State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: San Diego County Department of Environmental Health (County)	Address: P.O. Box 12961 San Diego CA 92112
Agency Caseworker: Tony Sawyer	Case No.: H05770-001

Case Information

USTCF Claim No.: 1868	Global ID: T0607303186
Site Name: Jamacha Texaco	Site Address: 303 Jamacha Road, El Cajon, CA 92019
Responsible Party (RP): Robert William Imig c/o Envirocap, LLC, Attn: Barbara Bowling	Address: 5510 West Lasalle Street, 3rd Floor, Tampa, FL 33607
USTCF Expenditures to Date: $350,982	Number of Years Case Open: 25

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607303186

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. 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 Case Information (Conceptual Site Model).** Highlights of the case follow:

An unauthorized leak was reported in April 1988 following the removal of two gasoline USTs. Since then, the Site has undergone various site assessments and groundwater monitoring. In addition, one waste oil UST was removed in 1990. Accumulated site data suggest that there has been little migration of the hydrocarbon plume over the past several years and that the plume continues to shrink. Further, the residual soil contamination continues to have no significant impacts on the underlying groundwater.

The petroleum release is limited to the shallow soil and groundwater. According to data available in GeoTracker, there are no supply wells regulated by the California Department of Public Health or surface water bodies within 1,000 feet of the defined plume boundary. An irrigation supply well has been identified approximately 170 feet crossgradient from the defined plume boundary in the files reviewed. Water is provided to water users near the Site by the Helix Water District. This well has been sampled three times and no petroleum constituents have been detected. The affected groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected 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. Remaining petroleum hydrocarbon constituents are limited, stable and concentrations declining. Corrective action has been implemented and additional corrective actions are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

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. Although there is an irrigation well located 170 feet crossgradient from the defined plume boundary, a sentinel well located between the irrigation well, and the defined plume boundary routinely showed non-detect groundwater concentrations. The irrigation well has been sampled three times, and no petroleum constituents have been detected. In addition, the routine monitoring data show that the plume is shrinking.
- Vapor Intrusion to Indoor Air: The case meets the Policy Exclusion for Active Station. Soil vapor evaluation is not required because the Site is an active commercial petroleum fueling facility.
- 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 or Residential use, and the concentration limits for a Utility Worker are not exceeded.

Objections to Closure and Responses

In their January 2013 letter, the County objects to UST case closure for this case because:

- The County is requiring that a prior Corrective Action Plan be updated and revised for the Site as part of the County's programmatic requirements.
  RESPONSE:
  Readily available information about current conditions at the Site shows that the case satisfies all of the criteria in the Policy.

Determination

Based on the review performed in accordance with Health & Safety Code Section 25299.39.2 subdivision (a), the Fund Manager has determined that closure of the case is appropriate.

Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. San Diego County has the regulatory responsibility to supervise the abandonment of monitoring wells.

Lisa Babcock
Lisa Babcock, P.G. 3939, C.E.G. 1235

3/22/13
Date

Prepared by: Ramesh Sundareswaran

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

The case complies with the State Water Resources Control 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 do not pose significant risk to human health, safety, or the environment.

The case complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.[1]

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 site 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 case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.	☐ Yes ☒ No
Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this case?	☐ Yes ☒ No
If so, was the corrective action performed consistent with any order?	☐ Yes ☐ No ☒ NA
General Criteria General criteria that must be satisfied by all candidate sites:	
Is the unauthorized release located within the service area of a public water system?	☒ Yes ☐ No
Does the unauthorized release consist only of petroleum?	☒ Yes ☐ No
Has the unauthorized ("primary") release from the UST system been stopped?	☒ Yes ☐ No
Has free product been removed to the maximum extent practicable?	☐ Yes ☐ No ☒ NA
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	☒ Yes ☐ No

[1] Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.
http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

