

State Water Resources Control Board

UST CASE CLOSURE SUMMARY

Agency Information

Current Agency Name: State Water Resources Control Board (State Water Board)	Address: 1001 I Street, P.O. Box 2231 Sacramento, CA 95812
Agency Caseworker: Mr. Matthew Cohen	Case No.: Not Applicable

Former Agency Name: Los Angeles County Department of Public Works (Prior to July 1, 2013)	Address: 900 South Fremont Avenue Alhambra, CA 91803
Agency Caseworker: Mr. John Awujo	Case No.: TT016124-021050

Case Information

USTCF Claim No.: None	Global ID: T0603716875
Site Name: Fox 11 TV Transmitter	Site Address: 0 Mount Wilson-Red Box Road #D Mount Wilson, CA 91023 (Site)
Responsible Party: Fox 11 Television Station, Inc.	Address: 1999 South Bundy Drive Los Angeles, CA 90025
USTCF Expenditures to Date: Not applicable	Number of Years Case Open: 13

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603716875

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 Site does **NOT** satisfy **GENERAL CRITERIA a** of the Policy, which requires the unauthorized release to be located within the service area of a public water system. This Site meets all of the required criteria of the State Water Resources Control Board Resolution 92-49. A summary evaluation of compliance with the Resolution 92-49 is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model (CSM) upon which the evaluation of the case has been made is described in **Attachment 2: Summary of Basic Site Information**. Highlights of the CSM upon which the evaluation of the Case has been made are as follows:

The Site is the Fox Transmission Facility and located near the top of Mount Wilson. Residual petroleum constituents in soil were discovered during the diesel underground storage tank (UST) removal and replacement in 2001. The amount of impacted soil excavated from the Site during the UST removal was not reported. The diesel UST is utilized to power an emergency generator.

Fox 11 TV Transmitter
0 Mount Wilson- Red Box Road #D, Mount Wilson, Los Angeles County

Groundwater was not encountered in the UST excavation during the UST removal and replacement. Hydrogeologically, the Site is underlain by non-water bearing rocks near surface. Residual petroleum constituents have not likely impacted groundwater.

Benzene and fuel oxygenates were not detected in any soil samples. Total petroleum hydrocarbons as diesel (TPHd) were identified in soil at the bottom of the UST excavation at approximately 14 feet below ground surface (bgs). TPHd was non-detect in the piping soil sample. Residual petroleum constituents in soil were limited to an area near the west end of the former diesel UST.

Corrective actions have been implemented and further corrective actions would be infeasible and expensive. Additional assessment/monitoring will not likely change the CSM. Remaining petroleum constituents pose a low risk to human health, safety, and the environment.

Objections to Closure

State Water Board staff does not have any objections to UST case closure.

Recommendation for Closure

The corrective action performed at this Site ensures the protection of human health, safety, the environment and is consistent with chapter 6.7 of the Health and Safety Code and implementing regulations, applicable state policies for water quality control and the applicable water quality control plan, and case closure is recommended.

Prepared By: Trinh Pham
Trinh Pham
Water Resource Control Engineer

10/2/2014

Date

Reviewed By: George Lockwood
George Lockwood, PE No. 59556
Senior Water Resource Control Engineer

10/2/2014

Date



ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The Site complies with State Water Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the Site pose a low risk to human health, safety, or the environment.

The Site complies with the requirements of Resolution 92-49 as described below.

<p>Will corrective action performed ensure the protection of human health, safety, and the environment? The information included in this UST Case Closure Summary supports a determination that corrective action performed at this Site will ensure the protection of human health, safety, and the environment.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Is corrective action consistent with chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST case closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this Site has been consistent with chapter 6.7 of the Health and Safety Code and implementing regulations and, since this Site meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this Site?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Are corrective action and UST case closure consistent with State Water Board Resolution 92-49?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Is achieving background water quality feasible? To remove all traces of residual petroleum constituents at the Site would require significant effort and cost. Removal of all traces of residual petroleum hydrocarbon constituents (if present) that contribute to detectable concentrations in shallow groundwater can be accomplished, but would require excavation of additional soil as well as additional remediation of shallow groundwater. If complete removal of all detectable traces of petroleum constituents becomes the standard for UST corrective actions, the statewide technical and economic implications will be enormous. Because of the high costs involved and minimal benefit of attaining further reductions in concentrations of petroleum constituents at this Site, and the fact that beneficial uses are not threatened, attaining background water quality at this Site is not feasible.</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

