

5-Years Later Low-Threat Petroleum UST Closure Policy

Presented by:

Kevin Heaton
Geologist, P.G., CHG
County of San Diego, Department
of Environmental Health, Site
Assessment & Mitigation



Sean McClain
Geologist, P.G.
San Diego Regional Water
Quality Control Board, San
Diego Region





SWRCB Low-Threat Petroleum UST Closure Policy

- Focus on high-priority cases (such as impacted drinking water wells, human health, and sources of free product)
- Provide consistent regulation of the Policy throughout the state
- Path to Case Closure Plans for each open case, including specific milestones and timelines

LTC Policy Criteria Difficulties





Site Conceptual Model

- Extent of release in both soil and groundwater
- Definition of areas impacted by free product
- Data analysis of dissolved plume stability
- Quantify volume of residual impacted soil remaining
- Maps of dissolved plumes (BTEX and MTBE) and estimated time to reach MCLs

Free Product Removed to the Maximum Extent Practicable

- Free Product Removal
 - Bailers are not effective
 - Dedicated skimmers or hydrophobic bailers have been effective in sandy soils not silty or clayey soils
- Vapor Extraction and Dual Phase Extraction
 - Effective where free-product is present
- High Vacuum Dual Phase Extraction
 - Effective in tight formations

Free Product Removed to the Maximum Extent Practicable

- Free product removed to the maximum extent practicable in a manner that minimizes the spread of contamination into previously uncontaminated zones
- Migration shall be the predominant objective in the design of the free product removal system
- To make these evaluations the following methods shall be considered
 - Monitoring the extent of the LNAPL body (usually using the apparent product thickness in monitoring wells) at a certain water level elevation over time
 - Bail-down test
 - Pilot testing (vapor extraction or DPE)

Free Product Removed to the Maximum Extent Practicable

- Additional removal or active remedial actions shall not be required by regulatory agencies unless
 - Necessary to abate a demonstrated threat
 - Dissolved phase plume is not stable
 - Free product is migrating



UST Cases Closed with Free Product

- Non-beneficial use aquifers that posed no threat to human health
- Free-product under roads or near freeways that posed no threat to human health or the environment
- Free-product in beneficial use aquifers greater than 30 feet bgs that posed no threat to water supply wells, future groundwater use, human health, or the environment



Questions