Has secondary source been removed to the extent practicable?	☒ Yes ☐ No
Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?	☒ Yes ☐ No
Nuisance as defined by Water Code section 13050 does not exist at the site?	☒ Yes ☐ No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	☐ Yes ☒ No
Media-Specific Criteria Candidate sites must satisfy all three of these media-specific criteria: **1. Groundwater:** To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:	
Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?	☒ Yes ☐ No ☐ NA
Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites? If YES, check applicable class: ☐ **1** ☐ **2** ☐ **3** ☐ **4** ☒ **5**	☒ Yes ☐ No ☐ NA
For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?	☐ Yes ☐ No ☒ NA
2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.	
Is the site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	☒ Yes ☐ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4? If YES, check applicable scenarios: ☐ **1** ☐ **2** ☐ **3** ☐ **4**	☐Yes ☐ No ☒ NA
b. Has a site-specific risk assessment for the vapor intrusion pathway	

been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?	☐ Yes ☐ No ☒ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA
3. Direct Contact and Outdoor Air Exposure: The site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?	☒ Yes ☐ No ☐ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA

ATTACHMENT 2: SUMMARY OF BASIC CASE INFORMATION (Conceptual Site Model)

Site Location/History

- This case is located on the southeast corner of Jamacha Road and Lexington Avenue and is a retail fueling facility and store.
- The Site is bounded by Jamacha Road to the west, Lexington Avenue to the north, a convenience store to the east, and apartments to the south. Apartments are located across Lexington Avenue to the north and across Jamacha Road to the west.
- Site maps showing the location of the former USTs, monitoring wells, groundwater level contours, and benzene contours are provided at the end of this closure review summary (Donan Environmental Services, Inc., 2012).
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source: UST system.
- Date reported: April 1988.
- Status of Release: USTs repaired.

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active	Date
1-2	4,000	Gasoline	Removed	1988
3	550	Waste oil	Removed	1990
4-5	10,000	Gasoline	Active	
6	6,000	Gasoline	Active	

Receptors

- GW Basin: San Diego Hydrologic Area; El Cajon Hydrologic Subarea.
- Beneficial Uses: The San Diego Regional Water Quality Control Board (Regional Water Board) Basin Plan lists Municipal and Domestic Supply.
- Land Use Designation: None Specified. Aerial photograph available on GeoTracker suggests commercial and residential land use in the vicinity of the Site.
- Public Water System: Helix Water District.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no identified public supply wells regulated by the California Department of Public Health within 1,000 feet of the defined plume boundary. According to the consultant, there is an irrigation well 300 feet southwest of the Site which is approximately 170 feet crossgradient from the defined plume boundary. This well has been sampled three times, and no petroleum constituents have been detected.
- Distance to Nearest Surface Water: There is no identified surface water within 1,000 feet of the defined plume boundary.

Geology/Hydrogeology

- Stratigraphy: The Site is underlain by clayey sands, sandy silts, silty sands, clays and sandy clays.
- Maximum Sample Depth: 15 feet below ground surface (bgs).
- Minimum Groundwater Depth: 2.97 feet bgs.
- Maximum Groundwater Depth: 9.95 feet bgs.
- Current Average Depth to Groundwater: 5.25 feet bgs.
- Saturated Zones(s) Studied: Approximately 1.75 to 12.50 feet bgs.
- Appropriate Screen Interval: Some well screens are submerged.

- Groundwater Flow Direction: Westerly with an average gradient of 0.021 feet/foot.

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (10/21/2012 & 10/22/2012)
MW-1	October 1988	5-10	4.46
MW-2	October 1988	3.5-9.5	4.25
MW-3	October 1988	4.5-9.5	5.00
MW-4	March 1989	Not Available	4.25
MW-5	March 1989	Not Available	4.30
MW-6	February 1990	Not Available	3.81
MW-7	February 1990	Not Available	4.61
MW-8	February 1990	Not Available	4.95
MW-9	Not Available	Not Available	4.68
MW-10	Not Available	Not Available	Not Measured
MW-11	Not Available	Not Available	Not Measured
MW-12	Not Available	Not Available	Not Measured
MW-13	March 2000	1.75-11.75	4.15
MW-14	March 2000	2.5-12.5	4.65
DW-15	January 2012	2.5-12.5	7.09
DW-16	January 2012	2.5-12.5	9.95
DW-17	January 2012	2.5-12.5	6.11
DW-18	January 2012	2.5-12.5	6.55

Remedial Summary

- Free Product: None reported in GeoTracker.
- Soil Excavation: An unspecified quantity of soil was excavated during UST removal in 1988. Approximately 300 cubic yards of soils were excavated during the waste oil UST removal in 1990.
- In-Situ Soil Remediation: None reported.
- Groundwater Remediation: None reported.