<p>If achieving background water quality is not feasible: Is the alternative cleanup level consistent with the maximum benefit to the people of the State?</p> <p>It is impossible to determine the precise level of water quality that will be attained given the uncertainties about the rates of dissolution and degradation. In light of all the factors discussed above and the fact that the residual petroleum constituents will not unreasonably affect present and anticipated beneficial uses of groundwater, an acceptable level of water quality will be attained that is consistent with the maximum benefit to the people of the state.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Will the alternative cleanup level unreasonably affect present and anticipated beneficial uses of water?</p> <p>The aquifer beneath the Site is likely to be at or near WQOs and the surrounding aquifer is below WQOs. Groundwater concentrations will continue to reduce through natural attenuation.</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Will the alternative level of water quality result in water quality less than that prescribed in applicable Basin Plan?</p> <p>The final step in determining whether cleanup to a level of water quality less stringent than background is appropriate for this Site requires a determination that the alternative level of water quality will not result in water quality less than that prescribed in the relevant basin plan. Pursuant to State Water Board Resolution 92-49, a site may be closed if the basin plan requirements will be met within a reasonable time frame. Natural attenuation will likely continue to reduce groundwater concentrations.</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Have factors contained in title 23 of the California Code of Regulations, section 2550.4 been considered?</p> <p>In approving an alternative level of water quality less stringent than background, the State Water Board considers the factors contained in California Code of Regulations, title 23, section 2550.4, subdivision (d).</p> <p>The adverse effect on shallow groundwater will be minimal and localized, and there will be little adverse effect on the groundwater contained in deeper aquifers, given the physical and chemical characteristics of petroleum constituents, the hydrogeological characteristics of the Site and surrounding land. In addition, the potential for adverse effects on beneficial uses of groundwater is low, in light of the proximity of the groundwater supply wells, the current and potential future uses of groundwater in the area, the existing quality of groundwater, the potential for health risks caused by human exposure, the potential damage to wildlife, crops, vegetation, and physical structures, and the persistence and permanence of potential effects.</p> <p>Finally, a level of water quality less stringent than background is unlikely to have any impact on surface water quality, in light of the volume and physical and chemical characteristics of petroleum constituents; the hydrogeological characteristics of the Site and surrounding land; the quantity and quality of groundwater and direction of groundwater flow, the patterns of precipitation in the region, and the proximity of residual petroleum to surface waters.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>

<p>Will the requisite level of water quality be met within a reasonable time? Although WQOs may not have been met at the Site, the approximate time period in which the requisite level of water quality will be met for constituents of concern is decades to hundreds of years. This is a reasonable period in which to meet the requisite level of water quality because current and future beneficial uses are not impaired. Impacted groundwater is not currently being used as a source of drinking water and it is highly unlikely that impacted groundwater will be used as a source of drinking water in the future. Residential and commercial water users are currently connected to the municipal drinking water supply. Public supply wells are constructed with competent sanitary seals and intake screens that are in deeper more protected aquifers. The site conditions do not represent a substantial threat to human health, safety, or the environment, and case closure is appropriate.</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
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ATTACHMENT 2: SUMMARY OF BASIC INFORMATION (Conceptual Site Model)

Site Location/ History

- Location: The Site is located near the top of Mount Wilson in the San Gabriel Mountains. The elevation of the Site is approximately 5,600 feet above mean sea level.
- Nature of Contaminants of Concern: Petroleum constituents.
- Primary Source of Release: UST system.
- Discovery Date: 2001.
- Release Type: Petroleum¹.
- Free Product: Not reported.

Table A: USTs

Tank	Size in Gallons	Contents	Status	Date
1	10,000	Diesel	Removed	2001
2	12,000	Diesel	Active	2001

Receptors

- Groundwater Basin: The Site is not located within an established groundwater basin.
- Groundwater Beneficial Uses: The Site is underlain by non-water bearing rocks near surface.
- Designated Land Use: Industrial.
- Public Water System: The Site is not located within the service area of a public water system.
- Distance to Nearest Supply Wells: More than 1,000 feet from the Site.
- Distance to Nearest Surface Waters: More than 1,000 feet from the Site.

Geology/ Hydrogeology

- Geology: The Site is underlain by clayey to silty sand that appeared to be engineered fill material. Granitic bedrock was observed at approximately 16 feet bgs.
- Hydrology: Groundwater was not encountered in the UST excavation during the UST removal. Hydrogeologically, the Site is underlain by non-water bearing rocks near surface.

Corrective Actions

- Three soil borings were constructed at the Site in 1993. The three borings were then completed as monitoring wells to monitor the vadose zone petroleum constituent vapors that may be released from the leaking UST or product line.
- One diesel UST was removed in 2001. The amount of impacted soil removed from the Site during the UST removal was not reported.

¹ "Petroleum" means crude oil, or any fraction thereof, which is liquid at standard conditions of temperature and pressure, which means at 60 degrees Fahrenheit and 14.7 pounds per square inch absolute.
(Health & Safety Code, § 25299.2)

Table B: Concentrations of Petroleum Constituents in Soil

Constituent	Maximum 0-5 ft. bgs (mg/kg)	Maximum 5-10 ft. bgs (mg/kg)
Benzene	<0.005	Not Analyzed
Ethylbenzene	<0.005	Not Analyzed
Naphthalene	<0.005	Not Analyzed
PAHs*	Not Analyzed	Not Analyzed

