1, looking W
Photo 14 - dist 1, looking E

Berm 1 - 50ft long, 5ft wide, 1ft high
Photo 15 - berm 1
Berm 1 has naturally revegetated itself.
Rad 7 - contact = 21uR/hr; 1m = 16uR/hr

Rad 8 - contact = 60uR/hr; 1m = 40uR/hr
no obvious disturbances at this location

2/25/10 AEA : Abandoned Uranium Mines

Cut 2 - 30ft long, 4ft deep, 6ft wide
Photo 16 - cut 2, looking SE
Rad 9 - 22 uR/hr contact; 1m = 22 uR/hr
Pile 2 - 4ft high, 10ft wide, 20ft long
Photo 17 - pile 2, looking E
Rad 10 - contact = 15 uR/hr; 1m = 16 uR/hr
Pile 2 was created from cut 2
Photo 18 - cut 2 + pile 2, looking N

Dist 2 - 20ft x 30ft, broken rocks spread across the ground
Rad 11 - contact = 60 uR/hr; 1m = 40 uR/hr
Photo 19 - dist 2, looking E

Claim 1 - Iron stake sticking 1ft out of the ground
Photo 20 - claim 1

Pit 1 - 15ft wide, 20 long, 4ft deep
Photo 21 - pit 1, looking E
Rad 12 - contact = 26 uR/hr; 1m = 25 uR/hr

Pit 2 - 15ft x 5ft x 2ft deep
Photo 22 - pit 2, looking E
Rad 13 - contact = 33 uR/hr; 1m = 26 uR/hr

Photo 23 - wide view photo across pit 2 looking NE

Rad 14 - contact = 270 uR/hr; 1m = 40 uR/hr

2/25/10 AEA Abandoned Uranium Mines

Pile 3 - 4ft high, 10ft x 30ft
Photo 24, pile 3, looking NE
Rad 15 - contact = 17uR/hr; 1m = 18uR/hr

Cut 3 - 3ft deep, 30ft x 15ft
Photo 25 - cut 3, looking N
Rad 16 - contact = 37uR/hr; 1m = 27uR/hr

Equip 1 - half of a 55gal steel drum, partially buried, empty, next to pile 4
Photo 26 - equip 1, looking E

Pile 4 - 20ft x 30ft, 3ft high
Photo 27 - pile 4, looking E
Rad 17 - contact = 14uR/hr; 1m = 14uR/hr

Photo 28 - site photo, looking W

Pile 5 - 10ft high, 20ft x 30ft
Rad 18 - contact = 25uR/hr; 1m = 15uR/hr
Photo 29 - pile 5, looking N

Pit 3 - 5ft deep, 10ft x 15ft
Rad 19 - contact = 100uR/hr; 1m = 24uR/hr
Photo 30 - pit 3 far away, looking W
Photo 30 - pit 3 close up, looking SW

Pile 6 - 3ft high, 10ft x 8ft
Rad 20 - contact = 18uR/hr; 1m = 17uR/hr
Photo 31 - pile 6 looking SE

~~Photos 32 - 41 vegetation~~ AEA

2/25/10 AEA Abandoned Uranium Mines

Pile Ridge 1 - 6ft high, 10ft high
Photo 32 - Pile Ridge 1, looking N
Rad 21 - contact = 34 uR/hr; 1m = 24 uR/hr

Dist 3 - 5ft x 7ft, looks like it might have been a pit that was filled with rocks
Photo 33 - dist 3, looking SE
Rad 22 - contact = 15 uR/hr; 1m = 14 uR/hr

Photos 34 - 41 - vegetation

Pile 7 - 2ft high, 10ft x 5ft
Photo 42 - pile 7, looking N
Rad 23 - contact = 17 uR/hr; 1m = 15 uR/hr

Photo 43 - site photo looking NW from pile 7

Pile 8 - 15ft high, 30ft x 50ft
Photo 44 - pile 7, looking SW
Rad 24 - contact = 24 uR/hr; 1m = 23 uR/hr

Pile Ridge 2
Photo 45 - pile ridge 2, looking W
Rad 25 - contact = 11 uR/hr; 1m = 12 uR/hr

Photo 46 - site photo looking SE from pile ridge 1

2/25/10 AEA Abandoned Uranium Mines.

Cut 4 - 15ft x 25ft, 8ft deep
Photo 47 - cut 4, looking E
Rad 26 - contact = 50 uR/hr; 1m = 16 uR/hr

Pile 9 - 15ft high, 25ft x 25ft
Rad 27 - contact = 22 uR/hr; 1m = 19 uR/hr
Photo 48 - pile 9

Cut 5 - 7ft deep, 10ft x 15ft
Rad 28 - contact = 48 uR/hr; 1m = 20 uR/hr
Photo 49 - Rad 28
Photo 50 - cut 5, looking S

1430 back at truck, packing up to leave

1515 leaving Ladder Ranch

Due to the topography + natural revegetation, the features at this site are difficult to see, from most vantage points only a couple features are visible at one time

Signs of wildlife: deer antlers, deer + elk hoof prints, jackrabbit, and a quail

No visible signs of recent human activity