Most Recent Concentrations of Petroleum Constituents in Soil

Constituent	Maximum 0-5 feet bgs. [mg/kg and (date)]	Maximum 5-10 feet bgs [mg/kg and (date)]
Benzene	0.17 (11/20/03)	0.008 (11/18/03)
Ethylbenzene	0.88 (11/20/03)	0.032 (11/18/03)
Naphthalene	6.05 (11/19/03)	1.16 (11/18/03)
PAHs	NA*	NA*

NA: Not Analyzed, Not Applicable or Data Not Available
mg/kg: Milligrams per kilogram, parts per million
<: Not detected at or above stated reporting limit
PAHs: Polycyclic aromatic hydrocarbons
*: Approximately 300 cubic yards of soils were removed during the waste oil UST removal.

Most Recent Concentrations of Petroleum Constituents in Groundwater

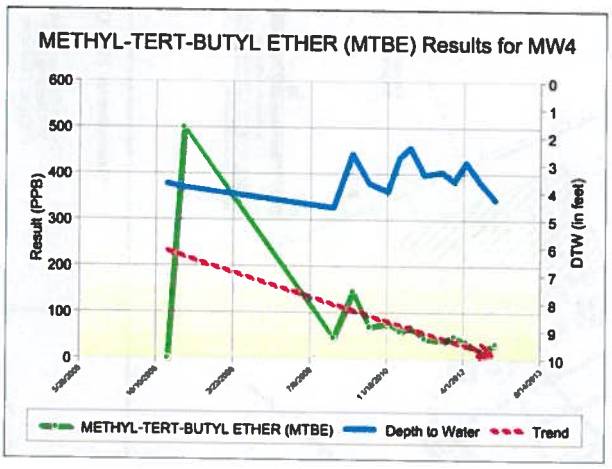
Sample	Sample Date	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)
MW-1	10/22/12	<100	<500	<1	<1	<1	<2	2	<10
MW-2	10/22/12	<100	<500	<1	<1	<1	<2	2	<10
MW-3	10/22/12	<100	<500	<1	<1	<1	<2	**6**	<10
MW-4	10/22/12	2900	<500	**133**	2	<1	7	**34**	<10
MW-5	10/22/12	310	<500	<1	<1	<1	<2	**14**	932
MW-6	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
MW-7	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
MW-8	10/22/12	<100	<500	<1	<1	<1	<2	**16**	<10
MW-9	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
MW-13	10/22/12	310	<500	<1	<1	<1	<2	3	400
MW-14	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
DW-15	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
DW-16	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
DW-17	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
DW-18	10/22/12	<100	<500	<1	<1	<1	<2	<1	<10
WQOs	-	--	--	**1**	**150**	**300**	**1750**	**5**	**1,200[a]**

NA: Not Analyzed, Not Applicable or Data Not Available
µg/L: Micrograms per liter, parts per billion
<: Not detected at or above stated reporting limit
TPHg: Total petroleum hydrocarbons as gasoline
TPHd: Total petroleum hydrocarbons as diesel
MTBE: Methyl tert-butyl ether
TBA: Tert-butyl alcohol
WQOs: Water Quality Objectives, Regional Water Board Basin Plan
--: Regional Water Board Basin Plan does not have a numeric value for TPHg or TPHd
[a]: California Department of Public Health, Response Level

