REVIEW SUMMARY REPORT – CLOSURE
PRELIMINARY REVIEW - JULY 2015

Agency Information

Agency Name: Orange County Health Care Agency (County)	Address: 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705
Agency Caseworker: Kevin Lambert	Case No.: 95UT007

Case Information

USTCF Claim No.: 12071	GeoTracker Global ID: T0605901896
Site Name: Chevron #9-6405	Site Address: 17561 Macarthur, Irvine, CA 92614
Responsible Party: Chevron Products Co. Attn: Joe Watterson	Address: 6101 Bollinger Canyon Rd . Bld BR1X #5339 San Ramon, CA 94583
USTCF Expenditures to Date: $0	Number of Years Case Open: 20

To view all public documents for this case available on GeoTracker use the following URL: **http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605901896**

Summary

The Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This case meets all of the required criteria of the Policy. Highlights of the case follow:

This case is an active commercial petroleum fueling facility. An unauthorized release was reported in February 1995 with the replacement of product lines and dispensers; approximately 132 tons of impacted soil was removed. In August 1998, 550 cubic yards of fill material and 50 cubic yards of impacted soil were removed during the removal of three gasoline USTs and a system upgrade. In August 2002 a 24-hour multi-phase extraction (MPE) event was conducted, reportedly removing 40 pounds of hydrocarbons and 4,500 gallons of impacted groundwater. A 72-hour MPE event conducted in January 2003 removed 162 pounds of hydrocarbons and 5,500 gallons of groundwater. In November 2004 a 4-day MPE event was conducted, reportedly removing 52 pounds of hydrocarbons and 13,400 gallons of groundwater. A six-month ozone injection pilot test, using MW-2, was conducted from late 2008 to June 2009. No further active remediation has been conducted at the Site for the past six years. Since 1999, eight groundwater monitoring wells have been installed and regularly monitored. According to groundwater data, water quality objectives have been achieved or nearly achieved for all petroleum fuel constituents, except MTBE in the source area.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no public water supply wells within 1,000 feet of the projected plume

boundary. No other water supply wells have been identified within 1,000 feet of the projected plume boundary in files reviewed. The nearest surface water body, a concrete lined channel (Lane Channel) is approximately 120 feet east (crossgradient) of the defined plume boundary. The unauthorized release is located within the service area of a public water system, as defined in the Policy. The affected shallow groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected shallow groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of impacted groundwater are not threatened, and it is highly unlikely that they will be, considering these factors in the context of the site setting.

Rationale for Closure under the Policy

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 5. The nearest surface water body, a concrete lined channel (Lane Channel) is approximately 120 feet east (crossgradient) of the defined plume boundary. If not for this surface water body this case would satisfy Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest downgradient public water supply well is more than 1,000 feet from the defined plume boundary. The nearest surface water body is a lined channel. The State Water Board staff has determined, based on an analysis of site specific conditions 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 water quality objectives will be achieved within a reasonable time frame.
- Vapor Intrusion to Indoor Air: This active fueling facility meets the Active Commercial Petroleum Fueling Facility Exception. Exposure to petroleum vapors associated with historical fuel system releases is comparatively insignificant relative to exposures from small surface spills and fugitive vapor releases that typically occur at active fueling facilities. The off-site properties associated with the case meet the Policy Criterion 2a by Scenario 3a. The maximum benzene concentration in groundwater is less than 100 micrograms per liter (µg/L). The minimum depth to groundwater is greater than 5 feet, overlain by soil containing less than 100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH).
- Direct Contact and Outdoor Air Exposure: The case meets Policy Criterion 3a. Maximum concentrations in soil are less than those in Policy Table 1 for Commercial/Industrial use, and the concentration limits for a Utility Worker are not exceeded. There are no soil sample results in the case record for naphthalene. However, the relative concentration of naphthalene in soil can be conservatively estimated using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2 percent benzene and 0.25 percent naphthalene. Therefore, benzene can be used as a surrogate for naphthalene concentrations with a safety factor of eight. Benzene concentrations from the Site are below the naphthalene thresholds in Policy Table 1. Therefore, the estimated naphthalene concentrations 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.

Determination

The Fund Manager has prepared this review summary report summarizing the reasons for this determination, provided the Review Summary Report to the applicable Regional Water Board and Local Oversight Agency Program, as appropriate, with an opportunity for comment on the Review Summary Report.

Chevron #9-6405
17561 Macarthur, Irvine
Claim No: 12071

July 2015

Pursuant to Health and Safety Code as of the date of the signature of the Fund Manager below, neither the Regional Water Board or the Local Oversight Program shall issue a corrective action directive or enforce an existing corrective action directive for the tank case until the board issues a decision on the closure of the tank case, unless one of the following applies:

(A) The Regional Water Board or Local Oversight Program agency demonstrates to the satisfaction of the Fund Manager that there is an imminent threat to human health, safety, or the environment;
(B) The Regional Water Board or Local Oversight Program agency demonstrates to the satisfaction of the Fund Manager that other site-specific needs warrant additional directives during the period that the State Board is considering case closure;
(C) After considering responses to the Review Summary Report and other relevant information, the Fund Manager determines that case closure is not appropriate; or
(D) The Regional Water Board or Local Oversight Program agency closes the tank case but the directives are necessary to carry out case-closure activities.

7/29/15
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7/29/15
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Lisa Babcock, P.G. 3939, C.E.G. 1235
Fund Manager

Date

Orange County Health Care Objections to Closure and State Board Staff Responses for Chevron #9-6405 Station Located at 17561 MacArthur Blvd, Irvine, Claim 12071

Based on the County's letter of January 21, 2015 the County staff objections to closure are for the following reasons:

Concern 1: The lateral extent of petroleum hydrocarbon impacts to the groundwater has not been defined. Reference is made to monitoring well MW-9, groundwater flow direction and MTBE concentrations measured in 2008.
Response 1: The MTBE plume was defined in an easterly direction to the water quality objectives (WQOs) of 5 µg/l in monitoring well MW-9 when last sampled in March 2006, prior to MW-2 being destroyed in August 2006.

Concern 2: The groundwater plume is not stable and decreasing in areal extent.
Response 2: Fluctuations in constituent concentrations in a single well such as in monitoring well MW-2 do not make a plume unstable or imply the plume concentrations and/or areal extent are not decreasing. The plume at this Site is defined, stable and concentrations are decreasing.

Concern 3: Additional assessment of potential impacts to the Lane Flood Control Channel is necessary.
Response 3: As stated in Concern 1. The concentrations had reached WQO's in 2006, therefore, additional assessment is not warranted.

Concern 4: Site confirmation sampling is required.
Response 4: The results from confirmation soil boring conducted on February 23 and 24, 2015 indicate low, or non-detect petroleum fuel contamination in the soil.