



State Water Resources Control Board

UST CASE CLOSURE SUMMARY

Agency Information

Table with 2 columns: Agency Name, Address, Agency Caseworker, Case No.

Case Information

Table with 2 columns: USTCF Claim No., Site Name, Petitioner, USTCF Expenditures to Date, Global ID, Site Address, Address, Number of Years Case Open

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id= T0604300060

Summary

The Low-Threat Underground Storage Tank Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Low-Threat Policy. This Case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Policy is shown in Attachment 1: Compliance with State Water Board Policies and State Law. The Conceptual Site Model upon which the evaluation of the Case has been made is described in Attachment 2: Summary of Basic Site Information. Highlights of the Conceptual Site Model of the Case are as follows:

The unauthorized release was discovered in 1991 when free phase product was observed in Mariposa Creek. The historic plume paralleled Mariposa Creek for nearly 1,200 feet. One shallow hand dug well was impacted and several private domestic wells were taken offline as a precautionary measure. The Underground Storage Tanks (USTs) were removed in 1994 along with 200 cubic yards of surrounding soil. The USTs were not replaced and no USTs remain at the Site. A soil vapor extraction system and an extensive groundwater extraction system with interceptor trenches were utilized to remediate the contaminants. The aggressive remediation has reduced the Miller Road area contamination to below water quality objectives (WQO), and near or below detection limits.

Public water service is provided to the properties adjacent to the Site by Mariposa Public Utility District (MPUD). The private domestic wells located outside of the MPUD boundary were extensively pumped, analyzed, and placed back in service in 2002. The twelve years of post-remediation monitoring data demonstrates that the plume remains stable, near the source area, and is not migrating laterally or vertically.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE OFFICER

Mariposa Quick Stop (Shell)
4989 Highway 140, Mariposa, Mariposa County

Petroleum concentrations in soil and groundwater remain elevated. However, the corrective actions have reduced the hydrocarbon plume to the shallow soil and groundwater within approximately 200 feet of the source area. The affected groundwater is not currently being used as a source of drinking water or for any other beneficial use. It is highly unlikely that the affected groundwater will be used as a source of drinking water or for any other beneficial use in the foreseeable future. Any future public supply wells will likely be constructed with competent sanitary seals and screens that are in deeper more protected aquifers. Remaining petroleum constituents are limited and stable. Remedial actions have been implemented to the extent practicable and given the Site conditions further remediation would likely be ineffective and expensive. Additional assessment/monitoring will not likely change the conceptual model. Any remaining petroleum constituents do not pose significant risk to human health, safety, or the environment.

Rationale for Closure under the Policy

- General Criteria – Site **MEETS ALL EIGHT GENERAL CRITERIA** under the Policy.
- Groundwater Media-Specific Criteria – Site meets the criterion in **CLASS 5**. Based on an analysis of Site specific conditions that under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and WQOs will be achieved within a reasonable time frame. The 2002 pumping and sampling of the private domestic wells demonstrates that the wells are no longer threatened by the groundwater plume. The twelve years of post-remedial monitoring data demonstrates the groundwater plume is stable and is no longer a threat to Mariposa Creek.
- Petroleum Vapor Intrusion to Indoor Air – Site meets **CRITERIA (2) a, Scenario 3**. Benzene in groundwater is less than (<) 1,000 micrograms per liter ($\mu\text{g/L}$); total petroleum hydrocarbons (TPH) is <100 milligrams per kilogram (mg/kg) in soil at depths less than 10 feet.
- Direct Contact and Outdoor Air Exposure – Site meets **CRITERIA (3) a**. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1. The estimated naphthalene concentrations in soil meet the thresholds in Table 1 and the Policy criteria for direct contact by a factor of eight. It is highly unlikely that naphthalene concentrations in the soil, if any, exceed the threshold.

Objections to Closure

Central Valley Regional Water Quality Control Board (Regional Water Board) staff objected to UST case closure because:

1. Substantial concentrations are present in groundwater beneath the Site. Since 2001 dissolved total petroleum hydrocarbons as gasoline (TPHg) in MW-5 and MW-11 averaged over 30,000 $\mu\text{g/L}$ with no consistent decline. The consistently high hydrocarbon concentrations in groundwater suggest free product may still exist in fractured rock and sensitive receptors remain vulnerable as long as substantial contamination is present in groundwater.

RESPONSE: Dissolved petroleum constituents at the Site remain elevated; however, the aggressive Site cleanup efforts have reduced the offsite impacts to below WQOs. The Regional Water Board approved usage of the private domestic wells and destruction of the monitoring wells (MWs) immediately downgradient of the plume (MW-15, MW-17, and MW-18) indicating that migration is not a concern. The investigation data and Site hydrogeology plus the 12 years of post-