Work performed under the auspices of the U. S. Department of Energy by Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

Cleanup Progress at Lawrence Livermore National Laboratory Site 300 General Services Area (GSA) Operable Unit

UCRL-MI-135903

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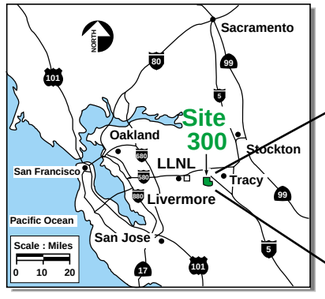
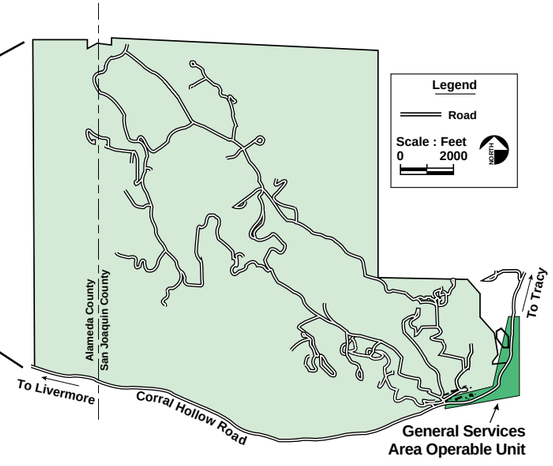
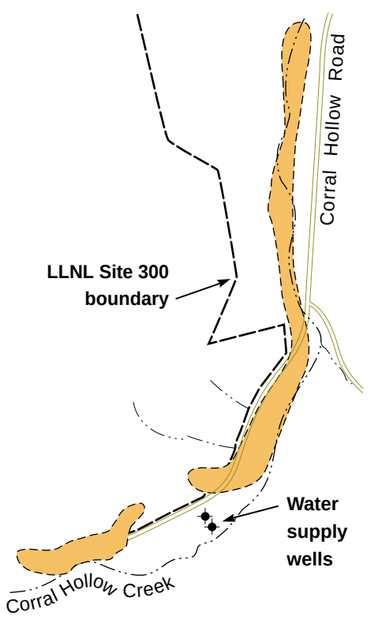
August 1997



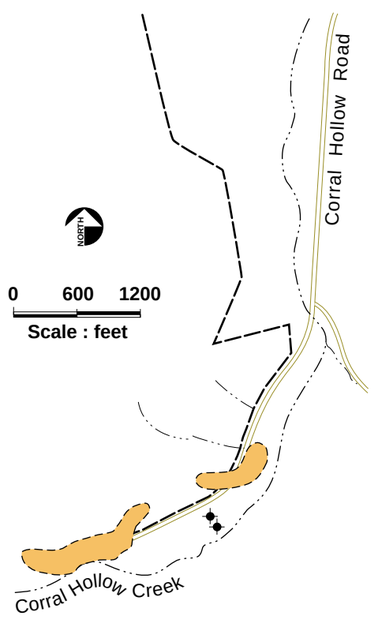


Location of Lawrence Livermore National Laboratory (LLNL) Site 300 and GSA Operable Unit

- LLNL Site 300 has been a DOE Experimental Test Facility since 1955.
- Volatile Organic Compounds inadvertently released to the environment during routine operations in the GSA have resulted in ground water and soil contamination.
- CERCLA Removal Actions were implemented in the GSA to: 1) reduce exposure risk, 2) reduce the mass of VOCs in soil and ground water, 3) control plume migration, and 4) prevent contamination of off-site water-supply wells.
- Over 94 million gallons of ground water have been extracted and treated since 1991 at the two GSA facilities. Simultaneous soil vapor and ground water extraction has been operating since 1994. Over 40,000 grams of VOCs have been removed from the subsurface.
- Since ground water remediation was initiated in the eastern GSA, we have successfully reduced TCE concentrations in ground water by 80%. Prior to remediation, the TCE ground water plume extended 4,750 ft off-site, now it extends only 450 ft from the eastern GSA source area.
- At the central GSA, the maximum TCE concentration in ground water has been reduced from 240,000 ppb to 10,000 ppb. TCE concentrations in extracted soil vapor have decreased from over 1,000 ppmv/v to 2 ppmv/v.
- Simplified treatment facility design and construction has resulted in cost-effective treatment of soil vapor and ground water.



Extent of TCE in ground water (5 ppb) in 1991



Extent of TCE in ground water (5 ppb) in 1997

Central GSA soil vapor treatment system