

**United States Environmental Protection Agency**  
**Region I**  
**POLLUTION REPORT**

**Date:** Tuesday, November 6, 2007

**From:** Gary Lipson

**Subject:** Initiation of Action  
VAG Mine Site  
Eden/Lowell, VT

<b>POLREP No.:</b>	1	<b>Site #:</b>	
<b>Reporting Period:</b>		<b>D.O. #:</b>	
<b>Start Date:</b>	10/15/2007	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	10/15/2007	<b>Response Type:</b>	Time-Critical
<b>Demob Date:</b>		<b>NPL Status:</b>	Non NPL
<b>Completion Date:</b>		<b>Incident Category:</b>	Removal Action
<b>CERCLIS ID #:</b>		<b>Contract #</b>	
<b>RCRIS ID #:</b>			

#### **Site Description**

The site is located in a rural area off of Mines Road in the towns of Eden and Lowell, VT, within Orleans and Lamoille Counties. Between the early 1900's and 1993 when production operations ceased, asbestos ore was mined out of three locations on Belvidere Mountain in areas identified as Eden Quarry, C-Area, and Lowell Quarry. The oldest part of the mine, The Eden Quarry and its associated tailings pile is located on the southern/southeastern face of the mountain. The larger of the tailings piles is associated with the Lowell Quarry and is located on the lower, eastern slope of the mountain. The entire property is greater than 2,500 acres and it is believed that the tailings piles, open pits and quarries, and waste rock make up greater than half of that amount. The approximate latitude and longitude at the main entrance to the mine site is N44°45.9', W72°31.2'.

The Eden Quarry is at an elevation of approximately 2,300' and is reached by traveling up an old mine road from the main entrance off of Mines Road. The waste pile here is an estimated 12 million tons. The pile is being heavily eroded by the beginnings of Hutchins Brook which is carrying substantial quantities of mine tailings into the Lamoille watershed. There is also evidence of recreational use (tire tracks) in and around the pile. A wetland, approximately 25-acres in size, located approximately one mile down-gradient of this waste pile has been heavily affected by the tailings. The wetland area appears to be reaching its storage capacity and is threatening to adversely affect adjacent water bodies.

The Lowell Quarry and the C-Area produced the most abundant type of ore. The Lowell Quarry, now filled in with water, created the larger of the waste piles, which has been estimated between 30 and 60 million tons covering 80 acres. This pile has also been eroding and has impacted the southern end of Corez Pond, immediately adjacent to the piles. In addition, Burgess Brook and associated wetlands within the Mississquoi watershed are being impacted.

There is a gate at the main entrance to the mine area, but access is generally unimpeded via that entrance and due to the massive footprint of the site, at any number of points throughout the woods. The DEC has been working with VAG to limit access by placing boulders and warning signs on a number of logging roads and trails leading into the site. There is frequent recreational activity occurring in the vicinity, which includes hunting, fishing, all-terrain vehicle riding and hiking. The Long Trail, a popular recreational hiking trail traversing the state of Vermont, crosses over the peak of Mount Belvidere which is a few hundred yards from the top of the upper tailings pile.

#### **Current Activities**

On October 15, 2007, EPA, it's Emergency Rapid Response Services (ERRS) contractor (Shaw), and it's Superfund Technical Assistance and Response Team (START) contractor (Weston Solutions) mobilized to the site. On October 16, 2007, all site personnel attended an 8-hr site specific asbestos awareness and health and safety class, which is required by the State of Vermont for all work being conducted at this site.

Site preparation continued during the week and included the construction of a road leading to a site support area where the work and decontamination trailers were placed. As most of the property consists

of asbestos containing tailings, the road and support areas were constructed of clean stone spread out over geotechnical fabric.

On October 19, 2007, site work began with the construction of a berm adjacent to a small pond on the eastern edge of the site which has been in danger of getting inundated with fine tailing material migrating from an adjacent face. Outfall from the pond leads to the Burgess Branch and Mississquoi watershed and in addition, the pond has been traditionally used by local fire departments to draw water for fire fighting activities.

On October 23, 2007, site activities continued at an area that had been collecting fine runoff material migrating from the lower western edge of the larger tailings pile. This basin had reached its storage capacity and was overflowing and migrating into the beginning of the Burgess Branch and Mississquoi watershed. The previously collected fine material was mucked out of the basin and placed in a location where any runoff would not impact the downgradient watershed. The basin was then bermed to add additional storage capacity.

The next area of site activity concentrated on runoff from the northern portion of the site. This flow that had previously been culverted towards the same Mississquoi watershed was diverted by EPA's cleanup contractor beginning on October 26, 2007 to flow into the on-site pit pond (the now filled in Lowell Quarry). There is ample storage capacity within the pond to allow for the settling of fibers prior to its outfall.

On October 29, 2007, Shaw began activities at their current work area which is also concentrating on containing fine tailings material migrating from the lower western face of the larger of the piles. The fines have been washing across the main site road, collecting along a stream bank and into the stream, again leading into the Burgess Branch. Work tasks include digging out the deposition area along the stream and depositing that material in a secure area, building berms to create new settling basins and to protect the stream, and channeling future migration of fines into the basins.

#### **Planned Removal Actions**

Once the current work area is completed, Shaw will continue on to the southern end of Corez Pond, which is at the base of the highest and one of the steepest portions of the larger tailings pile. Tasks include re-grading of the road leading to the work area, buttressing the base of the pile with large stones and building up the previously constructed berms as they have reached their storage capacity.

This will be the final work completed this year at the site as EPA and its contractors are scheduled to work until demobilizing prior to the end of November. When removal activities continue in the spring of 2008, work at Corez Pond will resume with the installation of additional berms and a channel to direct the tailings runoff away from the pond. Work is then expected to continue at the upper tailings pile which is the site of the original quarry and processing mill. Erosion and runoff from this location has led to heavy inundation of wetlands within the Lamoille watershed. Work in this area will involve working with the State Historical Preservation Office and a historical preservationist to document site conditions and the locations of historic structures, foundations, and potential development that may have pre-dated the mining operation.

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