



Del Amo Superfund Site

Los Angeles, California

U.S. Environmental Protection Agency \$ Region 9 \$ San Francisco, CA \$ January 2008

Progress Update on the New System that is Removing Contamination at the Del Amo Waste Pits

Introduction

The United States Environmental Protection Agency (U.S. EPA) has prepared this fact sheet to update the public on the cleanup at the Waste Pits Operable Unit of the Del Amo Superfund Site, located in Los Angeles, close to Torrance, CA. The Responsible Parties, under U.S. EPA oversight, built a Soil Vapor Extraction (SVE) system at the Del Amo Waste Pits and have been operating it for one year. The purpose of the system is to cleanup volatile organic compounds (VOCs) below the surface at the Waste Pits.

Background

The Waste Pits area is a five-acre parcel situated at the southern end of the 280-acre Del Amo Superfund site in an area of Los Angeles known as Harbor Gateway. Specifically, the Waste Pits are located at the corner of Vermont Avenue and Del Amo Boulevard. The entire 280-acre site was formerly used as a synthetic rubber plant from 1943 to 1972. The plant's industrial waste was dumped into six unlined pits and three evaporation ponds, now called the Waste Pits area.

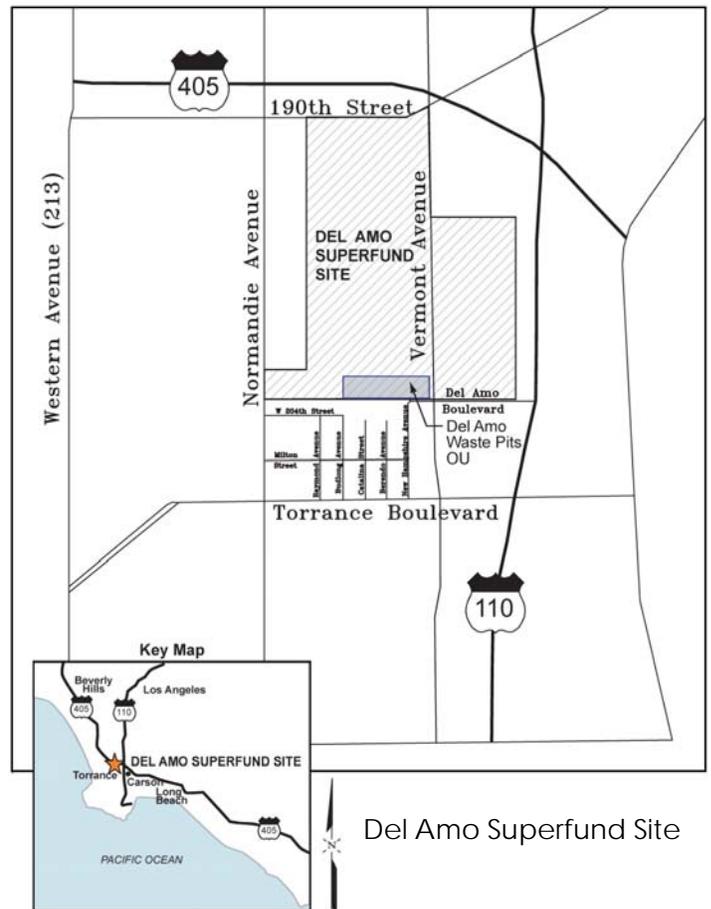
Environmental investigations revealed that the plant's industrial waste had contained VOCs and semi-volatile organic compounds (SVOCs). VOCs are chemicals that are "volatile" or evaporate easily when exposed to the air and SVOCs are "semi-volatile" chemicals that require extra heat in order to evaporate when exposed to air. At the Waste Pits, VOC and SVOC contamination had seeped into the groundwater and soil. The most commonly detected contaminants were benzene, naphthalene, ethylbenzene and phenol.