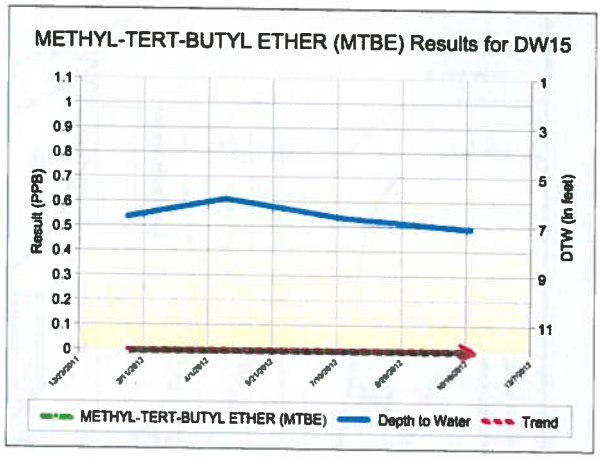
Groundwater Trends

- There are 13 years of groundwater monitoring data for this case, and sufficient data have been collected to understand the contaminant footprint and behavior of the contaminant plume. Water quality objectives have been attained for all contaminants in most wells except for benzene and MTBE in the source area (MW-3, MW-4, MW-5) and slightly sidegradient (MW-8). Benzene exceeds the water quality objective in only one well, MW4. Contaminant levels in the downgradient most well, DW-15, have routinely been observed to be non-detectable, representative of a stable and shrinking plume. Furthermore, the irrigation well that is crossgradient of the plume has been sampled three times and found to be free of all of the Site's contaminants. The following figures depict MTBE trends in the source area and downgradient wells.

