

## ER Site 67: Frustration Site

ADS: 1332

Operable Unit: Foothills Test Area

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### Site History

ER Site 67 is an old mine adit which was used to house an experimental seismic station during the 1960s and 1970s. The abandoned Frustration Seismic Station is located in the Frustration Mine, a horizontal adit approximately 50-ft deep. A sturdy metal door seals the entrance; the remains of the seismic instrumentation are attached to the rock walls inside. Interviews with SNL/NM personnel who worked at the seismic station indicate that the unit was used for monitoring seismic events and the work did not generate any hazardous wastes. Explosive or other destructive testing would not have been conducted in the vicinity because it would have damaged the sensitive seismic instrumentation.

The Frustration Site is located in the southeastern part of the Coyote Test Field. A dirt road leads directly to the door of the Frustration Seismic Station. The total area is approximately 6 acres. The other mine shafts in the area of Site 67 are being incorporated with ER Site 28 (Mine Shafts), which was proposed for No Further Action (NFA).

The military formerly conducted maneuvers in the vicinity, as evidenced by the presence of ordnance debris. The SNL/NM ER Project does not consider the ordnance debris to be its responsibility. Environmental restoration activities have included an unexploded ordnance (UXO) survey conducted in February 1994. The surrounding area was used by the military during WWII for ordnance testing. Numerous shells, some of which may still be alive, and pieces of shrapnel are scattered over much of the area. Personnel at KAFB determined that removal and/or disposal of the shells would be too costly. The shells are considered a USAF responsibility.

Information contained in the Comprehensive Environmental Assessment and Response Program (CEARP) Phase 1: Installation Assessment states that near the Frustration Site there is another horizontal mine shaft that SNL/NM reportedly used to burn old aluminum-cased rocket motors. The mine shaft where burning took place has been identified as ER Site 28-2 and will be investigated as a part of ER Site 28.

All interviews of personnel who actually worked at the site indicated that the Frustration Site was only used for experimental seismic work, and that no radioactive or hazardous materials were used.

Since there were rumors of radioactive waste disposal in some of the mine shafts, SNL/NM Safety Engineering staff conducted a radiometric survey of all the mine shafts around 1985. No radiation was detected in the Frustration Site.

An electrical transformer surrounded by a fence (it has since been removed) was located in front of the adit that housed the seismic station. There is no visible evidence of an oil leak onto the ground surface.

Based on information derived from personnel interviews, the corroborative radiation survey of the site, and the recent site reconnaissance, it is unlikely that there is potential at ER Site 67 for a release of hazardous waste (including hazardous constituents) that may pose a threat to human health or the environment.

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### Corrective Action

A radiation survey was conducted by SNL/NM in July 1989. No radioactive anomalies were detected. ER Site 67 was added to the HSWA Module. Numerous interviews with testing staff in were conducted in 1993. The interviews confirmed that the mine was solely used for seismic research. No explosive, hazardous or radioactive materials were used at the site.

A visual survey for Unexploded Ordnance / High Explosive (UXO/HE) materials conducted in vicinity of, and within, the mine adit between late 1994 and early 1995. No UXO/HE material was found in either survey.

A Radiation survey was conducted in 1994, but no radioactive anomalies were detected. In July 1996, an inspection of the mine was performed. Scattered pieces of old electrical equipment and office furniture were present. No oil stains were visible where the electrical transformer had been previously located.

A sampling and remediation (housekeeping) plan was produced in October 2000. The housekeeping activity was subsequently conducted at the site. Approximately 5 cubic yards of non-hazardous waste (deteriorated mine timbers and electrical components) were removed from mine shaft. Confirmatory soil samples were then collected inside the mine next to the concrete pad where an electrical transformer was previously located. Soil samples were analyzed for PCBs; none were detected.

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### Constituents Investigated

PCBs

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### Institutional Controls

NMED has determined the site is complete and no controls are needed. However, as a best management practice, SNL has established Corporate Institutional controls (IC) to track this site in the IC database. Additional information regarding SNL Institutional Controls can be obtained from the SNL IC tracking database. For access to and/or more information, please contact the Environmental Message line at 505 284-9883.

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### Current Regulatory Status

Corrective action is complete at ER Site 67, and no further action is required. This site is acceptable for residential land use, and there are no restrictions on future activities. NMED approved completion of corrective action on November 19, 2001.

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### Results of Risk Analysis

No risk analysis was necessary.

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### Waste Volume Estimated/Generated

Approximately 5 cubic yards of non-hazardous waste (deteriorated mine timbers and electrical wiring and fixtures) was generated during the housekeeping activities conducted in October 2000.