The Cleanup Remedy

In 1997, the U.S. EPA selected a three-pronged cleanup remedy for the Waste Pits area:

- \$ a multi-layer, impermeable cap over the Waste Pits installed in 2000
- \$ land use restrictions recorded in 2000 and 2005
- \$ and an SVE system beneath the Waste Pits built in 2006

SVE is a common process used to clean soil that is contaminated by chemicals that evaporate easily or volatilize. Vacuum wells are inserted into the ground to pull out contaminated vapors from the soil. The contaminated soil vapors are then treated by an air treatment technology utilizing carbon adsorption filters to remove the contaminants from the air stream on site. The Del Amo SVE system was built in the Spring of 2006 and is different from the basic SVE design by adding a re-injection loop. A portion of the extracted vapor is re-injected into the ground along with additional oxygen. The added oxygen increases in situ biodegradation, a natural way of destroying contaminants below ground. This process allows existing bacteria in the soil to ingest the contaminants, transforming or degrading them into other non-toxic materials.



For remediation purposes, the Waste Pits have been divided into four sub-areas. The SVE system is applied within the western half of the Waste Pits area. The two eastern sub-areas have largely met their cleanup goals already. A limited area in the eastern half remains above the cleanup goal; there, SVE extraction alone, without re-injection, is being employed.

Performance of the SVE system during its first year of operation

To monitor performance, vapor samples are taken from wells located throughout the Waste Pits area and from various points within the treatment system. This allows scientists to measure the system's performance and its effect on the contaminated soil. This information also enables U.S. EPA to track the system's performance and compare it to initial projections.

SVE Removal Progress

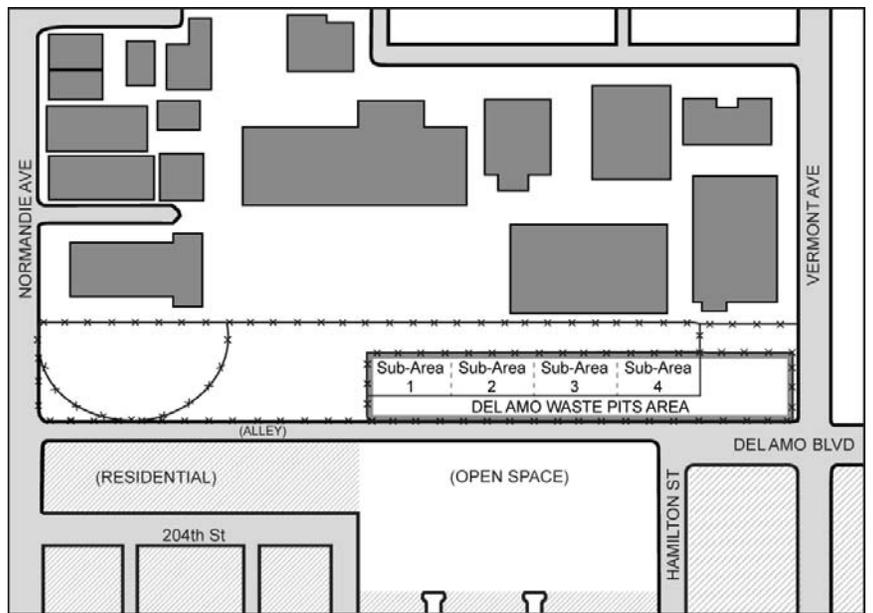


The SVE system has removed 3,142 gallons of benzene, which is equal to approximately 57 barrels.

From August 7, 2006 to date, the SVE system removed approximately 23,035 pounds (10,470.5 kilograms) of benzene via degradation and adsorption. Sub-areas 1, 2, and 4 (see map) require further SVE operations to reduce benzene levels to the remediation goal while sub-area 3 has met its remediation goal.

Initially the system used more carbon than was expected. Within the initial three-month period, carbon usage was nine times greater than expected. However, in November 2006, a monitoring device was installed that enabled the operators to utilize the carbon filters to the efficiency intended in the system's design. During that initial three-month period, the high carbon usage did not impact cleanup or human health; rather it increased the cost of carbon use.

The EPA will continue to oversee cleanup efforts at the Waste Pits area, which are expected to take approximately 10-15 years.



Location of Del Amo Waste Pits

Information Repositories

Information about the contamination removal at the Del Amo Waste Pits is available to the public, along with other documents related to the investigation and cleanup of the Del Amo Superfund Site, at the public libraries listed below:

Torrance Civic Center Library
3301 Torrance Blvd.
Torrance, CA
(310) 618-5959



Carson Public Library
151 East Carson Street
Carson, CA
(310) 830-0901

For More Information

If you have questions about the Del Amo Superfund site or would like to be added to the mailing list, please contact:

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