Source Area well

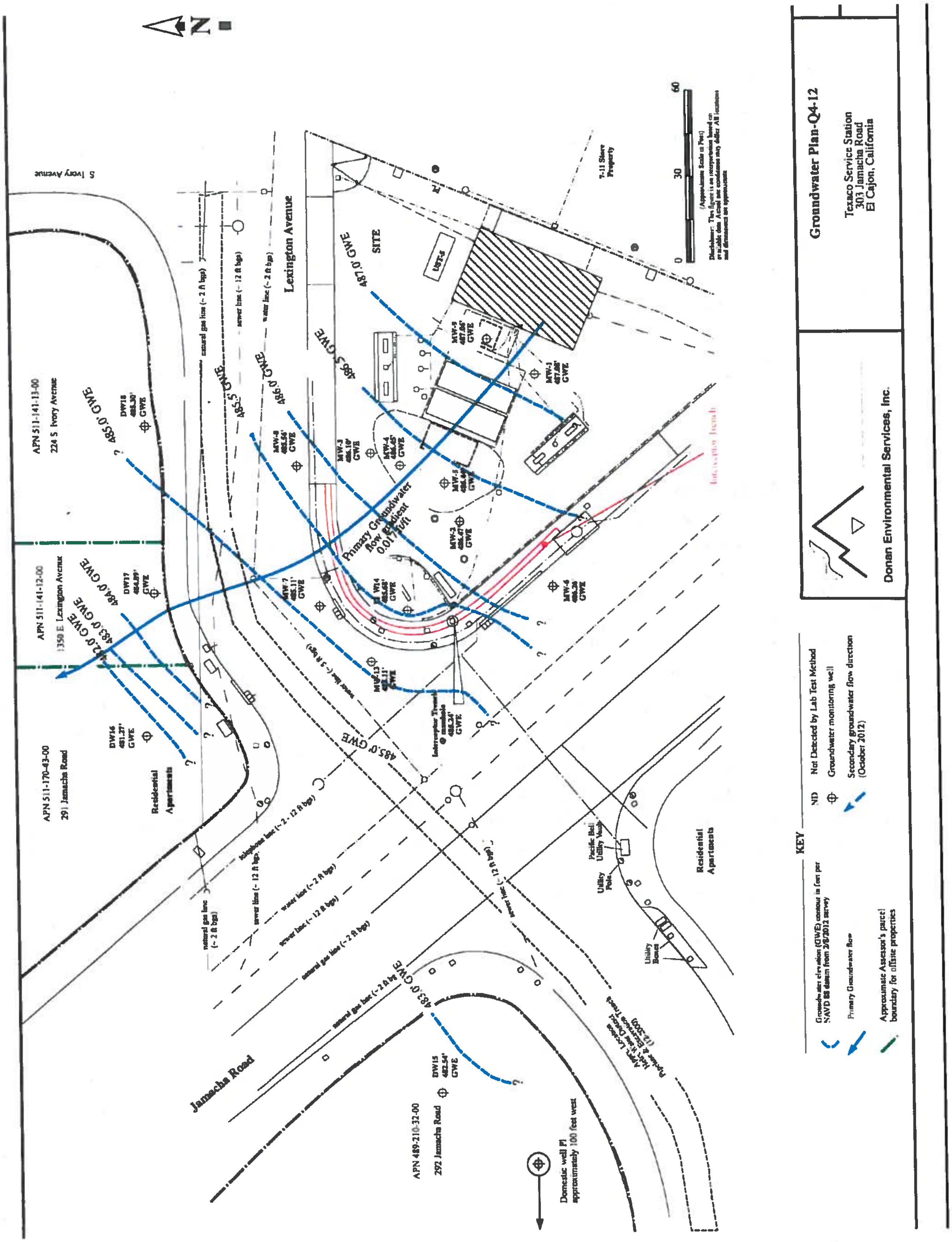


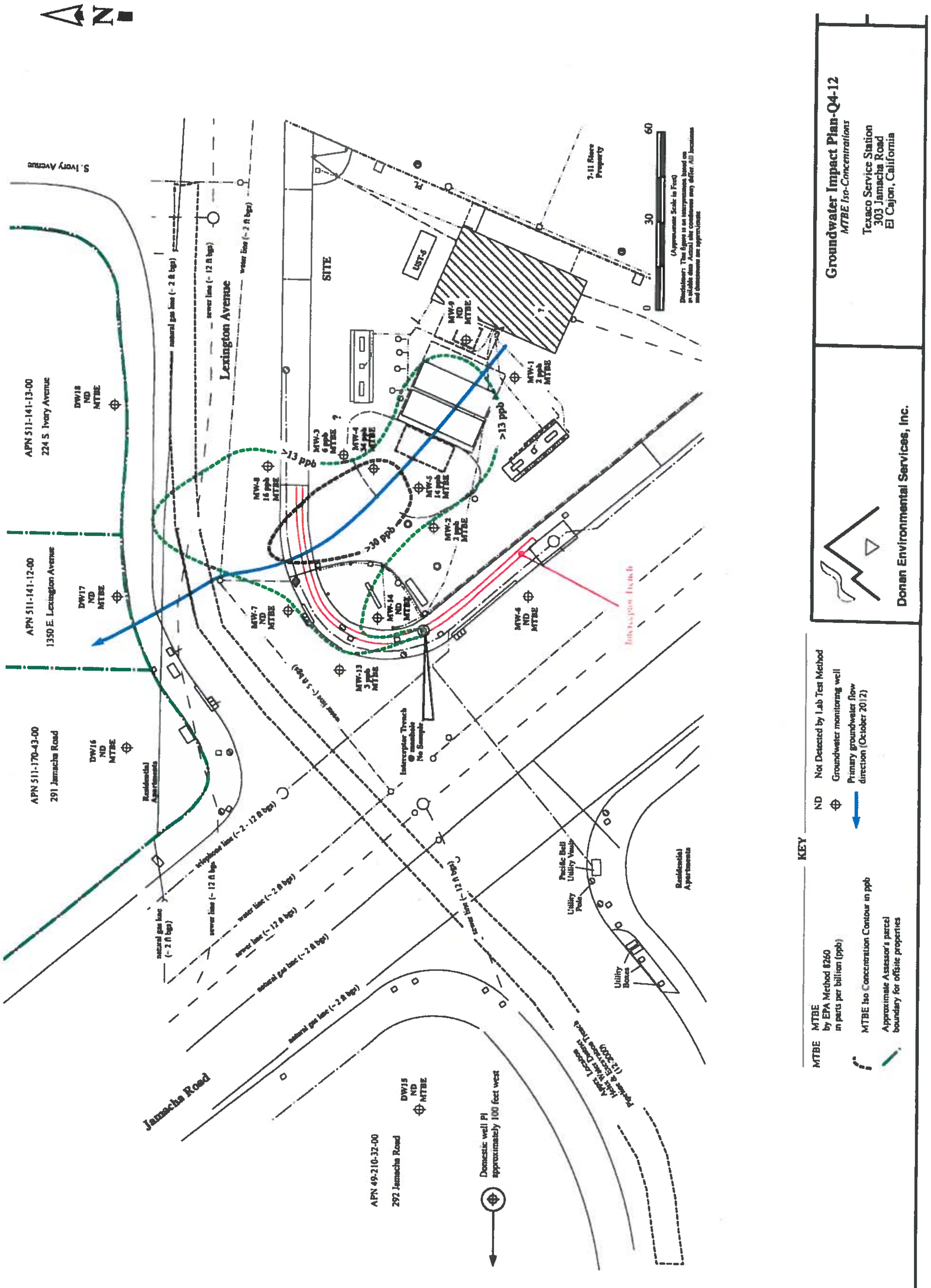
Downgradient well



Evaluation of Current Risk

- Estimate of Hydrocarbon Mass in Soil: None reported.
- Soil/Groundwater tested for methyl tert-butyl ether (MTBE): Yes, see table above.
- Oxygen Concentrations in Soil Vapor: None reported.
- Plume Length: <250 feet long.
- Plume Stable or Degrading: Yes.
- Contaminated Zone(s) Used for Drinking Water: No.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 5. Although there is an irrigation well located 170 feet crossgradient from the defined plume boundary, a sentinel well located between the irrigation well, and the defined plume boundary routinely showed non-detect groundwater concentrations. The irrigation well has been sampled three times, and no petroleum constituents have been detected. In addition, the routine monitoring data show that the plume is shrinking.
- Vapor Intrusion to Indoor Air: The case meets the Policy Exclusion for Active Station. Soil vapor evaluation is not required because the Site is an active commercial petroleum fueling facility.
- 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 or Residential use, and the concentration limits for a Utility Worker are not exceeded.


N
Groundwater Plan-Q4-12
Texaco Service Station
303 Jamacha Road
El Cajon, California
Donan Environmental Services, Inc.
KEY
