Where Have Perchlorate Samples Been Collected at and Around the SSFL?

Please Note: The original version of this figure includes restricted features and shading. A black and white copy of this figure should not be used because it may not accurately represent the information presented.

SIMI VALLEY

Individual well locations in Simi Valley not shown

Arroyo Bed 3

Arroyo Bed 2

Arroyo Bed 1

Subsequent to reported detections in the spring of 2003, samples were collected weekly from CS-8 (Santa Susana) from July 2003 thru June 2004. Analysis of more than 100 samples show no perchlorate to be present.

At new well CS-9R, results of samples collected from 19 vertically-discrete locations show groundwater is free of perchlorate

Brandeis-Bardin Institute

Runkle Canyon Property

Sediment results considered inconclusive by RWQCB. Wells subsequently installed (as requested by RWQCB) show groundwater is free of perchlorate. (Well locations are approximate).

Santa Monica Mountains Conservancy

Undeveloped Land

Santa Susana Field Laboratory

Soil removal completed in 2000

Samples collected from monitoring wells show that perchlorate in groundwater remains near where it was used. Almost all perchlorate use at the SSFL was at the Building 359 and Happy Valley RFI sites.

Soil removal completed in 1999. Additional interim measures complete in Fall 2003. NPDES sample results from 2004 are <4 ug/L.

Initial sample collected in July 2003. One laboratory reported detection, while DTSC HML reported non-detect. Resampled in August and November 2003 and results from both events were non-detect.

Seven additional locations in Chatsworth Reservoir are also Non-Detect for perchlorate

Soil removal completed in 1992. Eleven soil surface water samples were collected in March 2003. Preliminary results show perchlorate was not detected at concentrations <6 ug/L in 10 Samples

Bell Canyon

Ahmanson Ranch Open Space

Thirteen (13) samples from various depths in well M-1 have been collected on 4 different occasions. Perchlorate was not detected in any of the 13 samples. The previous reported detection of 38 ug/L was revised to non-detect by the laboratory.

Fourteen (14) locations have been sampled for perchlorate at/near Calabasas Landfill and are also non-detect. Location ~2 miles south.

Two additional wells on Ahmanson Ranch have also been sampled for perchlorate and are non-detect. Locations ~1.25 miles south.

Ventura County

Los Angeles County

City of Los Angeles

Normally Dry

Legend

- Sample Location Where Perchlorate is Below the Action Level
- Sample Location Where Perchlorate is Above the Action Level
- One-Time Perchlorate Detection Above the Action Level
- SSFL Property Boundary
- RFI Site Boundary Where Perchlorate Sampling Conducted

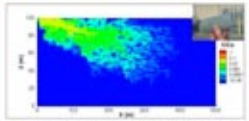
Notes:

The Action Level noted above is 6 ug/L and is based on the public health goal established by the Office of Environmental Health Hazard Assessment on March 12, 2004 and is also the California Department of Health Services action level.

Sample Types Consist of Groundwater Well, Seep/Spring, Surface Water, Soil or Fruit.

SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA
NOVEMBER 2004

As of June 2004 approximately 4,000 samples have been collected from various environmental media and analyzed for perchlorate.



Perchlorate transport simulation using a two-dimensional fracture network shows the strong retardation effect of molecular diffusion. Perchlorate mass is transferred from groundwater flowing through fractures into the porous sandstone. This simulation depicts a transport distance of ~1,000' at a point in time 50 years after the release first occured.