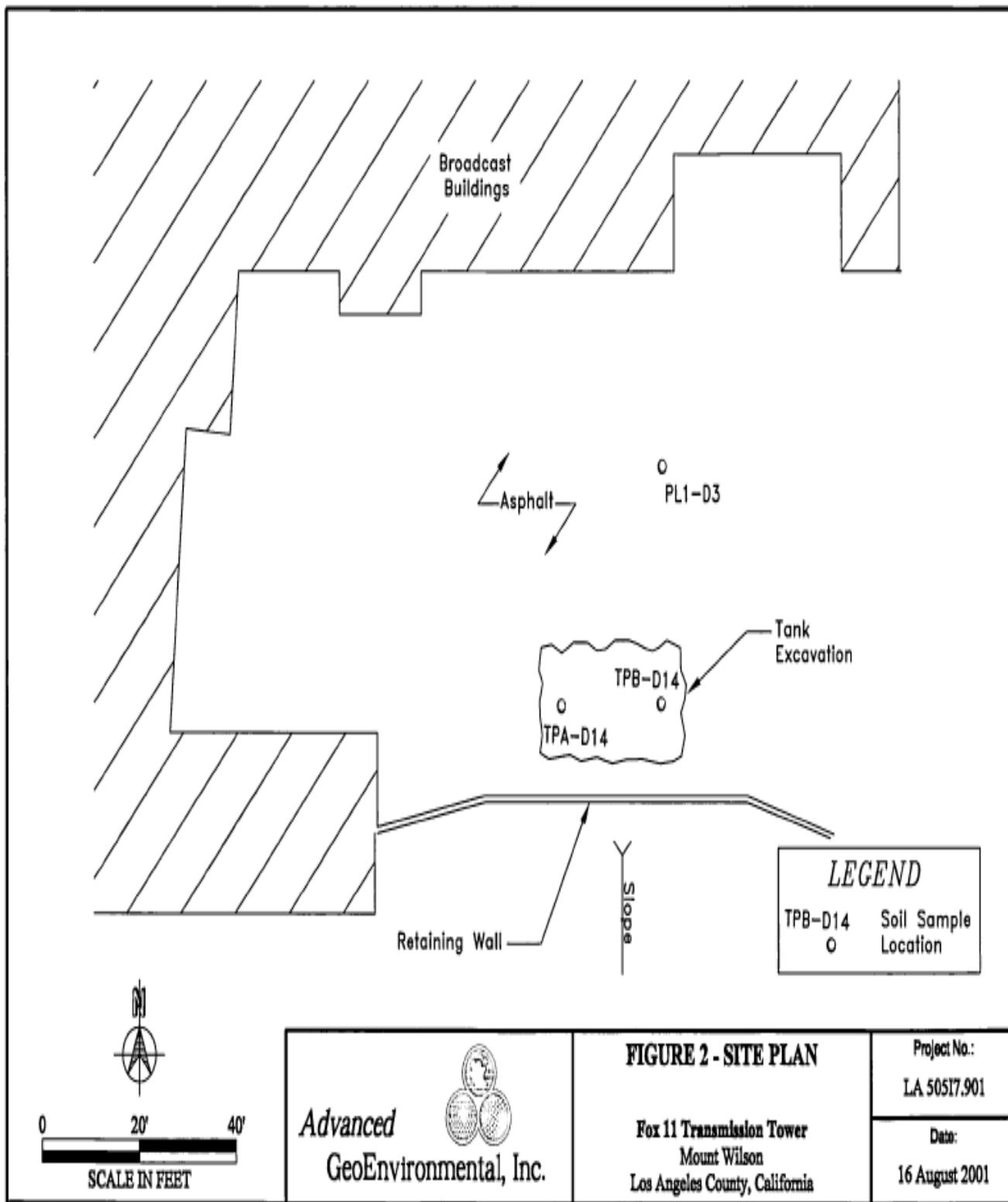
*Poly-aromatic hydrocarbons as benzo(a)pyrene toxicity equivalent

Evaluation of Risk Criteria

- Maximum Petroleum Constituent Plume Length above WQOs: Hydrogeologically, the Site is underlain by non-water bearing rocks near surface. A groundwater plume is not likely to exist.
- Petroleum Constituent Plume Determined Stable or Decreasing: A groundwater plume is not likely to exist.
- Soil/Groundwater Sampled for MTBE: Yes.
- Residual Petroleum Constituents Pose Significant Risk to the Environment: No.
- Residual Petroleum Constituents Pose Significant Vapor Intrusion Risk to Human Health: No. A site-specific assessment of the vapor intrusion pathway was conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency. Benzene was not detected in any soil samples. Total petroleum hydrocarbons as gasoline are not expected to exist at the Site.
- Residual Petroleum Constituents Pose a Nuisance² at the Site: No.
- Residual Petroleum Constituents in Soil Pose Significant Risk of Adversely Affecting Human Health: No.
- Residual Petroleum Constituents Pose Significant Direct Contact and Outdoor Air Exposure to Human Health: No.

² Nuisance as defined in California Water Code, section 13050, subdivision (m).

SITE PLAN



Advanced
 GeoEnvironmental, Inc.

FIGURE 2 - SITE PLAN

Fox 11 Transmission Tower
 Mount Wilson
 Los Angeles County, California

Project No.:	LA 50517.901
Date:	16 August 2001