ND Not Detected by Lab Test Method
Groundwater monitoring well
Secondary groundwater flow direction (October 2012)
Primary Groundwater flow
Approximate Assessor's parcel boundary for offsite properties
Lexington Avenue
Jamacha Road
S Ivory Avenue
SITE
USTs
7-11 Store Property
Primary Groundwater flow gradient 0.01 ft/ft
487.0' GWE
486.5' GWE
486.0' GWE
485.5' GWE
485.0' GWE
484.0' GWE
483.0' GWE
482.0' GWE
APN 511-141-13-00
224 S Ivory Avenue
APN 511-141-12-00
1350 E Lexington Avenue
APN 511-170-43-00
291 Jamacha Road
Residential Apartments
APN 489-210-32-00
292 Jamacha Road
Domestic well PI approximately 100 feet west
Pacific Bell Utility Vault
Utility Pole
Utility Boxes


Groundwater Impact Plan-Q4-12
MTBE Iso-Concentrations
Texaco Service Station
303 Jamacha Road
El Cajon, California
Donan Environmental Services, Inc.
KEY
ND Not Detected by Lab Test Method
Groundwater monitoring well
Primary groundwater flow direction (October 2012)
MTBE by EPA Method 8260 in parts per billion (ppb)
MTBE Iso Concentration Contour in ppb
Approximate Assessor's parcel boundary for offsite properties
S. Ivory Avenue
Lexington Avenue
Jamacha Road
SITE
UST-5
APN 511-141-13-00
224 S. Ivory Avenue
APN 511-141-12-00
1350 E. Lexington Avenue
APN 511-170-43-00
291 Jamacha Road
APN 49-210-32-00
292 Jamacha Road
7-11 Store Property
Residential Apartments
>13 ppb
>30 ppb
Interceptor Trench
Domestic well PI approximately 100 feet west